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Department of Agriculture, Food & the Marine,
Aquaculture and Foreshore Management Division,
National Seafood Centre,
Clonakilty,
Co. Cork.

Dear Sir/Madam,

We are writing to you with observations on the Appropriate Assessments carried out for the applications T06/450A, T06/461A, T06/502A, T06/503A, T06/509A, T06/514A, T06/515A, T06/517A, T06/518A and T06/521A, seeking aquaculture and foreshore licences to carry out oyster culture in Valentia Harbour/Portmagee Channel Special Area of Conservation.

Inadequate and Deteriorating habitats within the SAC

The AA for these sites looks at Tidal Mudflats and Sandflats (H1140), Large Shallow Inlets and Bays (H1160) and Reefs (H1170). In the last Habitats Directive report to the European Commission for the period 2013-2018, the National Parks and Wildlife Service (NPWS) assessed the status of large shallow inlets and bays to be 'bad and deteriorating', tidal mudflats to be 'inadequate and deteriorating' and reef habitats to be 'inadequate' (1). Article 6(3) of the Habitats Directive states that '*the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned*'. With the sites integrity already compromised, licencing activities which will introduce new pressures will exacerbate the deterioration and go against Article 6(3)

Suggested Mitigation Measures

The AA has suggested that to mitigate significant negative effects, the proposed aquaculture sites must redraw their boundaries to reduce the spatial overlap with reef habitats. This mitigation measure falls short of what is needed to effectively protect this Special Area of Conservation. Nutrient loading as well as other forms of pollution from the increased aquaculture activity will increase the risk of undermining the whole site integrity as well as the other species the sites support. For the remaining two habitat types, it has not been suggested that the proposed licensing sites redraw their boundaries. For the habitat type Large Shallow Inlets and Bays, the reason it has been classed as 'bad and deteriorating' is due to the nearly 25% reduction of a vulnerable burrowing worm anemone *Edwardsia delapiae* (due to the construction of a floating breakwater above the anemone which resulted in a negative change to the sediment). The other reason is due to the loss of entire eelgrass beds and the reason for this loss is not known. To ensure that the integrity of the site does not deteriorate further, monitoring as well as sufficient collection of data in this area needs to be undertaken to understand why these eelgrass beds have disappeared. With this unknown, it is vital that the precautionary principle be adhered to in this case and future aquaculture licences which will disturb and compromise sediment within the SAC be denied.

Cumulative pressures and scientific certainty

Oyster aquaculture results in an accumulation of biologically derived material on the seafloor. It states in the AA that, 'The higher the turbidity the greater the production of faeces and pseudo-faeces by the filter feeding animal and the greater the risk of accumulation on the seafloor.' With increased extreme weather events due to climate change we can not understand the effects on water turbidity due to runoff from the land and disturbance of bottom sediments. If an increase in faeces and pseudo-faeces in the water occurred, then this poses a risk to the site integrity as the levels of organic matter could reach a concentration detrimental to the site's community structure. Another suggested mitigation measure was to use the traditional bag and trestle system and not the new multi-tiered system as proposed for some sites. We agree with this suggestion but again it falls short of what is needed to protect the sites. If new aquaculture licences were to be approved then the number of oyster aquaculture licences within this SAC will triple, which will result in far greater concentrations of suspended matter at the site. The accumulation of fine, organically rich sediments beneath the oyster trestles can result in the development of infaunal communities which are not associated with the area. Again, this poses another unknown to the effects this will have on the entire site (not just the area where the culture systems are located). Under Article 6(3) of the Habitats Directive, the relevant authorities can only authorise a plan or project after having ascertained that it will not adversely affect the integrity of the site concerned. There must be 'no reasonable scientific doubt remaining' that there will be no adverse effects to the area (2). Therefore it is the Irish Wildlife Trusts opinion that if these licences were to be granted, then Ireland would again be failing to hit their objectives under the EU Birds and habitats Directives.

Limited AA

On the basis of spatial analysis, 7 marine community types within Large Shallow Inlets and Bays were excluded from further consideration as the proposed aquaculture sites were not directly overlapping. These communities are:

1. Coarse sediment with *Pisone remota* community complex
2. Echinoderm-dominated reef community complex
3. *Edwardsia delapiae* associated community*
4. Maerl-dominated community*
5. Maerl-dominated community / *Zostera*-dominated community*
6. Medium to fine sand with *Nephtys cirrosa* and *Spiophanes bombyx* community complex
7. *Zostera*-dominated community*

The AA has stated that consideration can be given to licencing activities within Large Shallow Inlets and Bays without assessing for significant negative effects on these communities. By excluding these we believe that the AA does not meet the requirements of the Habitats Directive. Many of these communities are highly sensitive habitat types (such as Maerl beds and *Zostera* communities) which could react negatively to changes in water quality, sediment and other pressures caused by increased aquaculture along with the cumulative effects of all activities within the area. Allowing these licences to proceed within this habitat type again goes against Article 6(3) of the Habitats Directive where there must be 'no reasonable scientific doubt remaining' that there will be no adverse effects to the area

Also from the AA ' Furthermore, the culture of a non-native species (e.g. the Pacific Oyster - *Magallana gigas*) may also present a risk of establishment of this species in the SAC. Recruitment of *M. gigas* has been documented in a number of Bays in Ireland and appears to have become naturalised (i.e. establishment of a breeding population) in two locations (Kochmann et al 2012; 2013) and may compete with the native species for space and food. To date, no settlement of Pacific oysters has been reported in Valentia Harbour/Portmagee Channel SAC (F.O'Beirn, Marine Institute - personal observation).' As the habitats within this site are not classified as having good environmental status, allowing activities which pose a risk of invasive species establishment goes against Article 6(3) of the habitats Directive as well as the site specific objectives for this SAC which include conserving community types in a natural condition (*Fucus*-dominated intertidal reef community complex; *Laminaria*-dominated community; and Echinoderm-dominated reef community complex)

15% disturbance threshold

The AA is based on a 15% disturbance threshold which is derived from NPWS guidance. The policy from the NPWS was loosely based on an EU guidelines document (which is not legally binding) on applying thresholds to describe the conservation status of habitats. The 15% threshold used by the NPWS is not mentioned in the EU guidelines and it is our view that the NPWS has misinterpreted the guidance. The application of the 15% policy has previously led to licencing of aquaculture and fisheries in SACs and has directly led to habitat deterioration (e.g. Roaringwater Bay).

Conclusion

The AA does not ascertain beyond reasonable scientific doubt that the proposed aquaculture activity in conjunction with existing fishing activity and nutrient enrichment from other plans or projects will not cause further deterioration of the site. The Irish Wildlife Trust is therefore of the opinion that the aquaculture licence should not be granted and the AA undertaken was inadequate at assessing the whole site's integrity.

Regards,

Grace Carr

Marine Advocacy Officer
Irish Wildlife Trust

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1. [NPWS, "The Status of EU Protected Habitats and Species in Ireland" \(2019\).](#)
2. Case C-258/11 Sweetman v An Bord Pleanála, ECLI:EU:C:2013:220, para 40.