

Assessment, Research and Data Unit

Maritime Usage Licence Assessment Report

To:	Maritime Authorisations Unit	From:	Suzanne Wylde, Senior Marine Advisor
Date	18 th March 2025	Maritime Usage Licence Application No:	LIC230004
Approved by:	John Evans, Director of ARD Unit		
Applicant:	Aughinish Alumina Ltd, Aughinish Island, Askeaton, Co. Limerick		
Type of maritime usage in accordance with Schedule 7 of the Maritime Area Planning Act, 2021 (as amended):	<p>1. Dredging (including dredging involving the use of a device to remove any material, whether or not suspended in water, from one part of the seabed to another part of the seabed) other than –</p> <p>(a) dredging carried out to create a new harbour, berth or waterway, or to deepen existing facilities in order to allow access for larger ships, or</p> <p>(b) dredging ancillary to development authorised under the Act of 2000, whether or not it involves the removal of any material from the sea or seabed.</p> <p>6. The deposit of any substance or object, either in the sea or on or under the seabed, from –</p> <p>(a) a vehicle, vessel (including a craft capable of travelling on, in or under water, whether or not self-propelled), boat, aircraft or marine structure (other than a pipeline),</p> <p>(b) a container floating in the sea, or</p> <p>(c) a structure on land constructed or adapted wholly or mainly for the purpose of depositing solids in the sea.</p>		
Location of proposed Maritime Usage:	Aughinish Alumina Ltd, Askeaton, Co. Limerick deep water jetty and deposit site in the Shannon Estuary.		
Licence application received:	17 th November 2023		
Stage 2 Appropriate Assessment required:	Yes	Natura Impact Statement received:	17 th Nov 2023; updated 1 st Nov 2024
Environmental Impact Assessment considered:	Not required (considered 12 th September 2024)		
Request for further information:	4 th October 2024; 11 th December 2024		
Responses to requests for information received:	9 th October 2024; 23 rd December 2024		
Public consultation:	15 th January - 17 th February 2025		
No. of submissions received:	Ten (Nine from public bodies and one from a member of the public)		

Background

Aughinish Alumina Limited (the applicant) has submitted a licence application to MARA to undertake maintenance dredging at four sites around the jetty at Aughinish Alumina near Askeaton, Co. Limerick, and deposit (or dumping) of dredged material at a designated site on 17th November 2023.

The applicant held both a foreshore licence (FS006578) and a dumping at sea permit (S0026-01) for maintenance dredging at the deep water jetty. Both of these consents expired in August 2024. The applicant has submitted an application to the EPA for a new dumping at sea permit.

In the interests of clarity it should be noted that this MUL application considers the dredging activity on the seabed and the deposit of material from a vessel. The Dumping at Sea permit application from the EPA considers the loading i.e. the activity once the sediment leaves the seabed and the dumping activity.

Project description

The proposed maintenance dredging will be undertaken using a combination of trailer suction hopper dredger, long-arm reach excavator on a barge and plough dredging. The proposed activity includes five distinct locations around the jetty - Area A outer berth of the main jetty, Area B an intertidal area, Area C the inner berth of the main jetty, Area D the approach arm and Area E the deposit site in the estuary channel. It is proposed that a proportion of the dredge production in Areas A and C will be deposited at this location.

The applicant has applied for a licence for 8 years. It is proposed to undertake biannual dredge campaigns with a maximum duration of 21 days each. If the licence is granted dredging operations would take place for 24 hours per day during each 21-day cycle.

The applicant has proposed to dredge a maximum volume of 64,462 wet tonnes at the areas around the jetty in each 21-day campaign. The applicant proposes to deposit a maximum of 53,846 wet tonnes per annum at the deposit site.

National Policy and EU Directives

In undertaking the assessment of this licence application MARA had regard to the requirements of Section 121(2) of the Maritime Area Planning Act, 2021, as amended, which sets out the marine policy and legislation to which regard must be had in considering a licence application.

National Marine Planning Framework (NMPF)

The proposal to undertake maintenance dredging at Aughinish Alumina is consistent with the Ports and Shipping Policy 7 of the NMPF which relates to supporting proposals for maintenance dredging activities.

National Biodiversity Action Plan (NBAP)

[Ireland's 4th National Biodiversity Action Plan](#) sets the national biodiversity agenda for the period 2023-2030. The objectives of the NBAP focus on the conservation and restoration of biodiversity. Objective 2 of the NBAP is to meet urgent conservation and restoration needs. Part of its focus is to elevate efforts to tackle invasive alien species. It is recommended that a condition be included in the licence, if granted, to address the potential risks from invasive alien species.

Birds and Habitats Directives (79/409/EC and 92/43/EEC)

MARA published an Appropriate Assessment Screening Determination on 3rd October 2024 which concluded that, on the basis of objective scientific information, it could not be excluded

that the proposed project, either individually or in-combination with other plans or projects, will have a significant effect on a European site(s).

MARA undertook an Appropriate Assessment in respect to this project. Having considered the documents submitted by the applicant and the observations received on foot of the public consultation on the application, the appropriate assessment concluded, that for the purposes of Article 6(3) of the Habitats Directive and Regulation 42(11) of the Birds and Natural Habitats Regulations, the proposed maritime usage (either individually or in combination with any other plans or projects) will not adversely affect the integrity of any European sites. This conclusion was reached in view of the sites' conservation objectives, and is subject to the implementation of mitigation measures. The appropriate assessment specifies mitigations that must be included as conditions in a licence that may be granted in respect of this Maritime Usage Licence application.

The applicant submitted a marine mammal risk assessment with the licence application. Specifically, the risk assessment addressed marine mammal activity in the vicinity of the proposed maritime usage and the impacts of the proposed maintenance dredging campaign on marine mammals with respect to the effects of noise. The risk assessment, undertaken by the Irish Whale and Dolphin Group, on behalf of the applicant explained that the response of marine mammals to dredging is dependent on the type of dredger used, but that it is accepted that noise from dredging is generally well below suspected injury thresholds or permanent threshold shift. Temporary threshold shift cannot be ruled out if marine mammals are exposed to noise for prolonged periods. Sound production from the proposed maritime usage in Aughinish is dependent on the hardness or how consolidated the mounds to be removed are – harder mounds will require greater force from the dredger and thus greater noise generated. However, considering this, the risk assessment states that it is likely the underwater sound is inaudible at approximately 500m from the source. The risk assessment concludes that while the dredging will lead to a small local increase in noise, given the nature of the area in the context of high traffic, disturbance from the proposed maritime usage are likely to be minimal. The risk assessment recommends adherence to the NPWS guidance in relation to underwater noise.

In accordance with Section 63(7) of the Birds and Habitats Regulations, MARA cannot grant a licence for a marine usage activity that may contravene the system of strict protection established for Annex IV species, under the Habitats Directive. The applicant undertook an Annex IV risk assessment as part of their licence application. The risk assessment considered the scope of the proposed maritime usage activity, relevant Annex IV species (cetaceans, turtles and otter) and the potential impacts of the proposed maritime usage activity on the relevant Annex IV species. I am satisfied with the conclusion of the risk assessment, that there is no risk to the relevant Annex IV species, subject to implementation of mitigation measures. The mitigation measures included as conditions for the proposed licence will address any potential impacts.

Water Framework Directive (2000/60/EC)

The Water Framework Directive (WFD) requires EU member states to protect and improve water quality in all waters to achieve at least Good Status in inland surface waters, transitional waters, coastal waters and groundwater by 2027, at the latest. The proposed activity will take place in the Lower Shannon Estuary waterbody. The Lower Shannon Estuary was classified as having Good status in the most recent [Water Quality in Ireland 2016-2021](#) assessment – this included an assessment of ecological status, physicochemical elements and hydro morphological elements. Furthermore, the waterbody is not at risk of failing to meeting the objectives of the WFD by 2027.

Benthic assessment

The dredging activity can disturb the benthic/macroinvertebrate fauna on the seabed. The applicant undertook an assessment of the benthic habitats at both the proposed dredge sites around the jetty and the disposal site in the estuary. The sediment samples showed that both the sediment and the epifauna were characteristic of estuarine sediments and fauna. The assessment noted high turbidity¹ levels in the water column near both the dredge and disposal sites.

The deposit site is in an area that straddles two marine community types *Anemone-dominated subtidal reef community* and *Subtidal sand to mixed sediment with Nucula nucleus community complex*. The INFOMAR bathymetry for this area shows it to be comprised of rough ground associated with a scour channel. This would correspond more closely to the *Anemone dominated sub-tidal reef community*. The assessment concluded that due to the scouring effect of the River Shannon any dredge material deposited from the dredging activity will be washed away over a relatively short period of time, thus no significant change to the conservation objectives of the marine community will take place.

Dispersion of dredge sediment

The applicant submitted a Dredge Modelling report with the licence application. The model simulated and assessed three dredge scenarios. These scenarios represented the likely worst case scenarios in terms of dredge quantities, locations, sequencing and the combination of dredge methodologies used.

The model used the MIKE21 suite of software, an established model used for modelling coastal and marine water processes. The input data for the model is based on tidal boundary conditions and measured data from the River Shannon at Ardnacrusha, Co. Clare. The hydrodynamic model output was validated against data collected in September 2019 by Aquafact Ltd.

The model found that suspended sediment concentrations peaks at the dredge site (0.7kg/m^3) and the deposit site (0.6kg/m^3) were local to both locations and the suspended solids concentrations diminish rapidly outside of these areas. The model report noted that background suspended sediment concentration is generally 0.1kg/m^3 to 0.15kg/m^3 but peaks of up to 0.25kg/m^3 do occur.

The model also looked at changes in sea bed thickness which would be an indication of habitat smothering. Occurrences of changes in bed thickness predicted under modelled conditions corresponded with areas of natural mudflats. This signifies that the dredge material falls out of suspension and settles in the same manner as the natural sediment transport regime of the Lower Shannon.

The fate of the sediments in the water column will differ depending on the type of sediment and the currents in the water body. Turbidity is an optical quality of water and describes how clear or transparent the water is. While turbidity is a natural phenomenon, a significant increase in turbidity from the background level can disrupt the natural environment. Turbidity is not the same as total suspended solids. Total suspended solids are the solids suspended in the water column. While turbidity is affected by total suspended solids, it is also determined by the shape of particles, size distribution, refractive index, colour and absorption spectra.

¹ Turbidity is an optical quality of water and describes how clear or transparent the water is. It is a natural phenomenon that occurs in water bodies and indicates how much sediment and organic matter are present in the water. It is affected by suspended solids but also determined by the shape of particles, size distribution, refractive index, colour and absorption spectra.

It is recommended that the licence include conditions requiring to pre- and post-dredge monitoring for turbidity and suspended solids to provide evidence that the sediment dispersion model submitted with the licence application is accurate and reflects the actual dispersion of sediment plumes. The Holder will also be required to undertake corrective actions in the event of peaks of suspended solids levels exceeding those predicted in the models.

Hydro-morphology

Hydro-morphological pressures are the second most prevalent pressure on water bodies in Ireland. The Environmental Protection Agency advised in their submission on the licence application that they assess the hydro-morphological conditions of transitional and coastal waters in Ireland. The hydro-morphological conditions in the Lower River Shannon estuary are currently classed as “Good”.

It is recommended that a condition be included in the licence that the holder undertake pre- and post-dredging bathymetric surveys to establish existing bed levels and depths and confirm post-dredging levels. These surveys are required to be submitted to the UK Hydrographic Office (UKHO) upon completion of the dredging campaigns to enable the UKHO to maintain the admiralty charts used for navigation at sea.

Marine Strategy Framework Directive (2008/56/EC)

The Marine Strategy Framework Directive (MSFD) sets the framework for European marine environmental policy. It aims to achieve Good Environmental Status (GES) for all marine waters in Europe and protect the resource base for marine related economic and social activities. The 2024 draft assessment under Article 8 of the MFSD² states that GES has not been achieved for sea-floor integrity, marine litter and biodiversity.

Table 1: Assessment of MFSD descriptors in relation to this maritime usage licence application.

MFSD Descriptor	Good Environmental Status achieved³	Assessment
Biological diversity	Partially achieved	The applicant submitted an Annex IV risk assessment and a marine mammal risk assessment as part of the licence application. These reports assessed the impacts of the proposed activity.
Non-indigenous species	Yes	To ensure that the maritime usage activity does not result in the unintended introduction of non-indigenous species, the licence will include a condition relating to the control of invasive species in the hulls and ballast water of the relevant vessels.
Population of commercial fish/shellfish	Partially achieved	There are several Fisheries Orders that apply in relation to harvesting flat oysters in the Shannon Estuary. In addition, there is a licensed aquaculture site approximately 1km south of the jetty (Aquaculture site ID T07-007). The proposed project will not impact on this descriptor which relates to population size of commercially exploited stocks.
Marine food webs	Unclear	The balance and diversity in marine food webs will not be impacted as a result of the proposed activity.
Eutrophication	Yes	The proposed activity does not involve the addition of nutrients to the marine environment and as such will not impact this descriptor achieving good environmental status.
Sea floor integrity	No	The applicant undertook a benthic assessment as part of the licence application. The assessment concluded that

² [Ireland's Draft Marine Strategy Part 1: Article 8, 9 and 10 report 2024.](#)

³ As per [Ireland's Draft Marine Strategy Part 1: Article 8, 9 and 10 report 2024](#)

		no impact is predicted as a result of the proposed licence activity on the conservation objectives of any of the benthic sediment communities designated in the Lower River Shannon SAC.
Alteration of hydrographical conditions	Yes	The applicant has stated that the proposed maritime usage activity is for the purpose of maintaining design depths at the jetty in Aughinish to ensure navigational safety. The proposed maritime usage will not significantly alter the hydrographical conditions at the jetty. The applicant also submitted a dispersion model with the licence application, discussed in detail in relation to the Water Framework Directive part of this report.
Concentrations of contaminants	Yes	The licence will require inclusion of a condition relating to preparation of an oil pollution emergency plan. The Dumping at Sea Act, 1996, as amended, provides the legislative framework for assessing the quality of dredged material and for assessing the likely impacts arising from the dumping at sea of contaminated sediments. As stated above, Aughinish Alumina have applied to the Environmental Protection Agency for Dumping at Sea permit. Notwithstanding this the applicant submitted an analysis of the sediment in the vicinity of the proposed maritime usage and concluded that the sediments are clean and typical of the sediments in this part of the Shannon Estuary. MARA includes a condition in all licences granted to state that the consent does not negate the holders responsibility under other legislation.
Contaminants in fish/seafood for human consumption	Yes	The proposed maritime usage activity will not result in the introduction of contaminants in fish or seafood.
Marine Litter	No	While the proposed activity will not result in additional marine litter being introduced to the marine environment, it is recommended that a condition be included in the licence, if granted, to ensure proper management of any marine litter encountered during the course of the marine usage.
Introduction of energy including underwater noise	Yes	The impacts of underwater noise introduced as a result of the proposed maritime activity are assessed in the appropriate assessment associated with this licence application.

Environmental Impact Assessment Directive (2014/52/EU)

MARA had regard to Schedules 5 and 7 of the Planning and Development Regulations 2001 in considering the necessity to carry out screening for environmental impact assessment. It was concluded that the project does not fall within the scope of the EIA Directive and therefore screening for environmental impact assessment is not required.

Climate Action and Low Carbon Development Act, 2015

Section 15(1) of the Climate Action and Low Carbon Development Act requires relevant bodies, including MARA, to perform their functions in so far as practicable in a manner consistent with the governance framework set out therein. The Act sets legally binding targets for the reduction of greenhouse gases by 2030 and net-zero emissions by 2050. Considering the temporary and short-term nature of the proposed maritime usage, no significant increases in carbon emission are expected and no potential for indirect effects on climate change.

Estate Management

I have consulted with the Marine Advisor Engineering within the ARD unit, who has undertaken an assessment in relation to estate management (Appendix 1). Their report identified one overlap with a foreshore licence with respect to the use of the same marine deposit site as Shannon Foynes Port Company (Foreshore licence FS006975). The report did not identify any other conflicts in terms of estate management in relation to the proposed maritime usage. The Marine Advisor Engineering noted also that the maritime usage activity, if granted, will be on a non-exclusive basis and a condition to that effect should be included in the licence, if granted. It is recommended that conditions also be included in the licence requiring the Holder to engage with the Shannon Foynes Port Company prior to scheduling dredging activities to ensure there is no overlap in the use of the marine deposit site or disruption to the port operations in Shannon Foynes.

Site visit

A site visit to Aughinish Alumina Ltd was undertaken on 17th January 2025. A site walkover was conducted which included the deep water jetty and the area where the tug boats come along side. The areas proposed to be dredged, and the location of the proposed deposit site, were clearly identified during the visit. MARA was assisted on the site visit by the environmental engineer and a technical and environmental co-ordinator from Aughinish Alumina.

Public consultation

A 30-day public consultation period was undertaken under Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations (2011, as amended) and under section 117(6)(b) of the Maritime Area Planning Act (2021, as amended), commencing on 15th January 2025. One submission was received from a member of the public. MARA also invited observations on the licence application from relevant public bodies. Nine (9) observations were received from these bodies. The following table summarises the submissions received. The MARA website should be consulted for details of the full submissions. The issues raised in the submissions are noted and addressed as part of this marine advisor report and also as part of the Appropriate Assessment, where relevant.

Submission 1: Marine Survey Office

Submission summary
The MSO noted no objection to the granting of a licence in respect of the proposed maritime usage. They noted the need for consideration for safe navigation, publication of a marine notice, conformity with Irish certification standards for vessels and the provision of data to the UK Hydrographic Office. In addition, the MSO also noted the need for any marking and lighting required for moored instruments to be carried out in consultation with the MSO and Commissioner of Irish Lights.

MARAs response:

MARA notes the issues raised by the MSO. Conditions are included as standard in Marine Usage Licences in respect of the requirement to publish marine notices and the need for vessels to conform with the requirements of Irish certification standards. In addition, MARA is required to have regard to the rights of the public or any class of the public over the foreshore in relation to navigation – this requirement has been incorporated into our overall assessment of the licence application.

Submission 2: Water, Energy and Business Support Programme, Office of Environmental Sustainability, Environmental Protection Agency (EPA)

Submission summary

The EPA confirmed that they have received an application for a Dumping at Sea permit for loading and dumping of dredge material over an 8-year period at the Aughinish Alumina facility. There is no active dumping at sea permit for the facility.

The submission also advised of the status of the hydro-morphological conditions of the site.

The EPA advised that considering and deciding on the MUL application does not result in a contravention of the Water Framework Directive, Habitats Directive, Birds Directive, Marine Strategy Framework Directive, Bathing Water Directive or Environmental Liabilities Directive.

MARA's response:

MARA notes the submission and has incorporated the information relating to the hydro-morphological conditions of the waterbody into the assessment under the Water Framework Directive above.

The MAP Act sets out the matters to which MARA must have regard to when considering an application for marine usage in accordance with Schedule 7 of the MAP Act.

Submission 3: Marine Institute (MI)

Submission summary

The MI noted that the proposed activity is a continuation of the activity previously licensed under foreshore (FS006578). It noted that in considering the licence application, any monitoring results from the aforementioned foreshore licence should be examined.

The MI stated that the dredge locations and spoil site do not appear to overlap with any inshore fisheries and there is unlikely to be any immediate impact on the fishing sector as downstream plumes will either dissipate quickly.

The submission noted that the proposed marine usage activity is located approximately 300m west of a licensed aquaculture site (T07-007). It is not expected that the proposed marine usage activity will not result in long term impact on the aquaculture activities. The MI recommended that the monitoring proposed by the applicant in their licence application documents be implemented in full.

MARA response:

Any potential impacts on aquaculture and fisheries have been considered in the context of the assessment of the dispersion of sediments under the WFD earlier in this report. The assessment's conclusions were similar to the MI in that any impacts from the sediment plumes will be localised and minimal, due to the tidal nature of the area.

It is noted that the *Assessment of Impacts of the Maritime Usage* report, submitted with the licence application, includes mitigations and monitoring for the purpose of protecting the marine environment. It is recommended that some monitoring be required for the Permitted Maritime Usage, on the basis of the assessments undertaken for the purposes of having regard to the WFD, MFSD, Bird and Habitats Directives.

Submission 4: Ecological Monitoring and Assessment Unit, Office of Evidence and Assessment, Environmental Protection Agency

Submission summary

The submission provides details of the hydro-morphological status of the Lower River Shannon waterbody. It notes that the hydro-morphological quality index (HQI) is 0.869565, which lies in the Good category for WFD hydro-morphology classification. The submission

explains how the HQI is calculated including taking into account the percentage of bed disturbance on foot of the proposed dredging operation.

MARA response:

MARA notes the submission. Hydro-morphology has been considered earlier in this report in having regard to the states obligations under the WFD. The information submitted by the EPA has been incorporated into that assessment.

Submission 5: Commissioner for Irish Lights

Submission summary

Irish Lights note that the NIS makes reference to buoys deployed under previous consents for the purposes of monitoring turbidity. Irish Lights notes the need for the local lighthouse authority to apply to Irish Lights for a statutory consent prior to any aid to navigation being deployed. Furthermore, the submission notes the need for the appropriate assessment carried out for the purposes of the MUL application to include consideration of the potential impact of the deployment of any surface marking buoys and associated moorings.

MARA response:

MARA notes the submission and the concerns raised by Irish Lights. It should be noted that the Commissioner for Irish Lights is responsible for issuing Statutory Consents in relation to aids to navigation. The onus is on the applicant to ensure that all the required statutory authorisations are in place, for the proposed marine usage to go ahead. The assessment of the deployment of buoys must be undertaken by the Commissioner for Irish Lights as part of the assessment of their statutory consent process. It is recommended that a condition be included in the licence, if granted, stating that the MUL does not negate the responsibility of Aughinish Alumina to ensure they have all the necessary consents to undertake the proposed activity.

Submission 6: Development Applications Unit, Department of Housing, Local Government and Heritage

Submission summary

The submission had been reviewed by the National Monuments Service prior to submission to MARA. The submission notes the proposed marine usage activity will take place within an area of rich underwater cultural heritage. It notes bronze age excavations that were undertaken in 1970s and again in 2007-2008. It also notes archaeological monitoring of dredge areas undertaken in 2016 under licence 16E0415⁴ recorded no findings of archaeological significance. It notes the recommendation from the licence application for the dredge areas to be archaeologically monitored under a licence issued by the National Monuments Service.

The submission then sets out the legislative framework for protecting marine heritage and the policy in the National Marine Planning Framework with respect to protecting our marine heritage assets.

Finally, the submission includes an extensive list of *“requirements of the National Monuments Service to assist MARA (and the project proponents) to align the project with statutory obligations and policy objectives for the protection of the States underwater cultural heritage”*. These include implementing all recommendations and mitigation measures specified in relation to archaeology in the *Archaeological Impact Assessment Report*, ensuring on-board availability of an archaeologist and archaeology monitoring, as well as the provision of a communications strategy, a finds retrieval strategy and temporary

⁴ It is understood from the submission that this reference may relate to a licence issued by the Department of Housing, Local Government and Heritage.

exclusion zone. The submission also makes reference to furnishing documents to the planning authority and updating the Construction Environment Management Plan with information relevant to the “*proposed development EIS and subsequent submissions*”.

MARA Response:

MARA notes the information submitted and the concerns raised by the National Monuments Service. The submission includes a detailed list of requirements for mitigating impacts on underwater archaeology. It is recommended that the licence include a condition to consult with, and comply with the requirements of, the National Monuments Service prior to commencing the proposed maritime usage.

Submission 7: Department of Agriculture, Food and the Marine (DAFM) – coordinated submission from Marine Institute, Bord Iascaigh Mhara and Marine Engineering Division of DAFM.

Submission summary

The submission notes that there may be more fishing vessels in the vicinity of the proposed maritime usage given the absence of requirements for vessel monitoring systems on smaller fishing boats. DAFM welcome the proposed engagement with local fishers in advance of commencement of dredging. DAFM also state that the evaluation of the proposed maritime usage must consider commercial fishing in the context of both the MAP Act and the National Marine Planning Framework. It stated that the principle of maximising co-existence with other maritime users must be considered in this context.

BIM notes the proximity to a licensed aquaculture site. The submission states that there is no mention of using potential mitigation in terms of using flowing or ebb tides to mitigate dispersion of suspended solids or continuous monitoring for turbidity which would be appropriate to validate the model. BIM also notes the potential for cumulative impacts on the fisheries and aquaculture as a result of the proposed dredging.

The Marine Engineering Division noted the conclusions of the sediment dispersion and the unlikely threat to the existing aquaculture in the area. The engineering division also noted the proposal to undertake monitoring east and west of the dredge sites and that this will provide confidence to operators in the area and ensure a record of suspended solids is maintained.

The submission from the Marine Institute noted the content of the application. The MI stated that clarification should be sought as to whether the application related to a maritime usage licence or a dumping at sea permit. The submission queried the reasons for including references to the Marine Strategy Framework Descriptors in the application documents. It also stated that the application did not consider impacts on commercial fisheries including salmon and river and sea lamprey. Flushing times for suspended solids from the dredging and dumping should be considered.

MARA Response:

MARA notes the content of the submission from DAFM. It also notes the additional submission from the MI.

In relation to promoting the notion of maximising co-existence with other maritime users, MARA is required, under the MAP Act to have regard to the obligations in respect of the public over the foreshore in relation to navigation and fishing. In this respect the principle of maximising co-existence with other maritime users is incorporated into this licence assessment. The licence, if granted, will also implement this in the form of conditions relating to not damaging fishing gear, publishing marine notices and coordinating activities with the respective harbour master.

In respect of the submission from BIM about the absence of reference to proposed monitoring for turbidity and suspended solids. As discussed earlier in this report, monitoring for suspended solids and turbidity will be required in the licence, if granted, to truth the conclusions of the dispersion model. The applicant also proposes monitoring for suspended solids and turbidity on foot of the dispersion model and also as part of the mitigation in the Natura Impact Statement. MARA notes that this proposal for monitoring is further acknowledged in the response from the Marine Engineering Division in DAFM.

The MI queried whether the application under consideration related to dumping at sea or a maritime usage licence. It should be noted that MARA is not the competent authority for the Dumping at Sea Act, this responsibility lies with the Environmental Protection Agency. References to the Marine Strategy Framework descriptors are required to be considered given the requirement to have regard to the states obligations under the Marine Strategy Framework Directive. The Directive is considered in the assessment of the licence application and conditions to ensure effective implementation of the Directive are recommended to be included in the licence, if granted. The dispersion of sediment plumes generated on foot of the proposed maritime usage is discussed in detail earlier in this report. It is also recommended that a requirement to undertake both turbidity and suspended solids monitoring are included in the licence, if granted.

Submission 8: [REDACTED] o. Cork.

Submission summary

The submission notes that it is “*unusual to dredge, and dump in a riverine area within 5NMs of each other*”. The submission also notes that “*dumping is usually carried out at sea or pumped ashore behind a bund to create land areas*”. The submission further raises concern that Area E, the dump site, could result in the Foynes harbour being closed as a result of a silt barrier building up.

MARA Response:

Consideration of alternatives to dumping at sea including dump site selection are considered under the Dumping at Sea Act, which is outside the remit of MARA. With respect to the potential for Foynes Harbour to silt up, the applicant submitted a dispersion model with the application and this has been discussed in detail above. In addition, it is recommended that a condition be included in the licence, if granted, that the Holder consult with the Shannon Foynes Port Company to ensure the proposed maritime usage does cause disruption to port activities.

Submission 9: Inland Fisheries Ireland (IFI)

Submission Summary

The submission from IFI was submitted to MARA, addressed to the Marine Licence Vetting Committee and makes reference to the inclusion of conditions in the foreshore licence.

The submission highlights that the resident and migratory species traversing and entering the area of the proposed works, including Atlantic salmon, sea trout, sea and river lamprey and European eel, are of relevance. IFI note that “*...little attention paid to the resident and migratory fish species which utilise the Shannon Estuary...*” in terms of proposed mitigation measures.

IFI state that reference in the NIS to salmon, sea lamprey and river lamprey to be “*...lacking and dismissive of the stress element imposed on fish due to noise and vibration*”. The submission requests that mitigation measures be included to reduce the sound generated, in intensity and duration, including the requirement for soft-start and ramp-up procedures.

IFI note the mitigation proposed for water quality monitoring at two sampling points upstream and downstream of the jetty.

The submission also states that timings of the work should be cognisant of the migratory window of diadromous species especially sea lamprey, Atlantic salmon and European eel. Finally, the submission requires that the local IFI office be notified in advance of dredging operations.

MARA Response:

MARA notes that the submission was addressed to the Marine Licence Vetting Committee and makes reference to the requirement to include conditions in a foreshore licence. The consultation with IFI was from MARA in respect of a Marine Usage Licence, not a foreshore licence. The Marine Licence Vetting Committee was a consultative committee for the purposes of foreshore licensing, and has no bearing on this licence application.

In relation to proposed mitigation measures to consider the fish specified in the submission, both the appropriate assessment and the consideration of the requirements of the Water Framework Directive in this report, consider the sediment dispersion model submitted with the licence application. It is recommended that the suitable mitigation measures are included in a licence, if granted, in the form of suspended solids and turbidity monitoring.

The submission also requires that mitigation measures be included in the licence to address underwater noise, including soft-start and ramp-up procedures. The appropriate assessment and the marine mammals risk assessment consider the noise generated on foot of the dredging operation. It is recommended that a condition be included in the licence to ensure compliance with the NPWS guidance on underwater noise. This guidance includes requirements in relation to soft-start and ramp-up procedures.

Submission 10: National Parks and Wildlife Service

Submission summary

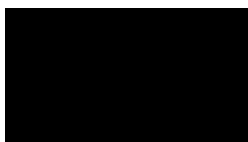
The submission notes the status of protection for cetaceans and pinniped species under both the Habitats Directive and the Wildlife Act. NPWS recommends the requirement for the “*Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters*” as published in 2014 are implemented for the appropriate works.

MARA Response:

MARA notes the response from NPWS. It is recommended, as part of the mitigation for underwater noise in the Appropriate Assessment, that the licence, if granted, include a condition requiring the Holder to adhere to relevant guidance from the NPWS.

Recommendation

Having considered the information submitted in support of the application, I recommend that a Maritime Usage Licence in accordance with Section 119 of the Maritime Area Planning Act, 2021, as amended, be granted to Aughinish Alumina Ltd for the purposes of maintenance dredging and disposal of dredge spoil at the specified location in the Lower Shannon Estuary, subject to the following conditions:



Suzanne Wylde

Senior Marine Advisor

Appendix 1:

Recommended conditions for inclusion in *Appendix 2: Specific Conditions of the Marine Usage Licence, if granted.*

20. The Permitted Maritime Usage shall be carried out in accordance with the plans and particulars submitted in support of the application for this Licence.

Reason: To clarify the scope of the licence.

21. This licence is for the purposes of licensing under the Act and nothing in this licence shall be construed as negating the Holder's statutory obligations or requirements under any other Law.

Reason: To clarify the scope of the licence.

22. Prior to the commencement of the Permitted Maritime Usage the Holder shall consult and comply with the requirements of the Underwater Archaeology Unit of the Department of Housing Local Government and Heritage, National Monuments Service, G37, Custom House, Custom House Quay, Dublin 1, D01 W6X0.

Reason: To ensure the orderly undertaking of the proposed maritime usage.

23. The Holder shall, a minimum 14 days prior to the commencement of the Permitted Maritime Usage, arrange for the publication of a Marine Notice with the Marine Safety Policy Division, Department of Transport.

Reason: To ensure the orderly undertaking of the proposed maritime usage.

24. The Holder shall not damage or interfere with any third party's property, infrastructure or fishing gear while conducting the Permitted Maritime Usage.

Reason: To ensure the orderly undertaking of the proposed maritime usage.

25. Prior to the commencement of the Permitted Maritime Usage the Holder shall consult with Shannon Foynes Port Company to plan and schedule the Permitted Maritime Usage in order that any potential disruption to port operations is managed.

Reason: To ensure the orderly undertaking of the proposed maritime usage.

26. The Holder shall ensure that all vessels engaged in this Permitted Maritime Usage conform to Irish Certification standards for vessels, as required by the Marine Survey Office.

Reason: To ensure the orderly undertaking of the proposed maritime usage.

- **Amended Condition:**

Marine Mammals

- The Holder shall appoint a marine mammal observer(s) for the purposes of overseeing the Permitted Maritime Usage. The Holder shall ensure the marine mammal observer(s) shall satisfy the requirements of National Parks and Wildlife Service guidance. During the activity the Holder shall comply with the directions of the marine mammal observer(s).
- The Holder shall implement risk control and mitigation measures for marine mammals in strict accordance with National Parks and Wildlife guidance.

- iii) The Holder shall, within 30 days of completion of the Permitted Maritime Usage, forward a report of the marine mammal observer(s) operations and mitigation undertaken, to offshore@npws.gov.ie and compliance@mara.gov.ie.
- iv) The Holder shall publish the report and recording and data forms on their website within 60 days of completion of the Permitted Maritime Usage unless otherwise agreed with the Grantor.

Reason: To ensure the protection of the marine environment.

27. The Holder shall keep the following documents together and available for inspection by the Grantor:

- i) a copy of the licence related to this Permitted Maritime Usage;
- ii) all correspondence with the Grantor;
- iii) up to date drawings, plans and maps relating to the Permitted Maritime Usage;
- iv) such records and/or photographs required to demonstrate compliance by the Holder with the Specific Conditions;
- v) marine positional log to demonstrate compliance with the terms of the licence, including ensuring that the activity occurs within the licensed area; and,
- vi) any elements of the licence application and associated documentation referenced in this licence.

Reason: To ensure the orderly undertaking of the proposed maritime usage.

28. Accidental events

The Holder shall ensure that there is an oil pollution emergency plan on-board any survey vessels. This plan should specify:

- i) Information on the location and detail of spill response resources on-board;
- ii) Information on crew training in relation to oil pollution response;
- iii) How crew will interface with other site investigation operators, where applicable.

Reason: To ensure the protection of the marine environment.

29. On completion of the activity, the Holder shall provide the United Kingdom Hydrographic Office (UKHO) at bathysurveys@ukho.gov.uk with the final bathymetric data from this Permitted Maritime Usage so that the appropriate charts can be updated.

Reason: To ensure protection of the marine environment through availability of monitoring data.

30. The Holder shall take all reasonable practical measures to ensure that all vessels used in the Permitted Maritime Usage are free of invasive marine species on their hulls and in their ballast water.

Reason: To ensure the protection of the marine environment.

- **New Condition:**

Marine Litter

- i) The Holder shall take all practicable efforts to remove any solid waste collected during the maritime usage activity and returned to shore.
- ii) The Holder shall take all practicable efforts to remove floating material collected during the maritime usage activity and returned to shore.
- iii) The Holder shall ensure that material dredged by trailing suction hopper dredger or other mechanical dredging is passed through grid screens no larger than 30cm to minimise the amount of man-made materials disposed of at sea. Any solid waste must be separated from the dredged material and disposed or recovered ashore.

- iv) Disposal or recovery of solid waste shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation and protocols.

Reason: To ensure the protection of the marine environment.

- **Include new definition in the licence of ‘Solid waste’ as follows:**

Any persistent, manufactured or processed solid material or items discarded, disposed of or abandoned in the marine and coastal environment, as defined in the OSPAR Guidelines for the Management of Dredged Material at Sea.

- **New Condition:**

The Holder shall ensure that the Permitted Maritime Usage does not take place concurrently with other authorised dredging or deposit (or dumping) campaigns in the Lower Shannon Estuary, unless otherwise agreed by the Grantor.

Reason: To ensure the protection of the marine environment.

- **New definition:**

‘Dumping’ – as defined within the meaning of the Dumping at Sea Act, 1996.

- **New Condition:**

Turbidity and Suspended Solids Monitoring

- The Holder shall undertake monitoring of turbidity and suspended solids during the course of each dredging campaign, and for seven days before and after the dredging campaigns. The monitoring shall be undertaken in accordance with the “*Dredge Modelling Report*” submitted with the licence application.
- The Holder shall undertake the monitoring of turbidity and suspended solids as follows:

Parameter	Analysis Method	Frequency
Turbidity	Alarmed turbidity sensor deployed on a moored buoy.	Continuous for the duration of each dredge campaign and at a minimum one week before and one week after the completion each dredge campaign.
Suspended Solids	Standard method*	A sufficient number of samples shall be taken during each campaign to establish the relationship between turbidity and suspended solids.

*A National, European or internationally recognized procedure e.g. I.S. EN, ISO, CEN, BS or equivalent.

- The Holder shall undertake monitoring of turbidity and suspended solids at the following locations:

Sample site	Longitude (W)*	Latitude (N)*
Downstream	-9.0067	52.646316
Upstream	-9.0448	52.641066

*Coordinates in WGS84

- Where the suspended solids exceed the predicted values in the “*Dredge Modelling Report*”, the Holder shall put in place measures to avoid recurrence of the exceedance, where the exceedance is a consequence of the Permitted Maritime Usage.
- The Holder shall retain a record of all data generated from the monitoring and have it available for inspection by the Grantor.

Reason: To ensure the protection of the marine environment.

- **New Condition:**

The parameters, analysis method or frequency of the monitoring, as set out in the “*Turbidity and Suspended Solids Monitoring*” condition may be amended with the agreement of the Grantor following evaluation of the monitoring results.

Reason: To ensure the protection of the marine environment.

- **New Condition:**

Quantities of dredge spoil associated with the Permitted Maritime Usage

The tonnages associated with the Permitted Maritime Usage shall not exceed the following:

<i>Location</i>	<i>Associated activity</i>	<i>Maximum Quantity (wet tonnes) per 21 day campaign</i>
<i>Area A, B, C, D</i>	<i>Dredging</i>	<i>64,462</i>

<i>Location</i>	<i>Associated activity</i>	<i>Maximum Annual Quantity (wet tonnes)</i>
<i>Area E</i>	<i>Deposit</i>	<i>53,846</i>