Alab, Info

From: Luke McCann [redacted]
Sent: Thursday 29 October 2026 16:52
To: Alab, Info
Cc: [redacted]
Subject: Appeal reference nos. AP2-AP11/2025 - Submission on Appropriate Assessment
Attachments: 261029 Lt to ALAB encl report.pdf; Save Ballyness Bay Ecological Submission.pdf

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A Chara

Please see attached correspondence and enclosure.

The attached is also being sent today by registered post to your offices.

I would be grate□ul i□you could confirm receipt.

Kind regards

Luke

Luke McCann [redacted]

[redacted]

Our Reference: EJB
Your Reference: AP2-AP11/2025

29 October 2026

By registered post and email

The Secretary
Aquaculture Licences Appeals Board
Kilminchy Court
Dublin Road
Portlaoise
Co. Laois
R32 DTW5
info@alab.ie

Our client: **Save Ballyness Bay**

RE: **Appeal reference nos. AP2-AP11/2025**

Submission on Appropriate Assessment

A Chara,

We refer to the above appeals and to the public notice dated 1 October 2026 inviting submissions in relation to the Appropriate Assessments which ALAB intends to conduct.

Please find enclosed Save Ballyness Bay's ecological submission in respect of the appeals, prepared by Marie Louise Heffernan MSc, CEnv, MCIEEM.

Please acknowledge receipt by email to [redacted] and [redacted]

Yours faithfully

FP LOGUE LLP

[redacted]

[redacted]

ASTER ENVIRONMENTAL CONSULTANTS LTD

Ecological Submission to the Aquaculture Licences Appeals Board

Proposed Aquaculture Development at Ballyness Bay, Co. Donegal

Prepared on behalf of Save Ballyness Bay

Marie Louise Heffernan MSc CEnv MCIEEM | Aster Environmental Consultants



Marie Louise Heffernan CEnv, MCIEEM,MSc

[redacted]

Professional Competence and Experience

Marie Louise Heffernan MSc, CEnv, MCIEEM is a Chartered Environmentalist and Full Member of the Chartered Institute of Ecology and Environmental Management, with over 30 years' professional experience in ecological assessment, ornithology, conservation management and the application of the EU Birds and Habitats Directives.

She holds an MSc in Environmental Science from Trinity College Dublin (1995), with a thesis entitled *Aquaculture and Bird Protection Interactions in Special Protection Areas*. She has been Director of Aster Environmental Consultants Ltd since 1997.

Her expertise is directly relevant to the present appeal. In 1999, she authored *A Review of the Ecological Implications of Mariculture and Intertidal Harvesting in Ireland*, published by the National Parks and Wildlife Service as Irish Wildlife Manuals No. 7. Between 1997 and 2006, she prepared 35 conservation management plans for NPWS, including aquaculture, coastal, estuarine, SPA and SAC sites.

She has extensive experience of breeding and wintering bird surveys, has co-authored national Common Scoter studies, and has acted as a technical adviser on aquaculture licensing appeals to ALAB.

She also delivers professional training in Appropriate Assessment for CIEEM as well as public authorities and regulatory bodies.

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1. Introduction

This submission, prepared on behalf of Save Ballyness Bay, concerns ten applications for Pacific oyster (Magallana gigas) and Manila clam (Ruditapes philippinarum) cultivation within Ballyness Bay SAC (001090). It considers the revised May 2026 Screening for Appropriate Assessment and Natura Impact Statement (NIS), the September 2026 Annex IV Risk Assessment, the Section 61 supporting assessment, Altemar's April 2024 seal assessment, and relevant Marine Institute findings. A site visit was undertaken in November 2025.

The principal issue is whether the evidence supports the ecological suitability of the sites and whether the mitigation relied upon is sufficiently certain and workable over the licence period. Particular concerns are mobile sediments, intertidal access and dune avoidance, persistent habitat disturbance, seals and ex-situ SPA birds, dynamic sandbanks and non-native species.

2. Ecological Context

Ballyness Bay is a shallow estuarine system of intertidal sands, tidal channels, mobile sediments and coastal dunes. Its SAC qualifying interests are Geyer's whorl snail [1013], Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Embryonic shifting dunes [2110], Shifting dunes with Ammophila arenaria [2120], Fixed coastal dunes [2130] and Humid dune slacks [2190]. The objective for fixed dunes [2130] is to restore favourable conservation condition.

Ecological effects are not restricted to Ballyness Bay SAC. The revised NIS recognises ex-situ use of the bay by mobile species associated with other European sites. Horn Head and Rinclevan SAC (000147), adjacent to Ballyness Bay, is designated for grey seal [1364], which the NIS screens in because of possible interactions with aquaculture (NIS, Table 2-6). Harbour seals also use the bay. Potentially connected SPAs include Inishbofin, Inishdooey and Inishbeg SPA (004083), West Donegal SPA (004150) and West Donegal Islands SPA (004230), whose special conservation interest birds may forage or rest outside SPA boundaries. The NIS also considers otter and Atlantic salmon in the wider network.

The operational footprint includes trestles, clam cultivation, harvesting, people, vehicles, access routes and some boat movements. Repeated access and disturbance, rather than the licensed plots alone, must therefore inform both site suitability and assessment of effects on European sites.

3. Site Suitability and Intertidal Habitats

3.1 Mobile sands: physical suitability

Section 61 of the Fisheries (Amendment) Act 1997 requires the Board to consider site suitability. The Section 61 supporting information concludes that all ten sites are suitable, but the Marine Institute's 2019 assessment raised an unresolved, site-specific question. It identified very soft, highly mobile sediments within the Mobile Sand Community Complex as potentially sensitive even to foot traffic, and described areas likely to be "extremely mobile (and soft) thus making them unsuitable for aquaculture operations". It recommended that these areas be clearly identified "prior to making a decision to licence" (Marine Institute, 2019).

The revised NIS acknowledges that the ecological effects of trestles on the Mobile Sand Community Complex remain uncertain. It treats overlap as disturbance and calculates 8.75%, below the 15% management threshold. That calculation does not establish the physical suitability of individual plots. No mapping has been identified in the current documentation that delineates the particularly soft, mobile areas against the ten

applications. The Board should establish whether the Marine Institute's specific pre-licensing recommendation has been fulfilled.

3.2 Access routes and fixed dunes

The original western access passed through priority fixed dune habitat [2130]. The revised proposal follows an alternative southern route, adding approximately 1 km across intertidal habitat [1140]. The NIS relies on this diversion to exclude effects on fixed dunes. However this route which is apparently assessed is not even mapped in the NIS. Yet it states that access "will be restricted" to the southern route while describing the avoidance of deviations as "strongly advised as a best practice measure". A restriction necessary to avoid a priority habitat must be mandatory and enforceable, not advisory.

Where the conclusion of an Appropriate Assessment depends upon mitigation, the measures must be sufficiently precise, effective and certain in their implementation to enable the competent authority to exclude adverse effects on site integrity beyond reasonable scientific doubt. In my opinion, the wording of the proposed access restrictions as "strongly advised" does not presently provide that certainty.

The NIS assumes a 10 m access corridor, estimating access coverage of 0.81% of habitat [1140] and 0.74% of the Mobile Sand Community Complex. It also acknowledges that repeated heavy-vehicle use may cause persistent compaction. If vehicles deviate or the route becomes impassable, the disturbance footprint may exceed the assessed corridor. The Board should require a clearly defined, enforceable route and an assessment of its practical use over the licence period.

3.3 The 15% threshold and ecological change

The 15% figure in NPWS conservation-objective guidance is a practical management threshold for sedimentary habitats; it is not a substitute for the Article 6(3) test of no adverse effect on site integrity beyond reasonable scientific doubt. The NIS's 8.75% overlap calculation addresses area, not necessarily the magnitude, duration or reversibility of ecological change within that area.

The Marine Institute (2019) identified the potential for chronic changes in benthic community composition associated with clam cultivation and highly disturbing harvesting by modified tractor-mounted dredges. The NIS itself recognises compaction, mortality of burrowing organisms and changes to infaunal communities from access and servicing. The Board should therefore examine whether the characterising biological community of habitat [1140] would be maintained, including where effects are repeated and cumulative, rather than treating an overlap below 15% as determinative.

The distinction between physical suitability and ecological sensitivity is important. The Marine Institute did not merely suggest that mobile sands might be more vulnerable; it recommended delineating areas that might be unsuitable before deciding to license. A spatial percentage derived from habitat overlap cannot identify whether trestles, anchors, vehicles or clam-cultivation methods can be operated reliably on particular soft sediments. The absence of that mapping is therefore relevant to Section 61 independently of the Appropriate Assessment outcome.

For habitat [1140], the ecological issue is not necessarily loss of sandflat as a mapped habitat type. Persistent changes to its associated benthic fauna may occur even where sediment remains physically present. The assessment should distinguish between short-lived disturbance from individual activities, repeated compaction of access corridors, and sustained modification of infaunal communities within cultivated plots. The latter cannot be resolved solely by describing a percentage of the total habitat area.

The assessment should consider the combined ecological consequences of the ten proposed cultivation sites and their associated access and harvesting activities, together with relevant existing or permitted plans and projects, rather than relying solely upon the spatial extent of individual cultivation areas.

The May 2026 Water Framework Directive assessment identifies High ecological status and predicts no deterioration, principally on the basis of the limited development footprint and low production levels. However, given the potential for persistent changes to benthic communities associated with repeated vehicle access, cultivation and clam harvesting, the Board should be satisfied that the assessment adequately addresses effects on relevant benthic biological quality elements and the requirement to prevent deterioration. This consideration should encompass the combined effects of the ten proposed aquaculture sites and relevant existing activities within Ballyness Bay.

4. Seals: Evidence, Buffer and Operations

Harbour and grey seals use Ballyness Bay. The NIS identifies a known haul-out, but the Annex IV Risk Assessment relies substantially on existing records and national survey data. The reported 2024 regional and national counts do not establish the numbers, seasonal and tidal patterns, or distribution of seals within the operational parts of Ballyness Bay. No systematic contemporary bay-wide survey has been identified.

The NIS attributes a recommended 200 m separation from aquaculture activities to previous Marine Institute guidance. This is a minimum disturbance-management recommendation, not a demonstrated no-disturbance threshold. The Dungloe Bay technical report for ALAB, provides a useful comparison, in this MERC Consultants stated: "There is no evidence to suggest that the proposed buffer of 200m is sufficient to mitigate for disturbance" (MERC Consultants, 2021, p. 73). MERC also noted reported disturbance at approximately 80–1,000 m and a 1,500 m buffer used in the Dutch Wadden Sea (p. 56).

International studies likewise record variable responses: Andersen et al. (2012) reported harbour seal alert responses to pedestrians at 200–425 m and to boats at 560–850 m, and flight responses at 165–260 m and 510–830 m respectively. Andersen et al. (2014) recorded longer trips at sea following pedestrian disturbance; Paterson et al. (2019) documented recovery in haul-out counts following boat disturbance. These findings do not directly measure effects of tractors at Ballyness Bay, but they demonstrate that 200 m cannot be presumed universally adequate.

MERC mapped Dungloe Bay haul-out and moulting habitat, applied 200 m buffers against individual licence applications and access routes, and identified routes that could not maintain that distance (MERC, 2021, pp. 50, 56–60). At Ballyness, Altemar (2024) mapped the identified haul-out and historical 200 m buffers and recommended reducing site T12/409B2. That is valuable site-specific work, but does not amount to equivalent spatial analysis of all applications, access routes, seasonal seal use and operational encounters throughout the bay.

The Annex IV assessment requires a strict 200 m buffer between any aquaculture activity and any seal present in the bay, not simply between plots and the mapped haul-out. It does not explain how operators will detect seals, measure separation or respond when a seal approaches a working area or prescribed access route.

This becomes particularly relevant during night-time operations. Intertidal shellfish farming is governed by tidal conditions, and Irish aquaculture industry guidance recognises that maintenance and harvesting may take place "at all times of the day or night" and that intertidal operations can "shift into night time to coincide with 'working tides'." There is no identified restriction in the proposed development preventing such night-time working.

Seal haul-out is also not confined to daylight hours. Both harbour and grey seals may haul out during darkness, with haul-out behaviour influenced by factors including tide, season and time of day. Night-time working therefore cannot be assumed to avoid interaction with seals. It also raises the practical question of how operators will reliably detect a seal and maintain a 200 m separation distance during darkness.

If a seal occurs within 200 m of the mandatory southern access route, vehicles cannot deviate without conflicting with dune and intertidal habitat licence conditions, or proceed without conflicting with seal mitigation. Operations would apparently need to stop until separation is restored. The Board should establish that the buffer is scientifically justified for the activities proposed and that practical, enforceable procedures exist for both daylight and darkness, including suspension of access where necessary.

The Dungloe comparison is relevant because it addresses both the ecological sensitivity of haul-out locations and whether the physical layout of a proposed operation can deliver the recommended separation. In Ballyness, the presence of a channel between the licensed plots and the mapped haul-out does not establish that seals will not occur in other parts of the bay. A minimum buffer drawn around one known location is different from a requirement to remain 200 m from any seal encountered during access or work.

The 200 m recommendation should also be distinguished from the legal assessment of potential effects on relevant European sites. Grey seal is a qualifying interest of adjacent Horn Head and Rinclevan SAC, and the revised NIS itself recognises the potential ex-situ pathway. Whether a disturbance response would have implications for the conservation objectives of that SAC requires evidence concerning exposure, frequency and ecological consequence. The international studies do not by themselves prove an adverse effect on site integrity, but they undermine any assumption that a fixed minimum buffer automatically prevents disturbance.

5. Dynamic Sandbanks and Fixed Licence Boundaries

Altemar's April 2024 Ballyness assessment compared historical imagery from 1996, 2006, 2013, 2022 and 2023 and documented up to 42 m movement in the channel adjoining the identified seal haul-out (Altemar, 2024, p. 3). It applied 200 m buffers to historical sandbank configurations and recommended a reduced boundary for T12/409B2 (pp. 3–10). This was a precautionary response to observed movement, but historical boundaries cannot establish future channel or haul-out positions.

Morphological change could affect seal separation, the physical suitability of mobile sand plots and the practicability of the fixed southern access route. This does not establish that the sites are necessarily unsuitable. It does mean that the Board should identify how material changes will be detected, what would trigger review and how licence boundaries and access controls would remain ecologically effective over time.

6. Non-native Species

Pacific oysters and Manila clams are non-native species. Although triploidy substantially reduces the reproductive capacity of Pacific oysters, it does not guarantee complete sterility (Gong et al., 2004; Normand et al., 2009). Published evidence demonstrates that wild Pacific oyster populations can become established outside cultivation areas and alter benthic habitats and communities (Herbert et al., 2016).

The Marine Strategy Framework Directive assessment reasons that cultivation would not introduce new species or pathways because both species already occur in Irish waters notably (Pacific oysters) in Lough Swilly. However, their occurrence elsewhere in Ireland does not establish their presence in Ballyness Bay or exclude the risk of local introduction and establishment.

The proposed cultivation footprint cannot therefore automatically be regarded as the limit of potential ecological effects. The Board should establish what surveillance will be undertaken outside the licensed sites, what findings would trigger intervention, and what effective management measures would be implemented if either species became established within the SAC.

7. Birds, Otter and Wider Conservation Sites

The NIS recognises functional connectivity with surrounding SPAs and screens nine special conservation interest bird species into Stage 2. It concludes that a reduction in foraging habitat would not be significant because other intertidal areas remain available. No dedicated site-specific bird survey (breeding or wintering) undertaken for the NIS has been identified. Without evidence of actual use, seasonality or the functional equivalence of alternative areas, habitat availability cannot be inferred from area alone. The Board should establish that the information supports the conclusions for the relevant SPA populations.

Otter is strictly protected under Annex IV(a) of the Habitats Directive and is a qualifying interest of another SAC considered in the NIS. No dedicated contemporary survey has been identified that establishes use of the plots and access routes or the presence of breeding or resting sites. The NIS suggests operations are most likely during daylight, but imposes no night-working restriction. As tidal working may coincide with otter activity, the Board should determine whether the evidence is sufficient to assess disturbance and potential effects on breeding or resting sites, including any implications under Articles 12.

For the SPA species, the relevant question is not simply whether the bay contains extensive remaining intertidal habitat. Different parts of a bay may vary in prey availability, exposure, tidal accessibility and use by individual bird species. A conclusion that displaced birds can use alternative areas needs an adequate ecological basis for the particular special conservation interests and seasons concerned. The absence of dedicated surveys is a weakness and the evidence relied upon should be identified and its adequacy explained.

For otter, the distinction between likely daylight working and enforceably restricted daylight working is material. The latter could potentially reduce exposure, but the former is only an expectation. If activities may occur during darkness to follow working tides, their assessment should reflect that operating envelope, including access to the plots and any potential interaction with holts or other resting sites.

8. Mitigation and Cumulative Ecological Effects

The conclusions depend upon measures to avoid dunes, confine vehicle movements, maintain separation from seals and prevent non-native establishment. Measures essential to an Appropriate Assessment conclusion must be specific, effective and enforceable. In particular, the southern route cannot simultaneously be treated as essential for habitat avoidance and merely a matter of recommended best practice; nor can a 200 m seal buffer be relied upon without an operational method for complying with it.

A fundamental concern is the extent to which the conclusions of the assessments depend upon consistent compliance by individual operators with a range of mitigation measures. These include sourcing and using the specified triploid oyster stock, adhering strictly to designated access routes, avoiding sensitive dune habitats, maintaining separation from seals and implementing appropriate biosecurity measures. While such measures may be achievable in principle, the assessments do not consistently identify how compliance will be verified, who will be responsible for ensuring it, or what procedures will apply where compliance is not practicable. In the absence of clear, enforceable obligations and effective compliance arrangements, the ecological outcomes assumed by the assessments cannot be regarded as sufficiently certain merely because operators are expected to follow the recommended measures. The high standard of certainty required under Article 6(3) of the Habitats Directive cannot be satisfied by reliance on anticipated good practice alone, where the effectiveness of that practice is essential to excluding adverse effects on site integrity.

9. Conclusion

Having reviewed the revised Natura Impact Statement and supporting ecological assessments, I consider that significant uncertainties remain regarding the potential effects of the proposed aquaculture developments on Ballyness Bay SAC and functionally connected European sites.

Of particular concern is the reliance on mitigation measures whose implementation is not consistently expressed as mandatory. Terms such as "strongly advised" and "best practice" do not provide the certainty required where adherence to those measures is essential to avoid adverse effects on protected habitats and species. This is particularly relevant to the prescribed access routes, protection of priority fixed dune habitat and the practical implementation of the 200 m seal buffer.

Important ecological questions also remain unresolved, including the suitability and sensitivity of mobile sand habitats, cumulative disturbance and compaction associated with repeated vehicle movements, the adequacy of seal and bird baseline information, and the potential establishment and spread of non-native shellfish species.

These are not simply matters of operational detail. They concern the evidence and assumptions upon which the conclusions of the Appropriate Assessment depend.

Article 6(3) of the Habitats Directive establishes a demanding precautionary standard. The competent authority must be satisfied, on the basis of complete, precise and definitive scientific findings, that the proposed developments will not adversely affect the integrity of the European sites concerned, with no reasonable scientific doubt remaining.

In my professional opinion, the information currently presented does not provide the level of scientific certainty necessary to support such a conclusion. The outstanding ecological uncertainties and the lack of clarity and enforceability of essential mitigation measures must be resolved before the Board can lawfully conclude that adverse effects on site integrity can be excluded.

Accordingly, I do not consider that a conclusion of no adverse effect on site integrity is presently justified on the evidence available.

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References

Altemar (Deegan, B.) (2024). Technical Advisor's Input into Shellfish Appeals, Ballyness Bay, 30 April 2024.

Andersen et al. (2012). Behavioural responses of harbour seals to human-induced disturbances. Aquatic Conservation. DOI: 10.1002/aqc.1244.

Andersen et al. (2014). Disturbance-induced responses of VHF and satellite tagged harbour seals. Aquatic Conservation. DOI: 10.1002/aqc.2393.

AQUAFACT–APEM Group (2026). Annex IV Risk Assessment: Oyster and Clam Aquaculture Sites in Ballyness Bay. Report P19963, September 2026.

AQUAFACT–APEM Group (2026). Ballyness Bay Oyster and Clam Aquaculture Sites: Revised Screening for Appropriate Assessment and Natura Impact Statement. Report P19963, May 2026.

AQUAFACT–APEM Group (2026). Marine Strategy Framework Directive Assessment: Ballyness Bay Aquaculture Licence Appeals, May 2026.

AQUAFACT–APEM Group (2026). Supporting Information for Section 61 Assessment – Ballyness Bay. Report P19963, 22 May 2026.

AQUAFACT–APEM Group (2026). Water Framework Directive Assessment: Ballyness Bay Aquaculture Licence Appeals, May 2026.

Council Directive 92/43/EEC (Habitats Directive), Articles 6, 12 and 16; Fisheries (Amendment) Act 1997, Section 61; Directive 2000/60/EC (Water Framework Directive), Article 4.

European Commission (2021). Assessment of Plans and Projects in Relation to Natura 2000 Sites: Methodological Guidance on Article 6(3) and (4).

Gong, N., Yang, H., Zhang, G., Landau, B.J. & Guo, X. (2004). Chromosome inheritance in triploid Pacific oyster Crassostrea gigas Thunberg. Heredity, 93(5), 408–415. https://doi.org/10.1038/sj.hdy.6800517

Herbert, R.J.H., Humphreys, J., Davies, C.J., Roberts, C., Fletcher, S. & Crowe, T.P. (2016). Ecological impacts of non-native Pacific oysters (Crassostrea gigas) and management measures for protected areas in Europe. Biodiversity and Conservation, 25(14), 2835–2865. https://doi.org/10.1007/s10531-016-1209-4

Marine Institute (2019). Appropriate Assessment of Aquaculture Activities in Ballyness Bay SAC (001090).

MERC Consultants (2021). Technical Adviser's Report, Dungloe Bay aquaculture appeals AP26/2019–AP31/2019, especially pp. 50, 56–60, 72–73.

Normand, J., Ernande, B., Haure, J., McCombie, H. & Boudry, P. (2009). Reproductive effort and growth in Crassostrea gigas: comparison of young diploid and triploid oysters issued from natural crosses or chemical induction. Aquatic Biology, 7, 229–241. https://doi.org/10.3354/ab00190

NPWS. Ballyness Bay SAC (001090): Conservation Objectives and Supporting Documents.

Paterson et al. (2019). Post-disturbance haulout behaviour of harbour seals. Aquatic Conservation. DOI: 10.1002/aqc.3092.