

**Cloughaneely Angling Association Submission
in relation to**

**Report supporting Appropriate Assessment of Aquaculture in Ballyness Bay SAC
(Site code: 01090)**

prepared by Marine Institute
for the Department of Agriculture Food and Marine

Comment is made in relation to the various sections within the report as listed below. These comments are not exhaustive but serve to illustrate the main issues identified with the assessment as presented by the Marine Institute (MI).

SECTION 2.4

The report states that 'Scientific reports on the potential effects of various activities on habitats and species have been compiled by the MI and provide the evidence base for the findings.'
What competent terrestrial ecology expertise or bird expertise was commissioned by the MI to allow an expert and informed appropriate assessment of these proposed projects?

SECTION 2.5

The report states that:

'An initial screening exercise resulted in a number of habitat features and species being excluded from further consideration. None of the aquaculture activities (existing and/or proposed) overlaps or likely interacts with the following features or species, and therefore the following habitats and species were excluded from further consideration in the assessment:

- Embryonic shifting dunes [2110]
- Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]
- Humid dune slacks [2190]
- *Vertigo geyeri* (Geyer's Whorl Snail) [1013]'

Evidence for this assertion is not presented. Traffic on the dunes and foreshore, and the presence of an extensive system of trestles may impact on sediment structure, composition and mobilisation and the aeolian and hydrologically driven movement of sediments. Such changes may impact on dunes, in particular the development and sustainability of embryonic dunes in the vicinity.

Vertigo geyeri is known from the eastern side of the site. Aquaculture is planned for the eastern side of Ballyness Bay SAC and access will be along the foreshore in this area. There is no assessment of the routes to be taken by tractors and trailers and indeed pedestrian access in this zone in relation to the known population of *Vertigo*. Given the known occurrence of *Vertigo* in the immediate vicinity of the proposed development, the precautionary principle espoused by the process of appropriate assessment requires that an assessment of the potential presence of *Vertigo* along all foreshore access routes (including proposed routes at Killult and Dooley) should be undertaken and the potential impacts assessed.

SECTION 2.5.1

The report acknowledges that '*the overlap of access routes with the habitat - Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] does appear to present a risk of*

erosion and habitat degradation' . Note that Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] is a **priority habitat** justifying site designation. European Court of Justice caselaw (C-258/11 Peter Sweetman and Others v An Bord Pleanála) has established that authorisation for a plan or project may be given only on condition that the competent authorities are certain that the plan or project will not have lasting adverse effects on the integrity of that site. The competent national authorities cannot therefore authorise interventions where there is a risk of lasting harm to the ecological characteristics of sites which host priority natural habitat types. A plan or project will adversely affect the integrity of that site if it is liable to prevent the lasting preservation of the constitutive characteristics of the site that are connected to the presence of a priority natural habitat whose conservation was the objective justifying the designation of the site in the list of SCIs.

SECTION 2.5.2

The report states that ' Given the locations and timings of the proposed activities (i.e. daytime) it is concluded that activities would be non-disturbing to otter'. Otters are active during the day in Ballyness Bay SAC. Aquaculture is a year round activity and in shorter day lengths is likely to occur during periods of active foraging by otters.

The report acknowledges that 'the risk posed to seal species cannot be entirely discounted'.

SECTION 2.5.3

In relation to Annex 1 habitat 1140 the report notes that there are likely to be locations where the sediments are extremely mobile (and soft) thus making them unsuitable for aquaculture operations.

It is the experience of our members in walking, boating and angling throughout Ballyness Bay SAC that sediments are extremely mobile and soft. In many areas sediments are highly thixotropic and support large populations of sand eels at particular times of the year. Channels within the bay alter significantly on an annual basis, particularly in relation to storm events, when extreme amounts of sand are shifted.

A complete analysis of sediments, sediment movement, hydrology, an analysis of flood risk events and storm erosion is essential in this dynamic system to assess threats to the integrity of the dune system and the sub-littoral habitats. This is particularly important in the context of climate change and the increasing frequency of major storm events. The dynamic nature of the Ballyness system leads to high rates of sand accretion and erosion, both on the dunes and around the Bay. Thus, even small modifications (natural or artificial) to part of the system may cause considerable changes in other areas (National Parks and Wildlife Service Conservation Plan for 2005-2010 Ballyness Bay cSAC Site Code 1090).

The report correctly highlights risks to fixed coastal dune (grey dune) habitat [2130] features from the additional traffic likely to occur on existing tracks as a result of the need to access the sites. The recommendation made in the report that that 'the views those with specific engineering expertise be sought in order to identify erosion prevention measures **that might be put in place** to mitigate the risks identified' is NOT mitigation of this risk. Similarly the alternative suggestion that 'the re-routing of access routes to avoid overlap with habitat feature 2130 **might be considered?**' is NOT mitigation. It is therefore clear that a significant identified risk to a priority habitat remains and the statutory authority may not authorise the project to proceed in these circumstances. Part 5, regulation 42(17) of the Habitat Regulations

stipulates *inter alia* that a public authority shall not adopt or undertake, or grant any consent for, a plan or project containing any conditions, restrictions or requirements purporting to—

- '(i) permit the deferral of the collection of information required for a screening for Appropriate Assessment or for an Appropriate Assessment or the completion of a screening for Appropriate Assessment or an Appropriate Assessment until after the consent has been given,
- (ii) accept an incomplete Natura Impact Statement.'

The report recognizes that 'in relation to seal use of the site, the risk of disturbance cannot be discounted.' Furthermore it asserts that 'based upon local observations it appears that the seals are faithful to this one identified haul out location.' 'Local observations' by whom and over what period of time are being cited? Hearsay is not the rigorous scientific evidence required in appropriate assessment. As regular users of the Bay, CAA members are aware of, and have evidence of frequent use of a number of haul out sites throughout the bay.

SECTION 3

On a point of clarification and for the avoidance of doubt, the report states that the information upon which this assessment is based is a list of applications and extant licences for aquaculture activities. To our knowledge there are no extant licences for aquaculture in Ballyness Bay SAC.

SECTION 4.4

In relation to consideration of other European sites in the vicinity of the proposed development, the report states that 'a preliminary screening is carried out on the likely interaction with aquaculture activities based primarily upon the likelihood of spatial overlap.' The primary reliance on spatial overlap is not valid and ignores the potential for ex situ effects.

In particular the summary exclusion of seven number neighbouring SPAs on the basis of 'no spatial overlap or likely detrimental interactions of conservation features with aquaculture activities in Ballyness Bay SAC' is unjustified and unsound and invalidates the assessment.

The mud flats and sand flats within Ballyness Bay SAC contain a rich invertebrate fauna and several Eelgrass (*Zostera*) beds which are known to support approximately 42 different species of wader, wildfowl, seabird and birds of prey that are cited as qualifying interests in the SPAs excluded from further analysis. Annex I species recorded from Ballyness Bay SAC include *Gavia stellata* (Red-throated Diver), *Gavia immer* (Great Northern Diver), *Cygnus cygnus* (Whooper Swan), *Branta leucopsis* (Barnacle Goose), *Anser albifrons flavirostris* (Greenland White-fronted Goose), *Pluvialis apricaria* (Golden Plover), *Pyrhocorax pyrrhocorax* (Chough), *Sterna sandvicensis* (Sandwich Tern), *Sterna albifrons* (Little Tern), *Falco peregrinus* (Peregrine) and *Falco columbarius* (Merlin). Common Scoter (*Melanitta nigra*), which is listed as endangered in the Irish Red Data Book is also recorded roosting in the bay. Curlew, another red listed endangered species, has also been recorded at the site this year and is dependent on this habitat.

A very significant proportion of the remaining corncrake (*Crex crex*) population (a globally threatened species) breed along the shores of Ballyness Bay and birds will routinely cross the bay to and from suitable habitat. Individual males may hold breeding areas on both sides of the Bay. The corncrake is shy and elusive and birds will inevitably encounter the extensive aquaculture activities which may cause disturbance and lead to fragmentation of populations.

SECTION 5.1

The report states that:

'This assessment focuses on the proposed aquaculture activities which occur within the Qualifying Interests of (1130) Estuaries and (1140) Mudflats and sandflats not covered by seawater at low tide for which the Ballyness Bay SAC is designated.'

Such a narrow focus means the assessment is overly constrained and does not consider the full range of activities associated with the proposed project or address all potential adverse effects on European sites within the zone of influence of the development or the integrity of the Natura network.

SECTIONS 6.1 and 6.2

These sections set out the many biological and physical effects of aquaculture. However, many of the effects identified are not addressed at all, or not addressed in any meaningful way in the assessment e.g. nutrient enhancement and nutrient cycling, resource depletion and competition with native fauna and flora, impacts on biological productivity and food chains, introduction of disease and invasive alien species, hydrodynamic alterations, impact of dredging and suspended solids release, habitat loss, increased predation of native invertebrates by elevated predator populations, distribution and impacts on *Zostera* beds.

Table 6-1 which lists potential indicative environmental pressures of proposed aquaculture activities makes no mention of *Ruditapes* or the dredging required for harvest.

SECTION 7

The primary reliance on 'spatial overlap' is again enounced.

SECTION 8.1

The sensitivity of *Zostera* beds is acknowledged but no evidence of location of beds in relation to proposed aquaculture is provided.

The report states that

'In relation to the designated species *Halichoerus grypus* (Grey Seal) [1364] and *Lutra lutra* (Otter) [1355]; the capacity of the species population to maintain themselves in the face of anthropogenic induced disturbance or mortality at the site will need to be taken into account in relation to the Conservation Objectives for the species on a case-by-case basis.'

The meaning of this statement is unclear and suggests a lacuna in the present assessment.

SECTION 8.3

The statement that 'If persistent disturbance is likely then the spatial extent of the overlap is considered further', taken along with the decision tree presented in Figure 8-1, seems to use spatial overlap thresholds as a final determinant of significant impact and discounts findings higher up the decision tree i.e. if less than 15% it makes all previous findings irrelevant.

The report acknowledges that 'The sensitivity of the community type Mobile sand community complex, is unknown'. On this basis, it is assumed that intertidal shellfish culture has the potential to disturb this community type.

In relation to intertidal access routes the report considers that they are disturbing to sediments but cites low spatial overlap with community complexes. How are tractors and trailers to be confined to the narrow access routes identified in open, unconfined terrain? The potential overlap and impact is far greater.

The risk of Pacific oysters naturalising in Ballyness Bay SAC cannot be discounted by the report. The potential impact of such an event on native communities, the integrity of the SAC and its qualifying interests has not been assessed.

In relation to the Manila clam the report states the risk of naturalisation of this species is considered low, but should be kept under surveillance. This is not in keeping with the precautionary principle espoused by appropriate assessment.

In relation to the priority habitat (2130) Fixed coastal dunes with herbaceous vegetation (grey dunes), it is acknowledged in the report that the access routes proposed will follow (**for the most part**) existing paths (currently subject to vehicular and pedestrian traffic), the licencing of aquaculture activity at this site could lead to additional risk of erosion and degradation of this dune habitat. The risk of damage from vehicular traffic to the priority dune habitat (2130) in Ballyness Bay SAC therefore, cannot be discounted.

The NPWS Conservation Plan for Ballyness Bay SAC states:

'Erosion of the Dooley dune system is still occurring. This is exacerbated by the use of Quad bikes etc. Erosion of both the seaward and bay sides of the Dooley Peninsula neck has created fears that it may breach in the future. This erosion is likely to be exacerbated by **traffic-induced damage**.'

and further states that:

'Tracks have been worn across the saltmarsh at Keadew. Erosion is also occurring on the Drumnatinny dune system'.

In relation to maintaining the SAC at favourable conservation status the Conservation Plan sets specific objectives and strategy **1.3 Regulate access to Dooley Peninsula** states:

'NPWS will seek to ensure that vehicular access to the Dooley Peninsula is regulated and **reduced** in liaison with the County Council, the Coastal Management research project, landowners and local managers. The construction of a gate at the neck of the peninsula should be considered. Further recreational development and intensive tourism **will be prevented** on the dune systems. This includes the construction of car parks, **access routes** and camping sites. Liaison with Donegal County Council is required in relation to the management of recreational use.'

Map 8-2 is incomplete in coverage of the proposed development area and all access routes.

The level of confidence applying to the estimates of sensitivity for species and pressure interactions presented in **Tables 8.1** and **8.2** are almost entirely 'low confidence'. This undermines the reliance that can be placed on such assessments.

SECTION 8.4

In relation to the otter, assertions made regarding habitat extent, 'net input' of fish biomass, couching sites and holts, disturbance and encounter rates are not supported by evidence. Such assertions are disputed and the expertise and evidence base employed should be cited. Other

potential impacts (impacts on prey items [sandeels/crabs], water turbidity/planktonic algal blooms) should be assessed.

SECTION 8.5

The assessment regarding seals is confused. References to grey and harbour seals are mixed and partial. The assessment is not evidence based or adequate.

SECTION 9

NPWS Guidance on AA clearly states that the characteristics of existing, proposed or other approved projects or plans which may cause interactive or cumulative impacts with the project being assessed and which may affect the site must be assessed.

SECTION 9.1

The report states that there are no fishing activities within Ballyness Bay SAC. CAA anglers regularly fish the Bay area and IFI administer an extant licence for salmon and sea trout fishing.

SECTION 9.2

Makes a statement about other activities which are terrestrial in origin that might result in impacts on the conservation features of the Ballyness Bay SAC. It makes no attempt to assess the in-combination or cumulative effects of the activities cited. Pressures cited include domestic and urban wastewater discharges. No analysis or evidence of the extent of these pressures is provided. No data on the contribution likely from the proposed development is provided e.g. tonnages proposed, nutrient loads, silt loads, extent of vehicle movements.

Irish Water projects that are at planning stages have not been considered.

Discharges from the catchment have not been considered e.g. Marine Harvest nutrient discharges.

Ecotourism and recreational developments have not been considered.

SECTION 9.2.1

The assertion that pressures resulting from aquaculture activities are primarily disturbance to sediments is baseless. The assessment must consider the many other factors cited above including issues such as biomass produced, nutrient levels released especially sources of N, organic loads and BOD impacts etc.

The conclusion that in-combination effects with aquaculture activities are considered to be minimal has no evidence-base.

CONCLUSIONS

Throughout the assessment report repeated reliance on 'no spatial overlap' is cited to justify screening out or dismissal of potential impacts on qualifying interests. Spatial overlap is not a valid criterion for such determinations. Effects can be direct or indirect, *in situ* or *ex situ* and physical overlap is not essential. NPWS Guidance suggests using a 15km radius initially to examine potential for impact but this may be extended if pathways for potential impact exist. Given the proximity of habitats and species screened out, the hydrological connectivity to

proposed sites for development and the many pathways for impact, it is impossible to see how a number of these habitats and species have been eliminated at the screening stage.

In any event, a very narrow interpretation of aquaculture activities is taken by the MI in the assessment. The proposed projects entail activities beyond the footprint of the proposed oyster and clam beds. Ancillary transport and access issues associated with the proposed development WILL overlap with some of the qualifying interests listed as screened out. This is a significant lacuna in the analysis.

Future consultation and information gathering is proposed in relation to developing mitigation of impacts that have been identified in the report on a priority habitat. This contravenes article 17 of the Habitat Regulations that stipulates *inter alia* that a public authority shall not adopt or undertake, or grant any consent for, a plan or project containing any conditions, restrictions or requirements purporting to—

- '(i) permit the deferral of the collection of information required for a screening for Appropriate Assessment or for an Appropriate Assessment or the completion of a screening for Appropriate Assessment or an Appropriate Assessment until after the consent has been given,
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There is little evidence of any effort to identify other developments pending, trends in one off housing, diffuse inputs from agriculture, recreational use increase, improved access and consequent increase in disturbance.

The deficient nature of the assessment in relation to SPAs and terrestrial habitats and species requires that questions be raised in relation to what specific specialist terrestrial ecological expertise or bird expertise was available to the MI to allow an expert and informed assessment.

Note that ECJ case C-418/04 Commission v Ireland found that National law must make adequate provision for projects situated outside SPAs but having significant effects inside them. Shellfish farms are not exempted from Article 6(3) because they are small in size.

There are many significant lacunae in the assessment process undertaken and many of the assertions are not evidence based. Little objective data is presented. Much of the analysis characterising habitats sensitivity and pressure categories for habitats is acknowledged to carry a low degree of confidence.

ECJ Case C-304/05, Commission v Italy, paragraphs 46 – 73 confirms that where a report contains numerous findings that are preliminary in nature and it lacks definitive conclusions, these factors mean that the report cannot be considered an appropriate assessment. The gaps and lack of complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed mean that the competent authorities cannot gain the necessary level of certainty to take the decision to authorise the works.

The assessment offers a generic and general appraisal of aquaculture activities. It presents little specific detail in relation to the projects proposed for Ballyness Bat SAC. It presents no information on likely production rates, site specific aquaculture management methods, frequency of harvest operations, frequency and nature of site visitations, predator control

measures to be implemented, number, orientation and design of structures, locations and plant used for ancillary operations such as sorting, equipment sanitisation or storage, discharges arising, biosecurity measures to be implemented, physicochemical/hydrological monitoring required or previously undertaken. The assessment presented cannot be taken as appropriate for the projects proposed at Ballyness Bay SAC since it is overly constrained in its scope, lacks sufficient detail, is partial in nature and has lacunae.

The report itself concludes that there are some residual impacts remaining and suggests that these be addressed at some later stage. Until any potential mitigation is proposed and rigorously assessed the statutory authority may not allow the proposed development to proceed.