



Marine Advisor's Environmental Assessment and Determinations Report

As the Department's Environment Marine Advisor I have reviewed the application and all the environmental documents associated with the Foreshore Application FS007161 from Fuinneamh Sceirde Teoranta for site investigations off the coast of County Galway, have been reviewed.

This Environmental Assessment and Determinations Report along with the attached AA Conclusion Statement form part of the Department's Statutory Obligations.

My comments are as follows:

Article 6(3) of Directive (92/43/EEC) (as amended) (Habitats Directive): I refer you to the Marine Advisor Environmental Screening Stage Report of the 7th November 2022 where it was concluded that the proposed project, either individually or in combination with other plans or projects, would have a significant effect on European sites. The risk of likely significant effects on European sites could not be excluded on the basis of objective scientific information and a stage 2 Appropriate Assessment was required.

Article 12 of Directive (92/43/EEC) (as amended) (Habitats Directive): A Risk Assessment for Annex IV species likely to occur in Irish waters was carried out by the applicant. The report states that all marine surveys will be carried out in accordance with the mitigation and guidelines provided in the 'Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters' (DAHG, 2014). The report concludes that the proposed site investigation activities will not have an adverse effect on the conservation status of the identified Annex IV species throughout their natural range.

Conclusion/recommendations:

Having considered the information submitted in support of the application, I have no objection to the granting of this application subject to the following conditions:

1. The licensee shall ensure that vessels used in the survey vessels are free of invasive marine species on their hulls and in their ballast water. Method statement to that effect should be submitted to the competent authority.
2. 'The licensee is required to provide details of all acoustic surveys undertaken to marine.env@housing.gov.ie; this data is to be provided in the reporting format of the OSPAR Noise Registry (see Impulsive noise reporting formats <https://www.ospar.org/work-areas/eiha/other/reporting-formats>)'
3. The following protocols and procedures shall be put in place and adhered to as a condition of the licence:
4. An oil spill response plan
5. Shipboard Marine Pollution Emergency Plan (SOPEP)
6. Galway County Council Coastal Pollution Plan.
7. In addition, the following elements will be implemented for the protection of marine habitats:
 - All machinery to have an on-board spill kit.

- All vessels to be checked on a daily basis prior to works, and to be free from hydrocarbon leaks.
 - A hydrocarbon oil boom to be available at all times onsite in the event of it needing to be deployed.
 - Marine based fuelling will only be undertaken using specifically designed nozzles to prevent spillages and spill kits will be available.
 - All fuelling equipment shall be regularly inspected and serviced.
 - Any petrol- or diesel-fuelled pumps or other machinery shall be located within temporary bunded units.
8. Keep vessels and marine equipment free of fouling.
 9. Any plant or machines to be used in the intertidal and subtidal area will be washed down at a designated offsite location prior to mobilising.
 10. All visible hitchhikers (alien invasive species attached to machinery or vessels) will be removed from any machinery and equipment entering the intertidal area.
 11. All mitigation measures identified in the NIS submitted by the applicant are to be implemented as part of the proposed development.
 12. Liaising with other operators within 60km of the boundary of the Foreshore Licence Application Area engaging in surveys likely to produce in-combination effects, including geophysical, geotechnical and seismic surveys. The 60km zone reflects the importance of this area to the marine mammals considered in this Appropriate Assessment (NPWS, 2019a).
 13. Strict adherence to the Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters (DAHG, 2014) when undertaking geophysical and geotechnical surveys.
 14. A desk study Underwater Archaeological Impact Assessment (UAIA) report shall be forwarded by the licensee to the National Monuments Service of the Department of Housing, Local Government and Heritage for review and approval prior to the geophysical survey works taking place. The desktop assessment will allow for the identification of wrecks and other underwater archaeological features and areas of potential within the Foreshore Licence Application Area so that when geophysics is being undertaken, their locations will be known in advance and they can be targeted for specific survey methodologies, as appropriate. The assessment shall include a full inventory and mapping of the sites of all identified and recorded archaeological/cultural heritage features and structures (including industrial, vernacular and maritime/fishing structures) and any wrecks or potential wrecks within the Foreshore Licence Application Area identified from a review of the Wreck Inventory of Ireland Database and any previous geophysical survey data sets available. Where archaeological materials/areas of archaeological potential, wrecks are shown to be present, the report shall recommend mitigation measures and shall highlight how these areas will be targeted for detailed geophysical survey. Having completed the work, a written report shall be submitted to the National Monuments Service for review and no works shall be undertaken until a response has been received.
The proposed geophysical surveys shall be carried out in advance of any geotechnical works and in advance of the deployment of metocean monitoring equipment, to ensure all potential impacts to the underwater cultural heritage are avoided.
A Protocol for Archaeological Discoveries shall be agreed in advance of the commencement of any geophysical or geotechnical works with the National Monuments Service of the Department of Housing, Local Government and Heritage.
Geophysical survey of all geotechnical and potential areas of physical impact is required. At a minimum geophysical surveys shall include archaeologically applicable side scan, sonar, magnetometer and multibeam echo sounder. The geophysical surveys shall be licenced under the National Monuments Acts 1930-2014. A Dive Survey Licence (Section 3 1987 National Monuments Act) and Detection Device consent (Section 2 1987 National

Monuments Act) will be required. Licence applications, accompanied by Method Statements, shall be sent for vetting to the National Monuments Service of the Department of Housing, Local Government and Heritage.

Should any dive surveys be required in connection with proposed geophysical surveys and archaeological surveys these shall be licenced (Section 3 1987 National Monuments Act). Any dive survey shall be accompanied by a handheld metal detection survey which shall also be licenced (Section 2 1987 National Monuments Act). All archaeological diving shall comply with the Health and Safety Authority's Safety, Health and Welfare at Work (Diving) Regulations 2018/2019.

An Underwater Archaeological Impact Assessment (UAIA) report shall be forwarded to the National Monuments Service of the Department of Housing, Local Government and Heritage for review and approval prior to the geotechnical works taking place. The UAIA shall augment the previous desk study assessment and shall include the following:

- a. Results of geophysical survey data sets assessment by a suitably qualified and experienced archaeologist to ensure that proposed geotechnical works do not negatively impact on locations where there is known or potential archaeology and to ensure no samples or cores are taken from an area where a wreck site is located. The archaeologist should also be suitably experienced, with a track record in dealing with and the interpretation of marine geophysical data for archaeological purposes, including ensuring it is of sufficient specification for the identification of underwater cultural heritage.
 - b. Outcome of a detailed visual walk-over survey accompanied by a metal detection survey of areas proposed for SI works on the foreshore/intertidal zone.
 - c. Assessment of geophysical data for all proposed geotechnical investigation locations (including the taking of vibro-cores and grab samples). The assessment shall be undertaken by a suitably and demonstratively qualified archaeologist to ensure that the proposed works do not negatively impact on locations where there is known or potential archaeology and to ensure no samples or cores are taken from an area where a wreck site is located.
 - d. Once all surveys and interpretations have been completed, the full information should be compiled into a UAIA report and submitted to the National Monuments Service for review and further comment, prior to undertaking any invasive geotechnical works. The UAIA Report should contain a detailed Archaeological Impact Assessment that addresses all identified potential impacts on underwater archaeological heritage and should also make recommendations on mitigation measures to avoid or mitigate all impacts. Potential secondary or indirect impacts, such as access roads or construction works to facilitate access to the waterways, for example, shall also be included. If potential or identified sites, features or artefacts cannot be avoided (preservation in situ) by geotechnical works, then the UAIA Report Recommendations should put forward an archaeological mitigation strategy to address this, including preservation by record (archaeological testing and/or full archaeological excavation). Where archaeological material/features are shown to be present, preservation in situ, avoidance, preservation by record (archaeological excavation) or archaeological monitoring may be required. The Licensee shall be prepared to be advised by the National Monuments Service in this regard or in regard to any subsequent recommendations that may issue.
19. Following the completion of all geotechnical works the licensee shall furnish the project archaeologist with the results of all site investigation works and shall provide them access to site investigation cores and physical samples for review. Where potential submerged palaeolandscape deposits are identified they shall be, where suitable

samples are available, radiocarbon dated in agreement with the National Monuments Service and subject to approval of Licences to Alter and Export from the National Museum of Ireland. Following the completion of all geotechnical and archaeological works and any necessary post-excavation specialist analysis, the National Monuments Service shall be furnished with a final archaeological report describing the results of the works. All resulting and associated archaeological costs shall be borne by the developer.

Signature and Date of Recommending Officer - Marine Advisor Environment:

A handwritten signature in blue ink, appearing to read 'Leahy', is shown within a light blue rectangular box.

Ph. D. 9th August 2023