An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine

23rd January 2020

Your Ref: **AP4-1/2020**
AP4-2/2020

Our Ref: **T12/409A**

Mary O'Hara
Secretary to the Board
Aquaculture Licences Appeals Board
Kilminchy Court, Dublin Road
Portlaoise
Co. Laois

Dear Mary

I wish to acknowledge receipt of your letter on 10th January 2020 to Mr. Michael Creed T.D., Minister for Agriculture, Food and the Marine (and copied to Mr. John Quinlan) regarding the appeal against the decision to grant a new Aquaculture and Foreshore Licence in relation to the above file.

The following documentation refers:-

- Submission to Minister for Aquaculture Licence with draft licence(s) and reports received in relation to the application (**attached**).
- Notification of Minister's decision to the applicant, (**attached**).
- Map of sites in Ballyness Bay (**attached**)
- Publication Notice of the Minister's decision in the Donegal Democrat (**attached**).

Below is the hyperlink to the Department's website where the AA Report can be found:-

- the Appropriate Assessment for Ballyness Bay:- https://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/appropriateassessments/donegal/AppropAssessBallynessBayReport040319.pdf

If you require anything further please do not hesitate to contact me.

Yours sincerely

Geraldine Farrell
Aquaculture & Foreshore Management Division
National Seafood Centre
Clogheen, Clonakilty, Co. Cork
Phone: 023 8859519
Email: Geraldine.Farrell@agriculture.gov.ie

Report supporting Appropriate Assessment of Aquaculture in Ballyness Bay SAC

(Site code: 01090)

Marine Institute

Rinville

Oranmore, Co. Galway

Version: February 2019

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 PREFACE

In Ireland, the implementation of Article 6 of the Habitats Directive in relation to aquaculture and fishing projects and plans that occur within designated sites is achieved through sub-Article 6(3) of the Directive. Fisheries not coming under the scope of Article 6.3, i.e. those fisheries not subject to secondary licencing are subject to risk assessment. Identified risks to designated features can then be mitigated and deterioration of such features can be avoided as envisaged by sub-article 6.2.

The Habitats Directive is transposed in Ireland in the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011). Appropriate assessments (AA) of aquaculture are carried out against the Conservation Objectives, and more specifically on the version of the Conservation Objectives that are available at the time of the Assessment, for designated ecological features, within the site, as defined by the National Parks and Wildlife Service (NPWS). NPWS are the competent authority for the management of Natura 2000 sites in Ireland. Obviously, aquaculture and fishing operations existed in coastal areas prior to the designation of such areas under the Directives. Ireland is thereby assessing both existing and proposed aquaculture and fishing activities in such sites. This is an incremental process, as agreed with the EU Commission in 2009, and will eventually cover all fishing and aquaculture activities in all Natura 2000 sites.

In the case of aquaculture, DAFM receives applications to undertake such activity and submits a set of applications, at a defined point in time, for assessment. The FNPs and aquaculture applications are then subject to AA. If the AA or the RA process finds that the possibility of significant effects cannot be discounted or that there is a likelihood of negative consequence for designated features then such activities will need to be mitigated further if they are to continue. The assessments are not explicit on how this mitigation should be achieved but rather indicate whether mitigation is required or not and what results should be achieved.

2 EXECUTIVE SUMMARY

2.1 THE SAC

Ballyness Bay SAC (Site code: 001090) is a shallow estuarine complex, with extensive areas of sandflats which are exposed at low tide. It is located between Tramore Bay and Inishbofin Bay on the northwest coast of Co. Donegal.

The SAC is designated for the marine habitats Estuaries (1130) and Mudflats and sand flats not covered by seawater at low tide (1140) which support a variety of soft sedimentary communities and community complexes. The site is also designated for a variety of coastal sand dune habitats. Conservation Objectives for marine habitats and constituent communities (within Ballyness Bay SAC) were identified by NPWS (2014a) and relate primarily to the requirement to maintain habitat distribution, structure and function, as defined by characterising (dominant) species.

2.2 ACTIVITIES IN THE SAC

There are currently no licenced aquaculture operations in Ballyness Bay SAC. There are 20 applications for intertidal Pacific oyster production using the bag and trestle method and the culture of clams on the seabed intertidally. The profile of the aquaculture industry in the SAC, used in this assessment, was prepared by BIM and is derived from the list of licence applications received by DAFM and provided to the MI for assessment in August 2018.

2.3 THE APPROPRIATE ASSESSMENT PROCESS

The function of an appropriate assessment is to determine if the ongoing and proposed aquaculture activities are consistent with the Conservation Objectives for the Natura site or if such activities will lead to deterioration in the attributes of the habitats and species over time and in relation to the scale, frequency and intensity of the activities. NPWS (2014a) provide guidance on interpretation of the Conservation Objectives which are, in effect, management targets for habitats and species in the SAC. This guidance is scaled relative to the anticipated sensitivity of habitats and species to disturbance by the proposed activities. Some activities are deemed to be wholly inconsistent with long term maintenance of certain sensitive habitats while other habitats can tolerate a range of activities. For the practical purpose of management of sedimentary habitats, a 15% threshold of overlap between a disturbing activity and a habitat is given in the NPWS guidance (NPWS 2014b). Below this threshold disturbance is deemed to be non-significant. Disturbance is defined as that which leads to a change in the characterizing species of the habitat (which may also indicate change in structure and function). Such disturbance may be temporary or persistent in the sense that change in characterizing species may recover to pre-disturbed state or may persist and accumulate over time.

The appropriate assessment process is divided into a number of stages consisting of a preliminary risk identification, and subsequent assessment (allied with mitigation measures, if necessary) which are covered in this report. The first stage of the process is an initial screening wherein activities which are deemed not to have any impact on the conservation features, because they do not spatially overlap with a given habitat or have a clear pathway for interaction are excluded from further consideration. The next phase is the Natura Impact Statement (NIS) where interactions (or risk of) areidentified. Further to this, an assessment on the significance of the likely interactions between activities and

conservation features is conducted. Mitigation measures (if necessary) will be introduced in situations where the risk of significant disturbance is identified. In situations where there is no obvious mitigation to reduce the risk of significant impact, it is advised that caution should be applied in licencing decisions. Overall the Appropriate Assessment is both the process and the assessment undertaken by the competent authority to effectively validate this report and/or NIS. It is important to note that the screening process is considered conservative in that activities which may overlap with habitats but which may have very benign effects are retained for full assessment.

2.4 DATA SUPPORTS

Distribution of habitats and species population data are provided by NPWS[1]. 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. The profile of aquaculture activities was provided by BIM. The data supporting the assessment of individual activities vary and provides for varying degrees of confidence in the findings.

2.5 FINDINGS

Aquaculture and Habitats/Species:

In the Ballyness Bay SAC there are 20 new applications for intertidal shellfish culture. The likely interaction between aquaculture activity and conservation features (habitats and species) of the site was considered.

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].

Furthermore, all proposed aquaculture application sites do not overlap with the Annex I habitat Estuaries [1130] and this habitat was also excluded from further analysis (Table 2.1).

[1] NPWS Geodatabase Ver: September 2015 - http://www.npws.ie/mapsanddata/habitatspeciesdata/

Table 2-1 - Community types recorded in Ballyness Bay SAC and the Annex I habitats of (1130) Estuaries and (1140) Mudflats and sandflats not covered by seawater at low tide that overlap with overlap with proposed aquaculture activities

Feature	Community Type	Overlap with intertidal aquaculture activities
Estuaries (1130)	Coarse sediment to sandy mud with oligochaetes and polychaetes community complex	N/A
	Mobile sand community complex	N/A
Mudflats and sandflats not covered by seawater at low tide (1140)	Coarse sediment to sandy mud with oligochaetes and polychaetes community complex	✓
	Mobile sand community complex	✓
Fixed coastal dunes with herbaceous vegetation (grey dunes) (2130)	**N/A**	✓

2.5.1 Habitats

An initial screening exercise resulted in the following habitat features and species being excluded from further consideration by virtue of the fact that no spatial overlap of the culture activities was expected to occur; Embryonic shifting dunes [2110], Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120], Humid dune slacks [2190] and *Vertigo geyeri* (Geyer's Whorl Snail) [1013]. Furthermore, none of the proposed aquaculture applications overlap with the Annex I habitat Estuaries [1130] and this was also excluded from further analysis.

A full assessment was carried out on the likely interactions between proposed culture operations and the feature Annex 1 habitat 1140 Mudflats and sandflats not covered by seawater at low tide. The likely effects of the aquaculture activities (species, structures, access routes) were considered in light of the sensitivity of constituent habitats and species of the Annex 1 habitat 1140. Annex I 1140 constituent communities considered include Coarse sediment to sandy mud with oligochaetes and polychaetes community complex and Mobile sand community complex.

Based upon the scale of spatial overlap of proposed intertidal oyster aquaculture activities (including access route activity) and the relatively high tolerance levels of the habitats and associated species, the general conclusion is that proposed intertidal culture activities are non-disturbing to the Qualifying Interests 1130 and 1140 and their constituent community types.

However, 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.

2.5.2 Species

The likely interactions between the proposed aquaculture activities and the following Annex II Species were assessed; Grey seal *Halichoerus grypus* [1364] and Otter (*Lutra lutra* [1355]). The wider objectives for these species focus upon maintaining the good conservation status of populations. The main aspect of the culture activities that could potentially impact these species relates to disturbance by human movements and activities at the sites. Given the locations and timings of the proposed activities (i.e. daytime) it is concluded that activities would be non-disturbing to otter, but the risk posed to seal species cannot be entirely discounted.

2.5.3 Recommendations

Notwithstanding the conclusions noted above in relation to Annex 1 habitat 1140, it should be noted that the nature of the community type, Mobile sand community complex is such that there are likely to be locations where the sediments are extremely mobile (and soft) thus making them unsuitable for aquaculture operations. It is recommended, prior to making a decision to licence, that these areas be clearly identified with the Bay.

The report highlights risks to coastal habitat [2130] features if the activities proposed are licenced in full. More specifically, the risk arises from the additional traffic likely to occur on existing tracks as a result of the need to access the sites. It is recommended 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. Alternatively, the re-routing of access routes to avoid overlap with habitat feature 2130 might be considered?

In relation to interactions between aquaculture operations and seal use of the site, the risk of disturbance cannot be discounted. It is important to note that the site, to date, has had very little aquaculture operations and therefore, the seals will have little opportunity to habituate to the activities. Also of note, where there is no specific barrier to access (e.g. tidal channel), the seals are more likely to be disturbed. Based upon local observations it appears that the seals are faithful to this one identified haul out location. Therefore, careful consideration should be given to licencing the site which shares the sandbank with the observed seal haul out.

3 INTRODUCTION

This document assesses the potential ecological interactions of aquaculture activities within the Ballyness Bay SAC (Site code: 001090) on the Conservation Objectives of the site. The information upon which this assessment is based is a list of applications and extant licences for aquaculture activities administered by the Department of Agriculture Food and Marine (DAFM) and forwarded to the Marine Institute; as well as aquaculture and fishery profiling information provided on behalf of the operators by Bord Iascaigh Mara. The spatial extent of aquaculture licences is derived from a database managed by the DAFM[2].

4 CONSERVATION OBJECTIVES FOR BALLYNESS BAY SAC

The appropriate assessment of aquaculture and fisheries in relation to the Conservation Objectives for Ballyness Bay SAC is based on Version 1.0 of the objectives (NPWS 2014a – Version 1 14 May 2014) and supporting documentation (NPWS 2014b - Version 1 April 2014, NPWS 2014c - Version 1 March 2014). The spatial data for conservation features was provided by NPWS[3].

4.1 THE SAC EXTENT

Ballyness Bay is situated in north-west Donegal adjacent to the towns of Gortahork and Falcarragh. The underlying geology is mostly pelites, with some smaller areas of limestone and quartzite. This is mostly covered by windblown sand and peat. Ballyness Bay is a large and very shallow estuarine complex, with extensive areas of sandflats which are exposed at low tide. The full extent of the SAC is shown in **Figure 4.1** below.

4.2 QUALIFYING INTERESTS (SAC)

The SAC is designated for the following habitats and species (NPWS 2014a), as listed in Annex I and Annex II of the Habitats Directive:

- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Embryonic shifting dunes [2110]
- Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]
- Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]
- Humid dune slacks [2190]
- *Vertigo geyeri* (Geyer's Whorl Snail) [1013]

[2] DAFM Aquaculture Database version Aquaculture: May, 2015
[3] NPWS Geodatabase Ver: June 2015 - http://www.npws.ie/mapsanddata/habitatspeciesdata/

The spatial extent of the Annex 1 Qualifying Interests Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130], Estuaries (1130) and Mudflats and sandflats not covered by seawater at low tide (1140) are illustrated in **Figure 4.2, Figure 4.3 and Figure 4.4,** respectively (from NPWS 2014b).

Constituent communities and community complexes recorded within the Annex 1 marine habitats of (1130) Estuaries and (1140) Mudflats and sandflats not covered by seawater at low tide are listed in NPWS (2014b), presented in **Table 4.1** below and illustrated in **Figure 4.5**.

Table 4-1 - The community types recorded in Ballyness Bay SAC and the Annex I marine habitats in which they occur (NPWS 2014b).

Community Type	Annex I Habitats	
	Estuaries (1130)	Mudflats and sandflats not covered by seawater at low tide (1140)
Coarse sediment to sandy mud with oligochaetes and polychaetes community complex	✓	✓
Mobile sand community complex	✓	✓

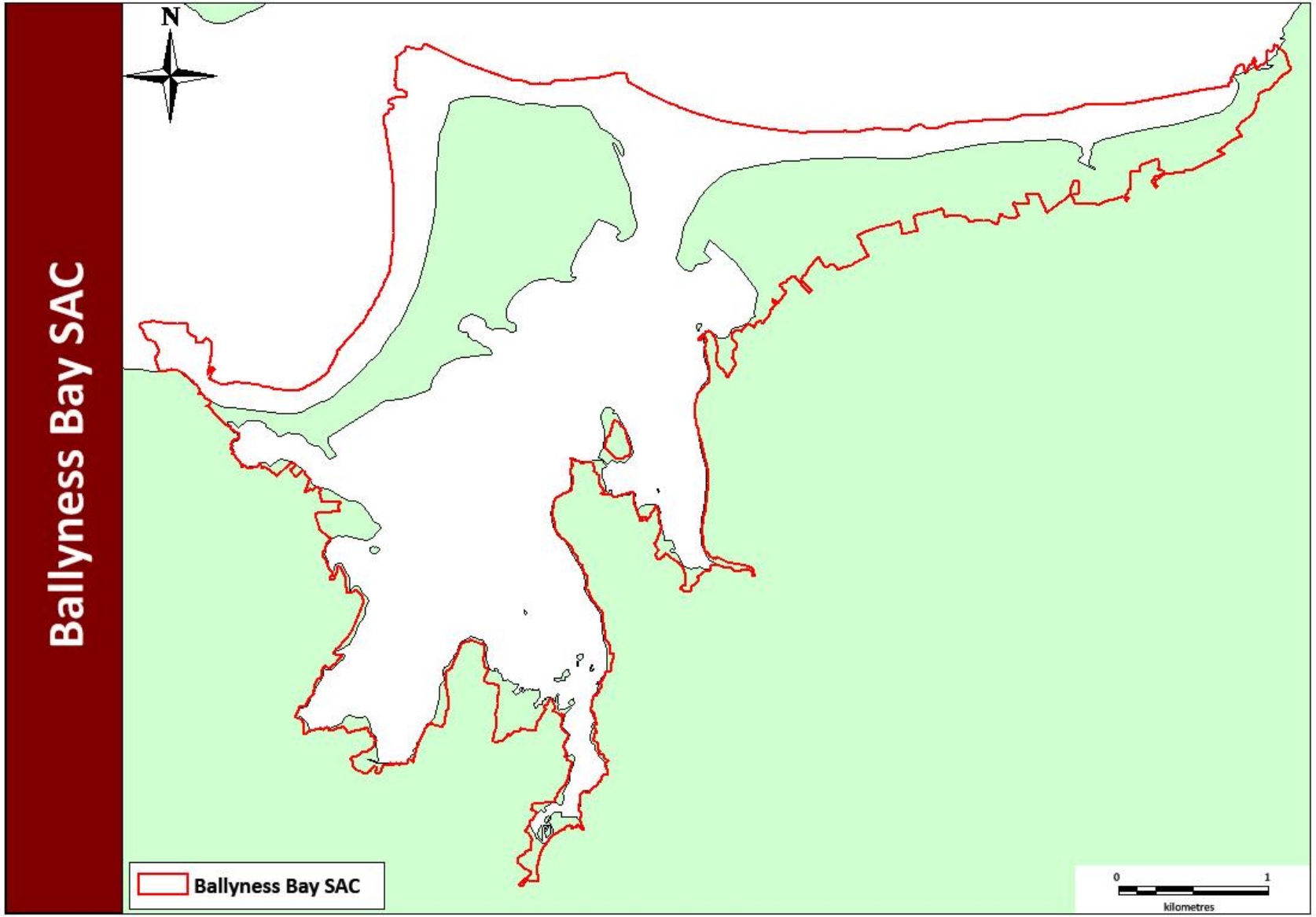

Figure 4-1- The extent of the Ballyness Bay SAC (NPWS 2014b).

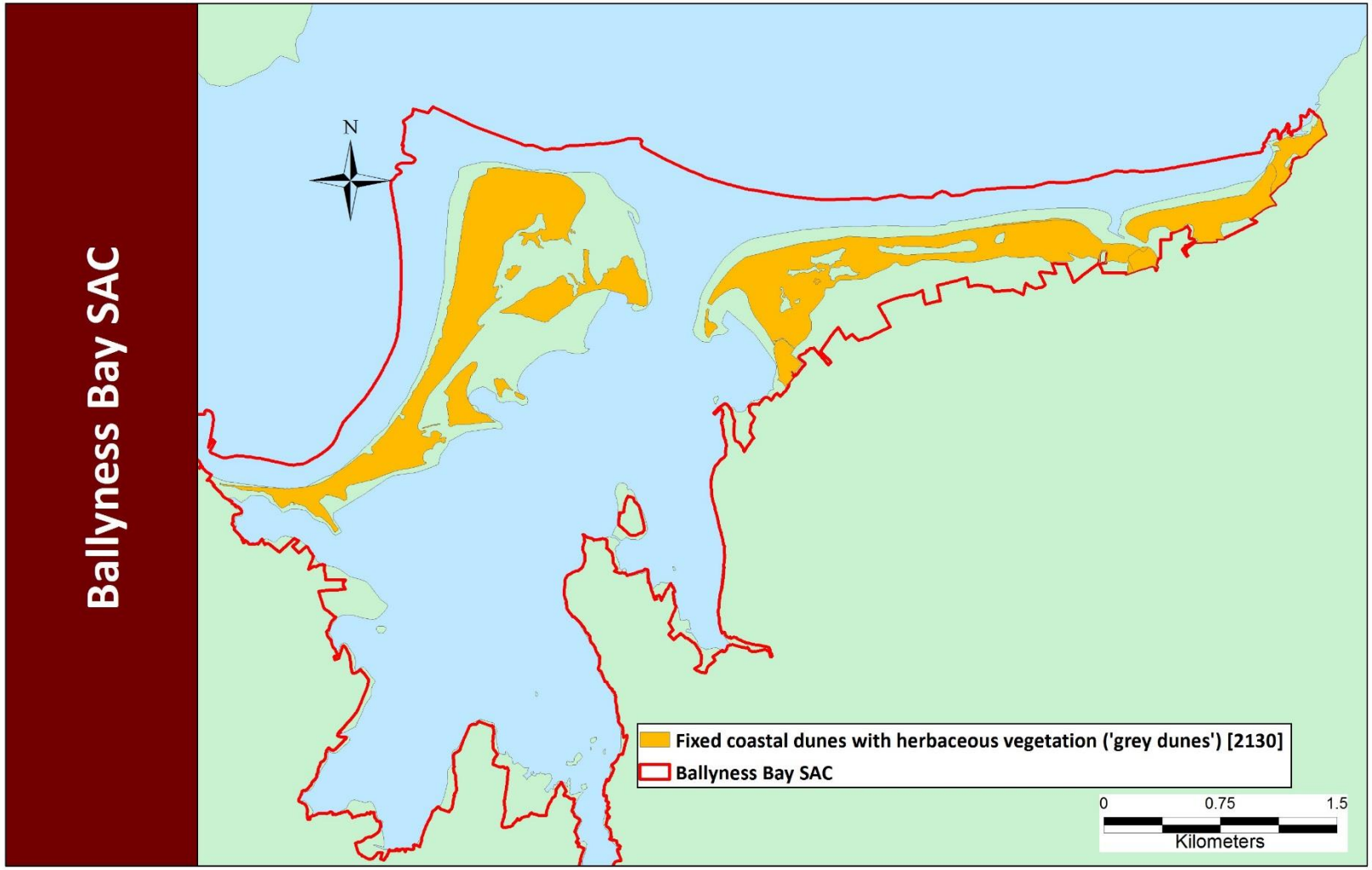

Figure 4-2: The extent of the coastal Annex I Qualifying Interest of (2130) Fixed coastal dunes with herbaceous vegetation (grey dunes) within the Ballyness Bay SAC (NPWS 2014b).

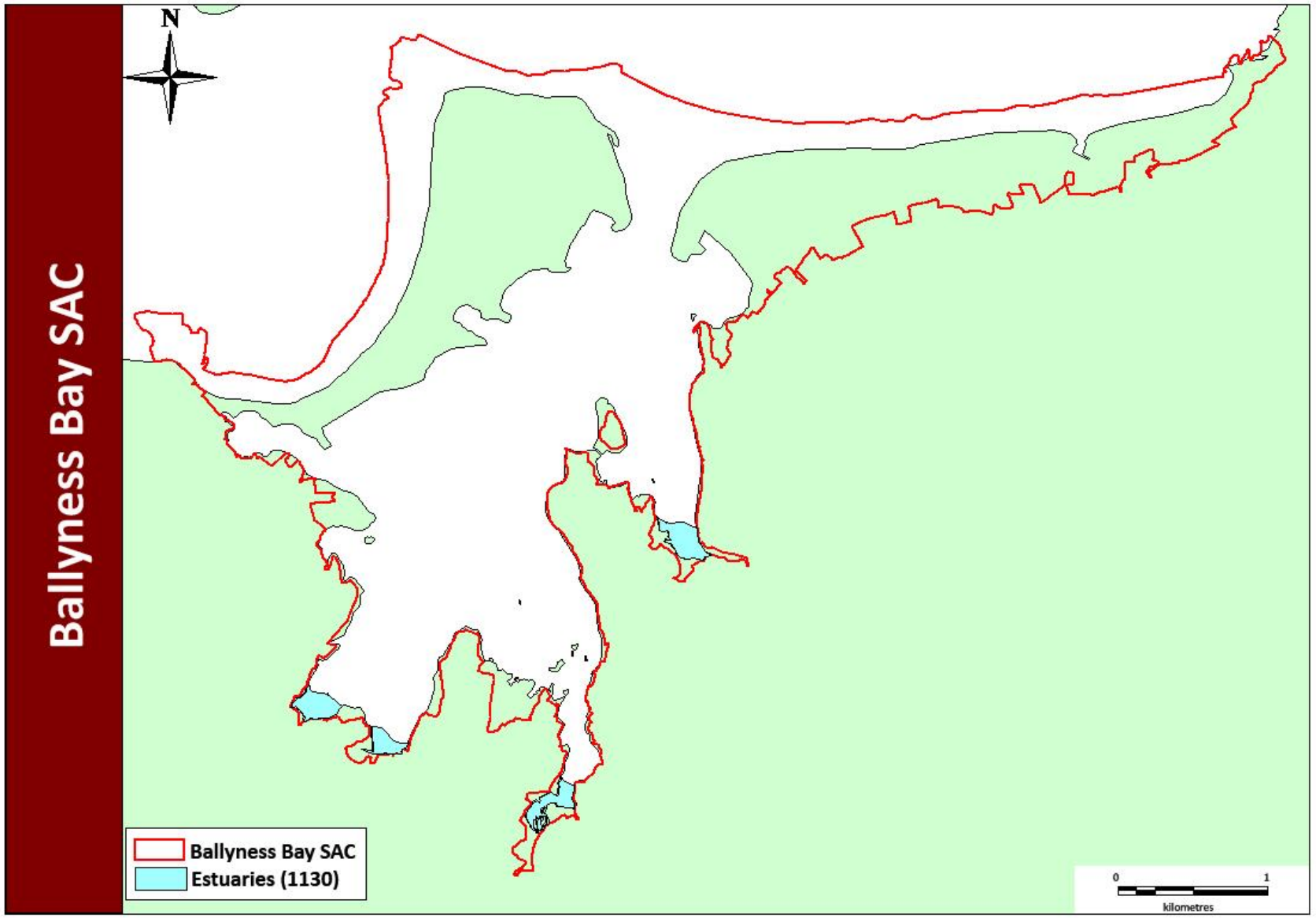

Figure 4-3 - The extent of the marine Annex I Qualifying Interest of (1130) Estuaries within the Ballyness Bay SAC (NPWS 2014b).

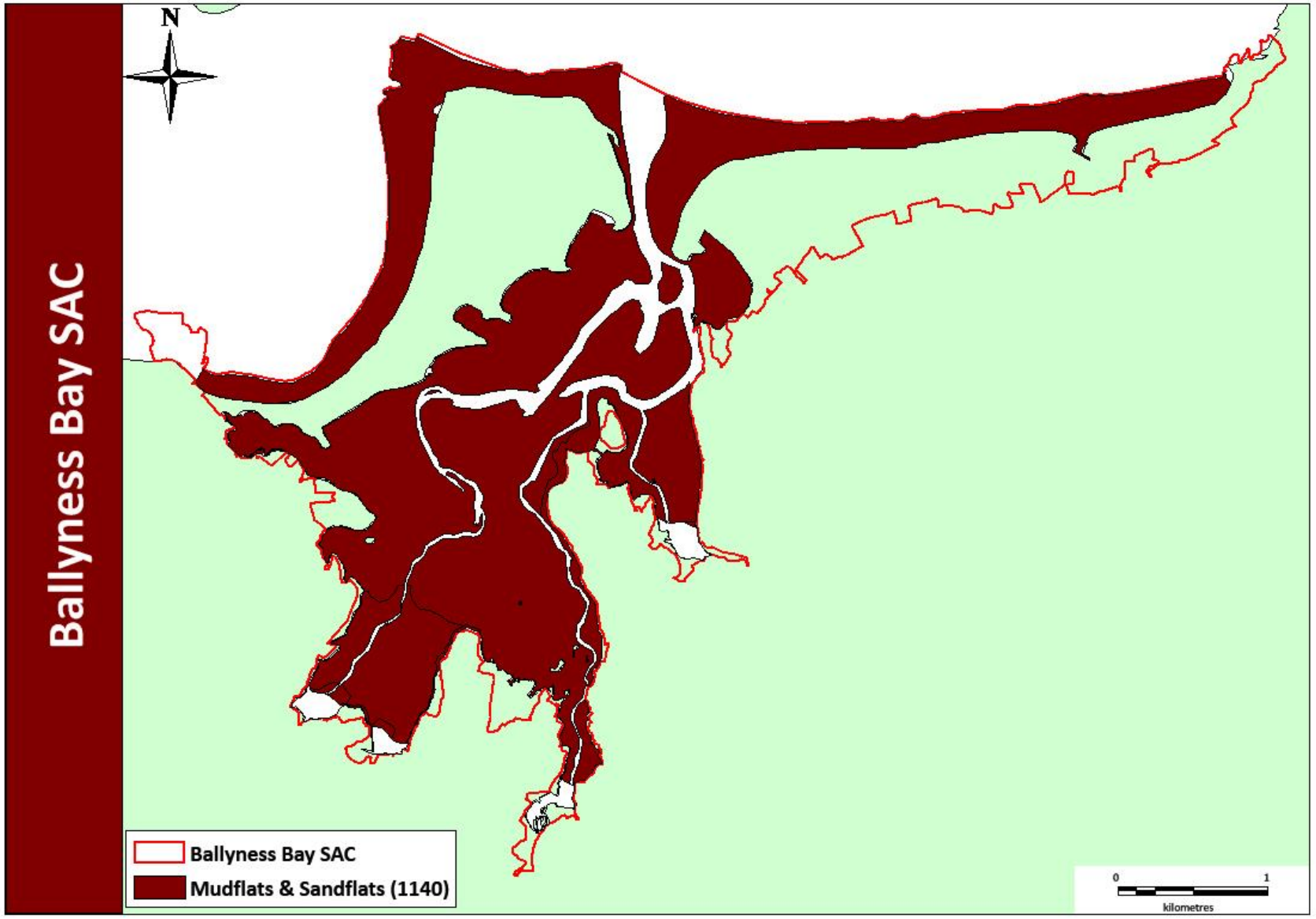

Figure 4-4 - The extent of the marine Annex I Qualifying Interest of (1140) Mudflats and sandflats not covered by seawater at low tide within the Ballyness Bay SAC (NPWS 2014b).

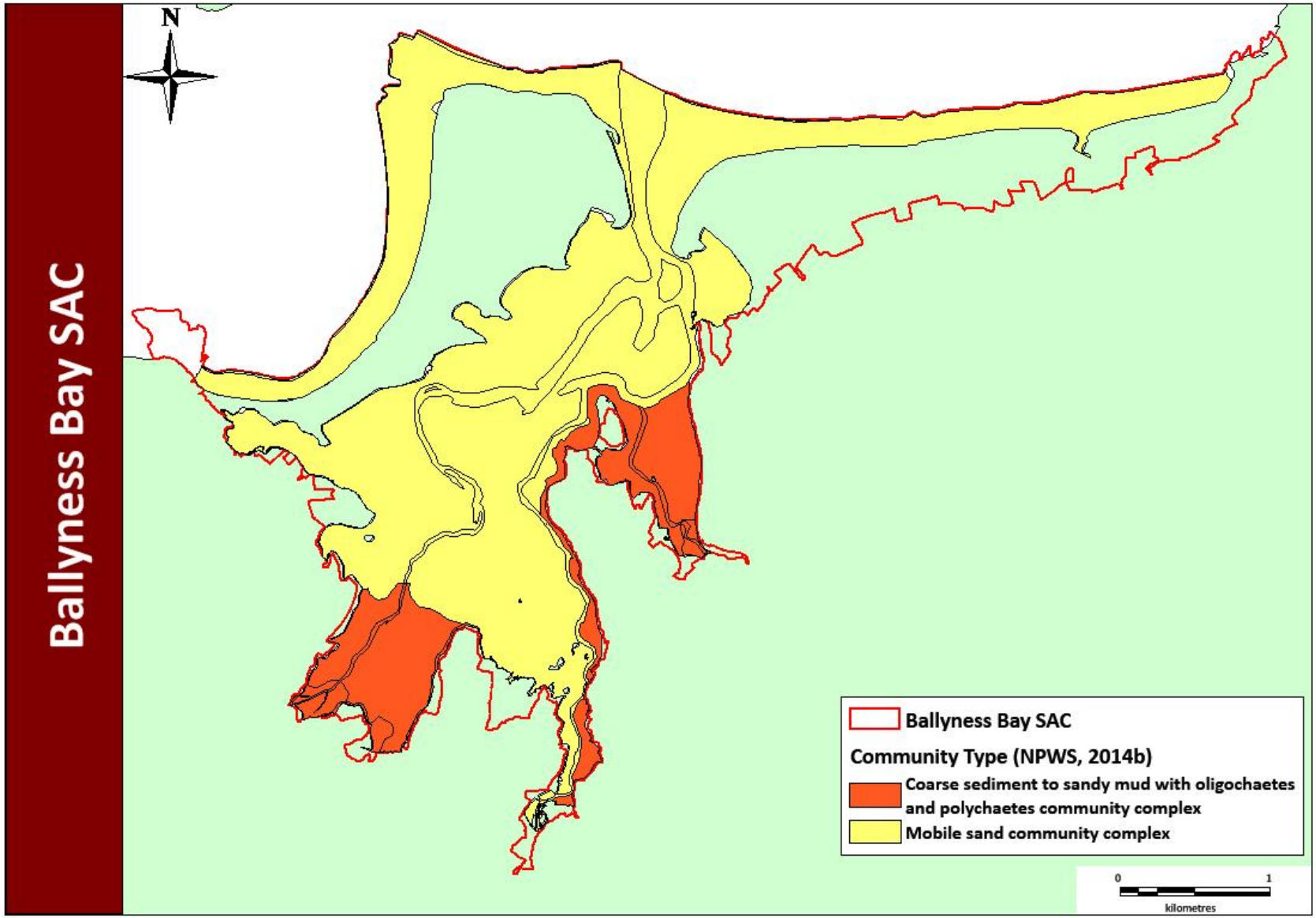

Figure 4-5 - Principal benthic communities recorded within the marine Annex I Qualifying Interests of (1130) Estuaries and (1140) Mudflats and sandflats not covered by seawater at low tide within the Ballyness Bay SAC (NPWS 2014b).

4.3 CONSERVATION OBJECTIVES FOR BALLYNESS BAY SAC

The Conservation Objectives for the Qualifying Interests for the SAC were prepared by NPWS (NPWS 2014a). The natural condition of the designated features should be preserved with respect to their area, distribution, and extent and community distribution. Habitat availability should be maintained for designated species and human disturbance should not adversely affect such species. The features, objectives and targets of each of the Qualifying Interests within the SAC are listed in **Table 4.2** below.

Table 4-2- Conservation Objectives and targets for marine habitats in Ballyness Bay SAC (NPWS 2014a, 2014b). Annex I features listed in **bold**.

Feature (Community Type)	Objective	Target(s)
Estuaries (1130)	Maintain favourable conservation condition	15.96ha: Targets are identified that focus on a wide range of attributes with the ultimate goal of maintaining function and diversity of favourable species and managing levels of negative species
(Coarse sediment to sandy mud with oligochaetes and polychaetes community complex)	Maintain favourable conservation condition	12ha; Likely area derived from Intertidal Surveys undertaken in 2006 and 2011. Along with a subtidal survey undertaken in 2011.
(Mobile sand community complex)	Maintain favourable conservation condition	3ha; Likely area derived from Intertidal Surveys undertaken in 2006 and 2011. Along with a subtidal survey undertaken in 2011.
Mudflats and sandflats not covered by seawater at low tide (1140)	Maintain favourable conservation condition	691.81ha: Targets are identified that focus on a wide range of attributes with the ultimate goal of maintaining function and diversity of favourable species and managing levels of negative species
(Coarse sediment to sandy mud with oligochaetes and polychaetes community complex)	Maintain favourable conservation condition	120ha; Likely area derived from Intertidal Surveys undertaken in 2006 and 2011. Along with a subtidal survey undertaken in 2011.
(Mobile sand community complex)	Maintain favourable conservation condition	570ha; Likely area derived from Intertidal Surveys undertaken in 2006 and 2011. Along with a subtidal survey undertaken in 2011.
Embryonic shifting dunes (2110)	Maintain favourable conservation condition	7.07ha; Targets are identified that focus on a wide range of attributes with the ultimate goal of maintaining function and diversity of favourable species and

Feature (Community Type)	Objective	Target(s)
		managing levels of negative species
Shifting dunes along the shoreline with Ammophila arenaria (white dunes) (2120)	Maintain favourable conservation condition	23.13ha; Targets are identified that focus on a wide range of attributes with the ultimate goal of maintaining function and diversity of favourable species and managing levels of negative species
Fixed coastal dunes with herbaceous vegetation (grey dunes) (2130)	Restore favourable conservation condition	187.99ha; Targets are identified that focus on a wide range of attributes with the ultimate goal of maintaining function and diversity of favourable species and managing levels of negative species
Humid dune slacks (2190)	Maintain favourable conservation condition	13.87ha; Targets are identified that focus on a wide range of attributes with the ultimate goal of maintaining function and diversity of favourable species and managing levels of negative species
***Vertigo geyeri* (Geyer's Whorl Snail) (1013)**	Maintain favourable conservation condition	Targets include: No decline in numbers. There is one known site for this species in this SAC, Adult or sub-adult snails are present in at least two of the four samples taken from optimal or suboptimal habitat on the transect, At least two samples on the transect should have more than 20 individuals, 17m of habitat along the first 45m of the transect is classed as optimal and at least 34m is classed as optimal or sub-optimal habitat, Soils, at time of sampling, are saturated (optimal wetness) for at least 24m of the first 45m of the transect and 0.4-0.5ha of the site optimal and sub-optimal habitat mosaic.

4.4 SCREENING OF ADJACENT NATURA SITES FOR EX-SITU EFFECTS

In addition to the Ballyness Bay SAC there are four other SAC sites proximate to the proposed activities (**Figure 4.6**) including Horn Head and Rinclevan SAC (000147), Gweedore Bay and Islands SAC (001141) and the Tory Island Coast SAC (002259). In addition, there are 7 SPA sites in the vicinity of Ballyness Bay SAC (**Figure 4.7**). The characteristic features of all of these sites are identified in **Table 4.3** where a preliminary screening is carried out on the likely interaction with aquaculture activities based primarily upon the likelihood of spatial overlap.

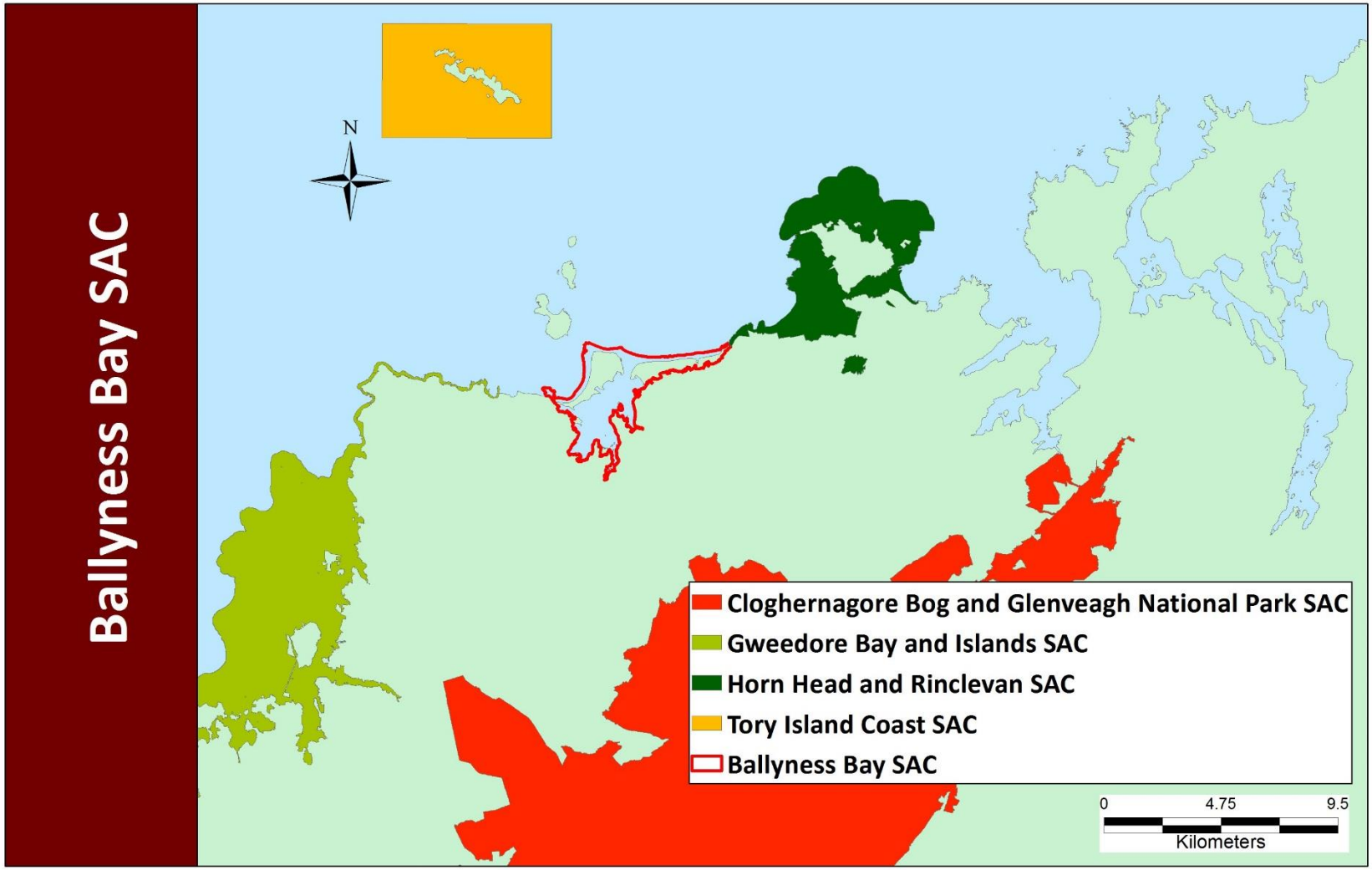

Figure 4-6 – SACs adjacent to the Ballyness Bay SAC (001090)

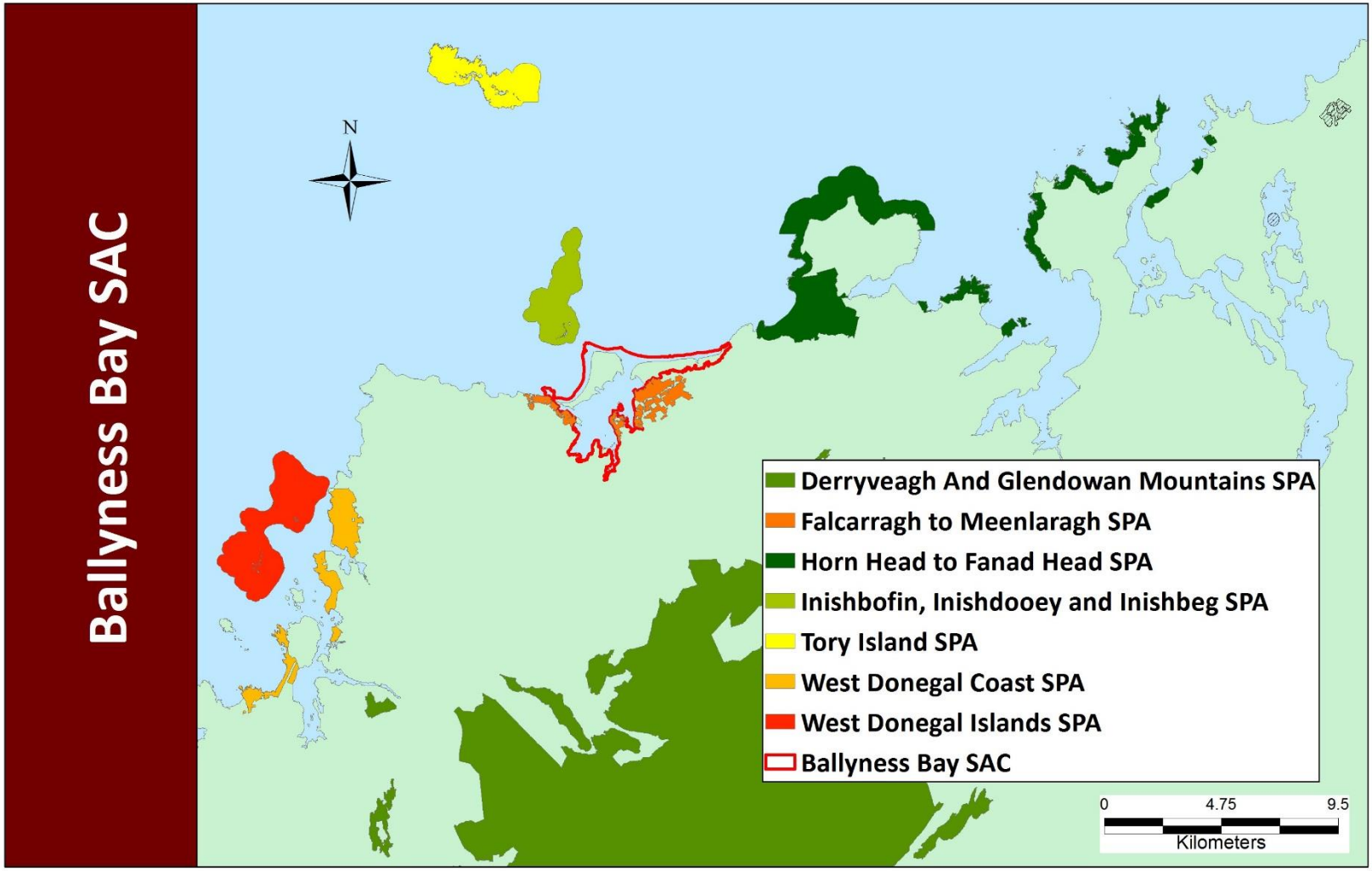

Figure 4-7 – SPAs adjacent to Ballyness Bay SAC (001090)

Table 4-3 - Natura sites adjacent to (in the vicinity of) the Ballyness Bay SAC and Qualifying Features with initial screening assessment on likely interactions with aquaculture activities.

Natura site (Site code)	Qualifying features (habitat/species code)	Aquaculture initial screening
Horn Head and Rinclevan SAC (IE000147)	Embryonic shifting dunes [2110]	No spatial overlap or likely interaction with aquaculture activities within the Ballyness Bay SAC – excluded from further analysis.
	Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]	
	Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	
	Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*) [2170]	
	Humid dune slacks [2190]	
	Machairs (* in Ireland) [21A0]	
	Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130]	
	Vertigo geyeri (Geyer's Whorl Snail) [1013]	
	Halichoerus grypus (Grey Seal) [1364]	**Horn Head and Rinclevan is adjacent to the Ballyness Bay SAC. Grey seal may migrate into the Ballyness Bay SAC and could interact with aquaculture activities – carry forward to Section 8.5.**
	Petalophyllum ralfsii (Petalwort) [1395]	No spatial overlap or likely interaction with aquaculture activities within the Ballyness Bay SAC – excluded from further analysis.
	Najas flexilis (Slender Naiad) [1833]	
Gweedore Bay & Islands SAC (001141)	Coastal Lagoons (1150)*	No spatial overlap or likely interaction with aquaculture activities within the Ballyness Bay SAC – excluded from further analysis.
	Reefs (1170)	
	Perennial vegetation of stony banks [1220]	
	Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330]	
	Mediterranean salt meadows (*Juncetalia maritimi*) [1410]	
	Embryonic shifting dunes [2110]	

Natura site (Site code)	Qualifying features (habitat/species code)	Aquaculture initial screening
	Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]	No spatial overlap or likely interaction with aquaculture activities within the Ballyness Bay SAC – excluded from further analysis.
	Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	
	Decalcified fixed dunes with *Empetrum nigrum [2140]*	
	Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) [2150]	
	Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*) [2170]	
	Humid dune slacks [2190]	
	Machairs (* in Ireland) [21A0]	
	Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130]	
	European dry heaths [4030]	
	Alpine and Boreal heaths [4060]	
	Juniperus communis formations on heaths or calcareous grasslands [5130]	
	Euphydryas aurinia (Marsh Fritillary) [1065]	
	Petalophyllum ralfsii (Petalwort) [1395]	
	Najas flexilis (Slender Naiad) [1833	
	Lutra lutra (Otter) [1355]	**Gweedore Bay & Islands SAC at its shortest distance is *c.* 3km from the Ballyness Bay SAC. Otter may migrate into the Ballyness Bay SAC and could interact with aquaculture activities – carry forward to Section 8.4.**

Natura site (Site code)	Qualifying features (habitat/species code)	Aquaculture initial screening
Tory Island Coast SAC (I02259).	Coastal lagoons [1150]	No spatial overlap or likely interaction with aquaculture activities within the Ballyness Bay SAC – excluded from further analysis.
	Reefs [1170]	
	Perennial vegetation of stony banks [1220]	
	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	
	Submerged or partially submerged sea caves [8330]	
Cloghernagore Bog and Glenveagh National Park SAC (02047)	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]	No spatial overlap or likely interaction with aquaculture activities within the Ballyness Bay SAC – excluded from further analysis.
	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]	
	Northern Atlantic wet heaths with Erica tetralix [4010]	
	European dry heaths [4030]	
	Alpine and Boreal heaths [4060]	
	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]	
	Blanket bogs (* if active bog) [7130]	
	Depressions on peat substrates of the Rhynchosporion [7150]	
	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	
	Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	
	Salmo salar (Salmon) [1106]	
	Lutra lutra (Otter) [1355]	
	Trichomanes speciosum (Killarney Fern) [1421]	

Horn Head to Fanad Head SPA (04194)	Fulmar (*Fulmarus glacialis*) [A009] Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis*) [A018] Barnacle Goose (*Branta leucopsis*) [A045] Peregrine (*Falco peregrinus*) [A103] Kittiwake (*Rissa tridactyla*) [A188] Guillemot (*Uria aalge*) [A199] Razorbill (*Alca torda*) [A200] Chough (*Pyrrhocorax pyrrhocorax*) [A346] Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]	No spatial overlap or likely detrimental interactions of conservation features with aquaculture activities in Ballyness Bay SAC – excluded from further analysis
Falcarragh to Meenlaragh SPA (04149)	Corncrake (Crex crex) [A122]	No spatial overlap of Corncrake habitat or likely interactions with aquaculture activities in Ballyness Bay SAC – excluded from further analysis
Inishbofin, Inishdooey and Inishbeg SPA (04083)	Barnacle Goose (*Branta leucopsis*) [A045] Corncrake (*Crex crex*) [A122] Common Gull (*Larus canus*) [A182] Lesser Black-backed Gull (*Larus fuscus*) [A183] Arctic Tern (*Sterna paradisaea*) [A194]	No spatial overlap or likely detrimental interactions of conservation features with aquaculture activities in Ballyness Bay SAC – excluded from further analysis
Derryveagh and Glendowan Mountains SPA (004039)	Red-throated Diver (Gavia stellata) [A001] Merlin (Falco columbarius) [A098] Peregrine (Falco peregrinus) [A103] Golden Plover (Pluvialis apricaria) [A140] Dunlin (Calidris alpina schinzii) [A466]	No spatial overlap or likely detrimental interactions of conservation features with aquaculture activities in Ballyness Bay SAC – excluded from further analysis
Tory Island SPA (4073)	Fulmar (Fulmarus glacialis) [A009] Corncrake (Crex crex) [A122] Razorbill (Alca torda) [A200] Puffin (Fratercula arctica) [A204]	No spatial overlap or likely detrimental interactions of conservation features with aquaculture activities in Ballyness Bay SAC – excluded from further analysis

West Donegal SPA (004150)	Fulmar (Fulmarus glacialis) Cormorant (Phalacrocorax carbo) Shag (Phalacrocorax aristotelis Peregrine (Falco peregrinus) Herring Gull (Larus argentatus) Kittiwake (Rissa tridactyla) Razorbill (Alca torda) Chough (Pyrrhocorax pyrrhocorax)	No spatial overlap or likely detrimental interactions of conservation features with aquaculture activities in Ballyness Bay SAC – excluded from further analysis
West Donegal Coast SPA (4150)	Fulmar (Fulmarus glacialis) [A009] Cormorant (Phalacrocorax carbo) [A017] Shag (Phalacrocorax aristotelis) [A018] Peregrine (Falco peregrinus) [A103] Herring Gull (Larus argentatus) [A184] Kittiwake (Rissa tridactyla) [A188] Razorbill (Alca torda) [A200] Chough (Pyrrhocorax pyrrhocorax) [A346	No spatial overlap or likely detrimental interactions of conservation features with aquaculture activities in Ballyness Bay SAC – excluded from further analysis

5 DETAILS OF THE PROPOSED PLANS AND PROJECTS

5.1 DESCRIPTION OF AQUACULTURE ACTIVITIES

There are no aquaculture activities in Ballyness Bay SAC. There are currently 14 applications for Pacific oyster production using the bag and trestle method only with an additional 5 applications to culture oysters (on trestles) in addition to clams under netting on the seabed in the intertidal zone. . There is a single application to culture clams (only). 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. Descriptions of spatial extents of proposed intertidal aquaculture activities (provided below) within the Qualifying Interest were calculated using coordinates of activity areas in a GIS (**Figure 5.1**). The spatial extent of the proposed cultivation activities overlapping the Qualifying Interests of (1130) Estuaries and (1140) Mudflats and sandflats not covered by seawater at low tide are presented in **Table 5.1** and **Table 5.2**, while **Table 7.1** and **Table 7.2** presents spatial overlap on constituent communities of the Qualifying Interests of 1130 and 1140.

There is currently no aquaculture activity in Ballyness Bay SAC. There were two operators in 1990's that held licenses for oyster farming, but these operations are now ceased and licenses no longer valid.

5.1.1 Intertidal Clam Culture

Clam farming

It is proposed to culture the Manila Clam (*Ruditapes philippinarum*) on-bottom at six sites in intertidal areas. The seed is usually obtained in spring, April. Seed likely to be sourced from hatcheries in France or Lissadell hatchery Co. Sligo at size 8mm – 12mm and grown in trays and bags for one year after which time they are sown on intertidal ground under mesh. The netting is buried in the ground down around 10 cm and is kept in place with rope that is stapled around the edges with steel hooks. The netting is usually changed once in the cycle when mesh size is also increased. They reach harvestable market size around 3 years. They are sold onto the local and regional retail marketplace and into France.

Harvesting is carried out by tractors with modified dredges (to which sieves are attached).

5.1.2 Intertidal Oyster Cultivation

Proposed Activity

All applicants will use bag and trestle as the method of cultivation and all have identified that they will grow triploid seed in the bay which will sourced from one of the following:

1. Grain Ocean
2. Satmar
3. Guernsey Hatchery and
4. France Nissan

The overlap of proposed intertidal cultivation activities with the Qualifying Interests of 1130 and 1140 is presented in **Table 5.1** below. **Table 7.1** presents spatial overlap on constituent communities of the Qualifying Interests of 1130 and 1140.

5.1.3 Access Routes

There are a number of access routes for the operators in the area to the applied licensed sites. One is from Magheraroarty Pier to the west and one from Ballyness Pier to the east (via tractor and boat), see **Figure 5.1**. There will be tractors and trailers in use, for all applicants. For sites in the centre of the bay access with be from a public road near Ranaghmore Island. It should be noted that for sites on the western side of the bay access will be achieved from Magheraroarty Pier along established sand track that runs through Fixed coastal dunes with herbaceous vegetation (grey dunes) (2130), with a number of points of access to the intertidal sites.

Calculation of area of the access routes in the SAC is linear length (in metres) by a putative route width of 10m, which is considered a sufficiently precautionary estimate, gives a total spatial overlap of 6.81ha. (**Figure 5.1**).

The spatial overlap of access routes on Qualifying Interests 1130 and 1140 and 2130 is presented in **Table 5.2** (while **Table 7.2** presents spatial overlap on constituent communities of Qualifying Interests of 1130 and 1140).

Table 5-1 - Spatial extent (ha) of intertidal aquaculture areas overlapping with the Qualifying Interest of Estuaries [1130] and Mudflats and sandflats not covered by seawater at low tide [1140] in the Ballyness Bay SAC (Site Code 001090). Spatial extent of licenced areas presented according to Qualifying Interest and license status.

Licence Status	Culture Species	Qualifying Interest 1130 (15.87 ha)	Qualifying Interest 1140 (688.5 ha)
		% Overlap (Overlap ha)	% Overlap (Overlap ha)
Application	Oyster	-	4.80% (33.26ha)
Application	Clam and Oyster	-	1.18% (8.1ha)
Application	Clam	-	1.3% (9ha)
Total		**-**	**7.28% (50.36ha)**

Table 5-2 - Spatial extent (ha) of intertidal access routes overlapping with the Qualifying Interest of Estuaries [1130] and Mudflats, sandflats not covered by seawater at low tide [1140] and Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] in the Ballyness Bay SAC (Site Code 001090).

Licence Status	Culture Species	Qualifying Interest 1130 (15.87 ha)	Qualifying Interest 1140 (688.5 ha)	Qualifying Interest 2130 (187.99ha)
		% Overlap (Overlap ha)	% Overlap (Overlap ha)	% Overlap (Overlap ha)
Site Access Routes		-	0.69% (4.76ha)	0.90% (1.7ha)

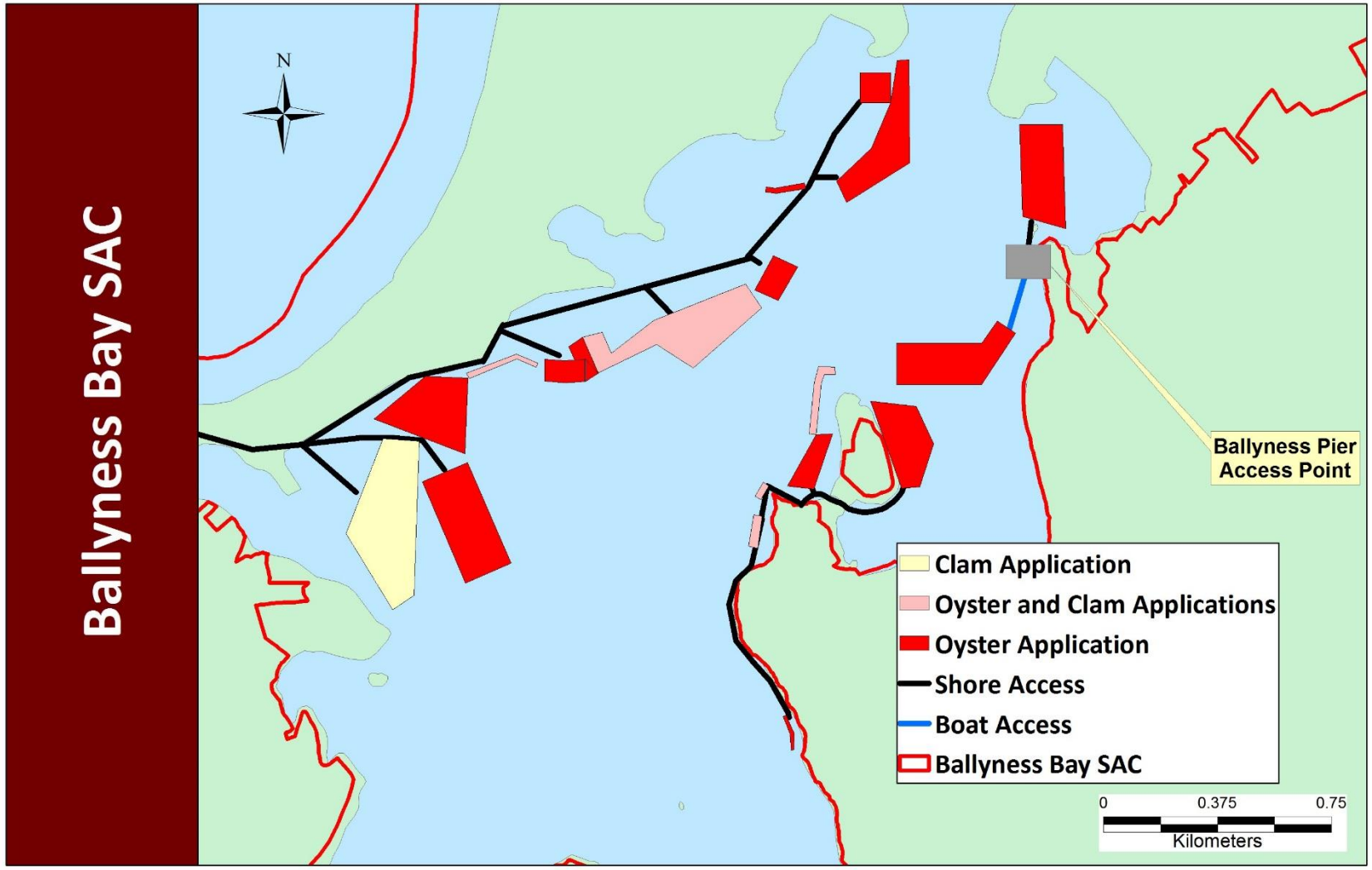

Figure 5-1: Aquaculture sites and proposed access routes in the Ballyness Bay SAC Bay (NPWS, 2014a).

6 NATURA IMPACT STATEMENT FOR THE PROPOSED ACTIVITIES

The potential ecological effects of activities on the Conservation Objectives for the site relate to the physical and biological effects of aquaculture cultivation structures and activities and human activities on designated species, intertidal habitats and invertebrate communities, and biotopes within those broad habitat types. The overall effect on the conservation status will depend on the spatial and temporal extent of fishing and aquaculture activities during the lifetime of the proposed plans and projects and the nature of each of these activities in conjunction with the sensitivity of the receiving environment. Bottom cultivation and harvesting of shellfish can, like fishing, alter the surrounding environment, both physically and biologically, not only due to the presence of the culture organisms (e.g. increased deposition, disease, shading, fouling, alien species) but also due to the activities associated with the culture mechanisms (e.g. structures resulting in current alteration, dredging, sediment compaction), the extraction of commercial and natural populations and the physical effects of dredging.

Aquaculture activities within the SAC will focus on the intertidal (bags and trestle) cultivation of the Pacific oyster, *C. gigas* and on-bottom culture of the Manila clam (*Ruditapes philippinarum*)Details of the potential biological and physical effects of this aquaculture activities on the habitat features, their sources and the mechanism by which the impact may occur are discussed below and summarised in **Table 6.1** below. The impact summaries identified in the table are derived from published primary literature and review documents that have specifically focused upon the environmental interactions of mariculture (e.g. Black 2001; McKindsey *et al.,* 2007; NRC 2010; O'Beirn *et al.,* 2012; Cranford *et al.,* 2012; ABPMer 2013a-h).

6.1 BIOLOGICAL EFFECTS OF AQUACULTURE – ALL CULTURE METHODS:

Oysters, being suspension feeding bivalve molluscs, feed at the lowest trophic level feeding largely as herbivores, relying primarily on ingestion of phytoplankton. Therefore, the culture process does not rely on the input of feedstuffs into the aquatic environment. Suspension feeding bivalves filter suspended matter from the water column and the resulting faeces and pseudofaeces (non-ingested material) are then deposited onto the seafloor, this is known as biodeposition and is a component of a greater process called benthic-pelagic coupling. This deposition can accumulate on the seafloor beneath aquaculture installations (suspended and intertidal culture) and can alter the local sedimentary habitat type in terms of organic content and particle grain size which has, in certain circumstances been shown to alter the infaunal community therein.

Moderate enrichment due to deposition can lead to increased diversity due to increased food availability; however further enrichment can lead to a change in sediment biogeochemistry (e.g. oxygen levels decrease and sulphide levels increase) which can result in a reduction in species richness and abundance resulting in a community dominated by specialist species. In extreme cases of protracted organic enrichment anoxic conditions may occur where no fauna survives and the sediment may become blanketed by a bacterial mat. Changes to the sedimentary habitat due to deposition are indicated by a decrease in oxygen levels, increased sulphide reduction, decrease in REDOX depth and particle size changes.

Several factors can affect the rate of deposition onto the seafloor; these include structure and culture density, site hydrography and site history. Oysters and clams have a "plastic response" to increased levels of suspended matter in the water column and can modify their filtration rate accordingly and thus increase the production of pseudofaeces which results in an increase in transfer of particles to

the seafloor. The degree to which the material disperses away from the footprint of the culture system (e.g. Longlines, BST Longlines, floats, trestles & bags etc.) is governed by the density of oysters/clams on the system, the depth of water and the water currents in the vicinity. It is likely that some overlap in effect will be realised. The duration and extent to which culture has been conducted on site may lead to cumulative impacts on the seabed, especially in areas where assimilation or dispersion of faeces/pseudofaeces is not rapid. A number of features of the site and culture practices will govern the speed at which faeces/pseudofaeces are assimilated or dispersed by the site. These relate to:

- Hydrography (residence time, tidal range, residual flow) govern how quickly the wastes disperse from the culture location and the density at which they will accumulate on the seafloor i.e. the greater the tidal range and residual flow then the greater the rate of dispersion and therefore the risk of accumulation is reduced.

- Turbidity in the water-the higher the water turbidity the greater the production of pseudo-faeces/faeces by the suspension feeding animal ("plastic response") and therefore greater the risk of accumulation on the seafloor.

- Density of structures-high density of culture structures (e.g. Longlines, floats, trestles & bags etc.) can result in the slowing of water currents/impediment of water flow (baffling effect), slow it down and cause localised deposition of material on the seafloor.

- Density of culture-the greater the density organisms the greater the risk of accumulations of material, suspended culture is considered a dense culture method with high densities of culture organisms over a small area. The density of culture organisms is a function of:

    - depth of the site (shallow sites have shorter droppers and hence fewer culture organisms),

    - husbandry practices – proper maintenance will result in optimum densities on the lines as well as ensuring a reduced risk of drop-off of culture animals to the seafloor as well as ensuring a sufficient distance among the longlines to reduce the risk of cumulative impacts in depositional areas.

Seston filtration-All culture methods

Suspension feeding bivalves such as oysters have a large filtration capacity and in confined areas, have been shown to alter the phytoplankton and zooplankton community abundance and structure and therefore potentially impact on the production of an area. This method of feeding may reduce water turbidity hence increasing light penetration, which may increase phytoplankton production and therefore food availability. This increase in light penetration can have positive effects on light sensitive species such as maerl, seagrass and macroalgae.

Shading Suspended culture

The structures associated with suspended culture (e.g. trestles & bags etc.) can prevent light penetration to the seabed and therefore potentially impact on light sensitive species such as maerl, seagrass and macroalgae.

Fouling/Habitat creation-All culture methods

The structures associated with aquaculture, and the culture organisms themselves provide increased habitat for fouling species to colonise and therefore increase diversity; results in increased secondary production and increased nekton production.

Introduction of Non-native species- All culture methods

Movement and introduction of bivalve shellfish can be a vector for the introduction and spread of non-native/alien species. In some instances the introduced species may proliferate rapidly and compete with and in some cases replace the native species. Recruitment of *C. 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.

Another means is the unintentional introduction of non-native species/diseases which are associated with the imported target culture species, and their subsequent spread and establishment. These associated species are referred to as ”hitch-hikers” and include animals and plants and/or parasites and diseases that potentially could cause outbreaks within the culture species or spread to other local species.

The introduction and establishment of non-native species can result in loss of native biodiversity due to increased competition for food and habitat and also predation and/or disease.

Disease risk-All culture methods

Due to the nature of the culture methods the risk of transmission of disease from cultured to wild stocks is high, e.g. the introduction of the parasitic protozoan *Bonamia ostreae*, which has caused the mass mortality within Irish native Oyster Beds. This risk can be limited by compiling a bio security plan, screening all introduced stock prior to transferring to on growing site and also good animal husbandry. Disease risk associated with movement of shellfish is governed by Fish Health legislation on the movement of shellfish stocks into and out of culture areas and will not be considered further in this assessment.

Nutrient Exchange - All culture methods

By their suspension feeding nature, removing particulate matter from the water column and releasing nutrients in solid and dissolved forms, bivalves influence benthic-pelagic coupling of organic matter and nutrients. Intensive bivalve culture can cause changes in ammonium and dissolved inorganic nitrogen resulting in increased primary production. The removal of nitrogen from the system is caused by both removal via harvest or denitrification at sediment surface.

6.2 PHYSICAL EFFECTS OF AQUACULTURE

Current alteration-Suspended culture

The structures used in aquaculture (e.g. Longlines, floats, trestles & bags etc.) can alter the hydrodynamics of an area i.e. increase/decrease water flow, this is known as the "Baffling effect". An increase in water flow will result in scouring of the seafloor leading to an increase in coarse sediment while a decrease in current flow will result in an increase in the amount of fine particles being deposited. Both result in a change in the sedimentary habitat structure and therefore can lead to change in the composition of the benthic infaunal community.

Surface disturbance-All culture methods

All aquaculture activities physically alter the receiving habitat, but the level of this disturbance depends on the culture method employed. The culture of bivalves on the seabed (on-bottom) in an contained (clams under netting) or uncontained fashion involves the dredging of the seafloor at various stages in the culture process i.e. the collection of seed mussels and relaying of spat, routine maintenance, removal of predators ("mopping"), stock movements and finally harvesting. The frequency of dredging activity depends on site management and how often stock is moved to new ongrowing areas to maximise growth and minimise predation prior to harvest. This dredging activity physically disturbs the seafloor and the organisms therein, and has been demonstrated to cause habitat and community changes.

The intertidal culture of bivalves (e.g. Longlines, Bags & trestles) does not require dredging and therefore is less damaging (physically) to the seafloor than the bottom culture method. However, the intertidal (and coastal) habitat can be affected by ancillary activities on-site i.e. servicing, vehicles on shore; human traffic and boat access lanes, causing an increased risk of sediment compaction resulting in sediment changes and associated community (infaunal and epifaunal) changes. Such activities can result in shallow and/or deep physical disturbance causing burrows to collapse, deeply burrowed organisms to die due to smothering and/or preventing siphon connection to the sediment surface or by directly crushing the animal. The travel of large vehicles over dune habitat can also result in erosion compaction and damage.

Shading-Suspended culture

The structure associated with suspended culture (e.g. netting, Longlines, floats, trestles & bags etc.) have the potential to prevent light penetration to the seabed and therefore potentially impact on light sensitive species such as maerl, seagrass and macroalgae.

Table 6-1 - Potential indicative environmental pressures of proposed aquaculture activities within the Qualifying Interests of Estuaries [1130] and Mudflats and sandflats not covered by seawater at low tide [1140] of the Ballyness Bay SAC.

Activity	Pressure category	Pressure	Potential effects	Equipment / Gear	Duration (days)	Time of year	Factors constraining the activity
Intertidal Oyster Culture and Clams	Physical	Current alteration	Structures may alter the current regime and resulting increased deposition of fines or scouring.	Netting, Trestles and bags and service equipment	365	All year	At low tide only
		Surface disturbance	Ancillary activities at sites, e.g. harvesting, servicing, transport increase the risk of sediment compaction resulting in sediment changes and associated community changes.				
		Shading	Prevention of light penetration to seabed potentially impacting light sensitive species				
	Biological	Non-native species introduction	Potential for non-native species (*C. gigas*) to reproduce and proliferate in SAC. Potential for alien species to be included with culture stock (hitch-hikers).				
		Disease risk	In event of epizootic the ability to manage disease in uncontained subtidal oyster populations is compromised.				
		Organic enrichment	Faecal and pseudofaecal deposition on seabed potentially altering community composition				

7 SCREENING OF AQUACULTURE ACTIVITIES

A screening assessment is an initial evaluation of the possible impacts that activities may have on the Qualifying Interests. The screening process is a filter, which may lead to exclusion of certain activities or Qualifying Interests from further assessment, thereby simplifying the process. Screening is a conservative filter that minimises the risk of false negatives.

In this report, screening of the Qualifying Interests against the proposed activities is based primarily on spatial overlap i.e. if the Qualifying Interests overlap spatially with the proposed activities then impacts due to these activities on the Conservation Objectives for the Qualifying Interests is not discounted (not screened out) except where there is absolute and clear rationale for doing so. Conversely, if there is no spatial overlap and no obvious interaction is likely to occur, then the possibility of significant impact is discounted and further assessment of possible effects is not deemed necessary.

Table 5.1 and **Table 5.2** highlights the spatial overlap between proposed intertidal aquaculture activities, and the habitat features of (1130) Estuaries and (1140) Mudflats and sandflats not covered by seawater at low tide and Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130], while **Table 7.1** and **Table 7.2** presents spatial overlap on constituent community types of the habitat features of 1130 and 1140.

7.1 AQUACULTURE ACTIVITY SCREENING

Where the overlap between intertidal aquaculture activities, and a feature is zero and there is no likely interaction of risk identified, it is screened out and not considered further. Therefore, the following habitats and species are excluded from further consideration in this assessment:

- Estuaries [1130]
- 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]

Overlap between an access route and coastal habitat designated as Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] occurs from Magheraroarty Pier. The access route follows an established track through the dunes system at Magheraroarty (Figure 5-1). The risk of additional heavy vehicular traffic on a bare sand route could lead to increased erosion of dune habitat. Therefore, the interaction between aquaculture activities and Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] is carried forward for further consideration in this assessment.

When overlap was confirmed it was quantified in a GIS application and presented on the basis of coverage of specific activity representing different pressure types (e.g. intertidal oyster cultivation) and licence status (all are applications) intersecting with designated conservation features and/or sub-features (community types) (see **Table 7.1** and **Table 7.2**).

Table 7.1 below provides estimates of overlap of aquaculture activities and specific marine community types (identified from Conservation Objectives (i.e. NPWS, 2014a) within the broad habitat features of (1140) Mudflats and sandflats not covered by seawater at low tide.

Table 7-1 - Habitat utilisation i.e. spatial overlap in percentage and hectares (given in parentheses) of intertidal oyster and clam cultivation activity and access routes over community types within the Qualifying Interest 1140 (i.e. Mudflats and sandflats not covered by seawater at low tide) in the Ballyness Bay SAC. Spatial data based on licence database provided by DAFM. Habitat data provided in NPWS 2014b.

Licence Status	**Culture Species**	**Qualifying Interest 1140 (688.5 ha)**	
		Community Type	
		Coarse sediment to sandy mud with oligochaetes and polychaetes community complex (120.9ha)	**Mobile sand community complex (567.6ha)**
		Overlap % (Overlap ha)	**Overlap % (Overlap ha)**
Application	Oyster	3.77% (4.56ha)	5.1% (28.7ha)
Application	Clam	-	1.6% (9ha)
Application	Oyster and Clam	0.28% (0.35ha)	1.37% (7.75ha)
Site Access Routes		1.2% (1.43ha)	0.59% (3.33ha)
Total		**5.25% (6.34ha)**	**8.66% (48.78ha)**

8 ASSESSMENT OF AQUACULTURE ACTIVITIES

8.1 DETERMINING SIGNIFICANCE

The function of an appropriate assessment is to determine if the ongoing and proposed aquaculture activities are consistent with the Conservation Objectives for the Natura site or if such activities will lead to deterioration in the attributes of the habitats and species over time and in relation to the scale, frequency and intensity of the activities. NPWS (2014c) provide guidance on interpretation of the Conservation Objectives which are, in effect, management targets for habitats and species in the SAC. This guidance is scaled relative to the anticipated sensitivity of habitats and species to disturbance by the proposed activities. Some activities are deemed to be wholly inconsistent with long term maintenance of certain sensitive habitats while other habitats can tolerate a range of activities. For the practical purpose of management of sedimentary habitats a 15% threshold of overlap between a disturbing activity and a habitat is given in the NPWS guidance. Below this threshold disturbance is deemed to be non-significant. Disturbance is defined as that which leads to a change in the characterizing species of the habitat (which may also indicate change in structure and function). Such disturbance may be temporary or persistent in the sense that change in characterizing species may recover to pre-disturbed state or may persist and accumulate over time.

The significance of the possible effects of the proposed activities on habitats, as outlined in the Natura Impact Statement (**Section 6**) and subsequent screening exercise (**Section 7**), is determined here in the assessment. The significance of effects is determined on the basis of Conservation Objective guidance for constituent habitats and species (**Figures 4.4** and NPWS 2014a, 2014b, 2014c).

Within the Ballyness Bay SAC the qualifying habitats/species considered subject to potential disturbance and, therefore, carried further in this assessment are:

- 1140 Mudflats and sandflats not covered by seawater at low tide

For broad habitats and community types (**Figures 4.2, 4.3, 4.4**) significance of impact is determined in relation to, first and foremost, spatial overlap (see **Section 5**; **Table 5.1, 5.2** and **Section 7**; **Table 7.1, 7.2**). Subsequent disturbance and the persistence of disturbance are considered as follows:

1. The degree to which the activity will disturb the Qualifying Interest. By disturb is meant change in the characterising species, as listed in the Conservation Objective guidance (NPWS 2014b) for constituent communities. The likelihood of change depends on the sensitivity of the characterising species to the activities in question. Sensitivity results from a combination of intolerance to the activity and/or recoverability from the effects of the activity (see **Section 8.2** below).

2. The persistence of the disturbance in relation to the intolerance of the community. If the activities are persistent (high frequency, high intensity) and the receiving community has a high intolerance to the activity (i.e. the characterising species of the communities are sensitive and consequently impacted) then such communities could be said to be persistently disturbed.
3. The area of communities or proportion of populations disturbed. In the case of community disturbance (continuous or ongoing) of more than 15% of the community area it is deemed to be significant. This threshold does not apply to the sensitive habitat *Zostera* where any spatial overlap of activities should generally be avoided.

Effects will be deemed to be significant when cumulatively they lead to long term change (persistent disturbance) in broad habitat/features (or constituent communities) resulting in an impact greater than 15% of the area.

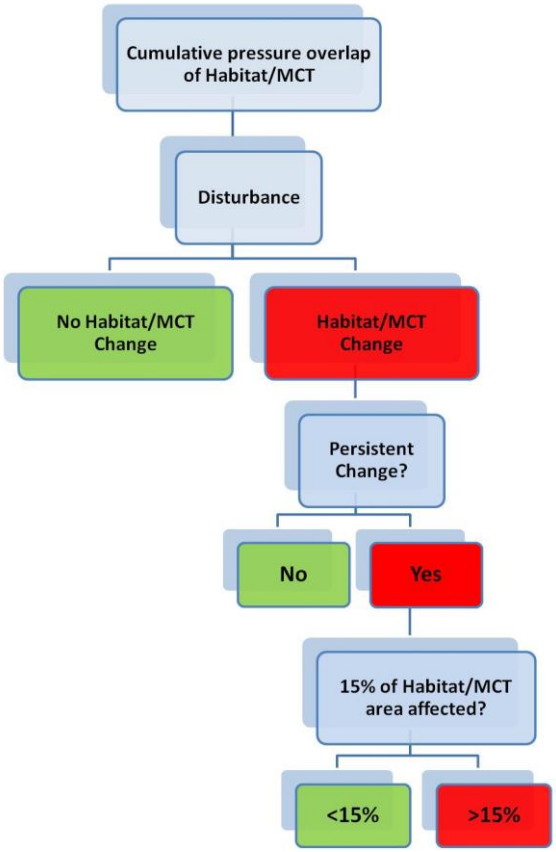

Figure 8-1 - Determination of significant effects on community distribution, structure and function for sedimentary habitats (following NPWS 2014b).

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.

8.2 SENSITIVITY AND ASSESSMENT RATIONALE

This assessment used a number of sources of information in assessing the sensitivity of the characterising species of each community recorded within the benthic habitats of Ballyness Bay SAC. One source of information is a series of reviews commissioned by the Marine Institute which identify habitat and species sensitivity to a range of pressures likely to result from aquaculture and fishery activities (ABPMer 2013a-h). These reviews draw from the broader literature, including the MarLIN Sensitivity Assessment (Marlin.ac.uk) and the AMBI Sensitivity Scale (Borja et al 2000) and other primary literature. It must be noted that NPWS have acknowledged that given the wide range of community types that can be found in marine environments, the application of conservation targets to these would be difficult (NPWS 2014b). On this basis, NPWS have proposed broad community complexes as management units. These complexes (for the most part) are very broad in their description and do not have clear surrogates which might have been considered in targeted studies and thus reported in the scientific literature. On this basis, the confidence assigned to likely

interactions of the community types with anthropogenic activities are by necessity relatively low, with the exception of community types dominated by sensitive taxa, e.g. Mearl and *Zostera*. Other literature cited in the assessment does provide a greater degree of confidence in the conclusions. For example, the output of recent studies has provided greater confidence in terms of assessing likely interactions between intertidal oyster culture and marine habitats (Forde et al 2015; O'Carroll et al 2016). Sensitivity of a species to a given pressure is the product of the intolerance (the susceptibility of the species to damage, or death, from an external factor) of the species to the particular pressure and the time taken for its subsequent recovery (recoverability is the ability to return to a state close to that which existed before the activity or event caused change). Life history and biological traits are important determinants of sensitivity of species to pressures from aquaculture.

In the case of species, communities and habitats of conservation interest, the separate components of sensitivity (intolerance, recoverability) are relevant in relation to the persistence of the pressure:

- For persistent pressures i.e. activities that occur frequently and throughout the year recovery capacity may be of little relevance except for species/habitats that may have extremely rapid (days/weeks) recovery capacity or whose populations can reproduce and recruit in balance with population damage caused by aquaculture. In all but these cases and if sensitivity is moderate or high then the species/habitats may be negatively affected and will exist in a modified state. Such interactions between aquaculture and species/habitat/community represent persistent disturbance. They become significantly disturbing if more than 15% of the community is thus exposed (NPWS 2014a).

- In the case of episodic pressures i.e. activities that are seasonal or discrete in time both the intolerance and recovery components of sensitivity are relevant. If sensitivity is high but recoverability is also high relative to the frequency of application of the pressure then the species/habitat/community will be in Favourable Conservation Status for at least a proportion of time.

The sensitivities of the community types (or surrogates) found within the Ballyness Bay SAC to pressures similar to those caused by aquaculture (e.g. smothering, organic enrichment and physical disturbance) are identified in **Table 8.1**. The sensitivities of species which are characteristic (as listed in the Conservation Objective supporting document) of benthic communities to pressures similar to those caused by aquaculture (e.g. smothering, organic enrichment and physical disturbance) are identified, where available, in **Table 8.2**. The following guidelines broadly underpin the analysis and conclusions of the species and habitat sensitivity assessment:

- Sensitivity of certain taxonomic groups such as emergent sessile epifauna to physical pressures is expected to be generally high or moderate because of their form and structure (Roberts et al 2010). Also high for those with large bodies and with fragile shells/structures, but low for those with smaller body size. Body size (Bergman and van Santbrink 2000) and fragility are regarded as indicative of a high intolerance to physical abrasion caused by fishing gears (i.e. dredges). However, even species with a high intolerance may not be sensitive to the disturbance if their recovery is rapid once the pressure has ceased.

- Sensitivity of certain taxonomic groups to increased sedimentation is expected to be low for species which live within the sediment, deposit and suspension feeders; and high for those sensitive to clogging of respiratory or feeding apparatus by silt or fine material.

- Recoverability of species depends on biological traits (Tillin et al 2006) such as reproductive capacity, recruitment rates and generation times. Species with high reproductive capacity, short generation times, high mobility or dispersal capacity may maintain their populations even when faced with persistent pressures; but such environments may become dominated by these (r-selected) species. Slow recovery is correlated with slow growth rates, low fecundity, low and/or irregular recruitment, limited dispersal capacity and long generation times. Recoverability, as listed by MarLIN, assumes that the impacting factor has been removed or stopped and the habitat returned to a state capable of supporting the species or community in question. The recovery process is complex and therefore the recovery of one species does not signify that the associated biomass and functioning of the full ecosystem has recovered (Anand and Desrocher, 2004) cited in Hall et al 2008).

8.3 ASSESSMENT OF THE EFFECTS OF AQUACULTURE PRODUCTION ON THE CONSERVATION OBJECTIVES FOR HABITAT FEATURES IN THE BALLYNESS BAY SAC.

Aquaculture pressures on a given habitat are related to vulnerability (spatial overlap or exposure of the habitat to the equipment/culture organism combined with the sensitivity of the habitat) to the pressures induced by culture activities. To this end, the location and orientation of structures associated with the culture organism, the density of culture organisms, the duration of the culture activity are all important considerations when considering risk of disturbance of intertidal aquaculture to habitats and species.

NPWS (2014a) provide lists of species characteristic of benthic communities occurring within Annex I features that are defined in the Conservation Objectives.

The constituent communities identified in the broad Annex 1 feature of (1140) Mudflats and sandflats not covered by seawater at low tide) are:

- Coarse sediment to sandy mud with oligochaetes and polychaetes community complex
- Mobile sand community complex

For **(1140) Mudflats and sandflats not covered by seawater at low tide** there are a number of attributes (with associated targets) relating to the following broad habitat features as well as constituent community types;

1. **Habitat Area -** it is unlikely that the activities proposed will reduce the overall extent of permanent habitat within the feature (1140) Mudflats and sandflats not covered by seawater at low tide. The habitat area is likely to remain stable.

2. **Community Distribution - (conserve a range of community types in a natural condition) -** this attribute considered interactions with the community types listed above. **Table 8.1** below indicates the community types, found within the Qualifying Interests of 1140 that are considered further as part of the assessment (i.e. community types which overlap with current and existing aquaculture activities).

Table 8-1 - Community types recorded in Ballyness Bay SAC and the Annex I habitats of (1140) Mudflats and sandflats not covered by seawater at low tide that overlap with overlap with current and existing aquaculture activities

Feature	Community Type	Overlap with intertidal oyster cultivation activities*	Overlap with intertidal clam cultivation*
Mudflats and sandflats not covered by seawater at low tide (1140)	Coarse sediment to sandy mud with oligochaetes and polychaetes community complex	✓	✓
	Mobile sand community complex	✓	✓

* Includes access routes

For community types listed under 1130 **Table 8.2** lists the habitats and **Table 8.3** lists the constituent taxa and both provide a commentary of sensitivity to a range of pressures. The risk scores are derived from a range of sources identified above. The pressures are listed as those likely to result from intertidal oyster culture (bags and trestle) and intertidal clam cultivation within the SAC.

The likely interactions between (existing and proposed) intertidal oyster cultivation and intertidal clam cultivation aquaculture activities and the broad habitat feature of 1130 and 1140 and their constituent community types are described in **Table 8.5** together with broad conclusions and justifications on whether the activities in isolation and/or cumulatively are considered disturbing to the feature in question. It must be noted that the sequence of distinguishing disturbance is as highlighted above, whereby activities with spatial overlap on habitat features are assessed further for their ability to cause persistence disturbance on the habitat. If persistent disturbance is likely then the spatial extent of the overlap is considered further.

Intertidal oyster cultivation

The spatial overlap of proposed oyster cultivation sites and the constituent community types Coarse sediment to sandy mud with oligochaetes and polychaetes community complex and Mobile sand community complex identified for the Qualifying Feature habitats of 1140, ranges from 4.05% and 6.47%, respectively (**Table 7.1**). Published literature (Forde *et al*., 2015; O'Carroll *et al.,* 2016) suggests that the presence of bags on trestles is considered non-disturbing to the community type, Coarse sediment to sandy mud with oligochaetes and polychaetes community complex. The sensitivity of the community type Mobile sand community complex, is unknown given the wide variation in species composition and sedimentary characteristics that comprise this community type (NPWS 2014b). While some characteristics of this community type match those described and investigated in Forde et al (2015) and O'Carroll et al (2016) others are quite different. In particular, areas where there are very 'soft' mobile sands with impoverished communities would appear to be sensitive to the placement of trestles and even foot traffic among the trestle rows. On this basis, it is assumed that intertidal shellfish culture has the potential to disturb this community type.

Clam Cultivation

Clam culture will overlap only one marine community type found Clam culture may result in more chronic and long-term changes in community composition which were considered during the assessment process. High density clam culture may result in exclusion of native fauna and build-up of sedimentary material as a consequence of the netting. In addition, the harvest method employed using modified dredges attached to tractors is considered highly disturbing to all sedimentary marine community types.

Access Routes

The access routes used in intertidal areas, presumably by virtue of persistent compaction of the sedimentary habitats, are considered disturbing (De-Grave *et al.,* 1998; Forde *et al.,* 2015; O'Carroll *et al*., 2016). The access routes proposed for aquaculture sites will travel over both community types found in the Qualifying Interest (1140) Mudflats and sandflats not covered by seawater at low tide (see **Figure 4.4** and **Table 7.2**). For the Qualifying Interests 1140 the spatial overlap of the access routes with the constituent community type of Mobile sand community complex is 0.59% and for Coarse sediment to sandy mud with oligochaetes and polychaetes community complex is 1.2%.

Introduction of non-native species

As already outlined oyster culture may present a risk in terms of the introduction of non-native species as the Pacific oyster (*Crassostrea gigas*) itself is a non-native species. Recruitment of *C. 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. In addition to having large number of oysters in culture, Kochmann *et al*. (2013) identified short residence times and large intertidal areas as factors likely contributing to the successful recruitment of oysters in Irish bays. The risk of Pacific oysters naturalising in Ballyness Bay **cannot be discounted.**

While there is minimal risk associated with the introduction of hitchhiker species with hatchery reared oyster seed. A risk of alien species introductions presents if '½-grown' or 'wild' seed originating from another jurisdiction (e.g. Britain, France) is introduced to the sites. However, it is noted that hatchery seed will only be used in the bay so the risk posed by the transfers of other sources of stock can be discounted.

In relation to the Manila clam (*Ruditapes philippinarum*), this species has been in culture in Ireland since 1984 and, to the best of our knowledge, no recruitment in the wild has been recorded. The operations are totally reliant on hatchery seed and are fully contained at all stages of the production cycle and given the short residence times calculated for the SAC, the risk of naturalisation of this species is considered low, but should be kept under surveillance.

For **(2130) Fixed coastal dunes with herbaceous vegetation (grey dunes)** there are a number of attributes (with associated targets) relating to this feature that would likely interact with the pressures deriving from the use of the habitat as a means to access the sites proposed for aquaculture purposes (Table 5.2 and Figure 8-2). While it is acknowledged 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 [2130]. The risk of damage from vehicular traffic to dune habitat (2130) in Ballyness Bay therefore, **cannot be discounted.**

Figure 8-2 Access route overlap with Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130].

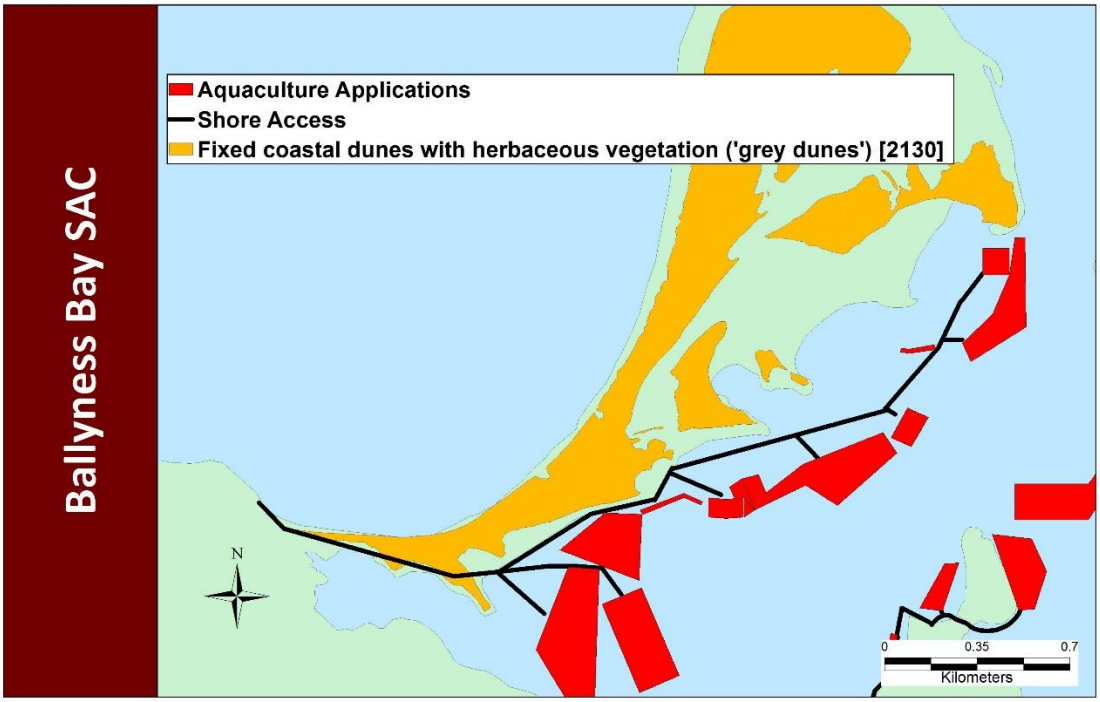

Table 8-2 - Matrix showing the characterising habitats sensitivity scores x pressure categories for habitats (or surrogates) in Ballyness Bay SAC (ABPMer 2013a-h) (**Table 8.4** provides the code for the various categorisation of sensitivity and confidence.)

Community Type (Surrogate [EUNIS code])	Surface Disturbance	Shallow Disturbance	Deep Disturbance	Trampling – access by foot	Trampling – access by vehicle	Extraction	Siltation (addition of fine sediments, pseudofaeces, fish food)	Smothering (addition of materials biological or non-biological to the surface)	Changes to sediment composition- increased coarseness	Changes to sediment composition- increased fine sediment proportion	Changes to water flow	Increase in turbidity/suspended sediment	Decrease in turbidity/suspended sediment	Organic enrichment-water column	Organic enrichment of sediments-sedimentation	Increased removal of primary production-phytoplankton	Decrease in oxygen levels- sediment	Decrease in oxygen levels-water column	Introduction of non-native species	Removal of Target Species	Removal of Non-target species	Introduction of antifoulants	Introduction of medicines	Introduction of hydrocarbons	Prevention of light reaching seabed/features
Coarse sediment to sandy mud with oligochaetes and polychaetes community complex (Polychaete / amphipod dominated sand shores [A2.23]/ Polychaete/bivalve-dominated muddy sand shores [A2.24])	NS **/ NS ***	L **	L **/ L ***	NS **	L-NS **/ L **	L-M *	L-M *	L-M *	L-M *	M */ NS *	L-M *	NS */ NS	NS *	NS *	NS *	NS *	L-NS */L *	L-NS */ L *	NS *** / H ***	NS *	NS *	NS *	NS *	L *	NS *
Mobile sand community complex (Polychaete / amphipod dominated sand shores [A2.23]/ Infralittoral Fine Sand [A5.23])	NS *	L *	L *	NS */ NE	L-NS */ NE	L-M *	L-M *	L-M *	L-M *	M *	L-M *	NS *	NS *	NS *	NS *	NS *	L-NS */L-NS ***	L-NS */L-NS ***	NS ***	NS *	NS *	NS *	NS *	L *	NS *

Table 8-3 - Matrix showing the characterising species sensitivity scores x pressure categories for species in Ballyness Bay SAC (ABPMer 2013a-h) (**Table 8.4** provides the code for the various categorisation of sensitivity and confidence.)

Community Type (Surrogate [EUNIS code])	Species (characterizing species identified from NPWS 2014b)	Surface Disturbance	Shallow Disturbance	Deep Disturbance	Trampling – access by foot	Trampling – access by vehicle	Extraction	Siltation (addition of fine sediments, pseudofaeces, fish food)	Smothering (addition of materials biological or non-biological to the surface)	Changes to sediment composition- increased coarseness	Changes to sediment composition- increased fine sediment proportion	Changes to water flow	Increase in turbidity/suspended sediment	Decrease in turbidity/suspended sediment	Organic enrichment-water column	Organic enrichment of sediments-sedimentation	Increased removal of primary production-phytoplankton	Decrease in oxygen levels- sediment	Decrease in oxygen levels-water column	Introduction of non-native species	Removal of Target Species	Removal of Non-target species	Introduction of antifoulants	Introduction of medicines	Introduction of hydrocarbons	Prevention of light reaching seabed/features
Coarse sediment to sandy mud with oligochaetes and polychaetes community complex (Polychaete / amphipod dominated sand shores [A2.23]/ Polychaete/bivalve-dominated muddy sand shores [A2.24])	*Tubificoides benedii*	NS *	NS *	L **	L *	L *	M *	NS *	L *	NS *	NS *	NS ***	NS *	NS *	NS ***	NS ***	NS *	NS ***	NS ***	NS *	NS *	NS *	NS **	NEv	NEv	NS **
	Pygospio elegans	L *	L **	M ***	L *	L *	L-M *	L ***	L-M ***	L-M *	NS **	L-M *	NS *	NS *	NS *	NS ***	NS *	L **	L **	M *	NS *	NS *	NS *	NEv	NEv	NS *
	Hediste diversicolor	NS *	L-M **	L-H **	NS *	L *	L-H *	NS ***	L-M *	M-H *	NS *	NS *	NS *	NS *	NS **	NS **	NS *	NS **	NS **	L-M *	L-M *	NS *	NS *	M-H **	M-H **	NS *
	Nematode indet.	NS ***	NS ***	NS ***	NS ***	NS *	L *	NS *	NS ***	NS ***	NS ***	NS *	NS *	NS *	NS *	NS ***	NS *	L ***	L ***	NS ***	NS *	L *	NS ***	NEv	L ***	NS *
	Capitella sp.	L *	L **	L **	L ***	L *	L *	L *	NS *	NS *	NS ***	NS *	NS *	NS *	NS ***	NS ***	NS *	L ***	L ***	NS *	NS *	NS *	NS **	L ***	NS ***	NS *
Mobile sand community complex (Polychaete /	*Angulus tenuis*	NS *	L *	L ***	NS *	L *	M *	NS *	H*	M-H *	NS *	L-M *	L *	NS *	NS *	NEv	L-NS *	NEv	NEv	M *	NS *	NS *	NS *	NEv	NEv	NS *

Prevention of light reaching seabed/features	NS *
Introduction of hydrocarbons	NS ***
Introduction of medicines	NEv
Introduction of antifoulants	NS *
Removal of Non-target species	NS *
Removal of Target Species	NS *
Introduction of non-native species	M *
Decrease in oxygen levels-water column	L *
Decrease in oxygen levels- sediment	L *
Increased removal of primary production-phytoplankton	NS *
Organic enrichment of sediments-sedimentation	NS ***
Organic enrichment-water column	NS *
Decrease in turbidity/suspended sediment	NS *
Increase in turbidity/suspended sediment	NS *
Changes to water flow	NS *
Changes to sediment composition- increased fine sediment proportion	NS *
Changes to sediment composition- increased coarseness	NS *
Smothering (addition of materials biological or non-biological to the surface)	L-M ***
Siltation (addition of fine sediments, pseudofaeces, fish food)	L-M ***
Extraction	L-M *
Trampling – access by vehicle	NS *
Trampling – access by foot	NS *
Deep Disturbance	NS *
Shallow Disturbance	NS ***
Surface Disturbance	NS *
Species (characterizing species identified from NPWS 2014b)	Scolelepis squamata
Community Type (Surrogate [EUNIS code])	amphipod dominated sand shores [A2.23]/ Infralittoral Fine Sand [A5.23])

Table 8-4 - Codes of sensitivity and confidence applying to species and pressure interactions presented in **Tables 8.1** and **8.2**.

Pressure interaction codes for Table 8.1 and 8.2	
NA	Not Assessed
Nev	No Evidence
NE	Not Exposed
NS	Not Sensitive
L	Low
M	Medium
H	High
VH	Very High
*	Low confidence
**	Medium confidence
***	High Confidence

Table 8-5 - Interactions between proposed aquaculture activities and constituent communities of the habitat features of (1140) Mudflats and sandflats not covered by seawater at low tide with a broad conclusion on the interactions.

Licence Status	Culture Species	Qualifying Interest 1140 (688.5 ha)	
		Coarse sediment to sandy mud with oligochaetes and polychaetes community complex (120.9ha)	**Mobile sand community complex (567.6ha)**
Application	Oyster Sites	**Disturbing: No** **Justification:** The spatial overlap with the community type is low at 3.77%. Published literature (Forde *et al.*, 2015) suggests that activities occurring at trestle culture sites are not disturbing.	**Disturbing: No** **Justification:** The spatial overlap with the community type is low at 5.1%. Published literature (Forde *et al.,* 2015) suggests that activities occurring at trestle culture sites are not disturbing.
Application	Oyster and Clam Sites	**Disturbing: Yes** **Justification:** Compaction by vehicles and harvest methods using dredges can lead to change in community composition. The spatial overlap with the community type is 0.28%.	**Disturbing: Yes** **Justification:** Compaction by vehicles and harvest methods using dredges can lead to change in community composition. The spatial overlap with the community type is 1.37%.
Application	Clam	**N/A**	**Disturbing: Yes** **Justification:** disturbance by site preparation and harvesting techniques can lead to change in community composition The spatial overlap with the community type is 1.6%.
Access Routes		**Disturbing: Yes** **Justification:** Compaction by vehicles can lead to change in community composition The spatial overlap with the community type is 1.2%.	**Disturbing: Yes** **Justification:** Compaction by vehicles can lead to change in community composition The spatial overlap with the community type is 0.59%.
Cumulative Impact of Proposed Aquaculture Activity		**Disturbing: No** **Justification:** The overall spatial overlap of likely disturbing activity with the community type is 1.48%. This value is below the spatial overlap threshold (15%) for significant adverse impacts of on this community type.	**Disturbing: No** **Justification:** The overall spatial overlap of likely disturbing activity with the community type is 3.56%. This value is below the spatial overlap threshold (15%) for significant adverse impacts of on this community type.

8.4 ASSESSMENT OF THE EFFECTS OF AQUACULTURE PRODUCTION ON THE CONSERVATION OBJECTIVES FOR OTTER *LUTRA LUTRA* IN THE GWEEDORE AND ISLANDS SAC.

Gweedore Bay and Islands SAC, which is *c.* 1.7km west of Ballyness Bay SAC, is designated for the otter (*Lutra lutra*); Conservation Objectives for the species within the SAC have been defined by NPWS and primarily relate to population size and distribution (NPWS, 2015a). It is acknowledged in this assessment that the favourable conservation status of the otter has been achieved (NPWS 2015a) in the Gweedore Bay and Islands SAC given current absence of aquaculture production within the Ballyness Bay SAC.

As the proposed aquaculture production activities within the Ballyness Bay SAC do not spatially overlap with otter territory in the Gweedore Bay and Islands SAC, individuals may migrate into the Ballyness Bay SAC and as a result experience disturbances from the proposed aquaculture activities in the bay.

The risk of negative interactions between aquaculture operations and aquatic mammal species is a function of:

1. The location and type of structures used in the culture operations- is there a risk of entanglement or physical harm to the animals from the structures?

2. The schedule of operations on the site – is the frequency such that they can cause disturbance to the animals?

Shellfish Culture: Shellfish culture operations are likely to be carried out in daylight hours. The interaction with the otter is likely to be minimal given that otter foraging is primarily crepuscular. It is unlikely that these culture types pose a risk to otter populations from the Gweedore Bay and Islands SAC.

Impacts from intertidal oyster and clam cultivation can be discounted on the basis that the proposed activities will not lead to any modification of the following attributes for otter:

- Extent of habitat (terrestrial, marine and/or freshwater habitat).

- The activity involves net input rather than extraction of fish biomass so that no negative impact on the essential food base (fish biomass) is expected

- The number of couching sites and holts or, therefore, the distribution, will not be directly affected by aquaculture and fisheries activities.

- Shellfish production activities are unlikely to pose any risk to otter populations through entrapment or direct physical injury.

- The oyster culture structures are raised from the seabed (0.5m -1m) and are oriented in rows, thus allowing free movement through and within the site.

- Disturbance associated with vessel and foot traffic at aquaculture cultivation sites could potentially affect the distribution of otters at the site. However, the level of disturbance

is likely to be very low given the likely encounter rates will be low dictated primarily by tidal state and in daylight hours.

On the basis of location and timing of activities, the proposed levels of licenced shellfish culture are considered **non-disturbing** to otter conservation features in the Gweedore Bay and Islands SAC.

8.5 ASSESSMENT OF THE EFFECTS OF AQUACULTURE PRODUCTION ON THE CONSERVATION OBJECTIVES FOR GREY SEAL *HALICHOERUS GRYPUS* IN THE HORN HEAD AND RINCLEVAN SAC.

The Horn Head and Rinclevan SAC is designated for the grey seal (*Halichoerus grypus*); Conservation Objectives for the species within the SAC sites have been defined by NPWS and primarily relate to the requirement to maintain various attributes of the populations including population size and the distribution of the species (NPWS 2014d). It is acknowledged in this assessment that the favourable conservation status of the grey seal has been achieved (NPWS 2014d) given current absence of aquaculture production within the Ballyness Bay SAC.

The proposed aquaculture activities must be considered in light of the following attributes and measures for the grey seal:

- Access to suitable habitat – number of artificial barriers
- Disturbance – frequency and level of impact
- Harbour seal Sites:
    - Breeding sites
    - Moulting sites
    - Resting sites

Restriction to suitable habitats and levels of disturbance are important pressures that must be considered to ensure the maintenance of favourable conservation status of the grey seal and implies that the seals must be able to move freely within the site and to access locations considered important to the maintenance of a healthy population. They are categorised according to various life history stages (important to the maintenance of the population) during the year. Specifically they are breeding, moulting and resting sites. It is important that the access to these sites is not restricted and that disturbance, when at these sites, is kept to a minimum. Activities at culture sites and during movement to and from culture sites may result in disturbance events such that the seals may note an activity (head turn), move towards the water or actually flush into the water. While such disturbance events might have been documented, the impact of these disturbances at the population level has not been studied more broadly (National Research Council, 2010).

All of the proposed aquaculture production activities within Ballyness Bay SAC are >10km from the documented breeding, moulting and resting sites of the grey seal in the Horn Head and Rinclevan SAC and therefore, are unlikely to impact on the attributes relating to the site. Notwithstandnig, local observations have identified a specific haul-out within Ballyness Bay. In particular, seals have been observed on a large sand bank in the centre of the Bay (Figure 8-2). Given that there are currently no aquaculture operations in Ballyness Bay, it is not certain that the introduction of significant levels of aquaculture operations will not impact on the site use by these Annex II species, in particular at those

locations proximate to the this haul-out location. Therefore, the risk posed by the proposed aquaculture activities in Ballyness Bay to seal conservation features cannot be discounted.

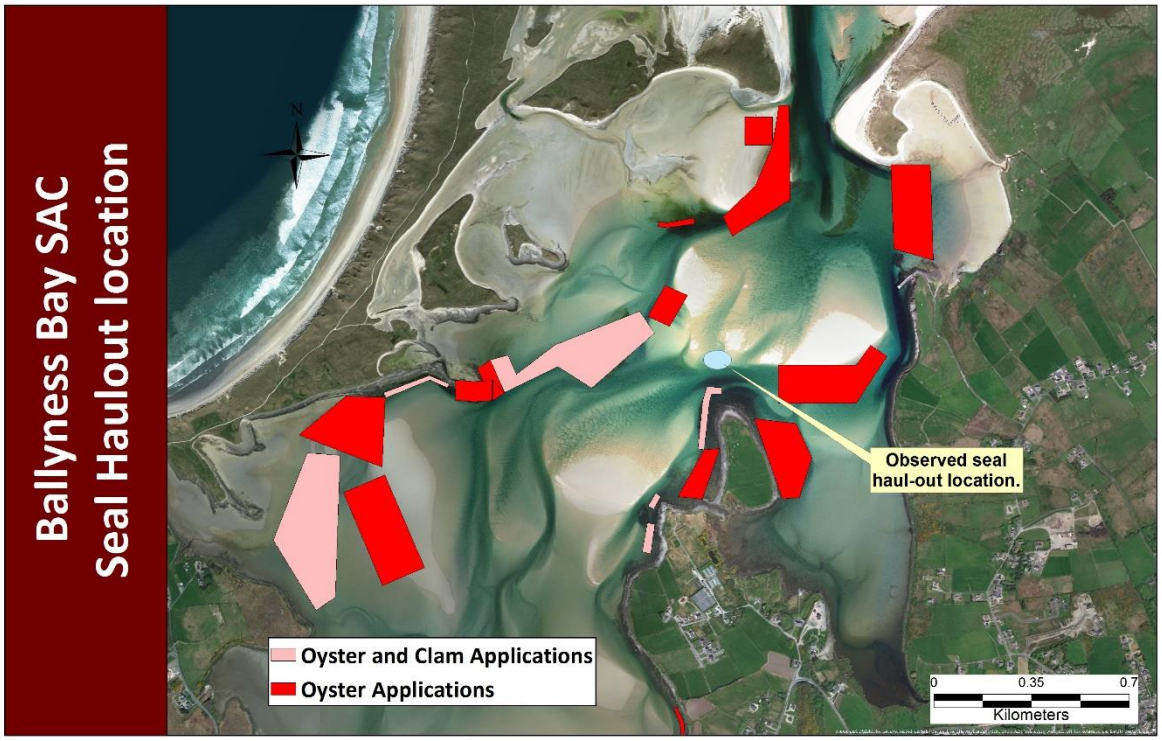

Figure 8-3 Location of observed seal haul-out in Ballyness Bay.

9 IN-COMBINATION EFFECTS OF AQUACULTURE, FISHERIES AND OTHER ACTIVITIES

9.1 FISHERIES

There are no fishing activities within Ballyness Bay SAC and therefore there are no likely in-combination effects.

9.2 POLLUTION PRESSURES

There are a number of activities which are terrestrial in origin that might result in impacts on the conservation features of the Ballyness Bay SAC. Primary among these are point source discharges from domestic sewage outfalls distributed along the bay and municipal urban waste water treatment plants. The pressure derived from these point sources may impact upon levels of dissolved nutrients, suspended solids and some elemental components e.g. aluminium in the case of water treatment facilities.

9.2.1 Conclusion

Pressures resulting from aquaculture activities are primarily disturbance to sediments as a consequence of compaction of sediment along access routes and preparation of sites and harvest of clam sites. It was, therefore, concluded that given the pressure resulting from point discharge location such as the urban waste-water treatment and/or combined sewer outfalls would likely impact on physico-chemical parameters in the water column, any **in-combination effects with aquaculture activities are considered to be minimal.**

10 SAC AQUACULTURE CONCLUDING STATEMENT

10.1 ASSESSMENT REPORT CONCLUDING STATEMENT

Proposed aquaculture activities occurring in the Ballyness Bay SAC focus on the cultivation of oysters (using bags and trestles) and clams using trays and netting, in the intertidal zone. Based upon this and the information provided in the aquaculture profiling report (**Section 5**), the likely interaction between these culture methodologies and conservation features (habitats and species) of the SAC were considered.

10.1.1 Habitats

An initial screening exercise resulted in the following habitat features and species being excluded from further consideration by virtue of the fact that no spatial overlap of the culture activities was expected to occur; Embryonic shifting dunes [2110], Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120], Humid dune slacks [2190] and *Vertigo geyeri* (Geyer's Whorl Snail) [1013]. Furthermore, none of the proposed aquaculture applications overlap with the Annex I habitat Estuaries [1130] and this was also excluded from further analysis.

A full assessment was carried out on the likely interactions between proposed culture operations and the feature Annex 1 habitat 1140 Mudflats and sandflats not covered by seawater at low tide. The likely effects of the aquaculture activities (species, structures, access routes) were considered in light of the sensitivity of constituent habitats and species of the Annex 1 habitat 1140. Annex I 1140 constituent communities considered include Coarse sediment to sandy mud with oligochaetes and polychaetes community complex and Mobile sand community complex.

Based upon the scale of spatial overlap of proposed intertidal aquaculture activities (including access route activity) and the relatively high tolerance levels of the habitats and associated species, the general conclusion is that proposed intertidal culture activities are non-disturbing to the Qualifying Interests 1130 and 1140 and their constituent community types.

However, 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.

10.1.2 Species

The likely interactions between the proposed aquaculture activities and the following Annex II Species were assessed; Grey seal *Halichoerus grypus* [1364] and Otter (*Lutra lutra* [1355]). The wider objectives for these species focus upon maintaining the good conservation status of populations. The main aspect of the culture activities that could potentially impact the designated species disturbance caused to otter and seal by movements and activities at the sites. Given the locations and timings of the proposed activities (i.e. daytime) it is concluded that activities would be non-disturbing to otter but the risk posed to seal species cannot be entirely discounted.

10.1.3 Recommendations

Notwithstanding the conclusions noted above in relation to Annex 1 habitat 1140, it should be noted that the nature of the community type, Mobile sand community complex is such that there are likely to be locations where the sediments are extremely mobile (and soft) thus making them unsuitable for

aquaculture operations. It is recommended, prior to making a decision to licence, that these areas be clearly identified with the Bay.

The report highlights risks to coastal habitat [2130] features if the activities proposed are licenced in full. More specifically, the risk arises from the additional traffic likely to occur on existing tracks as a result of the need to access the sites. It is recommended 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. Alternatively, the re-routing of access routes to avoid overlap with habitat feature 2130 might be considered?

In relation to interactions between aquaculture operations and seal use of the site, the risk of disturbance cannot be discounted. It is important to note that the site, to date, has had very little aquaculture operations and therefore, the seals will have little opportunity to habituate to the activities. Also of note, where there is no specific barrier to access (e.g. tidal channel), the seals are more likely to be disturbed. Based upon local observations it appears that the seals are faithful to this one identified haul out location. Therefore, careful consideration should be given to licencing the site which shares the sandbank with the observed seal haul out.

11 REFERENCES

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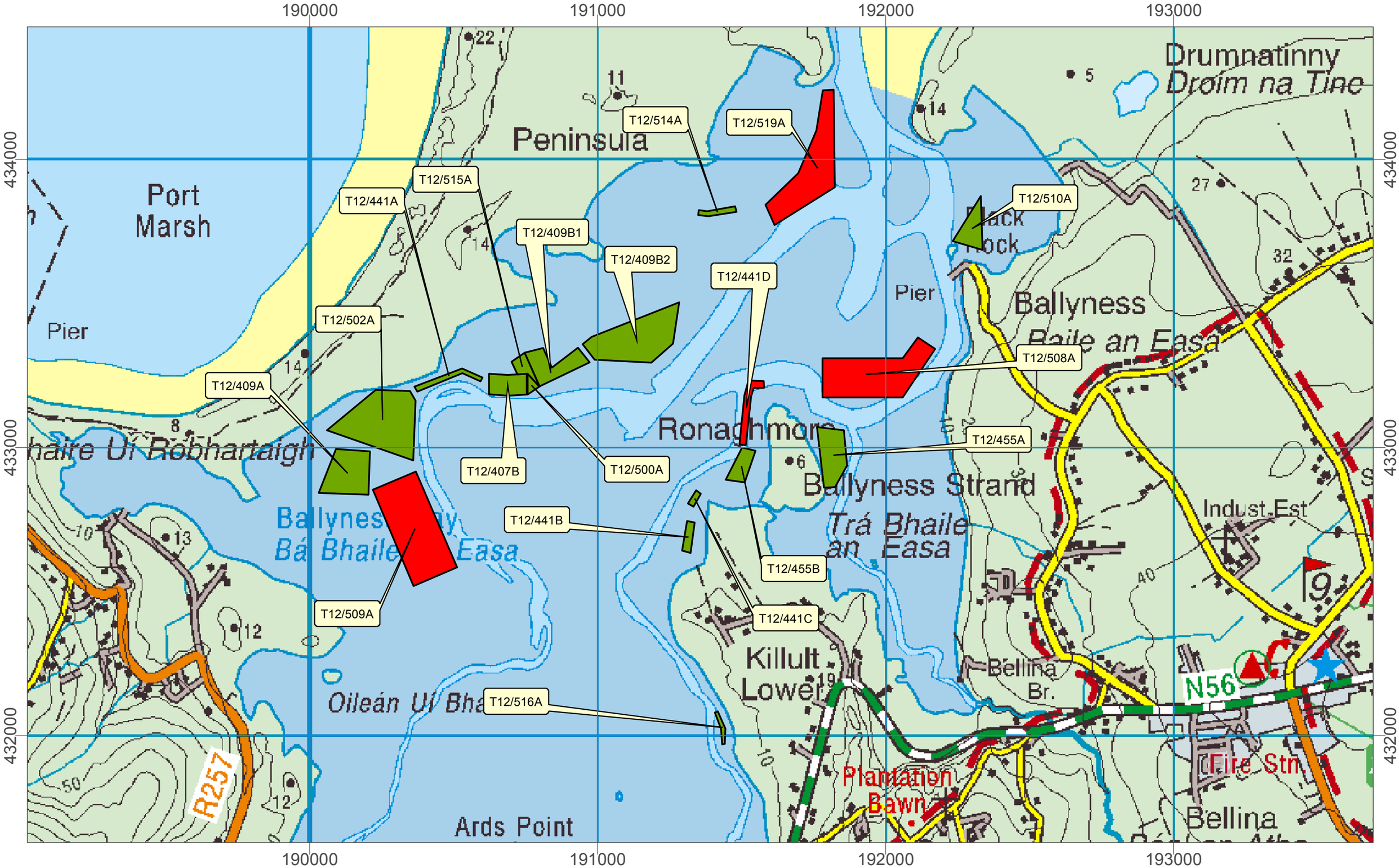


BALLYNESS BAY, CO. DONEGAL.
AQUACULTURE SITES

Drawn : 03-12-2019

Scale = 1:12,000

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

AN tACHT IASCAIGH (LEASÚ), 1997 (UIMH. 23) AGUS An tACHT IMEALL TRÁGHA, 1933 (UIMH. 12) FÓGRA AR CHINNTÍ A BHAINEANN LE CEADÚNAIS DOBHARSHAOTHRAITHE AGUS IMEALL TRÁ

Tá cinntí déanta ag an Aire Talmhaíochta, Bia agus Mara maidir leis na hiarratais ar Cheadúnais Dobharshaothraithe agus Imeall Trá atá leagtha amach sa tábla thíos, maidir le láithreán i mBá Bhaile an Easa, Co Dhún na nGall:-

Uimh. Thag. Láithreáin	Na hIarratasóirí	Speiceas & Modh	Cinneadh an Aire
T12/407B	Joseph Coll, Mullach an Chnoic, Mín Lárach, Gort an Choirce, Co Dhún na nGall	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas a Dheonú
T12/409A	Edward agus Paul O'Brien, Machaire Uí Rabhartaigh, Gort an Choirce, Co Dhún na nGall	Breallaigh ar thráidirí adhmaid faoi líontáin	Ceadúnas Athraithe a Dheonú
T12/409B	Edward agus Paul O'Brien, Machaire Uí Rabhartaigh, Gort an Choirce, Co Dhún na nGall	Breallaigh ar thráidirí adhmaid faoi líontáin agus Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas Athraithe a Dheonú
T12/441A	Anthony McCafferty, Glaise Chú, Gort an Choirce, Co Dhún na nGall.	Breallaigh ar thráidirí adhmaid faoi líontáin agus Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas a Dheonú
T12/441B	Anthony McCafferty, Glaise Chú, Gort an Choirce, Co Dhún na nGall.	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas a Dheonú
T12/441C	Anthony McCafferty, Glaise Chú, Gort an Choirce, Co Dhún na nGall.	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas a Dheonú
T12/441D	Anthony McCafferty, Glaise Chú, Gort an Choirce, Co Dhún na nGall.	Breallaigh ar thráidirí adhmaid faoi líontáin agus Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Diúltú Ceadúnas a Dheonú
T12/455A	Seamus O'Donnell, Baile Conaill, An Fál Carrach, Co Dhún na nGall	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas Athraithe a Dheonú
T12/455B	Seamus O'Donnell, Baile Conaill, An Fál Carrach, Co Dhún na nGall	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas Athraithe a Dheonú
T12/500A	Joseph Coll, Mullach an Chnoic, Mín Lárach, Gort an Choirce, Co Dhún na nGall	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas a Dheonú
T12/502A	Joseph Coll, Mullach an Chnoic, Mín Lárach, Gort an Choirce, Co Dhún na nGall	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas Athraithe a Dheonú
T12/508A	Northern Shores Shellfish Ltd, Árasán 169, Gort na Coiribe, Co na Gaillimhe	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Diúltú Ceadúnas a Dheonú
T12/509A	Northern Shores Shellfish Ltd, Árasán 169, Gort na Coiribe, Co na Gaillimhe	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Diúltú Ceadúnas a Dheonú
T12/510A	Tullyshellfish Ltd, Tullyally, Carraig Mhic Uidhilín, Co Dhún na nGall	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas a Dheonú
T12/514A	Joseph Coll, Mullach an Chnoic, Mín Lárach, Gort an Choirce, Co Dhún na nGall	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas a Dheonú
T12/515A	Joseph Coll, Mullach an Chnoic, Mín Lárach, Gort an Choirce, Co Dhún na nGall	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas a Dheonú
T12/516A	Joseph Coll, Mullach an Chnoic, Mín Lárach, Gort an Choirce, Co Dhún na nGall	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Ceadúnas a Dheonú
T12/519A	Northern Shores Shellfish Ltd, Árasán 169, Gort na Coiribe, Co na Gaillimhe	Oisrí an Aigéin Chiúin ag úsáid málaí agus tristéil	Diúltú Ceadúnas a Dheonú

Tá níos mó sonraí ar cad iad na cúiseanna leis na cinntí seo ar fáil ar shuíomh gréasáin na Roinne ag: http://www.agriculture.gov.ie/seafood/aquaculturesforeshoremanagement/aquaculturelicensing/aquaculturelicencedecisions/donegal

Is féidir achomharc i gcoinne chinneadh an Cheadúnais Dobharshaothraithe a dhéanamh i scríbhinn, laistigh de mhí ón dáta a foilsítear é, chuig AN BORD ACHOMHAIRC UM CHEADÚNAIS DOBHARSHAOTHRAITHE, Cúirt Choill Mhinsí, Port Laoise, Co Laoise, ach an Fhoirm Iarratais um Fhógra Achomhairc atá ar fáil ón mBord a líonadh trí ghlaoch a chur ar 057 86 31912, ríomhphost a chur chuig info@alab.ie nó ar an an láithreán gréasáin ag http://www.alab.ie/

Féadfar do dhuine bailíocht an chinneadh i ndáil le Ceadúnas Imeall Trá a cheistiú trí iarratas a dhéanamh ar mhodh iarratais ar athbhreithniú breithiúnach, faoi Ordú 84 de Rialacha na nUaschúirteanna (IR Uimh. 15 de 1986). Is féidir faisnéis phraiticiúil faoin meicníocht athbhreithnithe a fháil ón mBord um Fhaisnéis do Shaoránaigh ag: http://www.citizensinformation.ie/

FISHERIES (AMENDMENT) ACT, 1997 (NO. 23) AND FORESHORE ACT, 1933 (NO. 12) NOTICE OF DECISIONS IN RELATION TO AQUACULTURE AND FORESHORE LICENCES

The Minister for Agriculture, Food and the Marine has made determinations on the Aquaculture and Foreshore Licence applications as set out in the table below in Ballyness Bay, Co Donegal:

Site Ref No	Applicants	Species & Method	Minister's Decision
T12/407B	Joseph Coll, Hillcrest, Meenlaragh, Gortahork, Co Donegal	Pacific Oysters using bags and trestles	Grant Licence
T12/409A	Edward and Paul O'Brien, Magheraroarty, Gortahork, Co Donegal	Clams on wooden trays under mesh	Grant Variation Licence
T12/409B	Edward and Paul O'Brien, Magheraroarty, Gortahork, Co Donegal	Clams on wooden trays under mesh and Pacific Oysters using bags and trestles	Grant Variation Licence
T12/441A	Anthony McCafferty, Glasserchoo, Gortahork, Co Donegal.	Clams on wooden trays under mesh and Pacific Oysters using bags and trestles	Grant Licence
T12/441B	Anthony McCafferty, Glasserchoo, Gortahork, Co Donegal	Pacific Oysters using bags and trestles	Grant Licence
T12/441C	Anthony McCafferty, Glasserchoo, Gortahork, Co Donegal	Pacific Oysters using bags and trestles	Grant Licence
T12/441D	Anthony McCafferty, Glasserchoo, Gortahork, Co Donegal	Clams on wooden trays under mesh and Pacific Oysters using bags and trestles	Refuse to Grant Licence
T12/455A	Seamus O'Donnell, Ballyconnell, Falcarragh, Co Donegal	Pacific Oysters using bags and trestles	Grant Variation Licence
T12/455B	Seamus O'Donnell, Ballyconnell, Falcarragh, Co Donegal	Pacific Oysters using bags and trestles	Grant Variation Licence
T12/500A	Joseph Coll, Hillcrest, Meenlaragh, Gortahork, Co Donegal	Pacific Oysters using bags and trestles	Grant Licence
T12/502A	Joseph Coll, Hillcrest, Meenlaragh, Gortahork, Co Donegal	Pacific Oysters using bags and trestles	Grant Variation Licence
T12/508A	Northern Shores Shellfish Ltd, Apt. 169, Gort Na Coiribe, Co Galway	Pacific Oysters using bags and trestles	Refuse to Grant Licence
T12/509A	Northern Shores Shellfish Ltd, Apt. 169, Gort Na Coiribe, Co Galway	Pacific Oysters using bags and trestles	Refuse to Grant Licence
T12/510A	Tullyshellfish Ltd, Tullyally, Redcastle, Co Donegal	Pacific Oysters using bags and trestles	Grant Licence
T12/514A	Joseph Coll, Hillcrest, Meenlaragh, Gortahork, Co Donegal	Pacific Oysters using bags and trestles	Grant Licence
T12/515A	Joseph Coll, Hillcrest, Meenlaragh, Gortahork, Co Donegal	Pacific Oysters using bags and trestles	Grant Licence
T12/516A	Joseph Coll, Hillcrest, Meenlaragh, Gortahork, Co Donegal	Pacific Oysters using bags and trestles	Grant Licence
T12/519A	Northern Shores Shellfish Ltd, Apt. 169, Gort Na Coiribe, Co Galway	Pacific Oysters using bags and trestles	Refuse to Grant Licence

The reasons for these decisions are elaborated on the Department's website at: http://www.agriculture.gov.ie/seafood/aquaculturesforeshoremanagement/aquaculturelicensing/aquaculturelicencedecisions/donegal

An appeal against the Aquaculture Licence decision may be made in writing, within one month of the date of its publication, to THE AQUACULTURE LICENCES APPEALS BOARD, Kilminchy Court, Portlaoise, Co Laois, by completing the Notice of Appeal Application Form available from the Board, phone 057 86 31912, e-mail info@alab.ie or website at http://www.alab.ie/

A person may question the validity of the Foreshore Licence determination by way of an application for judicial review, under Order 84 of the Rules of the Superior Court (SI No. 15 of 1986). Practical information on the review mechanism can be obtained from the Citizens Information Board at: http://www.citizensinformation.ie/

An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine

COPY

Ref: T12/409A, [redacted]

Edward and Paul O'Brien,
Magheraroarty,
Gortahork,
Co. Donegal

sent by registered

FISHERIES (AMENDMENT) ACT, 1997 (NO.23)
NOTICE OF MINISTERIAL DECISION TO GRANT WITH A VARIATION AQUACULTURE LICENCES AND FORESHORE LICENCES.

Dear Messrs O'Brien,

I would like to inform you of the Minister for Agriculture, Food and the Marine Decision on the following aquaculture and accompanying Foreshore Licence applications (see attached information notes and draft aquaculture licences):-

Site Reference Number	Ministerial Decision	Species & Method	Variation	Licence Term
T12/409A	Grant Variation Licence	Clams on wooden trays under mesh	Reduce the site from 8.961 ha to 2.2119ha	10 years
[redacted]				

I enclose an extract from the public notice of the decision which **the Department** has arranged to have published in "Donegal Democrat".

Any person aggrieved by the decision may, in accordance with Section 41 of the Fisheries (Amendment) Act 1997, appeal against it in writing to the Aquaculture Licences Appeals Board. This appeal must be lodged within one month beginning on the date of the publication of the decision.

In addition, a person may question the validity of the Foreshore Licence determination by way of an application for judicial review, under Order 84 of the Rules of the Superior Court (SI No. 15 of 1986). Practical information on the review mechanism can be obtained from the Citizens Information Board at: http://www.citizensinformation.ie/.

The Licences will be issued to you as soon as possible after the end of the period of one month from the date of publication of the notice in "Donegal Democrat", if there is no appeal.

Please also find enclosed the conditions that will apply to any Aquaculture Licence that may be issued by the Minister.

Yours sincerely

Aquaculture and Foreshore Management Division
26th November 2019

S.12 (3) OF THE FISHERIES (AMENDMENT) ACT, 1997(NO.23)
INFORMATION NOTE TO APPLICANT FOR THE PURPOSE OF REGULATION 18 OF THE AQUACULTURE (LICENCE APPLICATION) REGULATIONS 1998

REFERENCE NO:	**T12/409A**
APPLICANT:	Edward and Paul O'Brien
AQUACULTURE TO WHICH DECISION RELATES:	The cultivation of clams on wooden trays under mesh on 2.2119ha on the foreshore in Ballyness Bay, Co. Donegal.
NATURE OF DECISION:	Grant of variation licence Reducing the site from 8.961 ha to 2.2119 ha to lessen the visual impact from overlooking viewpoints. Significant reduction of the site and reduction of its overall foreshore footprint is required to reduce the magnitude of visual impact sufficiently. Confining the development area to the north part of the site keeps the development closer into the shoreline features on the west side and avoids the impact arising from occupying the central part of the site and the south part of the site which is closest to land and the viewpoints.
DATE OF DECISION:	**25th November 2019**
CONDITIONS OF LICENCE:	See attached.
DURATION OF LICENCE:	10 years
ISSUE OF LICENCE:	The licence will be dated and issued as soon as practicable after the end of the period of one month from the date of publication of a notice in a newspaper circulating in the vicinity of the aquaculture, if no appeal is made to the Aquaculture Licences Appeals Board within that period, under Section 40 and 41 if the Fisheries (Amendment) Act, 1997.

Note: It has been decided to grant the applicant a separate Foreshore Licence under the Foreshore Act, 1933 (No.12), contemporaneous with the Aquaculture Licence, subject to standard conditions applicable to Foreshore Licences.

FISHERIES (AMENDMENT) ACT, 1997 (NO. 23) AND FORESHORE ACT, 1933 (NO. 12)
NOTICE OF DECISIONS IN RELATION TO AQUACULTURE AND FORESHORE LICENCES

The Minister for Agriculture, Food and the Marine has made determinations on the Aquaculture and Foreshore Licence applications as set out in the table below in Ballyness Bay, Co. Donegal:-

T12/409A	Edward and Paul O'Brien, Magheraroarty, Gortahork, Co. Donegal	Clams on wooden trays under mesh	Grant Variation Licence
[redacted]			

The reasons for this decision are elaborated on the Department's website at: http://www.agriculture.gov.ie/seafood/aquacultureforeshoremanagement/aquaculturelicensing/aquaculturelicencedecisions/donegal

An appeal against the Aquaculture Licence decision may be made in writing, within one month of the date of its publication, to THE AQUACULTURE LICENCES APPEALS BOARD, Kilminchy Court, Portlaoise, Co. Laois, by completing the Notice of Appeal Application Form available from the Board, phone 057 86 31912, e-mail info@alab.ie or website at http://www.alab.ie/

A person may question the validity of the Foreshore Licence determination by way of an application for judicial review, under Order 84 of the Rules of the Superior Court (SI No. 15 of 1986). Practical information on the review mechanism can be obtained from the Citizens Information Board at: http://www.citizensinformation.ie/

Submission AGR 00688-19: Recommendation to Grant (with variation) Aquaculture and Foreshore Licences for 2 sites (T12/409A & [redacted])

TO: Minister
STATUS: Completed
PURPOSE: For Decision

AUTHOR: OMahony, Jane
OWNER: OMahony, Jane
REVIEWERS: Farrell, Geraldine
OCallaghan, Grace
Quinlan, John
Beamish, Cecil
Smith, Ann

DIVISION: Coastal Zone Management
DECISION BY:

Final comment

Minister determines the Aquaculture and Foreshore Licences sought be granted with a variation reducing the sites for the reasons outlined.

Action required

Ministerial Determination on Aquaculture/Foreshore Licensing Application (T12/409)

Executive summary

The Minister's determination is requested in relation to an application for Aquaculture Licences for two sites from Edward and Paul O'Brien, Magheraroarty, Gortahork, Co. Donegal. The application is for the culture of clams on wooden trays under mesh on site T12/409A and [redacted] on the foreshore in Ballyness Bay, Co. Donegal. It is now proposed to reduce T12/409A to 2.2119ha and to [redacted] for reasons detailed in the submission below.

It is recommended that the Minister determines the Aquaculture and Foreshore Licences sought be granted with a variation reducing the sites to Messers O'Brien for the reasons outlined in the 'Detailed Information' section below.

Detailed information

DECISION SOUGHT

The Minister's determination is requested in relation to an application of an Aquaculture Licence from Edward and Paul O'Brien, Magheraroarty, Gortahork, Co. Donegal. The application is for the cultivation of clams on wooden trays under mesh on 8.961 ha (T12/409A) [redacted] on the foreshore in Ballyness Bay, Co. Donegal.

It is now proposed to reduce T12/409A to 2.2119ha and to [redacted]

A submission in respect of the application for the Foreshore Licences is also set out for the Minister's consideration.

Note: Tabs may contain additional information which is subject to redaction if transmitted to third parties.

BACKGROUND

Marine aquaculture operations require separate Aquaculture and Foreshore Licences and Ministerial approval is required in respect

of this submission (Aquaculture Submission) and submission underneath (Foreshore Submission), which refer to the same site.

The Aquaculture Licence defines the activity that is permitted on a particular site and the Foreshore Licence allows for the occupation of that particular area of foreshore. The continuing validity of each licence is contingent on the other licence remaining in force.

APPLICATION FOR AN AQUACULTURE LICENCE

An application (**TAB A**) for Aquaculture Licences has been received from the applicant referred to above (in conjunction with an application for a Foreshore Licences), for the cultivation of clams on wooden trays under mesh on a 8.961 hectare site (T12/409A) [redacted] on the foreshore in Ballyness Bay, Co. Donegal.

It is now proposed to be reduced T12/409A to 2.2119 ha [redacted]

LEGISLATION

Section 7 of the Fisheries (Amendment) Act 1997 provides that the licensing authority (i.e. Minister, delegated officer or, on appeal, the Aquaculture Licences Appeals Board) may, if satisfied that it is in the public interest to do so, licence a person to engage in aquaculture.

Article 6 (3) of the Habitats Directive provides that *"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon … shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives … 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 …"*

CONSULTATION AND PUBLIC COMMENT

The application was sent to the Department's technical experts, statutory consultees and was also publicly advertised in a composite public notice covering both aquaculture and foreshore elements.

Technical Consultation

Marine Engineering Division (MED): On original inspection MED stated the site appeared to be suitable in terms of location, level and shelter for aquaculture. In consultation with the applicant, MED agreed revised co-ordinates for the sites prior to public consultation.

MED have recommended provision of a number of clear gaps through the area licensed for oyster farming on west side of the Bay for small boat and pedestrian access. [redacted]

MED have also completed a Landscape and Visual Impact Assessment (LVIA) (**TAB G**) which is covered further down in this

submission, which with the requirement of a gap provision has lead to the proposed reduction in site sizes.

Marine Survey Office: No objections to the application from a navigational viewpoint.

The MSO requested Sanction to establish the marks specified be obtained from the Commissioners of Irish Lights in advance of commencing operations. These marks may need to be amended if the smaller sites are licensed. The applicant must contact the MSO in advance of operations commencing to agree final marking system.

It is proposed to insert a specific condition covering MSO matters in any licence/s which may issue as follows:

The Minister's determination in respect of this licence is conditional upon immediate full compliance by the Licensee in respect of all requirements and conditions which are imposed under the relevant legal provisions applicable to the Marine Survey Office.

Sea Fisheries Protection Authority: Ballyness Bay is currently not classified for oyster production. The applicant will need to lodge a request for sampling to be established in the area. The site does not overlap or cover a wild shellfish fishery and there is no known wild shellfish fishery within this area of the bay. The granting of this licence will have no negative impact on sea fishing operations.

Statutory Consultation

Regulation 10 of the Aquaculture (Licence Application) Regulations, 1998 requires certain statutory bodies to be notified of an Aquaculture Licence application.

Comments were received from the following statutory bodies:

The Department of Culture, Heritage and Gaeltacht Affairs (DCHG): Provided observations for consideration concerning the proposed licensing of aquaculture activities in Ballyness Bay. These issues are addressed in the Licensing Authority's Conclusion Statement for aquaculture activities in Ballyness Bay SAC (Site Code: 01090) – see Conclusion Statement **(TAB D)**.

Marine Institute: The MI had no objection to this application. They noted that sites are not located in a designated Shellfish Growing Waters area and shellfish in the bay are currently not classified under Annex II of EU Regulation 854/2004. The MI also noted that the site is located within the Ballyness Bay SAC and the findings of the AA report and the Licensing Authority's Conclusion Statement. They recommended that the licensee is required to prepare a Contingency Plan which should identify, inter alia, methods for the removal from the environment of any non-target species introduced as a result of operation at this site. They also recommended that the source of seed must be approved by the Department, triploid seed only be used and the access route over the intertidal habitat must be strictly adhered to, in order to minimise habitat disturbance. The MI noted that the CLAMS process might be useful and appropriate vehicle for the development and implementation of alien species management and control plans. These concerns can be dealt with by way of licence conditions to this effect (**schedule 4**).

Following considerations implicit to Sections 61 (e and f) of the Fisheries (Amendment) Act 1997, the Marine Institute is of the view that there will be no significant impacts on the marine environment and that the quality status of the area will not be adversely impacted.

Commissioner of Irish Lights: CIL has no objection to this application. However if granted, structures must be clearly marked and the applicant must secure Statutory Sanction from CIL for the aids to navigation that may be required by the MSO (draft licence **schedule 3**).

Donegal County Council: considers that the proposed aquaculture activity would not constitute a visual intrusion into the scenery of the Bay and is acceptable subject to the locations with licensed activity being clearly marked.

BIM: No objections to the application and stated that they are satisfied that the proposed operation does not conflict with any other aquaculture or inshore fisheries interest in the area.

An Taisce: raised a number of issues regarding traffic disturbance, the designation of the area for grey seals and the mobile sand community within the Bay. These issues are addressed in the Licensing Authority's Conclusion Statement for aquaculture activities in Ballyness Bay SAC (Site Code: 01090) – see Conclusion Statement **(TAB D)**.

DPHLG: previous correspondence from 2010 noted that the sites are not contained within Shellfish Growing area and are within the 2 km outfall to Ballyness Bay from Falcarragh which is just receiving Primary treatment. DHPLG had concerns with regards to suitability of these sites for shellfish cultivation from a water quality and shellfish health perspective. They also recommended the applicant be required to demonstrate (by monitoring) that the area is a suitable shellfish growing area and from a water quality and shellfish health perspective.

The requirements of the SFPA in relation to monitoring and classification must be adhered to prior to commencement of operations on the sites.

Public Consultation

The application was publicly advertised using a composite public notice covering both aquaculture and foreshore elements, in Donegal Democrat on 14th March, 2019. The application and supporting documentation were available for inspection at Letterkenny and Falcarragh Garda Stations for a period of 4 weeks from the date of publication of the notice in the newspaper.

There were no objections/comments received from the public consultation process.

A copy of all the observations/submissions received at the Public/Statutory consultation stage was forwarded to the applicant.

LANDSCAPE and VISUAL IMPACT ASSESSMENT (LVIA)

Marine Engineering Division (MED) prepared a comprehensive 'Landscape and Visual Impact Assessment' on this site (See **TAB G**). The report considered the landscape and visual impact of the sites T409A and T409B.

MED noted that Site 409A as applied for was 8.961 hectares in area. The largest site applied for to date in Ballyness Bay. It is located in the inner Bay within 100m of the High water mark at its south west edge. It is closest site to the R257 roadway which runs along south west edge of the Bay. The site is visible in the environs of the Bay from sloping lands to the southwest, south and southeast. It is also visible from areas of foreshore of the inner Bay and from dune area to the west. Public views of the site are available from foreshore areas in the Bay, the Dooey peninsula back dune area and from the public road network. The N56 and R257 sections of road from Gortahork to Magheraroarty are on the Wild Atlantic Way tourist route with extensive sea view opportunities and would have intermittent views of the proposed development site. Following the assessment of 15 designated viewpoints it was concluded that the visual impact caused by developing site 409A as applied for, for aquaculture will be moderate/significance. For the elevated views of the site that would be available to passing motorists on the R257 (looking eastwards and north-eastwards) at three of the viewpoints (4, 6 and 8) the visual impact arising is in the substantial to very substantial significance range.

The cumulative visual impact level is in the substantial or very substantial category from elevated viewpoints on R257 and is at the substantial category from nearby locations on access track in back dune area of the Dooey peninsula. This applies in the context of single site development of 409A alone as well as for cumulative impacts arising when neighbouring sites are also taken into account. Landscape level impacts arising are not problematic.

Substantial negative visual impact would arise with proposed development of site 409A at size applied for. The cumulative visual impact arising from development of 409A and neighbouring sites would also be excessive. I recommend that application to develop site 409A as applied for be refused on visual impact grounds. AFMD may wish to consider at a later stage the possibility of licensing a much reduced area of some 2.2119 hectares for site 409A.

Potential for impact mitigation by site area reduction

In order to reduce the visual impact significance for overlooking viewpoints on the R257 to an acceptable moderate significance, it is deemed necessary to reduce the magnitude of visual impact arising from high to low magnitude. This cannot be achieved by artificial means such as screening and there is little improvement that would arise with changing the structure layout.

Significant reduction of the site width (north to south) and reduction of its overall foreshore footprint would be required to reduce the magnitude of visual impact sufficiently. Confining the development area to the north part of the site keeps the development closer into the shoreline features on the west side of the Bay and avoids the impact arising from occupying the central part of site (most clearly in view) and the south part of the site which is closest to land and the viewpoints themselves.

The licensable area of 409A is defined by the following coordinates:

190091 432995

190209 432987

190204 432837

190032 432843 Area 2.2119 hectares.

[redacted]

[redacted]

CRITERIA IN MAKING LICENSING DECISIONS

The licensing authority, in considering an application, is required by statute to take account of, as appropriate, the following points and also be satisfied that it is in the public interest to license a person to engage in aquaculture:

a) the suitability of the place or waters

There were no objections to the proposal from a technical perspective. Prior to commencement of aquaculture activities at the site a classification must be assigned to the water and a biotoxin monitoring programme must be received by the SFPA.

b) other beneficial uses of the waters concerned

Public access to recreational and other activities can be accommodated by this project;

c) the particular statutory status of the waters

(i) Natura 2000

The site is located within the Ballyness Bay SAC. An Article 6 Appropriate Assessment has been carried out in relation to aquaculture activities in this SAC. This Assessment and its findings were examined by the Department and its scientific/technical advisors. This led to the Licensing Authority (i.e. the Minister) producing a Conclusion Statement outlining how it is proposed to licence and manage aquaculture activities in the above Natura site in compliance with the EU Habitats Directives.

(ii) Shellfish Waters

The site is not located within Shellfish Designated Waters. The Shellfish Waters Directive – 2006/113/EC - was designed to put in place concrete measures to protect shellfish waters, against pollution and to safeguard certain shellfish populations from various harmful consequences, resulting from the discharge of pollutant substances into the sea. Neither Aquaculture nor Shellfish Waters legislation precludes the licensing of aquaculture in non-designated areas. The original designations were based on active sites rather than proposed areas. The Minister when making a decision must take account of the suitability of the waters with full consideration of the views of all the stakeholders including Local Authorities as Statutory Consultees.

(iii) Shellfish Classification

Microbiological classification of shellfish areas is a requirement of European food law – areas are classified using the amount of bacteria found in sampled shellfish, as an index of water quality. From a food safety point of view, there is no problem in classifying an area that is not a designated Shellfish Waters area, as the classification programme is a requirement under hygiene legislation, whereas shellfish designated waters areas relate to pollution control programmes. Once licensed the licenceholder must contact the local Sea Fisheries Protection Authority (SFPA) office to organise a classification and biotoxin monitoring programme for the site and all requirements of the SFPA must be complied with including the need to have classification assigned prior to commencing operations, as per licence conditions listed in ***schedule 4.***

d) the likely effects on the economy of the area

Aquaculture has the potential to provide a range of benefits to the local community, such as attraction of investment capital, development of support services, etc.

e) the likely ecological effects on wild fisheries, natural habitats, flora and fauna

No significant issues arose regarding wild fisheries. The potential ecological impacts of aquaculture activities on natural habitats, flora and fauna are addressed in the Article 6 Appropriate Assessment for Ballyness Bay and in the Licensing Authority's Conclusion Statement.

f) the effect on the environment generally

The Department's Scientific Advisors, the Marine Institute, are of the view that there will be no significant impacts on the marine environment and that the quality status of the area will not be adversely impacted.

g) DCHG raised no objection to the development from an underwater archaeological perspective

RECOMMENDATION

It is recommended that the Minister:

approves the granting of Aquaculture Licences with a **variation, reducing** the footprint of the sites **(*TAB E*)** to Edward and Paul O'Brien, Magheraroarty, Gortahork, Co. Donegal, from 8.961 ha to 2.2119 ha (T12/409A) [redacted] for a period of ten (10) years for the purpose of cultivating clams on wooden trays under mesh (T12/409A) and [redacted] in accordance with the terms and conditions of the attached draft Aquaculture Licences. As there are 3 sites included in the application, a separate licence will issue in respect of each site.

The reasons for the recommendation to reduce the footprint of the sites are set out below:

T12/409A has been reduced to lessen the visual impact from overlooking viewpoints. Significant reduction of the site and reduction of its overall foreshore footprint is required to reduce the magnitude of visual impact sufficiently. Confining the development area to the north part of the site keeps the development closer into the shoreline features on the west side and avoids the impact arising from occupying the central part of the site and the south part of the site which is closest to land and the viewpoints.

[redacted]

REASONS FOR DECISION

The Minister for Agriculture, Food and the Marine is required to give public notice of both the licensing determination and the reasons for it. To accommodate this it is proposed to publish the following on the Department's website, subject to the Minister approving the above recommendation:

"Determination of Aquaculture/ Foreshore Licensing application –T12/409

Edward and Paul O'Brien have applied for authorisation to cultivate clams on wooden trays under mesh (T12/409A) [redacted] on the inter-tidal/sub-tidal foreshore on two sites 8.961 ha (T12/409A) and [redacted] in Ballyness Bay, Co. Donegal.

The Minister for Agriculture, Food and the Marine has determined that it is in public interest to grant a variation of Aquaculture/Foreshore Licences sought i.e. reducing T12/409A to 2.2119 ha [redacted] This is to reduce the visual impact of site T12/409A [redacted] In making his determination the Minister considered those matters which by virtue of the Fisheries (Amendment) Act 1997, and other relevant legislation, he was required to have regard. Such matters include any submissions and observations received in accordance with the statutory provisions. The following are the reasons and considerations for the Minister's determination to grant a variation of the licences sought: -

a. *There were no objections to the proposal from a technical perspective.*
b. *Public access to recreational and other activities can be accommodated by this project;*
c. *The proposed development should have a positive effect on the economy of the local area;*
d. *All issues raised during Public and Statutory consultation phase;*
e. *There are no effects anticipated on the man-made environment heritage of value in the area;*
f. *No significant effects arise regarding wild fisheries;*
g. *The site is located within the Ballyness Bay Special Area of Conservation (an Article 6 Assessment has been carried out in relation to aquaculture activities in the SAC). The Licensing Authority's Conclusion Statement (available on the Department's website) outlines how aquaculture activities in this SAC, including this site, are being licensed and managed so as not to significantly and adversely affect the integrity of the Ballyness Bay SAC.*
h. *Scientific observations related to the Appropriate Assessment received during the licensing consultation process are addressed in the Licensing Authority's Appropriate Assessment Conclusion Statement;*
i. *Taking account of the recommendations of the Appropriate Assessment the aquaculture activity at this site is consistent with*

the Conservation Objectives for the SAC;

j. *No significant impacts on the marine environment and the quality status of the area will not be adversely impacted.*

k. *The updated Aquaculture and Foreshore licences contain terms and conditions which reflect the environmental protection now required under EU and National law."*

Recommendation to grant a Foreshore Licence application (T12/409)

DECISION SOUGHT

The Minister's determination is requested please in relation to the application for a Foreshore Licences from Edward and Paul O'Brien, Magheraroarty, Gortahork, Co. Donegal, for two sites in Ballyness Bay, Co. Donegal, in which it is proposed to conduct aquaculture.

BACKGROUND

Marine aquaculture operations require separate Aquaculture and Foreshore Licences and Ministerial approval is required in respect of this submission (Foreshore Submission) and submission above (Aquaculture Submission), which refer to the same site.

The Foreshore Licence allows for the occupation of the particular area of foreshore while the Aquaculture Licence defines the activity that is permitted in this area. The continuing validity of each licence is contingent on the other licence remaining in force.

APPLICATION FOR A FORESHORE LICENCE

An application (TAB A) for Aquaculture Licences has been received from the applicant referred to above (in conjunction with an application for a Foreshore Licences), for the cultivation of clams on wooden trays under mesh (T12/409A) [redacted] in relation to a 8.961 hectare site (T409A) [redacted] on the foreshore in Ballyness Bay, Co. Donegal.

It is now proposed to be reduced T12/409A to 2.2119 ha [redacted]

LEGISLATION

Section 3 of the Foreshore Act, 1933 gives power to the Minister to licence the use of foreshore, if he is of the opinion that it is in the public interest to do so.

CONSULTATION AND PUBLIC COMMENT

The application was sent to the Department's technical experts, and was also publicly advertised in a composite public notice covering both aquaculture and foreshore elements.

This application was also sent to the Department of Housing, Planning and Local Government (DHPLG) in accordance with subsection (1B) of Section 3 of the Foreshore Act, 1933, which requires consultation between the Minister for Agriculture, Food and the Marine and the Minister for Housing, Planning and Local Government. Whilst aquaculture legislation requires certain statutory bodies to be notified of an aquaculture application, no other statutory bodies are prescribed consultees under Fisheries related foreshore legislation.

DHPLG: previous correspondence from 2010 noted that the sites are not contained within Shellfish Growing area and are within the 2 km outfall to Ballyness Bay from Falcarragh which is just receiving Primary treatment. Had concerns with regards to suitability of these sites for shellfish cultivation from a water quality and shellfish health perspective. They also recommended the applicant be required to demonstrate (by monitoring) that the area is a suitable shellfish growing area and from a water quality and shellfish health perspective.

The requirements of the SFPA in relation to monitoring and classification must be adhered to prior to commencement of operations on the sites.

Technical Consultation

Marine Engineering Division (MED): On original inspection MED stated the site appeared to be suitable in terms of location, level and shelter for aquaculture. In consultation with the applicant, MED agreed revised co-ordinates for the sites prior to public consultation.

MED have recommended provision of a number of clear gaps through the area licensed for oyster farming on west side of the Bay for small boat and pedestrian access. [redacted]

[redacted]

MED have also completed a Landscape and Visual Impact Assessment (LVIA) (**TAB G**) which is covered further down in this submission, which with the requirement of a gap provision has lead to the proposed reduction in site sizes.

Marine Survey Office: No objections to the application from a navigational viewpoint.

The MSO requested Sanction to establish the marks specified be obtained from the Commissioners of Irish Lights in advance of commencing operations. These marks may need to be amended if the smaller sites are licensed. The applicant must contact the MSO in advance of operations commencing.

Sea Fisheries Protection Authority: Ballyness Bay is currently not classified for oyster production. The applicant will need to lodge a request for sampling to be established in the area. The site does not overlap or cover a wild shellfish fishery and there is no known wild shellfish fishery within this area of the bay. The granting of this licence will have no negative impact on sea fishing operations.

Public Consultation

The application was publicly advertised using a composite public notice covering both aquaculture and foreshore elements, in the Donegal Democrat on 14th March 2019. The application and supporting documentation were available for inspection at Letterkenny and Falcarragh Garda Stations for a period of 4 weeks from the date of publication of the notice in the newspaper.

There were no objections/comments received from the public consultation process.

CRITERIA IN MAKING LICENSING DECISIONS

The Minister, in considering an application for a Foreshore Licence, may, if satisfied that it is in the public interest to do so, grant such a licence.

Section 82 of the Fisheries (Amendment) Act, 1997 stipulates that the Minister, in considering an application for a licence under the Foreshore Acts, which is sought in connection with the carrying out of aquaculture pursuant to an Aquaculture Licence, shall have regard to any decision of the licensing authority in relation to the Aquaculture Licence.

RECOMMENDATION

It is recommended that the Minister:

approves the granting of Foreshore Licences (**TAB F**) to Joseph M Coll, Hillcrest, Meenlaragh, Gortahork, Co. Donegal, for three sites (T12/409A - 2.2119 ha, [redacted] in Ballyness Bay for a period of ten (10) years for occupation of the site for the carrying out of aquaculture activities as defined in the Aquaculture Licence, and in accordance with the terms and conditions of the attached draft Foreshore Licence. As there are 3 sites included in the application, a separate licence will issue in respect of each site.

Related submissions

There are no related submissions.

Comments

Farrell, Geraldine - 08/11/2019 15:44
It is recommended that the Minister approves the granting (with a variation) of the Aquaculture / Foreshore Licences for 2 sites, to Edward & Paul O'Brien for the reasons outlined in the submission above and in accordance with the terms & conditions of the attached draft licence(s).

OCallaghan, Grace - 11/11/2019 13:16
I have reviewed the submission and agree with the recommendation made that the Minister approves the granting (with a variation) of the Aquaculture / Foreshore Licences for 2 sites, to Edward & Paul O'Brien for the reasons outlined in the submission above and in accordance with the terms & conditions of the attached draft licence(s). GOC

Quinlan, John - 13/11/2019 09:16
Recommended for approval please.

Beamish, Cecil - 13/11/2019 10:48
Recommended that the Minister determines the Aquaculture and Foreshore Licences sought be granted with a variation reducing the sites for the reasons outlined in the submission.

Smith, Ann - 13/11/2019 10:57
Approved for submission to Minister. AS 13/11/2019

Lennox, Graham - 25/11/2019 16:07
Minister determines the Aquaculture and Foreshore Licences sought be granted with a variation reducing the sites for the reasons outlined.

User details

INVOLVED:
OMahony, Jane
Farrell, Geraldine
OCallaghan, Grace
Quinlan, John
Beamish, Cecil
Sub Sec Gens Office
eSub Sec Gen
eSub Ministers Office
eSub Minister

READ RECEIPT:
OMahony, Jane
Farrell, Geraldine
OCallaghan, Grace
Quinlan, John
Beamish, Cecil
Smith, Ann
Lennox, Graham

Application.

T 12/409.

AQUACULTURE - LICENSING UNDER

FISHERIES (AMENDMENT) ACT, 1997 and

FORESHORE ACT, 1933

SHELLFISH AND FINFISH

Aquaculture and Foreshore Licence Application Form

Important Note

Section 4 of the Fisheries and Foreshore (Amendment) Act, 1998 (No. 54) prohibits any person making an application on or after 10 December 1998 for an Aquaculture Licence from commencing aquaculture operations until duly licensed under the Fisheries (Amendment) Act, 1997 (No. 23), and provides that a breach of that prohibition will cause the application to fail.

Coastal Zone Management Division
Department of Agriculture, Fisheries & Food
Clogheen
Clonakilty, Co. Cork

Fax: (023) 8821782

AQUACULTURE AND FORESHORE LICENSING APPLICATION FORM, for purposes of FISHERIES (AMENDMENT) ACT, 1997 and FORESHORE ACT, 1933

Accompanying Guidance Notes should be read before completing this form.

Note: Details provided in Parts 1 and 2 will be made available for public inspection.
Details provided in Part 3 are confidential and are not for public disclosure.

USE BLOCK CAPITALS IN BLACK INK

For Office Use
Application Ref. No. T12/409
Date of receipt, (Dept. Stamp)

COASTAL ZONE MANAGEMENT DIVISION
30 MAR 2010
DEPT. OF AGRICULTURE, FISHERIES & FOOD

PART 1: PRELIMINARY DETAILS

Name(s) of Applicant(s) in full:

1.A EDWARD O' BRIEN

1.B PAUL O BRIEN

Address(es) of Applicant(s) in full:

1.A	1.B
MAGHERAROARTY	MAGHERAROARTY
GORTAHORK	GORTAHORK
CO DONEGAL	CO DONEGAL

RSI

Tel: Fax:

1.C Indicate the relevant type of application: (insert X in relevant box)

-(i) Aquaculture Licence	X
-(ii)Trial Licence	
-(iii)Review of Aquaculture Licence	
-(iv)Renewal of Aquaculture Licence	
-(v) Foreshore Licence	X

BALLYNESS BAY

GIGAS OYSTERS & CLAMS

(This Application Form is valid for each type of application.)

1.D TYPE OF AQUACULTURE

Indicate the relevant type of application:

-(i) Land-based	
-(ii) Marine-based	X
-Shellfish	
(iii) - extensive	
(iv) – intensive	X
-(v) Finfish	

1.E DOCUMENTS ENCLOSED WITH THIS APPLICATION

The following documents are enclosed with this application:

(1) - Ordnance Survey Map (Scale of 1: 10,560, ie, a six inch map) *OBLIGATORY* [X]

(2) - British Admiralty Chart (largest available scale) [X]

(3) - Decision of planning authority under Planning Acts [ ]

(4) - Copy of licence under Section 4 of Local Government Water Pollution) Act, 1977 [ ]

(5) - Environmental Impact Statement [ ]

(6) - Drawing of the structures to be used and/or the layout of the farm *OBLIGATORY* [X]

(7) - Water Quality Analysis Report (required for Land-based sites only) [ ]

(8) - Application Fee OBLIGATORY [X]

(9) - Other (specify): _____

PART 2: DETAILS RELATING TO PROPOSED AQUACULTURE PROJECT

2.A Employment, Qualifications, Experience, Etc.

(i) Details of Applicant's qualifications and experience in aquaculture:

HAVE GAINED PRACTICAL EXPERIENCE ON OTHER OYSTER FARMS.

(ii) Other relevant experience (courses attended, etc): YES. GATHERED SHELLFISH (CLAMS, WELKS, COCKLES) ALONG PROPOSED SITE SINCE YOUTH. KNOW ARE VERY WELL.

(iii) Details of projected employment creation during first four years of proposed development:

FIRST TWO YEARS PART TIME AS FARM DEVELOPS

YEAR 3 TWO FULL TIME JOBS

(iv) Projected employment (number of persons):

Year 1:	2 PT	Year 2:	2 PT	Year 3:	2 FT 2 PT	Year 4:	2 FT 4 PT

2.B Aquaculture Site Details

Indicate type of site:

- (i) Land-based [ ]
- (ii) Marine-based [X]

2.C Land-Based Site

(To be completed if appropriate)

(i) State species to be farmed: _____

(ii) State proposed system of culture e.g., pond, raceway, circular tank or other method: _____

(iii) Full address of proposed site including Townland and County: _____

(iv) Tonnage to be produced:

Year 1:		Year 2:		Year 3:		Year 4:	

(v) Proposed source of stock: _____

(vi) Name of river(s) supplying site with water: _____

(vii) Estimate drought flow in gallons per minute: _____

(viii) Is there a fall of 1.5 metres in the water level at this site or can this be obtained by damming the river without giving rise to flooding of your own or neighbour's land upstream of the site? _____

(ix) Area of proposed site (hectares): _____

(x) Details of services available on the site e.g., main road access, electricity: _____

(xi) Are there at present any possible sources of pollution upstream of the site, e.g. discharge from sewerage plant, farmyard, sheep dip facility, silage effluent, quarry, sandpit or factory? YES [ ] NO [ ]

(xii) If yes, supply details: _____

Land-based Site (continued)

2.D The following must be supplied:

- (i) Sketch of the layout of the site in relation to the river(s), road(s) and buildings;
- (ii) Water quality Analysis Report, which should be drawn up in accordance with the parameters set out in Annex C of the Guidance Notes.

2.E The following conditions must be met in order to allow for consideration of licensing of land-based aquaculture:

- (i) the buildings and equipment must be put in place to the Department's satisfaction; an
-(i) the operation must comply with Local Authority requirements.

2.F Marine-based Site(s)
(To be completed if appropriate)

Location -(i) Bay: BALLYNESS BAY

-(ii) County: DONEGAL

(iii) OS Map No: 24 COPY ENCLOSED

(iv) Site Co-ordinates COPY OF GPS CO-ORDINATES ENCLOSED

(v) Size (hectares): 20 Ha

(vi) Species (common and scientific name):

GASSOSTREA GIGAS (OYSTERS) T TAPES SEMIDECCUSATUS (CLAMS)

-Aquatic Plant(s)

-Any form of aquatic food suitable for the nutrition of fish

(vi) Method of culture (e.g., nets, ropes, tanks, trestles, etc.)

TRESTLES + BAGS, WOODEN TRAYS + MESH

(vii) Drawings of structures to be used in method of culture should be enclosed.

(viii) If cages or tanks are proposed, state:

-(a) Number:

-(b) Type and shape:

-(c) Cubic Capacity:

-(d) Depth:

(ix) Proposed specific site locations (with reasons):

(x) Describe proposed purification facilities to be used, where appropriate:

Marine-based Site(s) (continued)

2.G Give details of any special requirements relating to the health of the proposed project and the wider matters of public health and safety:

SITE WILL BE SAMPLED FOR CLASSIFICATIONS

ALREADY SAMPLES IN 90'S AND WATER QUALITY

VERY GOOD

2.H Tonnage to be produced:

Species (To state)	Year 1:	Year 2:	Year 3:	Year 4:
OYSTERS	—	20T	60T	100T
CLAMS	—	—	10T	40T

2.I Reasons for selection of site(s): EXCELLENT SUBSTRATE FOR CLAMS AND TRESTLE DEPLOYMENT GOOD GROWTH RATE IN THE PAST WITH OYSTERS. GOOD QUALITY SEA WATER FROM ADJACENT OCEAN. LINE BESIDE SHORE AND SITE

Note: The proposed access route to the site(s) from public road across tidal foreshore area Must be indicated on the OS map accompanying the application.

2.J Environmental Impact Statement (EIS).

A copy of an EIS, if required, should be enclosed with the application. The EIS should contain the information specified in Annex B of the Guidance Notes.

2.K Trial Licence.
(To be completed if appropriate)

Describe experimental or investigative nature of the proposed project:

[Use separate page if required – to be signed and dated]

B. MARKETING (continued)

3. Will the product be processed or packaged?

4. If yes, give details: _____

I/We hereby declare the information provided in Parts 1, 2 and 3 above to be true to the best of my/our knowledge. I/We enclose an application fee* of € 95.23 with this application.

Signature(s) of Applicant(s): EDNARD O' BRIEN

Paul O' Brien

Date: 1-3-10

*Preferred method of payment is by cheque or bank draft. The fee should be made payable to the Department of Agriculture, Fisheries and Food.

This form should be forwarded, with the required documents and application fee, to:

Aquaculture Licensing
Coastal Zone Management Division
Clogheen
Clonakilty,
Co. Cork

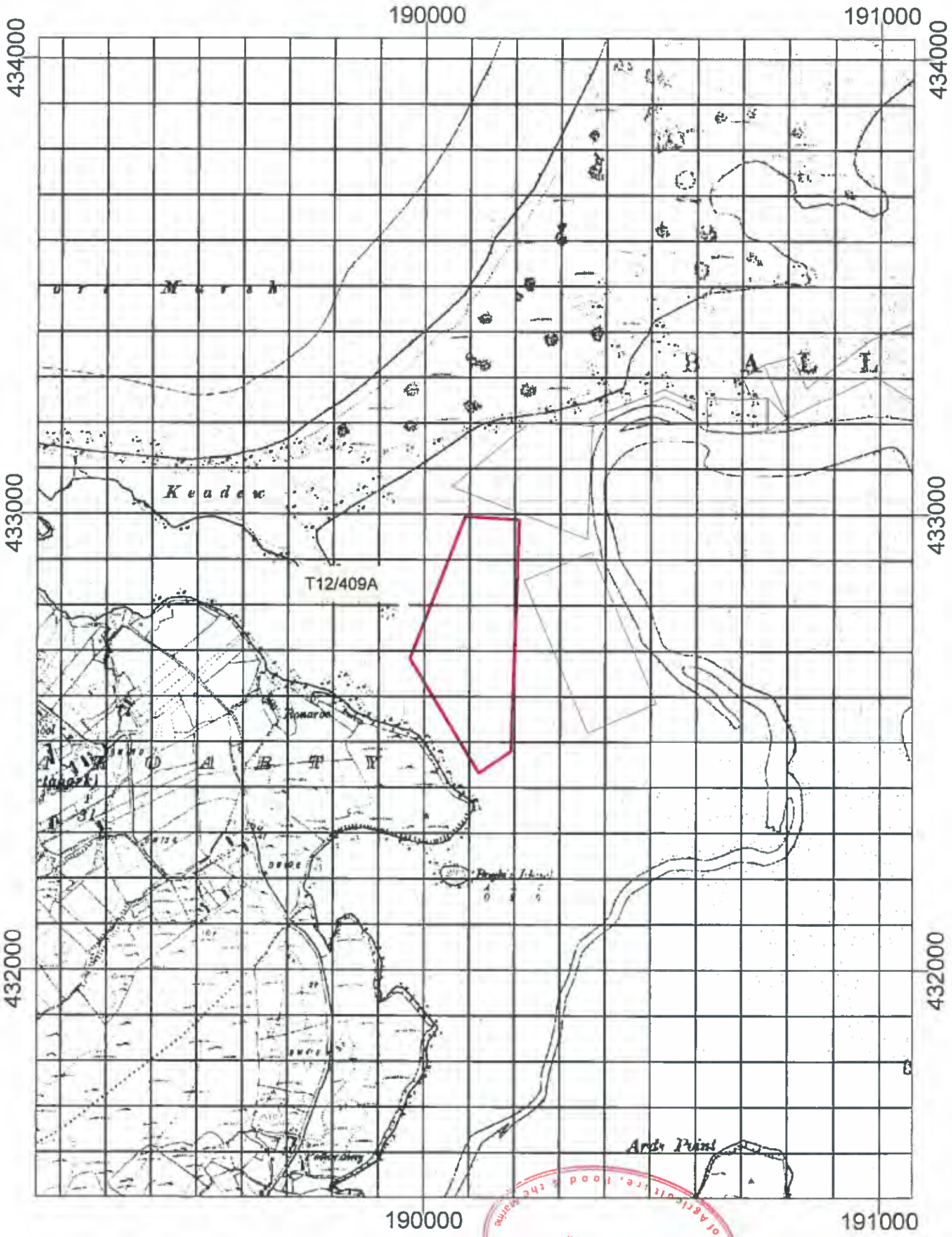
1 NO. SITE AT BALLYNESS BAY CO.DONEGAL

Co-ordinates & Area

Site T12/409A (8.961 Ha)

The area seaward of the high water mark and enclosed by a line drawn from Irish National Grid Reference point

189969, 432683 to Irish National Grid Reference point
190091, 432995 to Irish National Grid Reference point
190209, 432987 to Irish National Grid Reference point
190192, 432480 to Irish National Grid Reference point
190122, 432432 to the first mentioned point.

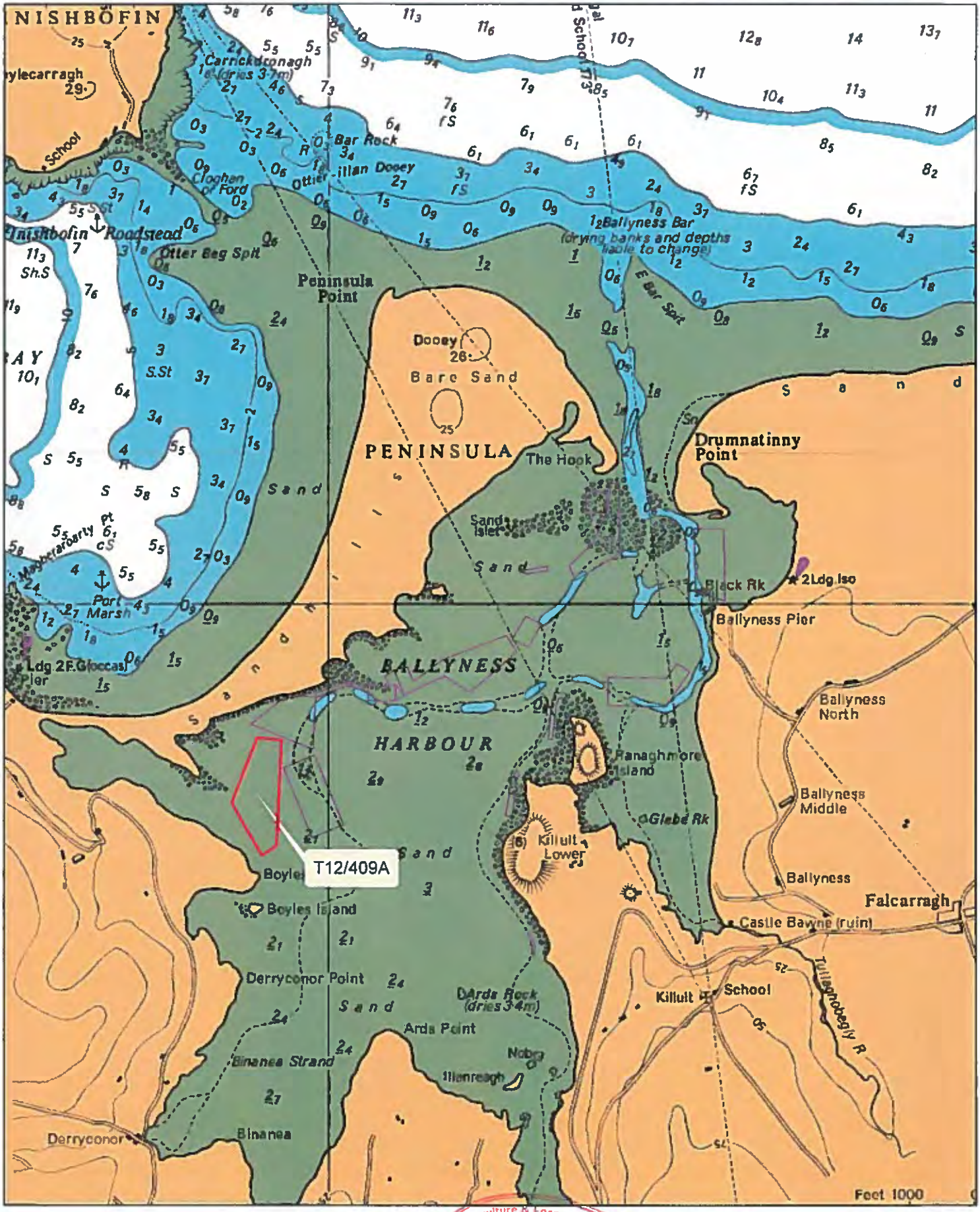


Aqua Culture Sites
<all other values>
Site_Status
Application
Lapsed
Licensed
Refused
Revoked
Surrendered
Withdrawn
100 Meter Reference Grid

1:10,560

Sites highlighted in red denotes Application

Department of
Agriculture,
Food and the Marine
An Roinn
Talmhaíochta,
Bia agus Mara



Aqua Culture Sites
<all other values>

Site_Status
- Application
- Lapsed
- Licensed
- Refused
- Revoked
- Surrendered
- Withdrawn

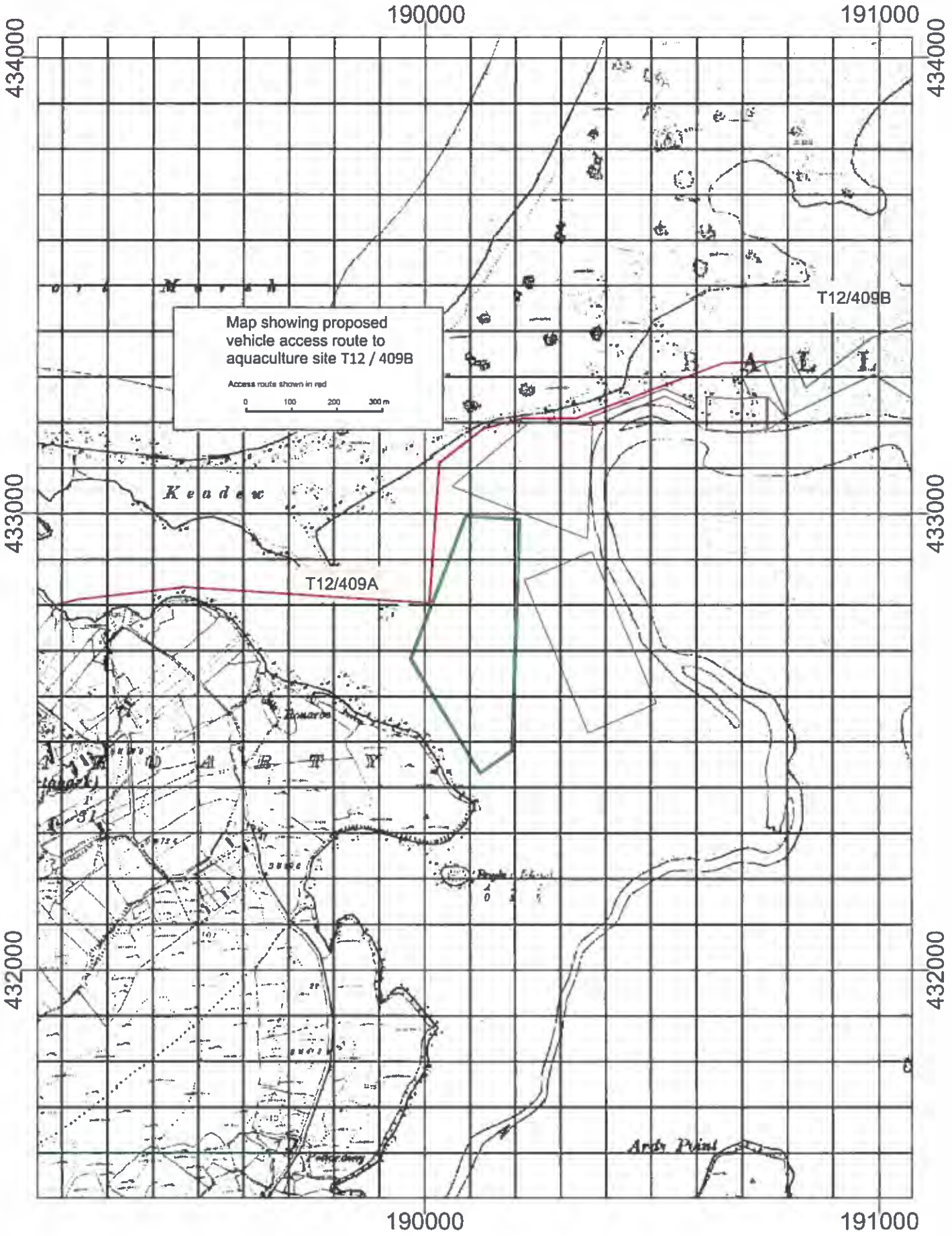
1:24,000

Sites highlighted in red denotes Application

Part of Admiralty Chart No 2752-0
Not to be used for Navigation

Aquaculture & Foreshore Management Division
15 DEC 2017
Department of Agriculture, Food and the Marine

Department of
Agriculture,
Food and the Marine
An Roinn
Talmhaíochta,
Bia agus Mara



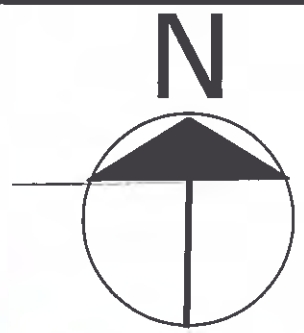
Access Route shown in RED

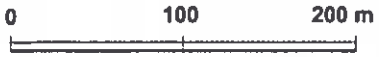
Access Route Map

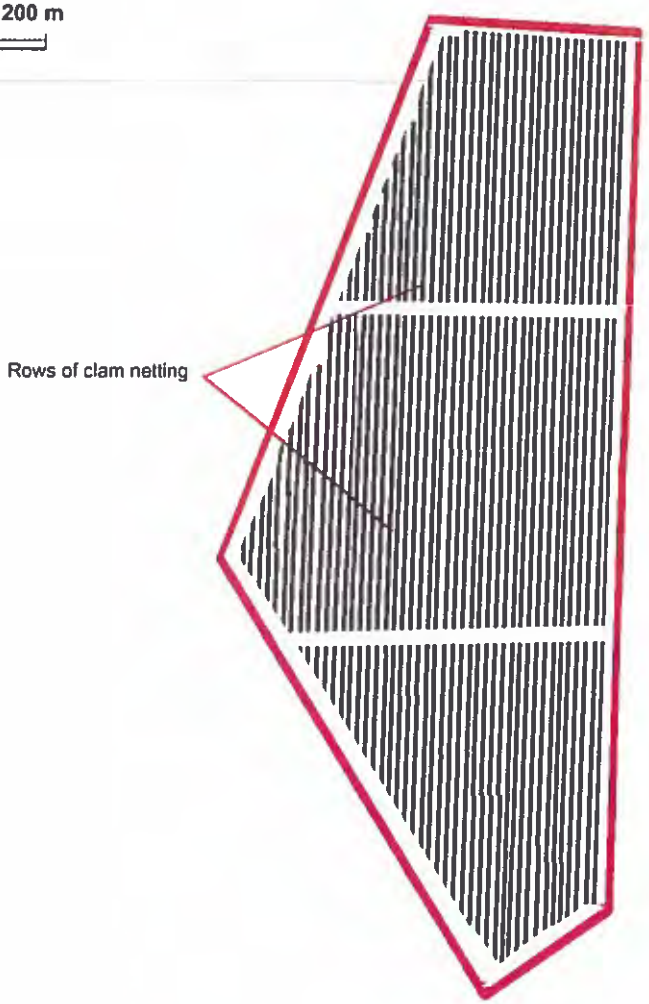
Applicant : Paul O' Brien (T12/409B)

Drawing of farm layout

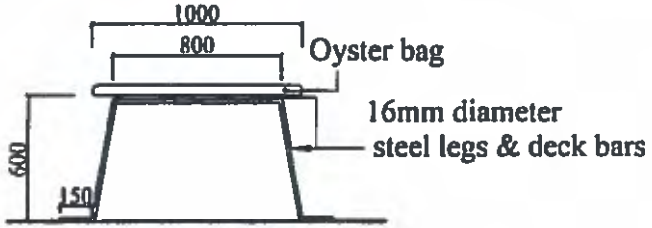
Clam netting 1.5m wide
1m space between each row



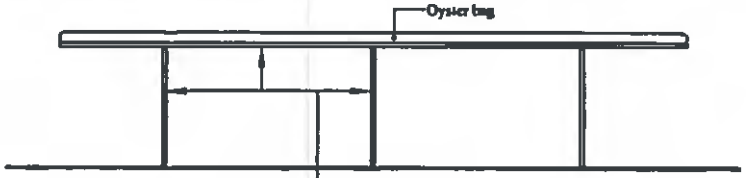




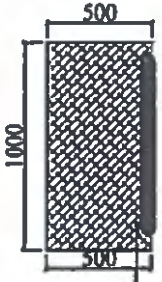
Farm Layout - Paul O Brien (T12/409A)



Cross Section

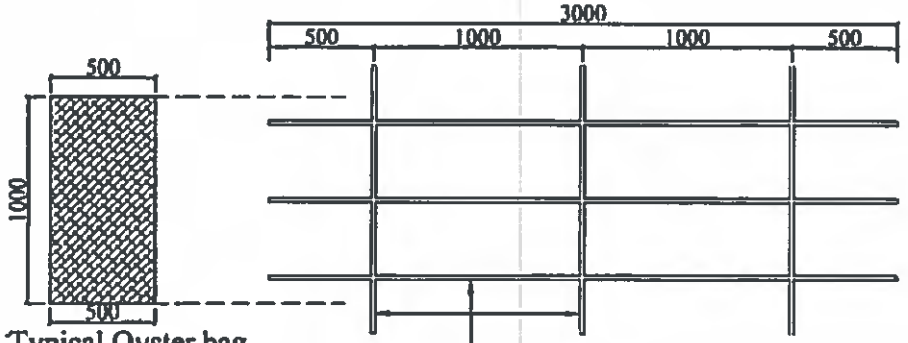


Elevation



Will be experimenting with placing a float on one side of the bag with the other side still attached to the trestle to create movement of oysters.

Typical Oyster bag with Float



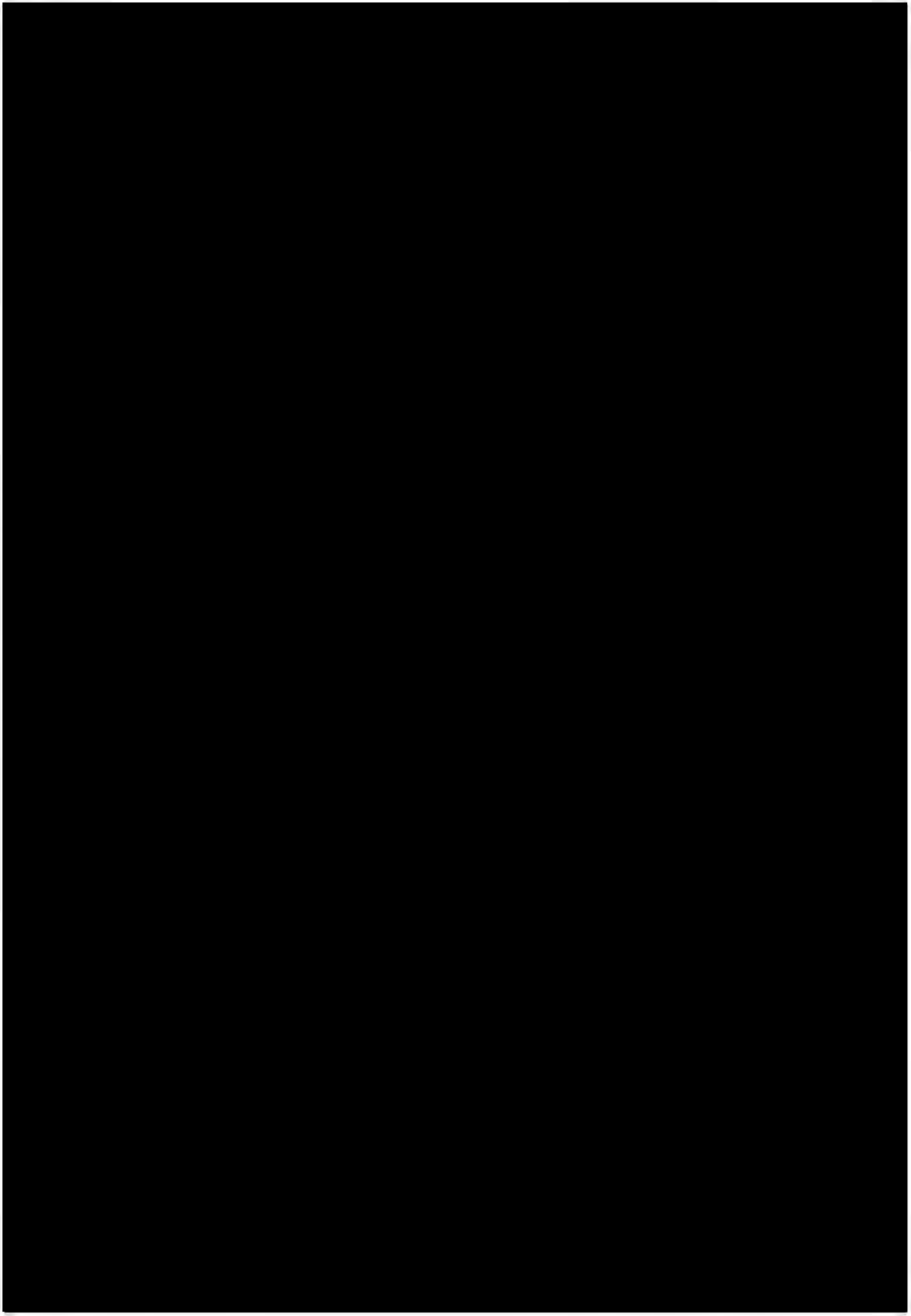
Plan

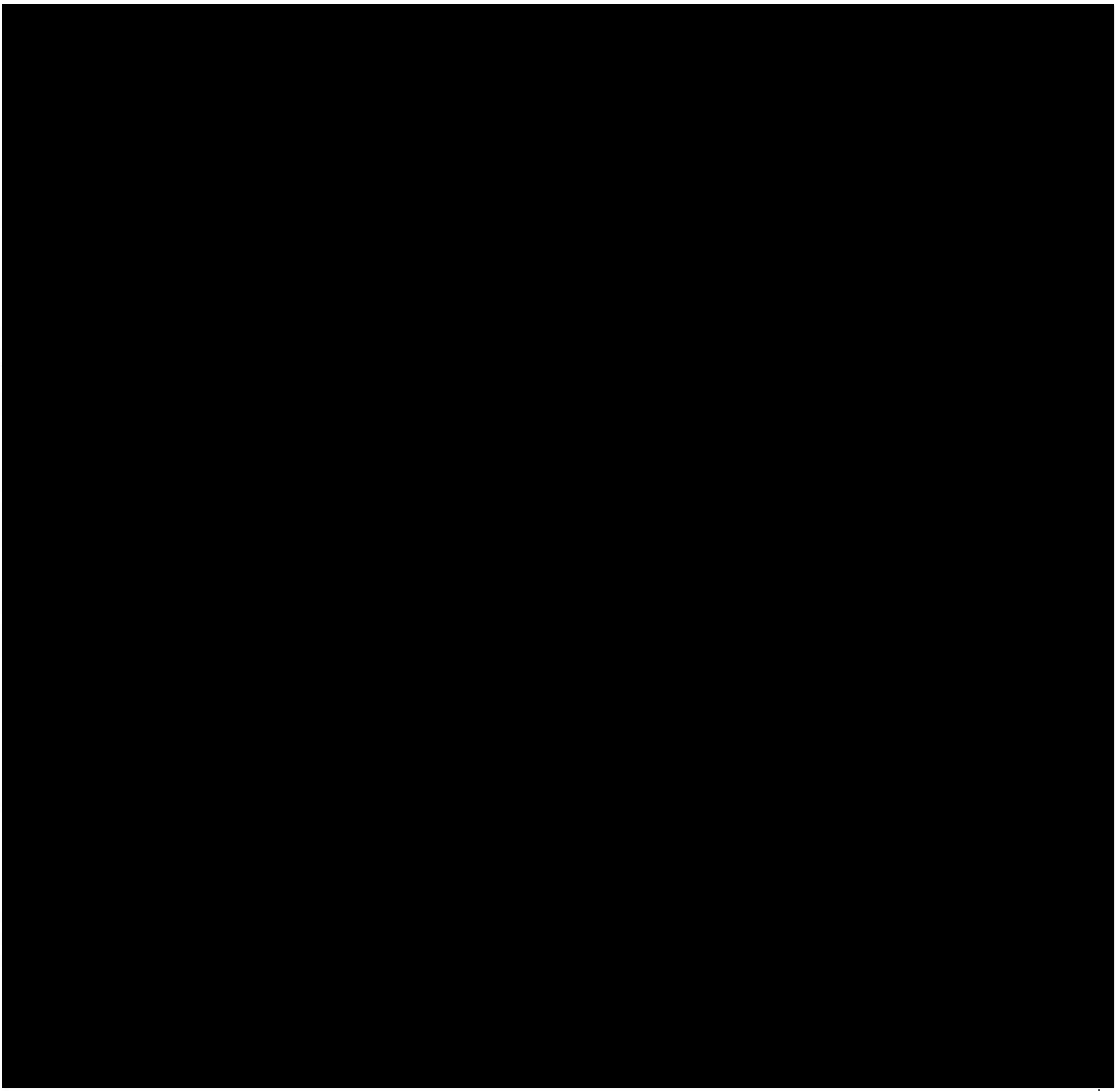
Pictures of clam netting to be used and sample rows.

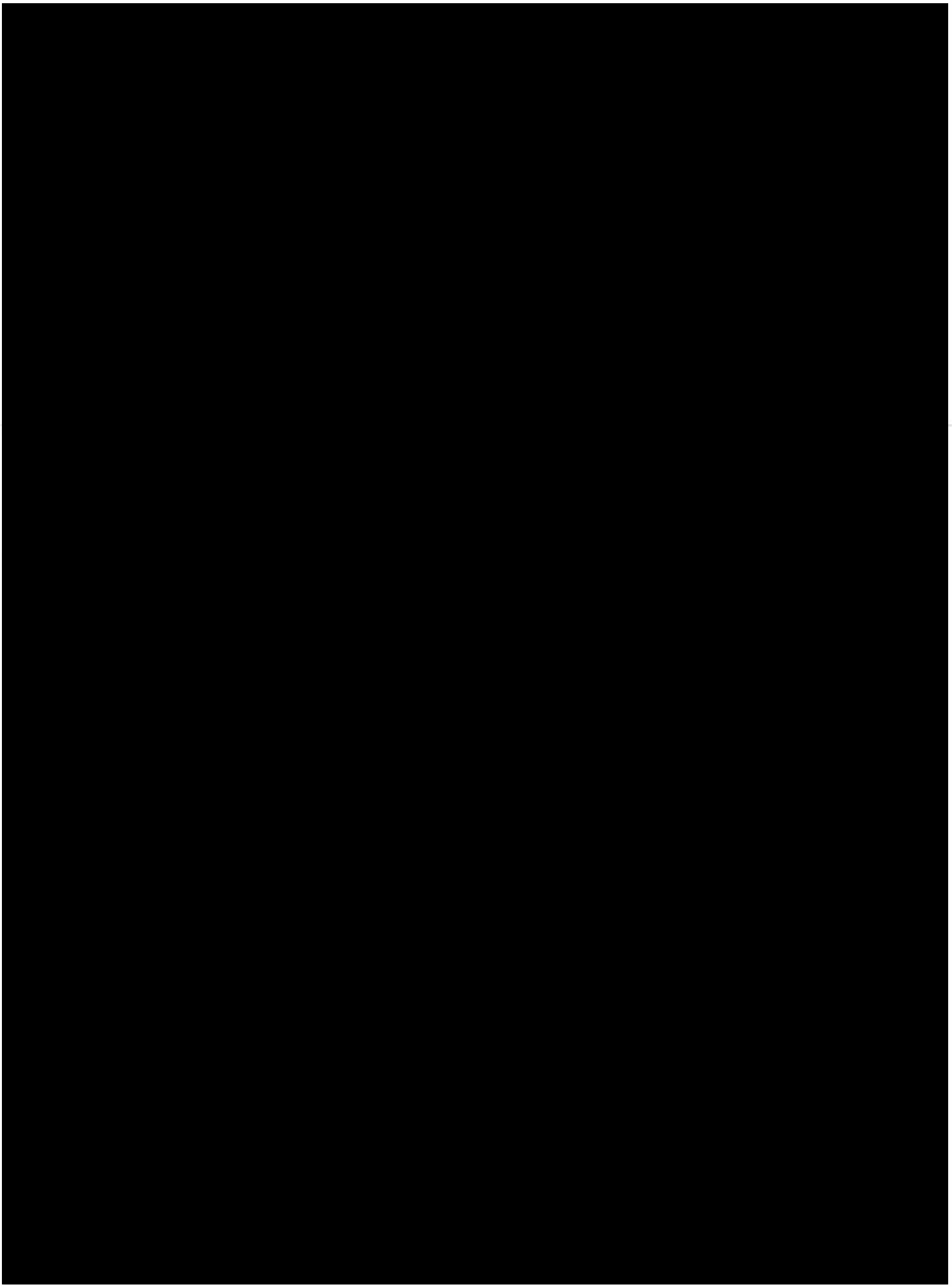
Structures Design

0 1 2 m

Applicant : Paul O' Brien (T12/409B)







Mr. Campbell, Divisional Engineer BJC 26/1/11

Ms. Karen Gill, AFMD, Clonakilty

RE: Aquaculture licence application T12/409 Edward & Paul O'Brien, Ballyness Bay Co. Donegal

Background

The applicants are brothers who live in the local area – they have shellfish gathering experience and know Ballyness Bay well . They have consulted with [redacted] ([redacted]) and are interested in getting their own enterprise off ground. Clam production is their main interest but they wish to try oyster growing as well. Note that while no aquaculture in Bay at present there were trials with clams and oysters by others ([redacted]) approximately 10 -20 years ago – but these did not succeed.

Mr. Paul O'Brien tells me he has done some on site growth trials with a small no. of clams in a cage at the site and is encouraged by results so far.

Site inspection

I inspected the area at low tide on 25/1/11. The proposed sites appear to me to be suitable in terms of location, level and shelter for proposed aquaculture. Whether there will be sufficient nutrient supply in the bay for good growth will only be known with time. Winkles and cockles have been collected in the area for many years.

Possible impacts

Access - by tractor would be from land to the south west near the home of one of the applicants. Access point to shore is marked 'AP' on attached map. I think the proposed access route on intertidal shore is satisfactory – it is preferable to generating more traffic on the dune area of the Dooey peninsula to the west. If licensed it would be important to specify a designated access route on foreshore in this case to ensure no associated traffic induced damage to the neck and southern part of the Dooey peninsula further west.

Visual impact – proposed sites will be visible at distance from R257 tourist road – however I don't anticipate significant negative impact. I don't envisage it should detract from amenity usages of the area. Sensitive operation and good management of any such aquaculture enterprise in the area would be very important to minimise impact on other beneficial usages of the area.

Scale – the proposed development measuring 11 hectares in total is very large for a start up enterprise – particularly in an area without established aquaculture. However given that application area has reduced from an original area of 20Ha and that the application period is likely to take some considerable time and that there is a possibility of objections at public consultation stage I think it is appropriate not to reduce the areal extent of their proposal at this stage. Note also that clam production can require large areas of ground initially to identify optimum growth locations..

Conservation – the sites are located in a the Ballyness Bay SAC area and appropriate assessement is likely to be sought by NPWS. AFMD might check what NPWS need in this regard and arrange for such assessment to be done – may also apply to nearby oyster application T12/409 Joseph Coll.

Recommendation

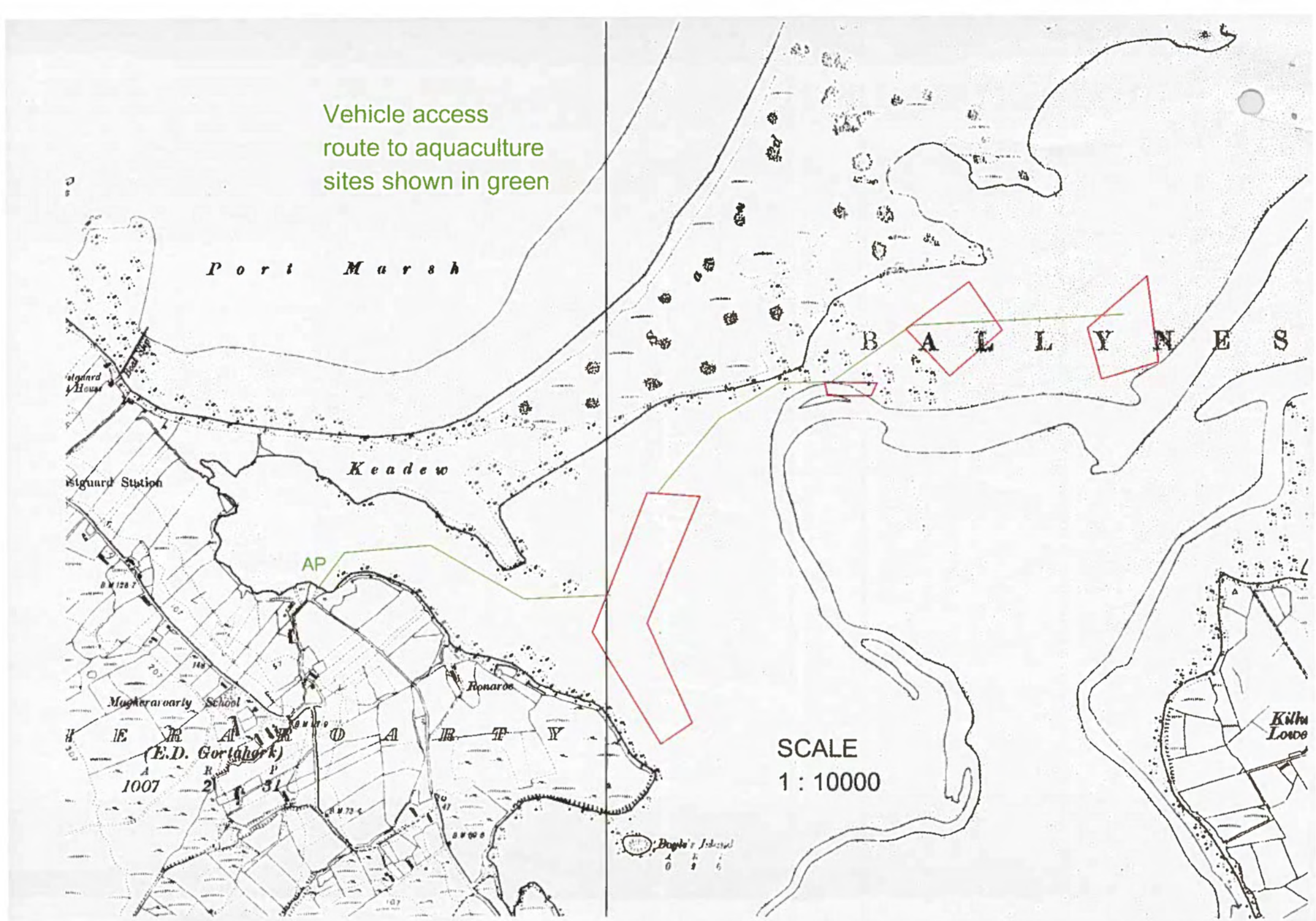
The application is satisfactory and proposed development is likely to be appropriate to the area. I recommend that the application as proposed go to public consultation as soon as possible.

Paul O'Sullivan

Paul O'Sullivan

26-1-2011

Note that inclusion of original application map documents with this application may lead to some confusion – the applicants did replace their application map and coordinates with a revised map and coordinates in October 2010 – this revised map and coordinate set (rather than the old one) should be included with the application form at public consultation stage.


Vehicle access
route to aquaculture
sites shown in green
Port Marsh
Keadew
BALLYNES
AP
SCALE
1 : 10000

Karen Gill
AFMD
Wednesday, 08 December 2010

T12/409

This office is unaware of any reason to object to this development from a navigational viewpoint.

The applicant is required to apply to the Commissioners of Irish Lights (Fax: 01 6618094, email: marine@cil.ie) for sanction to establish the following marks:posts of the approved construction and design projecting two meters above sea level at highest astronomical tide and with a topmark of a diagonal St.Andrews cross, painted yellow, should be erected at locations, numbered from the applicants drawing, 24,22,17,18,4,6,9,and 10
The top mark should be constructed in the pattern approved by the Commissioners for Irish Lights

In order for charts and nautical publications to be updated the applicant is required to inform the British Admiralty Hydrographic Office at Taunton , UK, of the location and nature of the site.
(Fax:0044 1823 284077, email : hdc@hdc.hydro.gov.uk)
border of the development.

We note that there may be observations from tourist boating and other interests at the public consultation phase.

Capt.Neil Forde
Nautical Surveyor

From: Ivory, Sean
Sent: 02 August 2012 16:20
To: Gill, Karen
Cc: McGabhann, Declan; Doherty, Anita
Subject: T12/409
Ms Karen Gill,
Aquaculture and Foreshore Management Division,
Clogheen,
Clonakilty,
Co. Cork.

Your Ref: T12/409 Edward and Paul O Brien

Dear Karen,

I wish to acknowledge receipt of your correspondence dated 28th February 2012 concerning the application for an aquaculture and foreshore licence for the cultivation of pacific oysters in Ballyness Bay, Co. Donegal.

The site is not currently sampled by the SFPA for E-coli or official classification purposes.

The applicant will need to lodge a request with Brian Nolan of the SFPA for a sampling plan to be established in this area before I could comment further, pending the results of this sampling.

The site does not cover or overlap a wild shellfish fishery and there is no known wild shellfish fishery within this area of the bay.

The granting of this application would have no negative impact on sea fishing operations.

Should you require any further assistance with the processing of this application please do not hesitate to contact me.

Yours sincerely,

Sean Ivory

Sea Fishery Protection Officer
Sea Fishery Protection Authority
New Harbour Offices
Killybegs
Co.Donegal
Tel. 0879391670 & 0749731264
Email: sean.ivory@sfpa.ie

Ms O Mahony, AFMD

RE: Ballyness Bay aquaculture licensing

Email dated 28 May (copy attached refers) lists a number of enquiries related to licensing decisions to be made for Ballyness Bay applications. I will comment on each enquiry as follows:

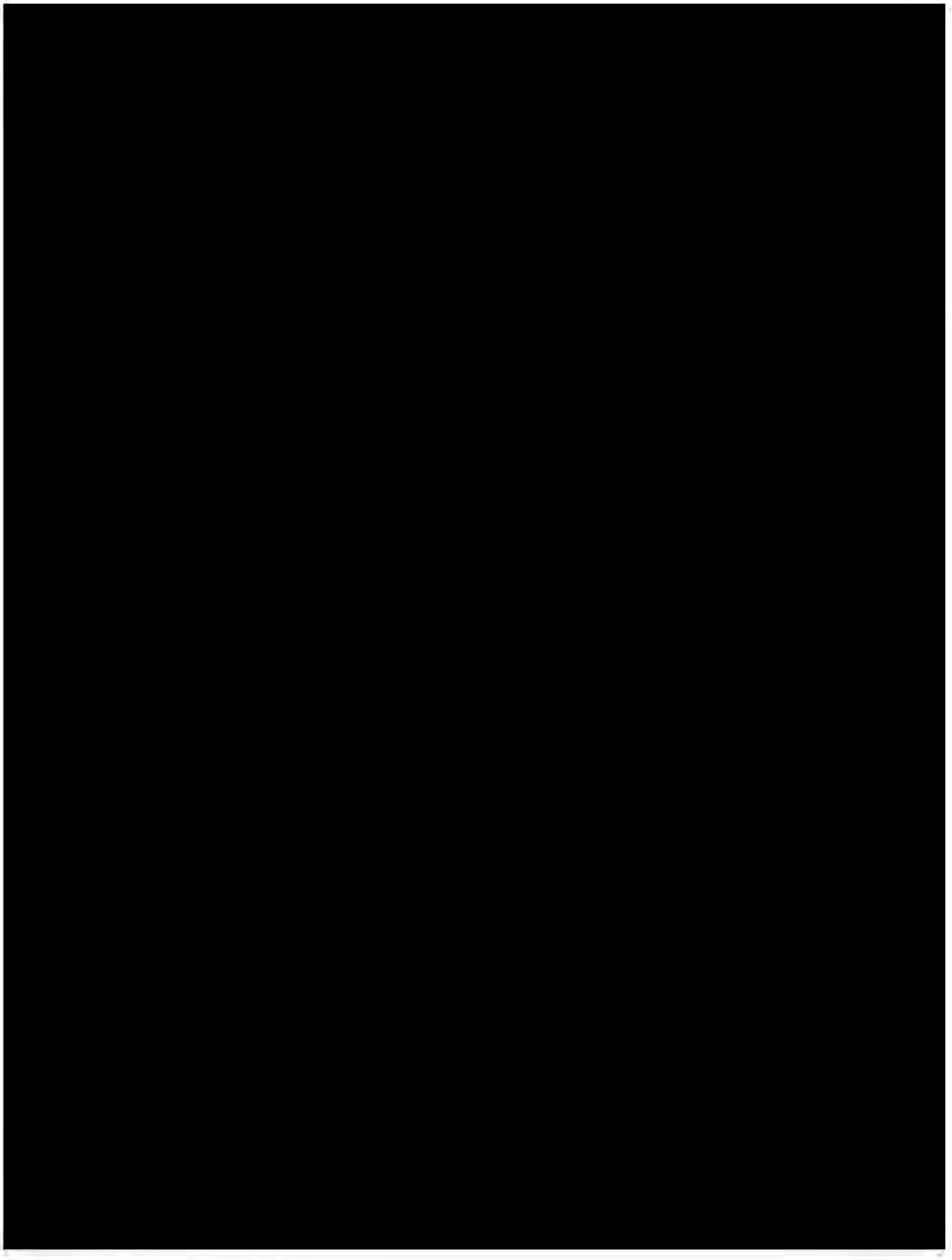
1) Reduction of area for site [redacted]

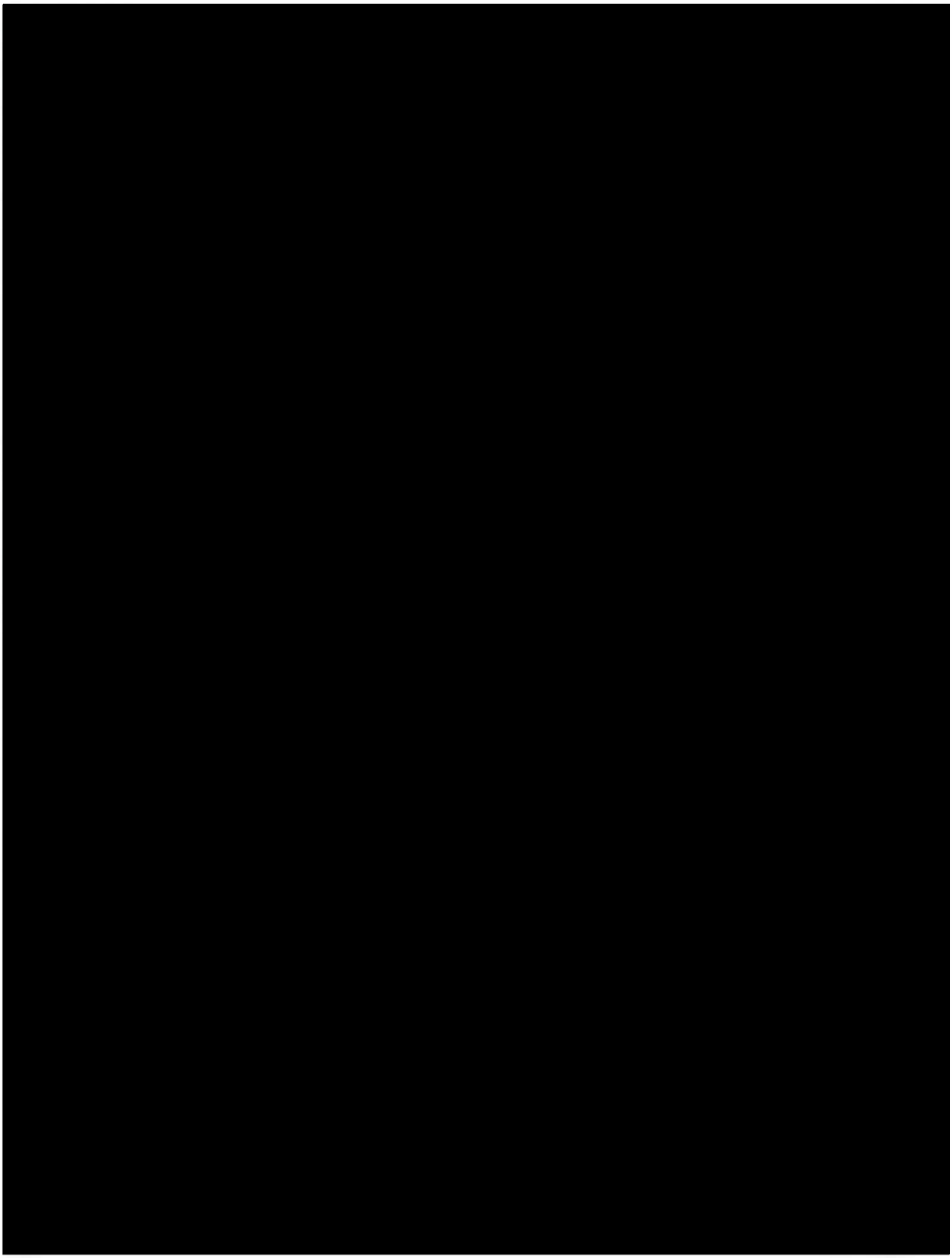
[redacted]

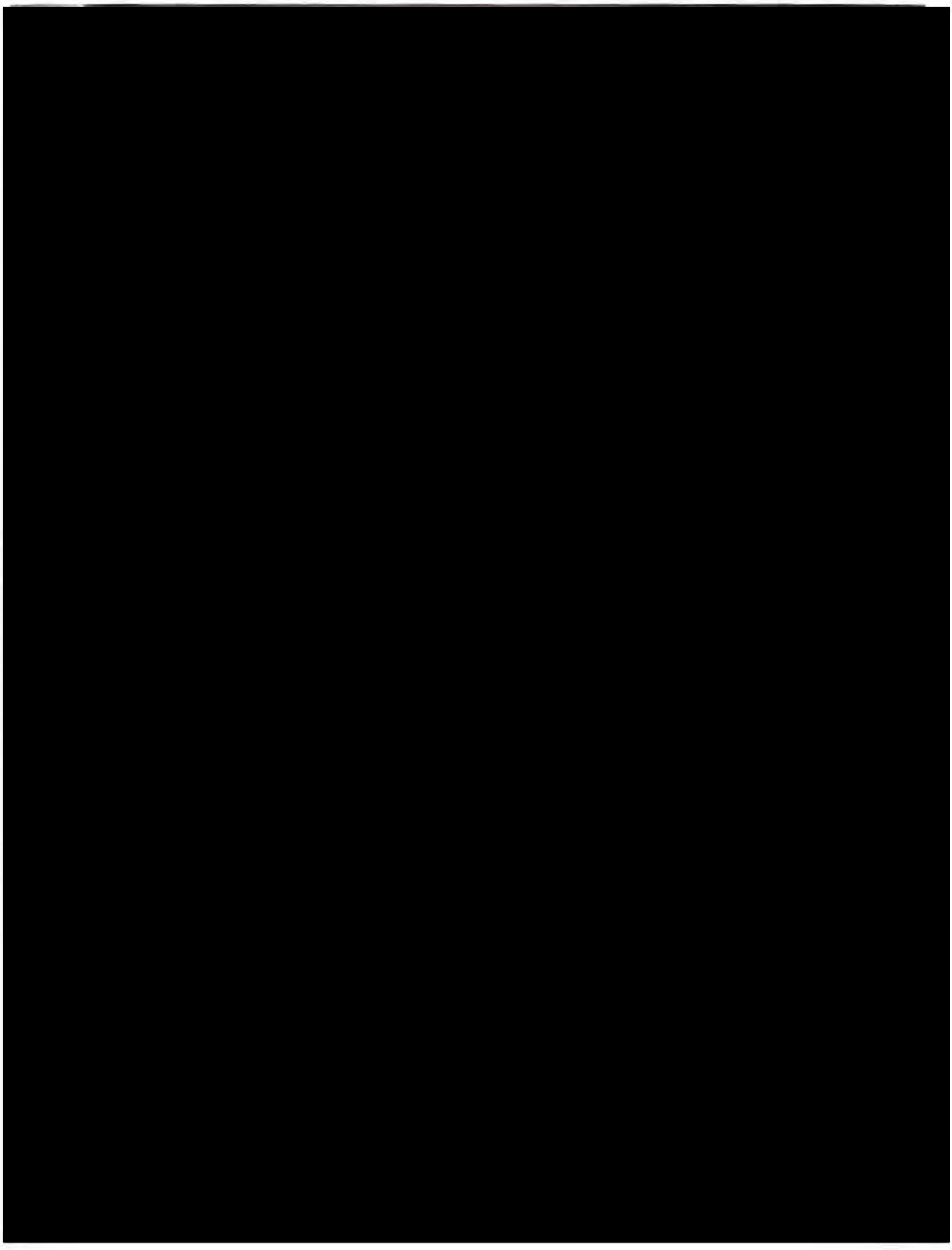
2) Gap provision

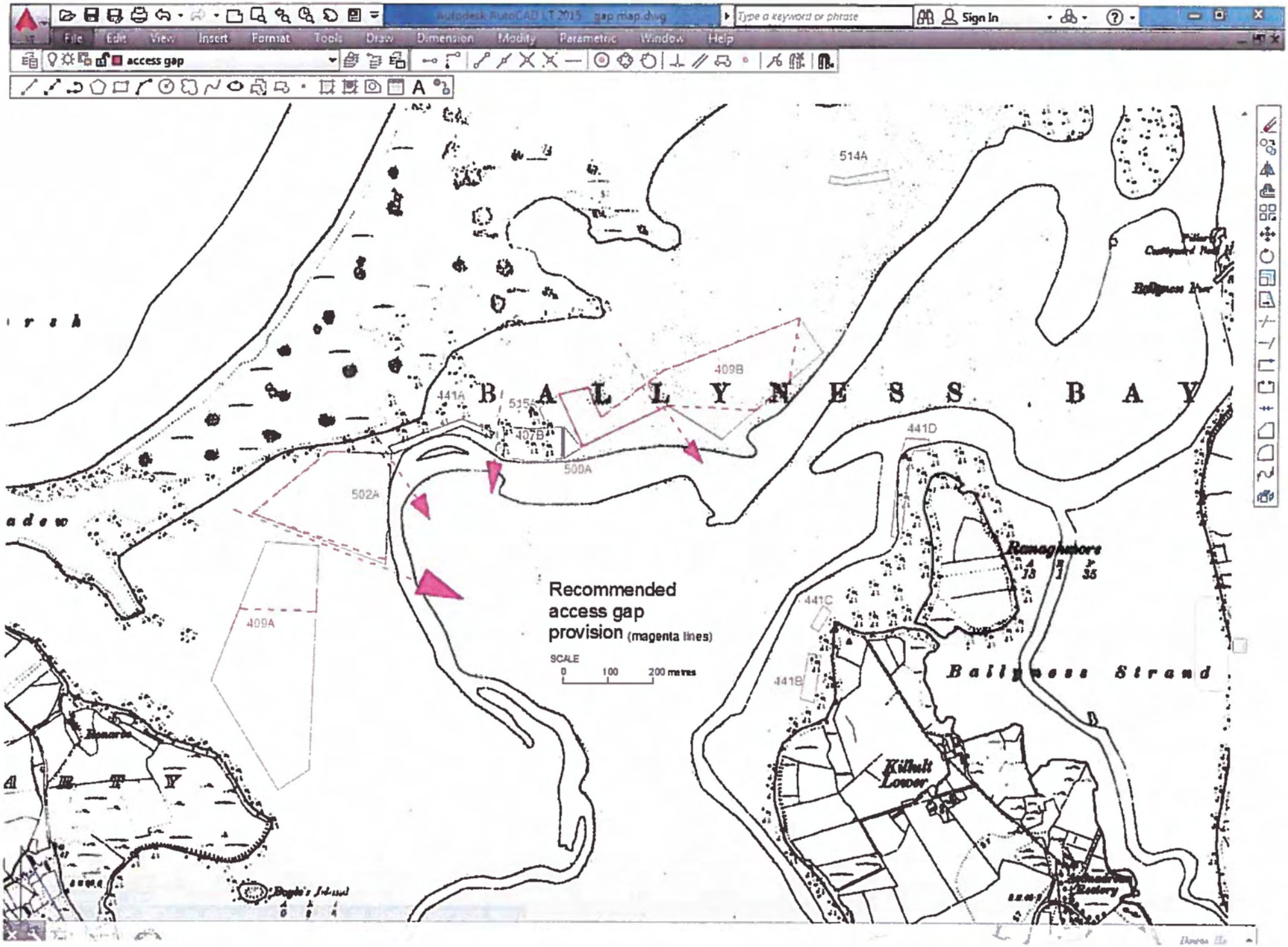
[redacted]

[redacted]








514A
409B
441A
515A
407B
500A
502A
441D
409A
441C
441B
B A L L Y N E S S B A Y
Recommended access gap provision (magenta lines)
SCALE
0 100 200 metres
Ballyness Strand
Kilhilt Lower

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

4) New coordinates for [redacted]

[redacted]

[redacted]

[redacted]

5) Access routes

[redacted] This means that the access now proposed for all sites on west side of Bay (which are currently recommended for licensing (sites 409A, [redacted], [redacted][1 and 2] and [redacted]) will be fully compliant with AA recommendations on access and the access proposed for aquaculture purposes will avoid existing back dune tracks subject to vehicle traffic related erosion. I think this resolves the access routing issue for now [that is unless sites [redacted] are to be licensed – in which case those applications would require revision of their proposed access (through dune area)].

I attach an amended version of Decisions and Conditions table – with some amendments made re gap provision and on application [redacted]

Paul O'Sullivan

Paul O'Sullivan

25/7/19

Marine Institute
Foras na Mara

Rinville,
Oranmore,
Co. Galway
Tel: 091 387200
Date: 03 April 2019

Jane O'Mahony
Aquaculture and Foreshore Management Division
Department of Agriculture, Food and the Marine
Clogheen,
Clonakilty
Co. Cork.

Advice on Aquaculture Licence Application

Applicant	**Edward and Paul O'Brien**
Application type	**New**
Site Reference No	**T12/409A and** [redacted]
Species	**Pacific Oysters (*C. gigas*) using Bags and Trestles and Clams (*T. semideccusatus)* –under mesh on seabed**
Site Status	**Located within the Ballyness Bay SAC (Site Code 001090)** **Not located within a designated Shellfish Growing Waters Area.**

Dear Jane

This is an application for a new aquaculture licence for the cultivation of Clams (*T. semideccusatus*) under mesh on the seabed at Site T12/409A and Clams (*T. semideccusatus*) under mesh on the seabed and [redacted] on the foreshore at Ballyness Bay, Co. Donegal. The area of foreshore at Site T12/409A is 8.961Ha while the area of foreshore at Site [redacted]

The sites are not located within a designated Shellfish Growing Waters Area. It is recommended that the implications of licencing sites that are not located within a designated Shellfish Growing Waters Area should be fully considered by DAFM as part of the licence determination process.

Shellfish in Ballyness Bay are not currently classified under Annex II of EU Regulation 854/2004.

The cultivation of shellfish at these sites will produce faeces and pseudofaeces. Any impact will be limited to the area of the sites. The build-up of excess organic matter beyond the footprint of the sites is not considered likely. On the basis of targeted research[1], the impact of intertidal oyster cultivation using bags and trestles on the majority of community types is considered not significant.

No chemicals or hazardous substances will be used during the production process.

Considering the location, nature and scale of the proposed aquaculture activity, and in deference to our remit under the Marine Institute Act, and the considerations implicit to Sections 61(e and f) of the Fisheries (Amendment) Act, 1997 the Marine Institute is of the view that there will be no significant impacts on the marine environment and that the quality status of the area will not be adversely impacted.

Sites T12/409A and B are located within the Ballyness Bay SAC (Site Code 001090).

[1] Forde, J., F. O'Beirn, J. O'Carroll, A. Patterson, R. Kennedy. 2015. Impact of intertidal oyster trestle cultivation on the Ecological Status of benthic habitats. Marine Pollution Bulletin 95, 223–233.

We note the findings of the Appropriate Assessment report[2] and the Department's draft Natura conclusion statement[3] in regard to the impacts on the Conservation Objectives within the Ballyness Bay SAC.

In making the final determination with respect to this application it is recommended that DAFM take full account of the conclusions and recommendations of the Appropriate Assessment report and the proposed mitigation measures set out in the Department's Draft Natura Conclusion Statement.

Proposed access routes over protected habitat should be strictly adhered to in order to minimise habitat disturbance and it is recommended that this requirement should be included as a specific condition of any licence that may be granted.

Information on the source of seed for the sites has not been provided and the MI recommends that this information be sought from the applicant prior to any final licence determination being made.

In order to be able to assess and manage the potential risk of the introduction of invasive non-native species the MI recommends that the initial source of seed and other sources which may be used at any point in the future should be approved by the Minister. This approval should be a specific condition of any licence that may issue. It should be noted that the control of alien species is a separate issue to the control of diseases in the context of the current Fish Health legislation.

Notwithstanding the recommendation outlined above, and in the event that an Aquaculture Licence is granted, the movement of stock in and out of the sites should follow best practice guidelines as they relate to the risk of introduction of invasive non-native species (e.g. Invasive Species Ireland). In this regard it is recommended that, prior to the commencement of operations at the sites, the applicant be required to draw up a contingency plan, for the approval of DAFM, which shall identify, *inter alia*, methods for the removal from the environment of any invasive non-native species introduced as a result of operations at these sites. If such an event occurs, the contingency plan shall be implemented immediately.

In the event that invasive non-native species are introduced into a site as a result of aquaculture activity the impacts may be bay -wide and thus affect other aquaculture operators in the bay. In this regard, therefore, the Marine Institute considers that the CLAMS process may be a useful and appropriate vehicle for the development and implementation of alien species management and control plans.

The Marine Institute recommends that oyster culture utilise triploid oysters only in order to mitigate the risk of the reproduction of the Pacific oyster in the bay.

It is statutory requirement that a Fish Health Authorisation as required under Council Directive 2006/88/EC be in place prior to the commencement of the aquaculture activities proposed.

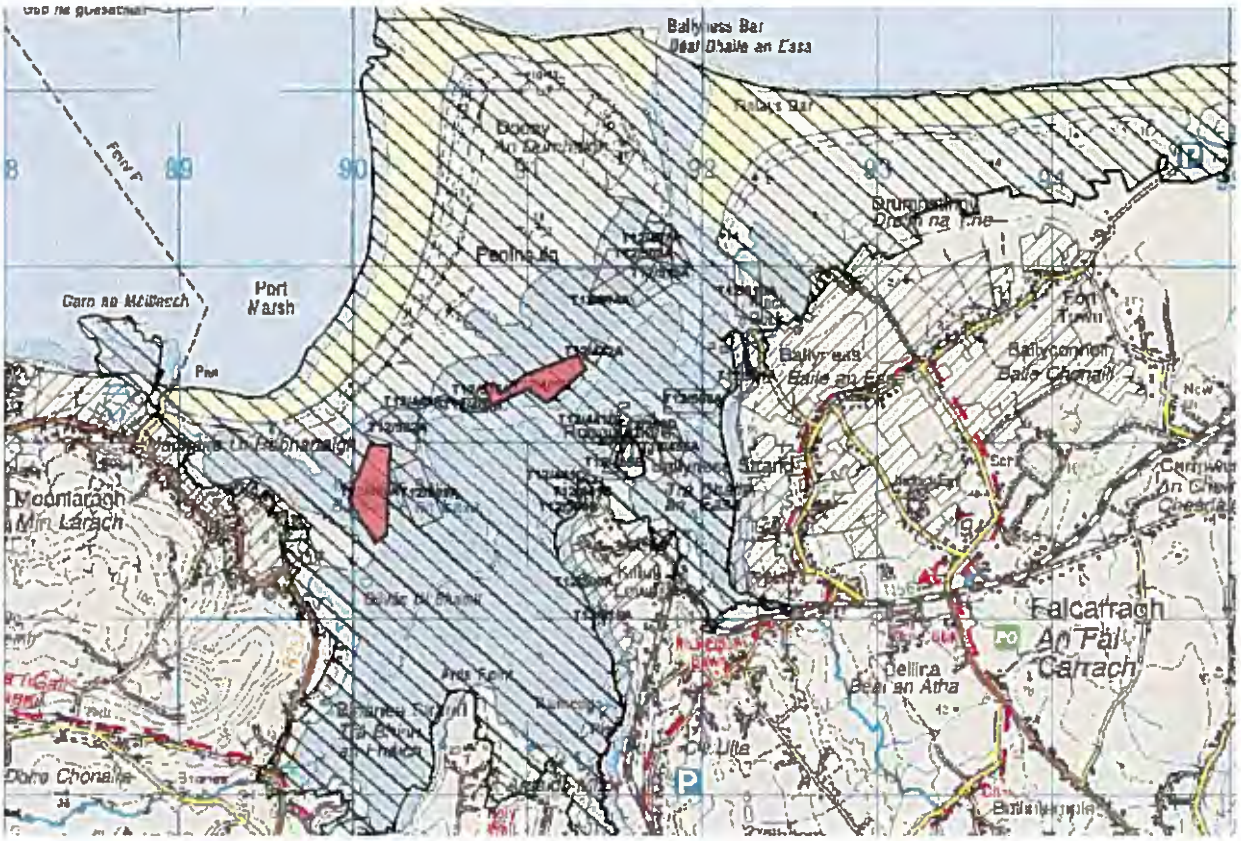
Kind regards,

Dr. Terry McMahon
Section Manager, Marine Environment and Food Safety Services,

2 https://www.agriculture.gov.ie/media/migration/seafood/aquaculture foreshoremanagement/aquaculturelicensing/appropriateassessments/donegal/AppropAssessBallynessBayReport040319.pdf

3 https://www.agriculture.gov.ie/media/migration/seafood/aquaculture foreshoremanagement/aquaculturelicensing/appropriateassessmentconclusionstatement/DraftConclusionStatementBallynessBay070319.pdf

The Marine Institute.



☑ Shellfish Waters Directive Area

☑ Aquaculture Site

☑ Special Area of Conservation

☑ Special Protection Areas

COMMISSIONERS OF IRISH LIGHTS

Harbour Road, Dun Laoghaire, Co. Dublin.

Marine Department

Tel: +353 1 271 5400 E-mail: marine@cil.ie
Fax: +353 1 271 5566 Web: www.cil.ie

Aquaculture and Foreshore Management Division
Department of Agriculture, Fisheries and Food
Clogheen
Clonakilty
Co. Cork

Your Reference:
LA 0382.0170
Our Reference:
T12/409 A[redacted]
Date:09/03/2012

LL: LA 0382.0170, LA 0382.0174
Applicant: Edward and Paul O'Brien
Site: Ballyness Bay, Co. Donegal.

Dear Ms. Gill,

Thank you for your letter advising us of this updated application.

Based on the information supplied, there appears to be no objection to the development. It is important to ensure that no navigable inter-tidal channels are impeded by any structures. [redacted]

If a licence is granted, all structures must be clearly marked as required by Regulations and Licensing Permit conditions and to the approval of the Nautical Surveyor with the Marine Survey Office.

We would request that you include the following terms in the licence–

- That the applicant secures Statutory Sanction from the Commissioners of Irish Lights for the aids to navigation that may be required by the Marine Survey Office. These aids should be in place before development on the site commences.

- The size and specification of aids to navigation should be of the design and specification approved by the Marine Survey Office and must be agreed in advance with the Commissioners of Irish Lights.

It is recommended that local fishing and leisure interests be consulted prior to a decision being made.

Furthermore, if a licence is granted, the UK Hydrographic Office at Taunton must be informed of the development's geographical position in order to update nautical charts and other nautical publications.

Yours sincerely,

D Lane

Deirdre Lane
***for* Head of Marine**

cc Capt. N. Forde, Dept. of Transport, Marine Survey Office

Comhairle Contae
Dhún na nGall
Donegal County Council

www.ccdhunnangall.ie www.donegalcoco.ie

Email response

04/04/2019

Ms Jane O'Mahony
Department of Agriculture, Food and the Marine
Aquaculture and Foreshore Management Division
National Seafood Centre
Clonakilty
Co. Cork
P85 TX47

Re: Applications for Aquaculture Licences in Ballyness Bay

Dear Jane

I wish to refer to the Aquaculture Licence applications received by this office on the 8th March, 2019 for consultation. I wish to confirm that the planning authority considers that the proposed aquaculture activity and associated oyster bags, trestles and clam mesh will not constitute a visual intrusion into the scenery of the host area and is acceptable subject to the locations of all mesh, tressles & bags associated with the licensed activity being clearly identified by bouys or markers so as not to obstruct other boat users of Ballyness Bay. Please see details of applications below.

Ref. No.	Name	Species & Method	Type of Application
[redacted]			
T12/409A [redacted]	Edward & Paul O'Brien	Clams under mesh Clams under mesh and oysters using bags and trestles	New

Cuir freagra chuig: Áras an Chontae, Leifear, Contae Dhún na nGall, Éire F93 Y622
Please reply to: County House, Lifford, Co. Donegal, Ireland F93 Y622

Guthán/Tel: 074 9153900 | Facs/Fax: 074 9172812 | Ríomhphost/Email: info@donegalcoco.ie

Ref. No.	Name	Species & Method	Type of Application
[redacted]			

.

Yours sincerely

A Melley

Anne Melley
Administrative Officer

An Taisce
The National Trust for Ireland

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

[18/04/2019]

Submission pursuant to the provisions of Article 5 (2) of Directive 2011/92/EU

To Whom It May Concern:

Thank you for referring this notification to An Taisce in accordance with Section 10 of the Aquaculture (Licence Application) Regulations, 1998 (SI No 236 of 1998).

An Taisce has reviewed the applications T12/407, T12/409, T12/441, T12/455, T12/500, T12/502, T12/508, T12/509, T12/510, T12/514, T12/515, T12/516 and T12/519 in Ballyness Bay, County Donegal, and would like to make the following submission in relation to these applications.

1. Traffic disturbance

The increased traffic which would result from licensing of all the aquaculture applications poses a serious risk to fixed coastal dune habitats [2130]:

> *'the licencing of aquaculture activity at this site could lead to additional risk of erosion and degradation of this dune habitat [2130]. The risk of damage from vehicular traffic to dune habitat (2130) in Ballyness Bay therefore, cannot be discounted.'*

The recommendation outlined in the AA report is the following:

> *'It is recommended 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. Alternatively, the re-routing of access routes to avoid overlap with habitat feature 2130 might be considered?'*

and the AA conclusion statement included this condition:

> *'A licence condition requiring strict adherence to the identified access routes over intertidal and nearshore habitat in order to minimise species/habitat disturbance will be included.'*

but An Taisce would draw the Licensing Authorities attention to this line within the AA report:

> *'the risk arises from the additional traffic likely to occur* ***on existing tracks*** *as a result of the need to access the sites'* [An Taisce emphasis]

As such, An Taisce submit that this condition will be entirely ineffective and does not address the risk posed. The risk arises due to the level of traffic, and has nothing to do with adherence to the existing track. The licensing authority need to be able to conclude beyond reasonable doubt that the QI communities will not be disturbed. , as outlined in the ECJ ruling for C-404/09[1] [Commission v Spain] which held that "*[a]n assessment made under Article 6(3) of the Habitats Directive cannot be regarded as appropriate if it contains gaps and lacks complete, precise and definitive findings and conclusions* ***capable of removing all reasonable scientific doubt*** *as to the effects of the works proposed on the SPA concerned.*" [An Taisce emphasis]

Similarly, the court held in the case of the Commission v Italy that "*assessment must be organised in such a manner that the competent national authorities can be certain that a plan or project will not have adverse effects on the integrity of the site concerned, given that,* ***where doubt remains as to the absence of such effects, the competent authority will have to refuse permission.***" (C304/05[2]. Para 58) [An Taisce emphasis]

Before these sites can be licenced the relevant authority must be certain that there will be no significant impact on the qualifying habitat, and it is obvious from the AA report that the licensing authority do not currently possess the necessary information to reach this conclusion. As such we submit that licencing cannot proceed without contravening Article 6(3) of the Habitats Directive.

The suggestion in the AA report that the opinion of an engineer be sought, or that the traffic be re-routed, while valid, would lead to additional information which would need to then be made available for public scrutiny, by means of an additional public consultation period, prior to proceeding with licensing. To fail to do this would be in contravention of the Aarhus convention by failing to provide for adequate public participation, as required by the Aarhus Convention, which provides for access to information, and public participation in decision-making.

Further, the AA conclusion statement provides this line in the mitigation measures section:

> *'Alternative access routing will also be considered as a mitigation measure.'*

yet despite the clear risk posed by the main proposed access route, the necessity for the alternative route is not actually provided as a binding mitigation measure.

---

[1] http://curia.europa.eu/juris/liste.jsf?language=en&num=C-404/09
[2] http://curia.europa.eu/juris/liste.jsf?language=en&jur=C,T,F&num=C-304/05&td=ALL

As such, given that the specifics of the alternative route were not provided as a part of this public consultation, the 'erosion prevention measures' are not detailed, and the necessity of an alternative route is not provided as a binding mitigation measure, it is our considered opinion that the licensing authority cannot proceed with licensing any of the proposed aquaculture applications without contravening both the Habitats Directive and the Aarhus convention.

2. Grey Seals

The introduction of aquaculture into Ballyness Bay poses a serious risk to Grey Seals, as outlined in the AA report:

> *'In relation to interactions between aquaculture operations and seal use of the site, the risk of disturbance* ***cannot be discounted****. It is important to note that the site, to date, has had very little aquaculture operations and therefore, the seals will have little opportunity to habituate to the activities.'*

and:

> *Given that there are currently no aquaculture operations in Ballyness Bay,* ***it is not certain*** *that the introduction of significant levels of aquaculture operations will not impact on the site use by these Annex II species, in particular at those locations proximate to the this haul-out location. Therefore, the risk posed by the proposed aquaculture activities in Ballyness Bay to seal conservation features* ***cannot be discounted****.* [An Taisce emphasis].

An Taisce would direct the licensing authority to the paragraphs above which outline the requirement for certainty under the Habitats Directive, and the removal of doubt before licensing can continue. While we welcome the decision to refuse licensing of site T12-508A, which is closest to the seal haul out area, the risk to the Grey Seals applies to the licensing of all of the aquaculture applications, as outlined above *'it is not certain that...significant levels of aquaculture operations will not impact on the site use by these Annex II species'.*

An Taisce would highlight that while site T12-508A posed the greatest risk, the conclusions reached in the AA document indicate that it is the aquaculture activity in general which poses a risk, and this cannot be discounted. As such, similar to the traffic disturbance, to proceed with licensing while significant levels of uncertainty remain will place the licensing authority in contravention of Article 6(3) of the Habitats Directive.

3. Mobile sand community

The AA report outlines the following:

'The sensitivity of the community type Mobile sand community complex is unknown given the wide variation in species composition and sedimentary characteristics that comprise this community type. In particular, areas where there are very 'soft' mobile sands with impoverished communities would appear to be sensitive to the placement of trestles and even foot traffic among the trestle rows. On this basis, it is assumed that intertidal shellfish culture has the potential to disturb this community type. '

In order to mitigate for this, it is proposed that:

'Mobile sand community complex is such that there are likely to be locations where the ***sediments are extremely mobile*** *(and soft) thus making them unsuitable for aquaculture operations. It is recommended, prior to making a decision to licence, that these areas be clearly identified with the Bay'* [An Taisce emphasis]

and

'Locations where the sediments are extremely mobile (and soft) thus making them unsuitable for aquaculture operations will be excluded from licensing'

However, An Taisce would highlight that these habitats are by definition mobile, and mapping of these will be subjective and unreliable considering the habitats are in constant flux. As such, a large degree of uncertainty remains, and licencing of oyster trestles within a habitat which is constantly in flux puts this community type at risk of disturbance. As such, An Taisce submit that without the necessary degree of certainty of suitability of these sites for supporting oyster trestles, the licencing authority should not proceed with licencing in this Bay.

In conclusion, An Taisce would strongly highlight that due to the risks posed to the Coastal Dune habitats by both vehicular traffic accessing the sites, and the risks posed by aquaculture activity in general to the Grey Seal, and in light of the binding mitigation measures provided, the risks posed cannot be discounted based on the data provided, and it is our considered opinion that the licensing authority cannot legally proceed with the licensing of these sites. Recent ECJ rulings on this clearly underpin the need for the removal of doubt. In addition, it would appear to An Taisce that many of the sites may fall foul of the mobile shifting sands, which are unsuitable for trestle placement. Based on this data, An Taisce submit that no licences should be granted in Ballyness Bay based on the data provided in the AA report. If licensing of these sites should proceed, further information should first be sought, and provided in an additional public consultation period.

We should be grateful if you would take account of these concerns in considering this application. If approved, An Taisce maintains the right to appeal this application should we be dissatisfied with the approval and/or any conditions attached.

We should be grateful if you would provide to us in due course: an acknowledgement of this submission; the nature of the decision; the date of the decision; in the case of a decision to grant an approval, any conditions attached thereto, and the main reasons and considerations on which the decision is based; and, where conditions are imposed in relation to any grant of approval, the main reasons for the imposition of any such conditions.

Is mise le meas,

Elaine McGoff,
Natural Environment Office, An Taisce – The National Trust for Ireland.

OMahony, Jane

From: Murphy, Mike [murphym@bim.ie]
Sent: 18 April 2019 17:43
To: OMahony, Jane
Subject: RE: Consultation Request for Aquaculture/Foreshore Licence applications in Ballyness Bay, Co. Donegal

Dear Jane,
Re: Licence Applications in Ballyness Bay, Co. Donegal, T12/407B; T12/409A and B; T12/441A,B,C,D; T12/455A and B; T12/500A; T12/502A; T12/508A; T12/509A; T12/510A; T12/514A; T12/515A; T12516A; T12/519A, to grow pacific oysters in bags on trestles and in some cases Clams under mesh.
Following internal consultation within the Seafood Technical Services Business Unit, BIM, which includes aquaculture and inshore fisheries, BIM are satisfied that the proposed operations do not conflict with any other aquaculture or inshore fisheries interests in the area.
We have no objection to the applications.
Regards
Mike Murphy

Michael Murphy

Resource Development Manager North,
Seafood Technical Services Business Unit,
BIM

T +353 7479732601
M +353 87 2476448
E mike.murphy@bim.ie

From: OMahony, Jane
Sent: Friday 8 March 2019 15:12
To: 'mary.larkin@fisheriesireland.ie' ; 'terry.mcmahon@marine.ie' ; Dallaghan, Ben ; O'Carroll, Terence ; Murphy, Mike ; 'planning@failteireland.ie' ; 'foreshore@housing.gov.ie' ; 'fem.dau@ahg.gov.ie' ; 'fem.dau@chg.gov.ie' ; 'naturalenvironment@antaisce.org' ; 'Planning@donegalcoco.ie' ; 'Cathal.sweeney@donegalcoco.ie' ; 'foh@udaras.ie'
Subject: Consultation Request for Aquaculture/Foreshore Licence applications in Ballyness Bay, Co. Donegal
Dear All,
Please see letter attached (above) for your attention and also attached live link(below) to relevant application details and documentation .
http://www.agriculture.gov.ie/seafood/aquaculture/foreshoremanagement/aquaculturelicensing/aquaculturefore shorelicenceapplications/donegal/
Kind Regards,
Jane O'Mahony
Aquaculture and Foreshore Management Division

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine
An Lárionad Bia Mara Náisiúnta, An Cloichín, Cloich na Coillte, Corcaigh, P85 TX47
National Seafood Centre, Clogheen, Clonakilty, Co. Cork, P85 TX47

T: +353 (023) 885 9577
www.agriculture.gov.ie

Department of Agriculture, Food and the Marine

OMahony, Jane

From: Foreshore EPA Marine [fem.dau@chg.gov.ie]
Sent: 17 April 2019 13:02
To: Aquaculturelicensing
Subject: T12/407B + 17 for Ballyness Bay, Co. Donegal

RE: T12/407B + 17 for Ballyness Bay, Co. Donegal

A chara,

Please find the nature conservation recommendations of the Department of Culture, Heritage, and the Gaeltacht for the above mentioned licence application.

Nature Conservation

This is the first time the Department of Culture, Heritage and the Gaeltacht has issued comments on the Appropriate Assessment Report and draft Conclusion Statement for Ballyness Bay SAC (site code: 001090).

The Department welcomes the opportunity to provide observations concerning these documents and the aquaculture licence applications for the sites (T12/407B + 17 others) received on the 8th of March 2019. It is hoped that these observations will be considered by the Department of Agriculture, Food and the Marine in its decision-making process.
Fixed coastal dunes with herbaceous vegetation [2130] is an Annex I priority habitat. This Department recommends that access routes should avoid this habitat.

The Appropriate Assessment screens out a number of SPAs on the basis of no spatial overlap. However the following SPAs - Falcarragh to Meenlaragh SPA (site code 004149), Inishbofin, Inishdooey and Inishbeg SPA (site code 004083) and Horn Head to Fanad Head SPA (site code 004194) lie within the 15km zone of impact (DEHLG, 2010) of Ballyness Bay. No rationale is given as to how or why potential detrimental interactions between the conservation features of these SPAs and aquaculture activities within Ballyness Bay were ruled out. It is therefore recommended that a more thorough and complete consideration of theses SPAs and their conservation features be documented in order to complete this appropriate assessment process.

Mise le meas,

Connor Rooney
Executive Officer

—

An Roinn Cultúir, Oidhreachta agus Gaeltachta
Department of Culture, Heritage and the Gaeltacht

Aonad na nIarratas ar Fhorbairt
Development Applications Unit

Bóthar an Bhaile Nua, Loch Garman, Contae Loch Garman, Y35 AP90
Newtown Road, Wexford, County Wexford, Y35 AP90

—

T +353 (0)53 911 7464

manager.dau@chg.gov.ie
www.chg.gov.ie

—

Gill, Karen

From: Pat O'Neill [Pat.ONeill@environ.ie]
Sent: 15 December 2010 15:42
To: Gill, Karen
Subject: FW: T12/409--Aq lic apln to DAFF -Ed and Paul O Brien- Ballyness Bay
Attachments: Aq lic apln Ed and Paul O Brien oysters and clams in Ballyness Bay T12 409.doc; ATT00002..txt

Karen,

Please find attached a soft copy engineering report on the above case. I will forward a hard copy when it is to hand.

Regards
Pat

From: PJ Shaw
Sent: 15 December 2010 11:52
To: Pat O'Neill
Subject: T12/409--Aq lic apln to DAFF -Ed and Paul O Brien- Ballyness Bay

Pat

In relation to your minute of 13/12/10 re the above and further to my report of 25/11/10, the latest communication from DAFF confirms that the application relates to four specific sites 409 A-D with a total area of 12 HA. This clarifies matters as highlighted in the two bullet points of my report .

In relation to the remaining comments and footnote of the said report(attached and highlighted red) all of these views still hold.

P.J

An Roinn
Talmhaíochta,
Iascaigh agus Bia
Department of
Agriculture,
Fisheries and Food

Our Ref: T12/409

9th December, 2010

Mr. Pat O'Neill
Foreshore Section
Dept. Environment, Heritage and Local Government
Newtown Road
Wexford.

Dear Pat,

Further to my telephone call of today 9th December, 2010. This new application was originally for two sites but discovered that a previous application had already applied for part of the larger site. The applicant was informed of the overlap and redrew his sites, now four smaller sites which were re-mapped, which amount to about 12 ha it total. I did not return the application form at the time therefore the tonnage would not have been amended to reflect the smaller site size. I am including the co-ordinates supplied by mapping for the four sites, the new maps and the copy application form.

If you require any further details give me a call, as shown below.

Yours truly,

Karen Gill
Aquaculture & Foreshore Management Division
Clogheen,
Clonakilty
Co. Cork.
Phone: 023 8859586
Email: Karen.gill@agriculture.gov.ie

File ref. T12/409

Ms. Maria Naughton, CZMD

Re: Aquaculture application by Messrs. Edward and Paul O'Brien, Ballyness Bay, Co. Donegal

Please find attached an Engineering report furnished by Mr. P.J Shaw. I sent you a soft copy of the report by email on 25/11/2010.

Patrick O'Neill
30 November 2010

Pat O Neill

RE T12/409Aquaculture Licence and accompanying foreshore licence appln from Edward and Paul O Brien re sites in Ballyness Bay in Co Donegal -DAFF'S communication to Foreshore Section dated 18/11/10 refers.

In relation to the above this Aquaculture Licence application as made to DAFF has been referred to the Foreshore Section for comment, my views are as follows:

The Aquaculture Licence Application is for the cultivation of Oysters by bag/trestle and clams (by mesh/trays) in sites in Ballyness Bay. The area of the sites is not determinable due to the discrepancies in the information given in the submitted documentation (see comments below). The estimated annual production is 100T/yr (oysters) and 40T/yr (clams)

COMMENTS

It is not possible to give a definitive and considered comment on this application due to unexplained discrepancies in the details given and maps provided from which it is unclear what area is sought and for what sites. In particular the following: discrepancies are noted

- The sites as shown on the map accompanying the ''gps location' details (outlined in yellow edging) and as reproduced on the map (Donegal Sheet 24) do not resemble the Areas 409A,B,C and D as outlined on the OS Gridded Map and Admiralty Chart. An explanation for the discrepancy here is required (see also footnote below).

- At Q2F (v) in the completed Aquaculture Licence Application Form the area for the sites is given as 20HA. This is at variance with the total Area for the sites 409A,B,C and D (as per OS Gridded Map) which is of the order of app 10-11HA.(and indeed the area of the sites shown in the map attached to the 'gps location' details is different again from this figure). Furthermore attached to the Gridded Map, Grid Co-ordinates are only provided for one of the sites shown (409C) with an Area given as 2.3 HA. Are we therefore dealing with only one site i.e. 419C? in this application and if so of what relevance are the sites 409A, B and D in this case? Are we dealing with 20HA or circa 10 HA or 2.3HA in area?

A further concern is that the sites (regardless of which are the correct ones to consider) are not contained within any designated Shellfish Growing area under the Shellfish Waters Regulations with the nearest designated areas (Sheephaven Bay and Gweedore Bay) both app 15km away. Also the sites are within 2km of the outfall to Ballyness Bay from Falcarragh which at present is just receiving Primary (septic tank level) treatment and is subject to a Discharge Licence Application by Donegal Co Co to the EPA under the Wastewater (Authorisation) Regulations 2007 in connection with a proposal to upgrade the treatment level to Secondary. I contacted the EPA in this regard and more details in relation to the application to the EPA were provided to me by e-mail from Aoife Loughnane (EPA) and I will send these on by separate e-mail. This Department therefore has major concerns in relation to the suitability of

these areas for shellfish cultivation from a water quality and shellfish health perspective
If the Department of Agriculture Fisheries and Food wish to consider these cases further this Department would recommend that the Applicants should be required to demonstrate by detailed monitoring that these areas are suitable shellfish growing areas from a water quality and shellfish health perspective (taking cognisance of their closeness to the outfall from the Falcarragh WWTP-existing and proposed-)and that any final decision by DAFF should not be made until the results of this monitoring are received and evaluated.

These views are without prejudice to any views that the NPWS (within DOEHLG) may have from a nature conservation/ecological perspective.

P.J.Shaw

25/11/10

FOOTNOTE:
The 'gps location' details are appended to a map which appears to be the results of a survey to outline the details of the existing location of structures under the control and operation of the Applicants. If this is so it is noted (from DAFF 's letter of 18/11/10 to Foreshore Unit) that this is a 'New Application' and so it would appear that Section 11 of the Fisheries (Amendment) Act 1997,'' Persons not to engage in aquaculture in anticipation of grant of licence'', should apply here. While this is a matter for DAFF, this Department should be kept informed in this regard as to DAFF's intentions in this regard and if it is considered that Section11 does not apply in this case an explanation/reasoning, as to why this is so, should also be provided.

OMahony, Jane

From: OSullivan, Paul
Sent: 07 May 2019 10:46
To: OMahony, Jane
Cc: Campbell, John
Subject: RE: An Tasice & DCHG response re Ballyness Bay Applications

Jane
My comments on the two letters received by AFMD are as follows:

Dept of Culture , Heritage and the Gaeltacht – I think the point raised regarding SPAs within 15km of Ballyness Bay is best addressed by Marine institute as they would have considered this matter in the AA.

An Taisce
1.Traffic Disturbance ; concern on this issue was anticipated in AA and conclusion statement. It is true that the particular standard condition about adhering to access routes would not fit well with the specific concerns raised about potential negative impact on back dune track but could be applied to access routes specified elsewhere in the Bay such as on east side. Regarding the back dune track I think it will be necessary to come up with alternative access route from the south – preferably alternative access route should be proposed by applicants themselves. I understand they may be reluctant to propose less convenient access route but there may be no choice here. The option of considering how to reinforce the track will be difficult to pursue because of the wide range of users including casual users such as tourists, windsurfers etc. who might not be willing to observe constraints on usage – so alternative aquaculture specific access routing that avoids back dune area altogether would appear to be the way to go. Francis did some preliminary calculations on access route areas for this approach.
2. Grey Seals – I think this has been comprehensively addressed in the AA ; it is likely to impact on licensing of 1 or 2 sites proximate to the haul out area; We don't anticipate that aquaculture development elsewhere would impact significantly on the haul out area because of it's relatively isolated location and deep channel alongside
3. Mobile Sand Community – I think MED have built up a good working knowledge of the location of the mobile sand areas in the Bay based on many inspections carried out over the years. Our examination of past survey data and aerial photographs has also informed us of the changing low water channel positions in the Bay and historical change. Licensing is recommended only for stable substrates where there is not ovelap with shifting or soft sand areas or with low water channels.

Regards
Paul O'Sullivan

From: OMahony, Jane
Sent: 26 April 2019 09:49
To: OSullivan, Paul; 'Terry.McMahon@Marine.ie'; 'Francis X O Beirn'
Subject: An Tasice & DCHG response re Ballyness Bay Applications

Hi All,

We received the attached letters from An Taisce and Dept of Culture, Heritage and the Gaeltacht, can we please have your comments in relation to issues raised?

Kind Regards,

Jane O'Mahony
Aquaculture and Foreshore Management Division

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

Marine Institute
Foras na Mara

Date: May 7, 2019

To: Jane O'Mahoney - AFMD

From: Francis O'Beirn, Marine Institute

CC: Terry McMahon, Jeff Fisher-MI: Geraldine Farrell AFDM-DAFM

Re: An Taisce comments on aquaculture licence applications in Ballyness Bay.

The Marine Institute (MI) have been asked to comment on the submission from An Taisce to the Department of Agriculture Food and the Marine (DAFM) in relation to a number of aquaculture licence applications in Ballyness Bay in addition to the Appropriate Assessment Report and draft AA Conclusion Statement. The text below repeats the relevant An Taisce comments with the MI response following. In their submission, An Taisce cite a number of outputs of case law. As these legal issues are beyond the remit of the MI, ADFM may wish to seek their own legal advice in relation to the legal interpretations provided by An Taisce.

The MI highlight that in this submission (and others more recently), An Taisce, while criticising recommendations and proposed management actions in the AA process, offer no evidence to suggest that mitigation measures are insufficient. Their criticism appeared to be focused on challenging commonly used and accepted scientific terminology (within the AA Reports) and using this to present An Taisce's interpretation of case law. It should be pointed out that in natural systems, certainty can never be presented at 100%. We would suggest that mitigation measures proposed do remove all reasonable scientific doubt. Where this is not the case the MI will acknowledge this and communicate that there are no obvious measures possible that might mitigate or reduce the risk.

While the MI acknowledges the nature of the observations and the concerns highlighted by An Taisce, the MI does not see any need to revise the outputs or conclusions in the AA report underpinning the assessment process. However, it will be important to ensure that specific mitigation measure and management actions/licence conditions are clearly communicated in the DAFM final Conclusion Statement or report accompanying the Ministerial decision.

An Taisce Observations: Traffic disturbance

The increased traffic which would result from licensing of all the aquaculture applications poses a serious risk to fixed coastal dune habitats [2130]:

'the licencing of aquaculture activity at this site could lead to additional risk of erosion and degradation of this dune habitat [2130]. The risk of damage from vehicular traffic to dune habitat (2130) in Ballyness Bay therefore, cannot be discounted.'

The recommendation outlined in the AA report is the following:

'It is recommended 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. Alternatively, the re-routing of access routes to avoid overlap with habitat feature 2130 might be considered?'

and the AA conclusion statement included this condition:

'A licence condition requiring strict adherence to the identified access routes over intertidal and nearshore habitat in order to minimise species/habitat disturbance will be included.'

but An Taisce would draw the Licensing Authorities attention to this line within the AA report:

'the risk arises from the additional traffic likely to occur on existing tracks as a result of the need to access the sites'

As such, An Taisce submit that this condition will be entirely ineffective and does not address the risk posed. The risk arises due to the level of traffic, and has nothing to do with adherence to the existing track. The licensing authority need to be able to conclude beyond reasonable doubt that the QI communities will not be disturbed. , as outlined in the ECJ

ruling for C-404/091 [Commission v Spain] which held that "[a]n assessment made under Article 6(3) of the Habitats Directive cannot be regarded as appropriate if it contains gaps and lacks complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the SPA concerned ."

Similarly, the court held in the case of the Commission v Italy that "assessment must be organised in such a manner that the competent national authorities can be certain that a plan or project will not have adverse effects on the integrity of the site concerned, given that, where doubt remains as to the absence of such effects, the competent authority will have to refuse permission." (C304/052. Para 58)

Before these sites can be licenced the relevant authority must be certain that there will be no significant impact on the qualifying habitat, and it is obvious from the AA report that the licensing authority do not currently possess the necessary information to reach this conclusion. As such we submit that licencing cannot proceed without contravening Article 6(3) of the Habitats Directive.

The suggestion in the AA report that the opinion of an engineer be sought, or that the traffic be re-routed, while valid, would lead to additional information which would need to then be made available for public scrutiny, by means of an additional public consultation period, prior to proceeding with licensing. To fail to do this would be in contravention of the Aarhus convention by failing to provide for adequate public participation, as required by the Aarhus Convention, which provides for access to information, and public participation in decision-making.

Further, the AA conclusion statement provides this line in the mitigation measures section:

'Alternative access routing will also be considered as a mitigation measure.' yet despite the clear risk posed by the main proposed access route, the necessity for the alternative route is not actually provided as a binding mitigation measure.

As such, given that the specifics of the alternative route were not provided as a part of this public consultation, the 'erosion prevention measures' are not detailed, and the necessity of an alternative route is not provided as a binding mitigation measure, it is our considered opinion that the licensing authority cannot proceed with licensing any of the proposed aquaculture applications without contravening both the Habitats Directive and the Aarhus convention.

Marine Institute Response: As identified above, the interpretation of the case law is beyond the remit of the MI. We note, however, that the recommendation in the AA report that alternative routes be sought is welcomed. We also note that analysis of the alternative routes may be presented in the Conclusion Statement as a management response. While a figure included in the Conclusion Statement indicating the alternative routes considered might have been informative, we would be of the view that the alternative route was considered, assessed and concluded to be non-disturbing. Notwithstanding, we would agree with the comment in relation to the AA conclusion statement in respect of the alternative access routes. It is the MI view that the specific management actions that are to be taken should clearly be stated and unambiguous and that they will be binding and enforced.

An Taisce Observations: Grey Seals

The introduction of aquaculture into Ballyness Bay poses a serious risk to Grey Seals, as outlined in the AA report:

'In relation to interactions between aquaculture operations and seal use of the site, the risk of disturbance cannot be discounted. It is important to note that the site, to date, has had very little aquaculture operations and therefore, the seals will have little opportunity to habituate to the activities.'

and:

Given that there are currently no aquaculture operations in Ballyness Bay, it is not certain that the introduction of significant levels of aquaculture operations will not impact on the site use by these Annex II species, in particular at those locations proximate to the this haul-out location. Therefore, the risk posed by the proposed aquaculture activities in Ballyness Bay to seal conservation features cannot be discounted.

An Taisce would direct the licensing authority to the paragraphs above which outline the requirement for certainty under the Habitats Directive, and the removal of doubt before licensing can continue. While we welcome the decision to refuse licensing of site [redacted] which is closest to the seal haul out area, the risk to the Grey Seals applies to the licensing of all of the aquaculture applications, as outlined above 'it is not certain that...significant levels of aquaculture operations will not impact on the site use by these Annex II species'.

An Taisce would highlight that while site [redacted] posed the greatest risk, the conclusions reached in the AA document indicate that it is the aquaculture activity in general which poses a risk, and this cannot be discounted. As such, similar to the traffic disturbance, to proceed with licensing while significant levels of uncertainty remain will place the licensing authority in contravention of Article 6(3) of the Habitats Directive.

Marine Institute Response: First, the MI takes issue with the use of the term 'serious risk' and the apparent suggestion that this term was used in a conclusion in the AA Report. **This term was not used in the AA report.** It should be noted (and we accept that it is not clear from the AA Report) that the species observed at the haul-out location in Ballyness Bay was not defined and could have been the Common Seal or the Grey Seal. Notwithstanding, we stand over the conclusions of the report based upon experience at other seal locations. Where seals do not have to share space (i.e., sandbank) with other activities, there tends to be acclimation and less likelihood of disturbance. We consider the greatest risk will originate from activities at the proposed aquaculture site identified. The management measures proposed are, in the view of the MI, appropriate.

An Taisce Observations: Mobile sand community

The AA report outlines the following:

'The sensitivity of the community type Mobile sand community complex is unknown given the wide variation in species composition and sedimentary characteristics that comprise this community type. In particular, areas where there are very 'soft' mobile sands with impoverished communities would appear to be sensitive to the placement of trestles and even foot traffic among the trestle rows. On this basis, it is assumed that intertidal shellfish culture has the potential to disturb this community type. '

In order to mitigate for this, it is proposed that:

'Mobile sand community complex is such that there are likely to be locations where the sediments are extremely mobile (and soft) thus making them unsuitable for aquaculture operations. It is recommended, prior to making a decision to licence, that these areas be clearly identified with the Bay' and

'Locations where the sediments are extremely mobile (and soft) thus making them unsuitable for aquaculture operations will be excluded from licensing'

However, An Taisce would highlight that these habitats are by definition mobile, and mapping of these will be subjective and unreliable considering the habitats are in constant flux. As such, a large degree of uncertainty remains, and licencing of oyster trestles within a habitat which is constantly in flux puts this community type at risk of disturbance. As such, An Taisce submit that without the necessary degree of certainty of suitability of these sites for supporting oyster trestles, the licencing authority should not proceed with licencing in this Bay.

Marine Institute Response: As above, the Marine Institute takes issue with the presentation by An Taisce of a truncated quotation from the report that provides incomplete information. The full section from which An Taisce selectively quote is as follows (sentence missing from An Taisce "quote" is highlighted in Bold below).

"The sensitivity of the community type Mobile sand community complex, is unknown given the wide variation in species composition and sedimentary characteristics that comprise this community type (NPWS 2014b). **While some characteristics of this community type match those described and investigated in Forde et al (2015) and O'Carroll et al (2016) others are quite different.** In particular, areas where there are very 'soft' mobile sands with impoverished communities would appear to be sensitive to the placement of trestles and even foot traffic among the trestle rows. On this basis, it is assumed that intertidal shellfish culture has the potential to disturb this community type."

We note also that the final quotation above (starting with "Locations where....) from An Taisce cannot be found in the AA Report.

In response, we believe the section removed from the first quotation is critical to counter the argument of An Taisce. It is clear that in the inner parts of the bay (at proposed culture sites), there are extremely stable sedimentary habitats representative of this community complex that are suitable for trestle culture and sufficiently resilient to disturbance. The MI considers that the recommendation in the AA Report is appropriate (italicised quote above).

Marine Institute
Fóras na Mara

Date: May 27, 2019

To: Jane O'Mahoney - AFMD

From: Francis O'Beirn, Marine Institute

CC: Terry McMahon, Jeffrey Fisher-MI: Geraldine Farrell AFDM-DAFM

Re: Department of Culture, Heritage and the Gaeltacht comments on aquaculture licence applications in Ballyness Bay.

The Marine Institute (MI) have been asked to comment on the submission from Department of Culture, Heritage and the Gaeltacht (DCHG) to the Department of Agriculture Food and the Marine (DAFM) in relation to a number of aquaculture licence applications in Ballyness Bay. The text below repeats the NPWS comments with the MI response following.

The MI acknowledges the nature of the observations and the concerns highlighted by NPWS. The MI does not see any need to revise the outputs or conclusions in the AA report underpinning the assessment process.

DCHG Observations:

This is the first time the Department of Culture, Heritage and the Gaeltacht has issued comments on the Appropriate Assessment Report and draft Conclusion Statement for Ballyness Bay SAC (site code: 001090).

The Department welcomes the opportunity to provide observations concerning these documents and the aquaculture licence applications for the sites (T12/407B + 17 others) received on the 8th of March 2019. It is hoped that these observations will be considered by the Department of Agriculture, Food and the Marine in its decision-making process.

Fixed coastal dunes with herbaceous vegetation [2130] is an Annex I priority habitat. This Department recommends that access routes should avoid this habitat.

The Appropriate Assessment screens out a number of SPAs on the basis of no spatial overlap. However, the following SPAs - Falcarragh to Meenlaragh SPA (site code 004149), Inishbofin, Inishdooey and Inishbeg SPA (site code 004083) and Horn Head to Fanad Head SPA (site code 004194) lie within the 15km zone of impact (DEHLG, 2010) of Ballyness Bay. No rationale is given as to how or why potential detrimental interactions between the conservation features of these SPAs and aquaculture activities within Ballyness Bay were ruled out. It is therefore recommended that a more thorough and complete consideration of theses SPAs and their conservation features be documented in order to complete this appropriate assessment process.

Marine Institute Response:

The DCHG comment in relation to the dune habitat is noted and consistent with conclusions of the AA report.

It is noted that the comment from DCHG in relation to SPA screening is the first time, to our knowledge, this Department have requested additional detail in relation to a screening exercise of proximate Natura sites. To date, 30+ Natura reports have been produced.

The MI concurs that connectivity with regard to Natura sites is an important issue and this was considered when examining conservation objectives set for all proximate Natura sites. It should be noted that particular focus on the SPA sites considered in Natura assessment reports are Species of Conservation Interest (SCI) that would exclusively use intertidal sand-flat/mud-flat habitats. Mud-flat and sand-flats are not typical feeding areas for many of the SCIs identified in the SPAs in question. These species as they are likely to feed in a diverse range of offshore or terrestrial (in the case of

corncrake) habitats (Gittings and O'Donoghue 2012[1]). As such, many SCIs were considered unlikely to interact with the proposed activities. For those species that may utilise intertidal sedimentary habitats (i.e., gull species), it is the view of the MI that gull species will not rely to any great extent on the intertidal sandflats found in Ballyness Bay given alternative feeding habitat is available, e.g., terrestrial or open water—as is the case in this instance.

Furthermore, it should be noted, that the interaction with trestles by gull species was considered variable in the Gittings and O'Donoghue (2012) study, and at low abundance levels (up to 10) the predicted levels closely matched the observed levels (Gittings and O'Donoghue 2012), indicating little or no negative interaction. Given the low numbers of breeding pairs (i.e. 20) of Common Gulls found on Inishbofin, Inishdooey and Inishbeg SPA and that alternative habitat between these areas and the proposed culture sites can be found, we consider it unlikely that gulls that might attend the aquaculture areas in numbers that would result in adverse impact.

[1] Gittings, T. & O'Donoghue, P.D. (2012). *The effects of intertidal oyster culture on the spatial distribution of waterbirds*. Report prepared for the Marine Institute. Atkins, Cork.

An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine

T12/409A

AQUACULTURE LICENCE

AQUACULTURE MARINE SHELLFISH INTER/SUB-TIDAL (Structures e.g. trestles)

Edward and Paul O'Brien,

Magheraroarty,

Gortahork,

Co Donegal

TABLE OF CONTENTS

T12/409A

AQUACULTURE LICENCE NO. XXXX

GRANTED UNDER THE FISHERIES (AMENDMENT) ACT, 1997 (NO. 23 of 1997)

The Minister for Agriculture, Food and the Marine (hereinafter referred to as the "Minister"), in exercise of the powers conferred on him by the Fisheries (Amendment) Act, 1997 (No. 23 of 1997) (hereinafter referred to as the "Act"), grants an Aquaculture Licence to:

Edward and Paul O'Brien,
Magheraroarty,
Gortahork,
Co Donegal

(hereinafter referred to as the "Licensee") for the cultivation of clams on a site in Ballyness Bay, Co. Donegal as specified in Schedule 1 attached (numbered T12/409A) and indicated by a red line on the attached map in accordance with the plans and drawing(s) in Schedule 2 attached as approved of by the Minister, subject to the Act and Regulations made under the Act and to the terms and conditions set out in the attached pages.

This Aquaculture Licence shall remain in force for a maximum period of ten (10) years commencing on XX XXXXXXXXX 20XX, provided for so long as the Foreshore Licence granted on XX XXXXXXXXX 20XX, under Section 3(1) of the Foreshore Act 1933 (No.12 of 1933) in respect of the same site for the purpose referred to is in force.

A person authorised under Section 15(1) of the Ministers and Secretaries Act 1924 to authenticate the Seal of the Minister for Agriculture, Food and the Marine.

TERMS AND CONDITIONS APPLYING TO THIS AQUACULTURE LICENCE

1. **Licensed Area**

1.1 The area specified in ***Schedule 1*** attached (2.2119 hectares) (labelled T12/409A) and outlined in red on the map(s) in ***Schedule 1***.

1.2 The co-ordinates for the site are based on the Irish National Grid Co-ordinate System.

2. **Species, Cultivation and Method Licensed**

2.1. Species to be farmed: Clams (*Tapes Semidecussata*)

2.2. Method: Trays under mesh subject to the stocking and/or deployment limits as may be specified in ***Schedule 4*** attached.

2.3. The introduction of seed to the site shall comply with the legislation relating to fish health.

3. **Infrastructure and Site Management**

Indemnity

3.1. The Licensee shall indemnify and keep indemnified the State, the Minister, his officers, servants or agents against all actions, loss, damage, costs, expenses and any demands or claims howsoever arising in connection with the construction, maintenance or use of any structures, apparatus, equipment or any other thing used in connection with the licensed operation in the licensed area or in the exercise of the rights granted under the licence and the Licensee shall take such steps as the Minister may specify in order to ensure compliance with this condition.

3.2. The duty of maintenance and responsibility for the upkeep and safety of the site rests with the Licensee.

Design, Arrangement and Maintenance of Structures

3.3. The Licensee shall ensure that the equipment (including all flotation, mooring and anchoring devices) is placed within the licensed area only. Storage or placement of equipment or stock on the foreshore or seashore outside the licensed area is not permitted under any circumstances.

3.4. The Minister may direct as to the deployment of apparatus and flotation devices and their colour, within the site.

3.5. The Licensee shall obtain the prior approval of the Minister to any proposed material change to the plan/drawings or equipment as approved being used during the licensing period as specified in ***Schedule 2*** attached.

3.6. The Licensee shall at all times for the duration of the licence keep all equipment used for the purposes of the licensed operations in a good and proper state of repair and condition to the satisfaction of the Minister or other competent State authority.

3.7. The Licensee shall ensure that each trestle grouping/pole and all flotation and mooring devices in the licensed area legibly bear the Aquaculture Licence Number in an indelible weatherproof format.

Operational Conduct

3.8. The Licensee shall conduct its operations in a safe manner and with regard for other persons in the area and the environment and shall ensure that the operations are not injurious to adjacent lands or the public interest (including the environment) and do not interfere with navigation or other lawful activity in the vicinity of the licensed area, and shall comply with any lawful directions issued by the Minister and any other competent State authority in that regard.

3.9. The Licensee shall ensure that any aquaculture or other activity conducted under this licence does not adversely affect the integrity of the Natura 2000 network (if applicable) through the deterioration of natural habitats and the habitats of species and/or through disturbance of the species for which the area has been designated in so far as such a disturbance may be significant in relation to the stated conservation objectives of the site concerned.

3.10. The Licensee shall ensure that tractors (or other vehicles) accessing and leaving the site adhere strictly to approved access and egress routes as specified in Schedule 1 attached. Full compliance is required in order to minimise disturbance to the foreshore and habitat. All drivers shall be made fully aware of the specific route approved.

3.11. The Licensee shall ensure that journeys back and forth on the approved access and egress routes are kept to the minimum necessary.

3.12. The Licensee shall ensure that all tractors/towing vehicles to be used for aquaculture purposes on the foreshore are fitted with efficient exhaust/silencers/mufflers and that vibration noise from tractors and machinery is kept to a minimum.

3.13. The Licensee shall ensure that all vehicles are properly maintained so as to prevent leakages of oils, fuels, grease etc.

3.14. The Licensee shall ensure that all vehicles move slowly at all times on the foreshore, that engine revolution is kept to a minimum and that engines are turned off when not in use.

3.15. The Licensee shall ensure that if more than one vehicle is needed on the shore that all vehicles, where possible, arrive and depart together.

3.16. The Licensee shall so organise its operations in consultation with other licensed operators to ensure that the total number of vehicles and harvesting machines on the foreshore on any one day is kept to the minimum necessary.

3.17. The Licensee shall ensure that when carrying out aquaculture work on the foreshore, dogs owned or under the control of the Licensee shall not be present, in order to minimise disturbance to the birdlife in the area.

3.18. The Licensee shall ensure that best practice is employed to keep structures and netting clean at all times and any biofouling by alien invasive species shall be removed and disposed of in a responsible manner. In particular, in 'Natura 2000' sites care must be taken to ensure that any biofouling by alien invasive species will not pose a risk to the conservation features of the site. Measures to be undertaken are set out in the draft Marine Code of Practice prepared by Invasive Species Ireland and can be found on the web site at: **http://invasivespeciesireland.com/.**

Waste Management

3.19. The Licensee shall ensure that the licensed and adjoining area shall be kept clear of all redundant structures (including apparatus, equipment and/or uncontained stock), waste products and operational litter or debris and shall make provision for the prompt removal and proper disposal of such material. If the Licensee refuses or fails to do so, the Minister may cause the said structures, apparatus, equipment or other thing to be removed and the licensed area restored and shall be entitled to recover from the Licensee as a simple contract debt in any court of competent jurisdiction all costs and expenses incurred by him in connection with the removal and restoration.

Inspection

3.20. The licensed area and any equipment, structure, thing, or premises wherever situated used in connection with operations carried out in the licensed area shall be open for inspection at any time by an authorised person (within the meaning of Section 293 of the Fisheries (Consolidation) Act 1959) (No. 14 of 1959) (as amended by Fisheries Act 1980) (No. 1 of 1980), a Sea Fisheries Protection Officer (within the meaning of Sea Fisheries and Maritime Jurisdiction Act 2006) (No. 8 of 2006) or any other person appointed in that regard by the Minister or other competent State authority.

3.21. The Licensee shall give all reasonable assistance to an authorised officer or a Sea Fisheries Protection Officer or any person duly appointed by any competent State authority to enable the person or officer enter, inspect, examine, measure and test the licensed area and any equipment, structure, thing or premises used in connection with the operations carried out in the licensed area and to take whatever samples may be deemed appropriate by that person or officer.

3.22. The Licensee shall keep and maintain in the State for inspection on demand by the Minister or a competent State authority, at all times, records of all operations including compliance monitoring and any required follow up action. These records shall be produced by the Licensee on demand by the Minister or other competent State authority and in any event not later than 24 hours from the making of that demand.

3.23. The Licensee shall furnish to the Minister or other competent State authority in the form and at the intervals determined by the Minister or other competent State

authority, such information relating to the licensed area as may be required to determine compliance by the Licensee with the terms of this licence and applicable legislation.

4. **Navigation and Safety**

4.1. The Licensee shall ensure that Statutory Sanction from the Commissioners of Irish Lights is in place prior to the commencement of operations, regarding all aids to navigation. Statutory Sanction forms are available at http://www.cil.ie/safety-navigation/statutory-sanction.aspx.

4.2. The Licensee shall ensure that the site is marked in accordance with the requirements of both the Marine Survey Office and the Commissioners of Irish Lights as specified in ***Schedule 3***.
The navigation marking detail is as illustrated in ***Schedule 3***.

4.3. The Licensee shall comply with any specification or requirement relating to navigational aids, flotation and mooring devices, supporting marking posts/poles, as required by the Minister or any other competent State authority.

4.4. The Minister's determination in respect of this licence is conditional upon immediate full compliance by the Licensee in respect of all requirements and conditions which are imposed under the relevant legal provisions applicable to the Marine Survey Office.

4.5. Prior to commencement of operations the Licensee shall inform the UK Hydrographic Office at Taunton of the location and nature of the site in order that charts and nautical publications can be updated. Tel: 00 44 1823337900 Fax: 00 44 1823 284077 Email: sdr@ukho.gov.uk the Licensee shall submit proof to the Department within 14 days of the date of this licence that the UK Hydrographic Office has been so informed.

5. **Monitoring**

5.1. The Licensee shall undertake and/or partake in monitoring, in particular environmental monitoring, as directed by the Minister or other competent State authority.

6. **Fish Health / Mortality Management / Movement of Fish**

Fish Health Regulations

6.1. Before the site is stocked the Licensee shall ensure that a Fish Health Authorisation under statutory provisions giving effect to Council Directive No. 2006/88/EC, as amended, or any other legislative act that replaces that Directive on animal health requirements for aquaculture animals and their products, and on the prevention and control of certain diseases in aquatic animals, is in place.

Disposal of Mortalities

6.2. The Licensee shall dispose of dead fish in accordance with the applicable statutory provisions and requirements.

Movement of Fish

6.3. The Licensee shall comply with any regulations in force governing the movement of fish.

7. Duration, Cessation, Review, Revocation, Amendment, Assignment

Duration, Cessation

7.1. This Licence shall remain in force until XX XXXXXXXXX, 20XX and as long as the accompanying Foreshore Licence remains in force.

Review

7.2. The Licensee may apply for a review of the licence at any time after the expiration of three years since the granting of the licence or its last renewal in accordance with section 70 of the Act.

Revocation, Amendment

7.3. Subject to the Act, the Minister may revoke or amend the licence if:–

(a) he considers that it is in the public interest to do so,
(b) he is satisfied that there has been a breach of any condition specified in the licence e.g., operating outside the licensed area,
(c) the licensed area to which the licence relates is not being properly maintained,
(d) water quality results or general performance in the licensed area do not meet the standards set by the Minister or the competent State authority.

Assignment

7.4. This Licence shall not be assigned without the prior written consent of the Minister and may not be assigned during the period of three years, dating from the commencement or renewal of this licence, unless the Minister determines that it may be assigned under condition 7(5) or the condition set out in 7(6) applies.

7.5. A Licensee, who considers that there are exceptional reasons for the assignment of the Licence during the first three years, may apply to the Minister, giving those reasons, for a determination that the Licence may be assigned. The Minister may, at his discretion, having considered the reasons given by the Licensee, determine whether or not the Licence may be assigned. The determination of the Minister in this regard is final.

7.6. Where the Licensee is a company (within the meaning of the Companies Acts) and goes into Liquidation (within the meaning of the Companies Acts) in the first three years dating from the commencement of the licence, the Liquidator shall, with the consent of the Minister, be entitled to assign the licence to enable him to discharge any debts of the liquidated company.

7.7. This licence is issued subject to any order that the High Court may make under section 218 of the Companies Act 1963 or otherwise with regard to the assignment of this licence.

8. **Fees**

8.1. The Licensee shall pay to the Minister an annual aquaculture licence fee in accordance with the Aquaculture (Licence Application and Licence Fees) Regulations 1998(S.I. No. 270/1998) as amended by the Aquaculture (Licence Fees) Regulations 2000 (S.I. No. 282 of 2000) or an amount payable under Regulations made under section 64 of the Act.

8.2. The Minister may revoke the licence where the Licensee fails to pay the aquaculture licence fees on demand.

9. **General Terms and Conditions**

9.1. The Licensee shall at all times comply with all laws and protocols applicable to aquaculture operations.

9.2. Any reference to a statute or an act of an institution of the European Union (whether specifically named or not) includes any amendments or re-enactments in force and all statutory instruments, orders, notices, regulations, directions, bye-laws, certificates, permissions and plans made, issued or given effect under such legislation shall remain valid.

9.3. If any condition or part of a condition in this licence is held to be illegal or unenforceable in whole or in part, such condition shall be deemed not to form part of this licence but the enforceability of the remainder of this licence is not affected.

9.4. The Licensee shall at all times hold all necessary licences, consents, permissions, permits or authorisations associated with any activities of the Licensee in connection with the licensed area.

Notification

9.5. Without prejudice to any other remedy under the licence or in law, if the Minister is of the view that the Licensee is in breach of any obligation under this licence, the Minister may, by notice in writing, require that the Licensee rectifies such breach, within such time as is specified by the Minister. The Licensee shall comply with any direction of the Minister within the time specified in the notice.

9.6. Any notice to be given by the Minister may be transmitted through the Post Office addressed to the Licensee at the last known address of the Licensee.

9.7. The Licensee shall notify the Minister within 7 days of any change in the Licensee's address, telephone, e-mail or facsimile number.

Tax Clearance Certificate

9.8. During the term of this licence the Licensee shall provide to the Minister on demand a current tax clearance certificate.

Companies and Co-operatives

9.9. In the event of the licence being granted to a company (within the meaning of the Companies Acts), control of the licensee company shall not change in any respect from the control of the company as existed on the date that the licence was granted so long as this licence shall remain in force save with the prior written permission of the Minister.

9.10. In the event of a licence being granted to a company that has been incorporated outside this State, the licensee company shall register with the Companies Registration Office within one month of the establishment of a place of business in the State or alternatively, within one month of the establishment of a branch of the said company in the State and the licensee company shall submit proof to the Department within 14 days of the end of that month that it has been so registered.

9.11. Where the licensee is a company within the meaning of the Companies Acts, the licensee company shall ensure that it does not become dissolved within the meaning of the Companies Acts for so long as this licence shall remain in force.

9.12. In the event of the licence being granted to a society (within the meaning of section 2 of the Industrial and Provident Societies (Amendment) Act 1978 (No.23 of 1978) the following conditions shall apply:

9.12.1. The rules relating to membership of the society shall enable any resident of the State to become a member of it where the resident fulfils all the conditions laid down by the society for membership of it and the rules shall not lay down different conditions for different classes of people;

9.12.2. The rules relating to the society as submitted to the Minister before the grant of this licence shall not be amended subsequently other than with the written permission of the Minister; and

9.12.3. The Minister may, if he considers it necessary in the interests of good management of the licensed area, direct that an amendment may be made to the rules of the society, and the Licensee shall amend the rules in accordance with that direction.

Clearance of Site

9.13. The Licensee shall, at the Licensee's own expense, if so required by written notice from the Minister and within three weeks after receipt of such notice or on cessation of the licence for any other cause, remove the structures, apparatus, equipment or any other thing to the satisfaction of the Minister. If the Licensee refuses or fails to do so, the Minister may cause the said structures, apparatus, equipment or other thing to be removed and the licensed area restored and shall be entitled to recover from the Licensee as a simple contract debt in any court of competent jurisdiction all costs and expenses incurred by him in connection with the removal and restoration. The Licensee shall take such steps as the Minister may specify in order to secure compliance with this condition.

SCHEDULE 1

Schedule 1 contains:

- **the co-ordinates of the site based on the Irish National Grid Co-ordinate System and the area of the site**
- **site map(s) which also shows the access/egress route to and from the site**
- **a chart showing the location of the site in relation to the surrounding area.**

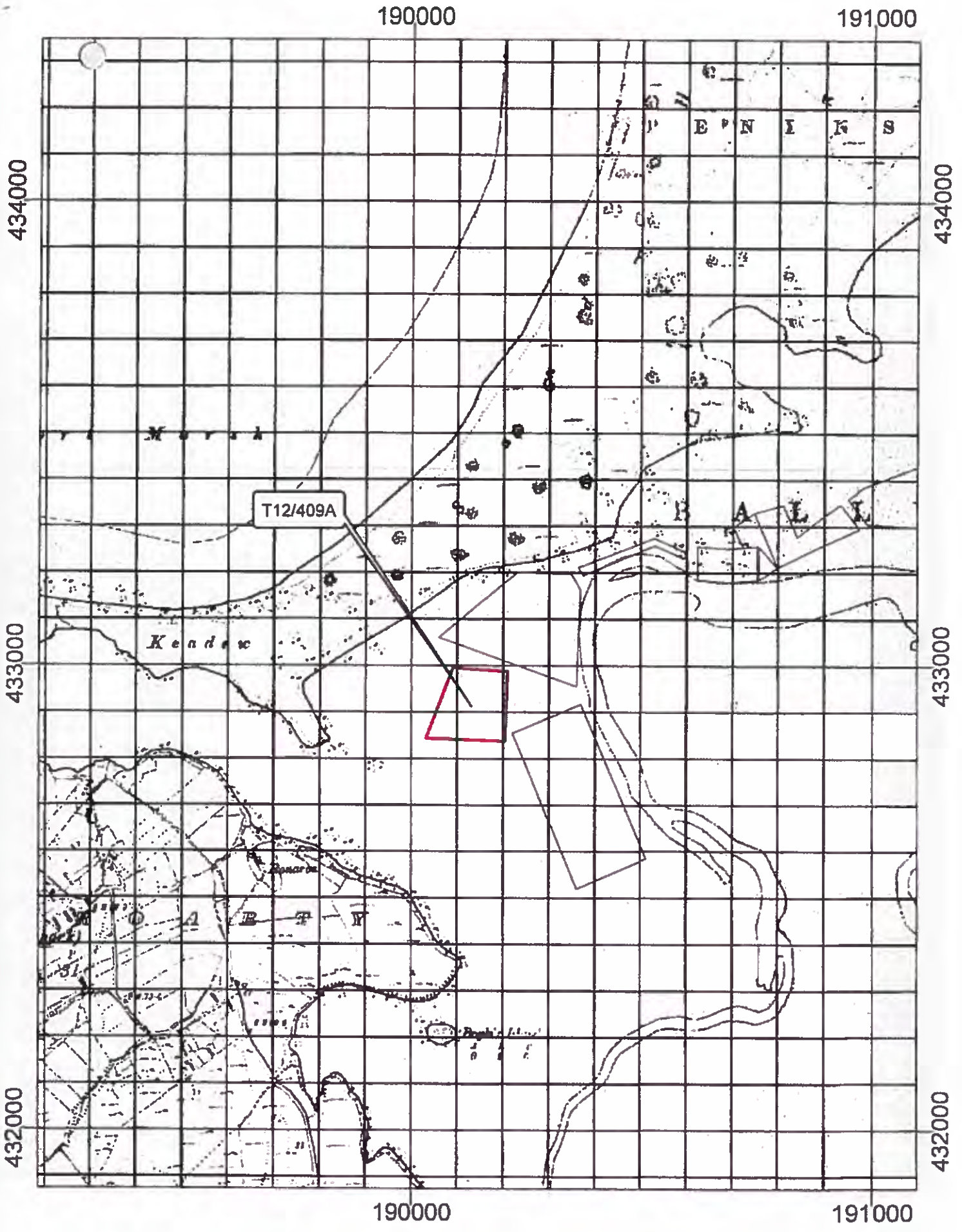
1 NO. SITE AT BALLYNESS BAY CO.DONEGAL

Co-ordinates & Area

Site T12/409A (2.2119 Ha)

The area seaward of the high water mark and enclosed by a line drawn from Irish National Grid Reference point

190091, 432995 to Irish National Grid Reference point
190209, 432987 to Irish National Grid Reference point
190204, 432837 to Irish National Grid Reference point
190032, 432843 to Irish National Grid Reference point

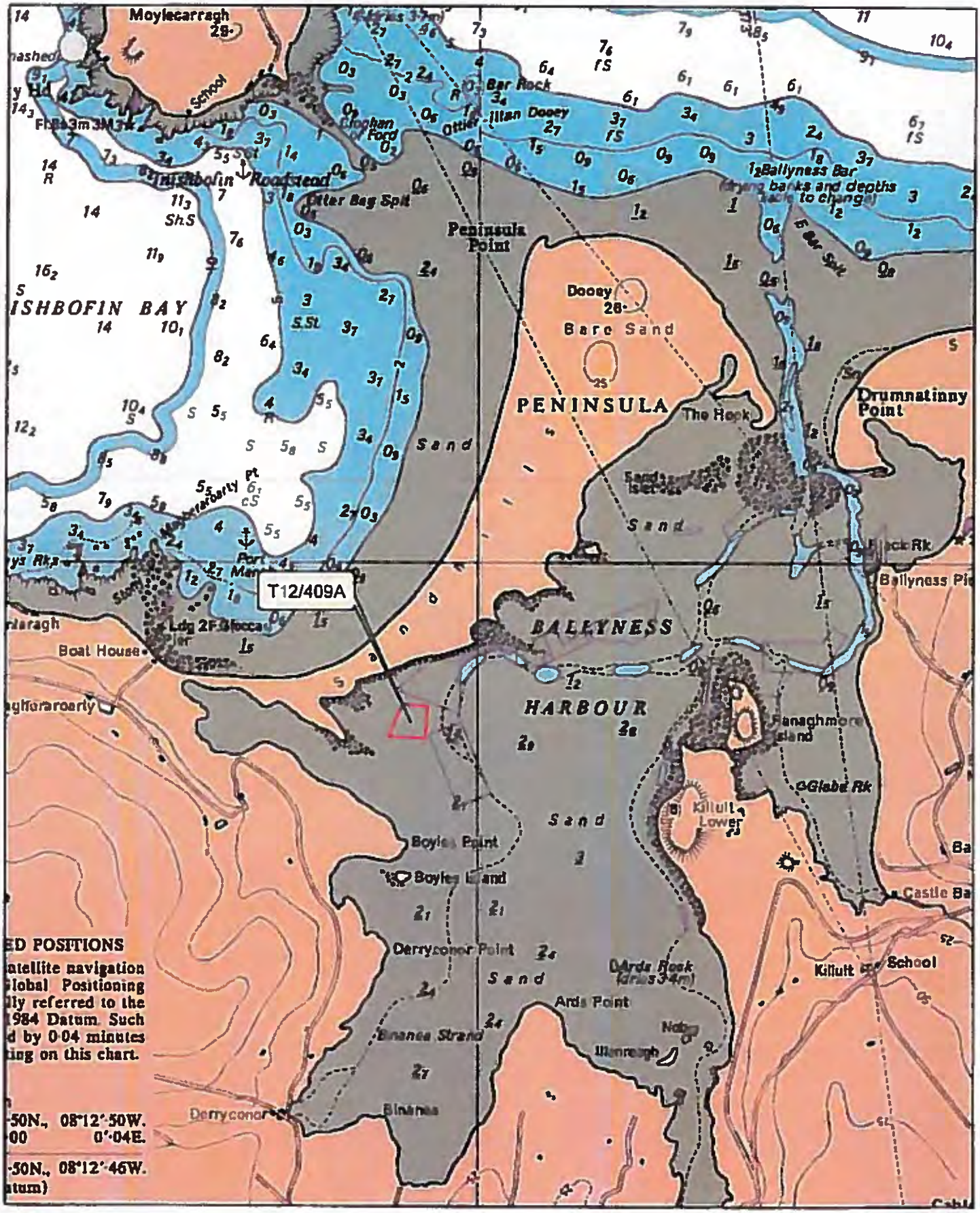


Aqua Culture Sites
<all other values>
Site_Status
App-cation
Licensed
100 Meter Reference Grid

1:10,560

Sites highlighted in red denotes Application

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine



1:24,000

Aqua Culture Sites
<all other values>
Site_Status
Application
Licensed

Sites highlighted in red denotes Application

Part of Admiralty Chart No =2752-0
Not to be used for Navigation

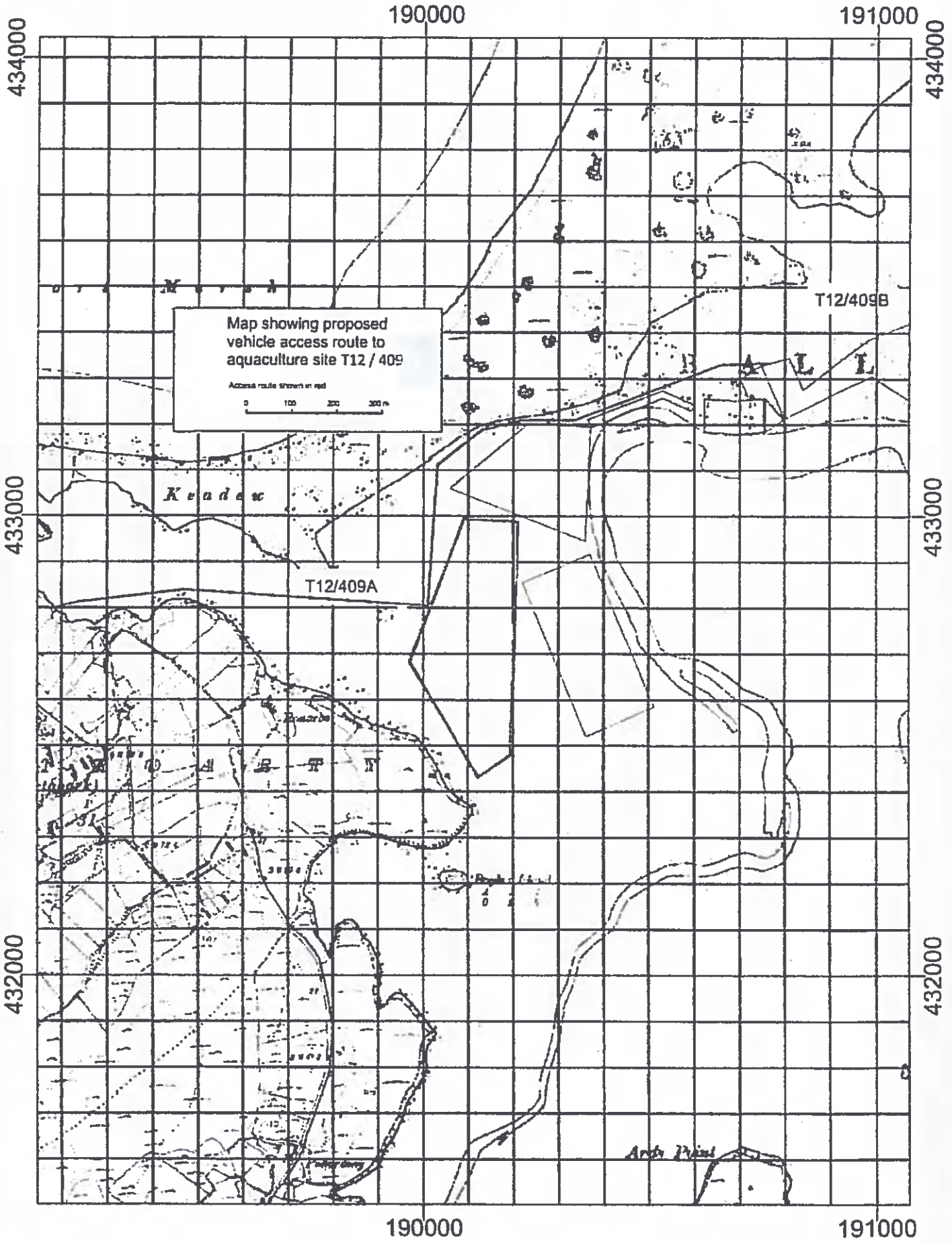
An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

Updated maps and drawings

will need to be requested

once Ministers Determination is made

due to variation from original application.



Access Route Map

Access Route shown in RED

Applicant : Paul O' Brien (T12/409B)

SCHEDULE 2

Schedule 2 contains:

- **the approved plans and drawing(s)**

Updated maps and drawings

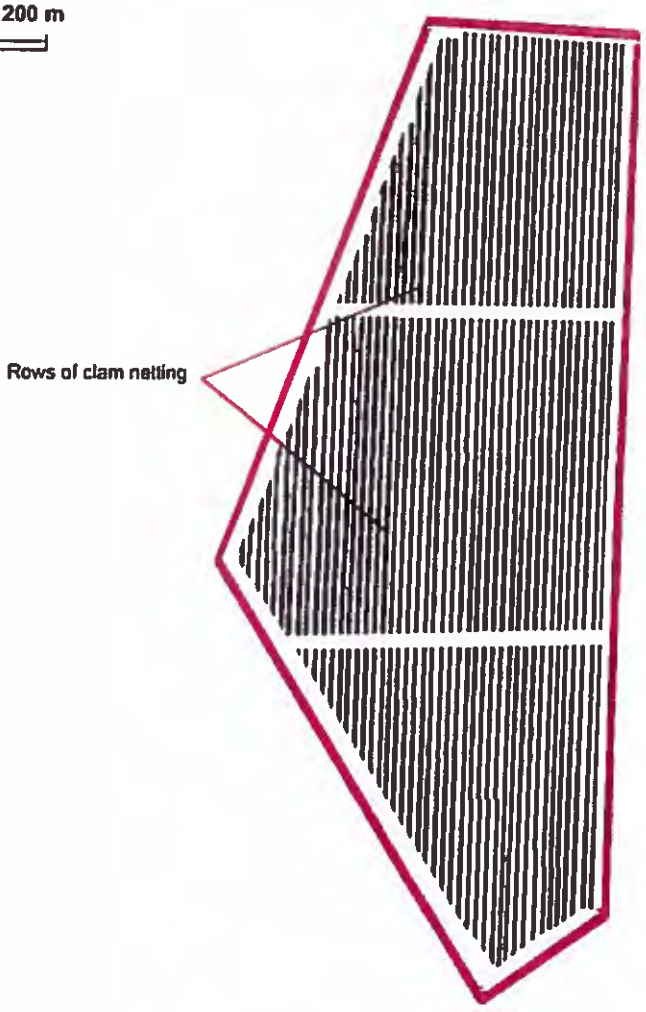
will need to be requested

once Ministers Determination is made

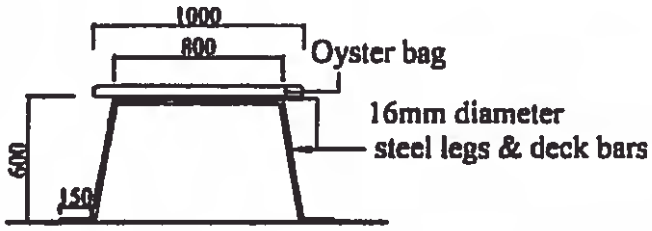
due to variation from original application.

Drawing of farm layout

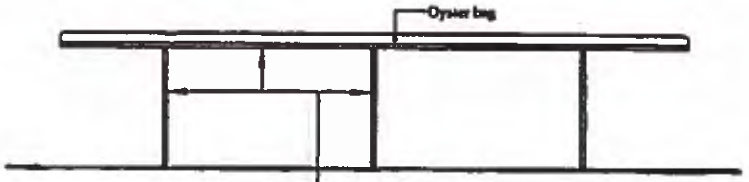
Clam netting 1.5m wide
1m space between each row



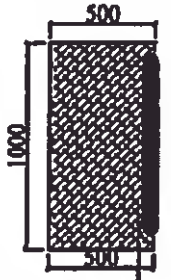
Farm Layout - Paul O Brien (T12/409A)



Cross Section

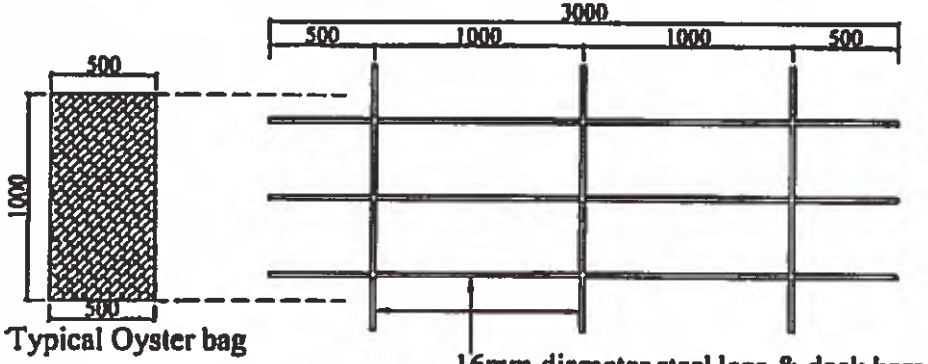


Elevation



Will be experimenting with placing a float on one side of the bag with the other side still attached to the trestle to create movement of oysters.

Typical Oyster bag with Float



Plan

Pictures of clam netting to be used and sample rows.

Structures Design

0 1 2 m

Applicant : Paul O' Brien (T12/409B)

SCHEDULE 3

Schedule 3 contains:

- **requirements of CIL**
    - That the applicant secures Statutory Sanction from the Commissioner of Irish Lights for the aids to navigation that are required and approved by the Marine Survey Office. These aids should be in place before the development on the site commences.

- **requirements of the MSO / the navigation marking detail.**

    - Contact must be made with the Marine Survey Office to agree site marking.

    - The agreed site marking once sanctioned by CIL must be in place before development of the site commences.

SCHEDULE 4

Schedule 4 contains:

- The Licensee must contact their local Sea Fisheries Protection Authority (SFPA) office to organise a classification and biotoxin monitoring programme for the site prior to commencing operations.

- All requirements of the SFPA must be complied with including the need to have classification assigned prior to commencing operations.

- The source of seed, where applicable, must be approved by the Department of Agriculture Food and the Marine.

- Any change to the source of seed must be approved in advance by the Department of Agriculture Food and the Marine.

- Prior to the commencement of operations at the site the Licensee is required to prepare a Contingency Plan for the approval of the Department of Agriculture Food and the Marine which shall identify, inter alia, methods for the removal from the environment of any invasive non-native species introduced as a result of operations at this site. If such an event occurs, the contingency plan shall be implemented immediately.

- The access route must be strictly adhered to at all times, in order to minimise habitat disturbance.

An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine

T12/409A

FORESHORE LICENCE

Edward and Paul O'Brien,

Magheraroarty,

Gortahork,

Co Donegal.

TABLE OF CONTENTS

T12/409A

FORESHORE LICENCE IN RESPECT OF A SITE (NUMBERED T12/409A) AT BALLYNESS BAY, CO. DONEGAL

AGREEMENT made on the XX XXXXXXX 20XX, between the Minister for Agriculture, Food and the Marine (hereinafter referred to as the "Minister" which expression shall include his Successors or Assigns where the contract so requires or admits), of the one part, and

Edward and Paul O'Brien,
Magheraroarty,
Gortahork,
Co Donegal.

(hereinafter referred to as the "Licensee") of the other part, whereby the Minister, in exercise of the powers conferred on him by Section 3 of the Foreshore Act, 1933 (No.12 of 1933) hereby grants to the Licensee licence to use and occupy that part of the foreshore at Ballyness Bay, Co. Donegal (numbered T12/409A) detailed in the attached schedule and more particularly delineated on the map annexed hereto and thereon coloured red for the purpose of the cultivation set out in Aquaculture Licence Number XXX on the terms and conditions set out in the attached pages.

This Foreshore Licence shall remain in force for a maximum period of ten (10) years commencing on XX XXXXXXXXX 20XX, provided for so long as the Aquaculture Licence Number XXX granted on XX XXXXXXX 20XX under the Fisheries (Amendment) Act 1997 (No. 23 of 1997) in respect of the same site for the purpose referred to is in force.

TERMS AND CONDITIONS APPLICABLE TO FORESHORE LICENCE

1. The Licensee shall pay to the Minister the annual sum of € 63.49 (sixty three euro forty nine cent), such payment to be made on the XX day of XXXXXXXXX in every year during the continuance of this Licence, the first of such payments to be made on the signing hereof.

2. The Licensee shall use that part of the foreshore, the subject matter of this Licence, for the cultivation set out in Aquaculture Licence Number XXX only and for no other purpose whatsoever.

3. The Licensee shall comply fully with all terms and conditions of Aquaculture Licence Number XXX.

4. The Licensee shall indemnify and keep indemnified the State, the Minister, his officers, servants or agents against all actions, loss, damage, costs, expenses and any demands or claims however arising in connection with the construction, maintenance or use of any structures, apparatus, equipment or any other thing used in connection with the licensed operation in the licensed area or in the exercise of the rights granted under the licence and the Licensee shall take such steps as the Minister may specify in order to ensure compliance with this condition.

5. The duty of maintenance and responsibility for the upkeep and safety of the site rests with the Licensee.

6. The Minister shall be at liberty at any time to terminate this Licence by giving to the Licensee three months notice in writing ending on any day, and upon determination of such notice, the Licence and permission granted shall be deemed to be revoked and withdrawn without the liability for the payment of any compensation by the Minister to the Licensee.

7. Any notice to be given by the Minister may be transmitted through the Post Office addressed to the Licensee at the last known address of the Licensee.

8. The Licensee shall not carry out any operations authorised by the Licence in the licensed area in such a manner as to interfere unreasonably with fishing or navigation in the vicinity of the licensed area and shall comply with any direction given to the Licensee in that regard by the Minister.

9. In the event of the breach, non-performance or non-observance by the Licensee of any of the conditions herein contained, the Minister may forthwith terminate this Licence without prior notice to the Licensee.

AND IT IS HEREBY CERTIFIED THAT:

1. For the purpose of the stamping of this Instrument that this is an Instrument to which the provisions of Section 53 of the Stamp Duties Consolidation Act 1999 (No. 31 of 1999), do not apply for the reason that the entire of the property involved comprises Foreshore and contains no Buildings.

2. The Family Law Acts of 1976, 1981, 1989, 1995 and the Family Law (Divorce) Act 1996 do not affect the Property.

SEAL OF OFFICE AND SIGNATURES

PRESENT when the Seal of Office of the MINISTER FOR AGRICULTURE, FOOD AND THE MARINE was affixed and was authenticated by the Signature of:

_____

A person so authorised under Section 15(1) of the Ministers and Secretaries Act, 1924 to authenticate the seal of the Minister.

WITNESS: _____

ADDRESS: _____

_____

OCCUPATION: CIVIL SERVANT

SIGNED on behalf of Licensee

_____

in the presence of:

WITNESS: _____

ADDRESS: _____

_____

OCCUPATION: _____

SCHEDULE 1

Schedule 1 contains:

- **the co-ordinates of the site based on the Irish National Grid Co-ordinate System and the area of the site**

- **site map(s)**

- **a chart showing the location of the site in relation to the surrounding area.**

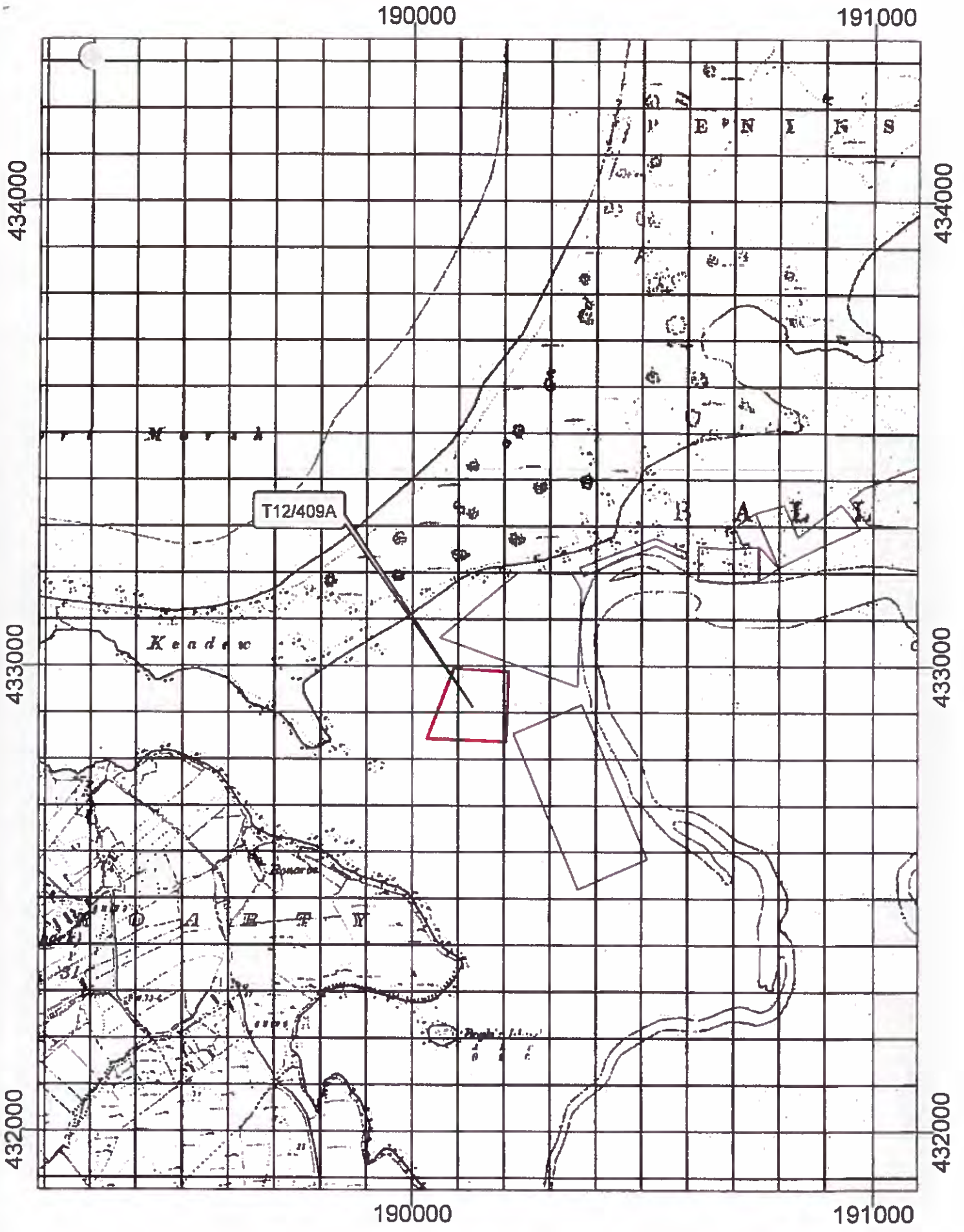
1 NO. SITE AT BALLYNESS BAY CO.DONEGAL

Co-ordinates & Area

Site T12/409A (2.2119 Ha)

The area seaward of the high water mark and enclosed by a line drawn from Irish National Grid Reference point

190091, 432995 to Irish National Grid Reference point
190209, 432987 to Irish National Grid Reference point
190204, 432837 to Irish National Grid Reference point
190032, 432843 to Irish National Grid Reference point



Aqua Culture Sites

<all other values>

Site_Status

Application

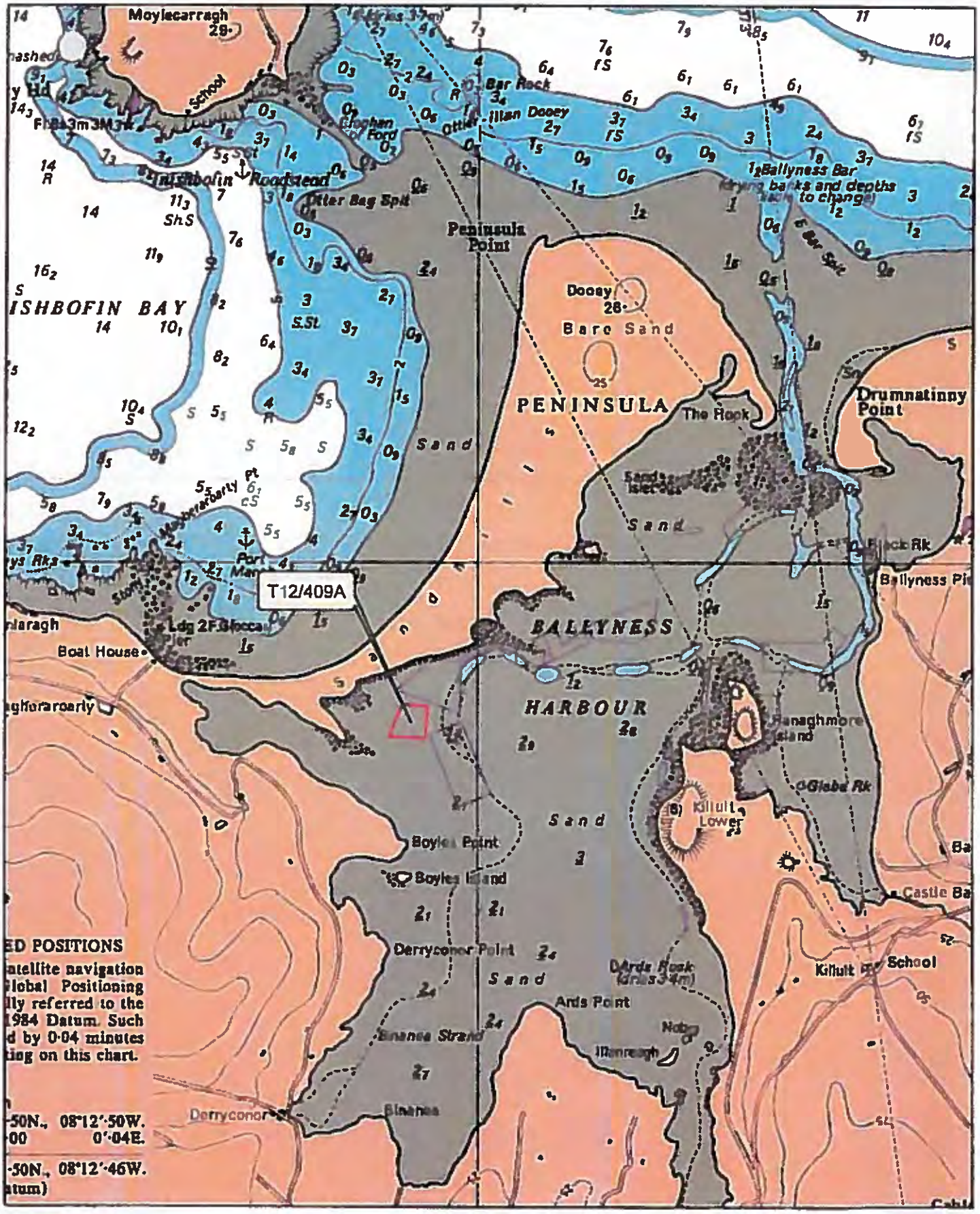
Licensed

100 Meter Reference Grid

1:10,560

Sites highlighted in red denotes Application

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine



1:24,000

Aqua Culture Sites
<all other values>
Site_Status
Application
Licensed

Sites highlighted in red denotes Application

Part of Admiralty Chart No =2752-0
Not to be used for Navigation

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

Mr Campbell, Divisional Engineer BJC 19/2/19

Ms Farrell, AFMD

RE: Landscape and visual impact assessment of aquaculture licence application at Ballyness Bay, Co Donegal by Paul O'Brien

File ref: T12/409

Previous report dated 26/1/11, 11/2/12, and 9/6/16 refer to this application. In 2017 the applicant increased the size of both sites applied for 409A and 409B. In 2018 the Department received clarification on the species to be grown, the structure types and structure layouts for both sites. Site 409A is closest to public road viewpoints is the one that requires more detailed visual impact assessment (as has been needed for neighbouring application sites [redacted]). This report assesses the visual and landscape impact of development on site 409A and 409B.

Site 409A

Site 409A as amended is 8.961 hectares in area. It is the largest site applied for to date in Ballyness Bay.

See Map 1 overleaf for site location. Site 409A is located in the inner Bay within 100m of the High water mark at its south west edge. It is closest site to the R257 roadway which runs along south west edge of Bay.

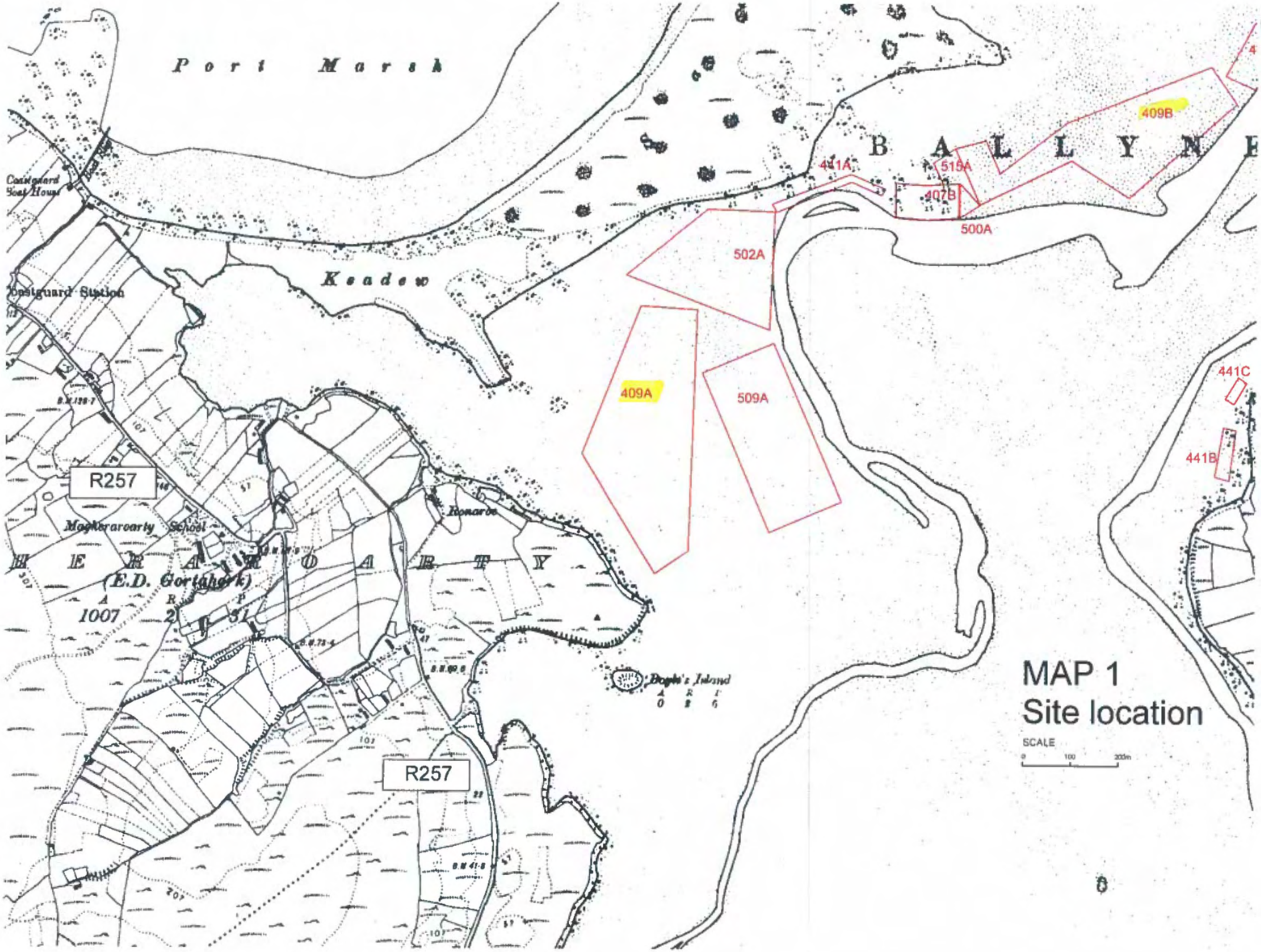
The applicant proposes to grow clams under mesh throughout the site. The layout proposes dense coverage of the site with lines 1.5m wide mesh running approximately N-S over site extents. The lines would have 1 metre gap between them. The clams will be ongrown in upper layer of sand substrate below the mesh lines. Visibility of mesh (dark grey in colour) will be lower than for trestle lines or other elevated structures. The mesh will require regular cleaning by tractor drawn brush assemblies and will therefore remain visible during the production cycle as weed growth on the mesh is suppressed.

Potential for visual and landscape impact

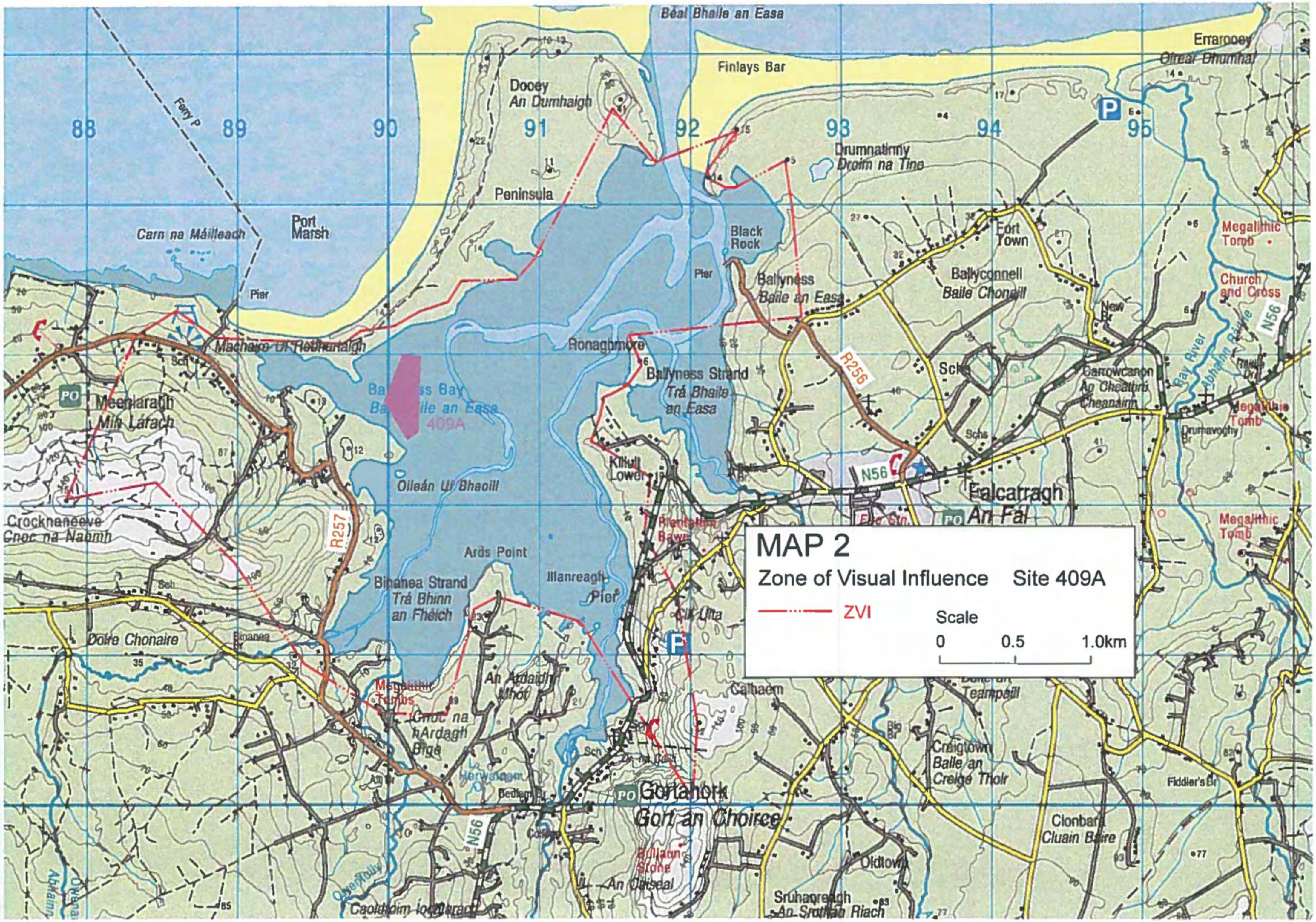
The visibility of the site is illustrated on Map 2 "Zone of Visual Influence of site 409A" (included in this report). The site is visible in the environs of the Bay from sloping lands to the southwest, south and southeast. It is also from areas of foreshore of the inner Bay and from dune area to the west.

Visual Impact

Public views of the site are available from foreshore areas in the Bay, the Dooey peninsula back dune area and from the public road network.



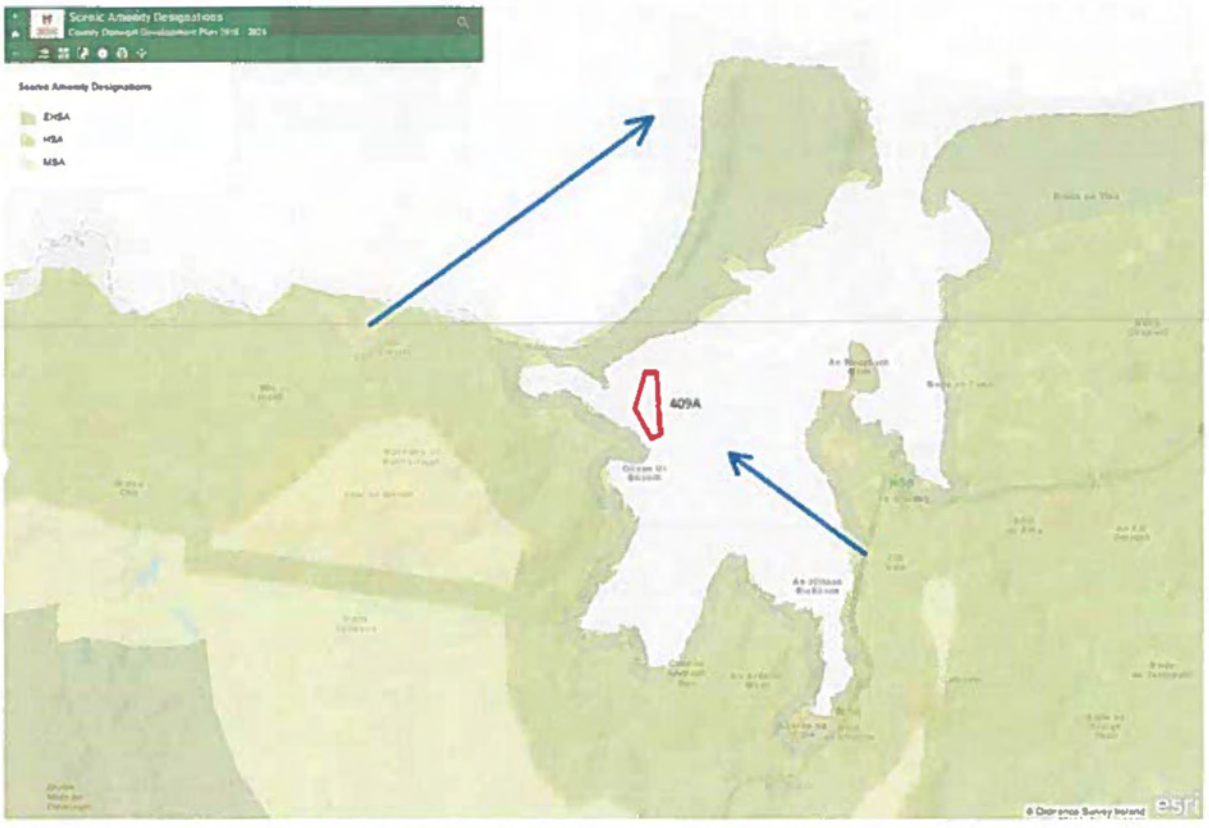
Port Marsh
Coastguard Boat House
Coastguard Station
Keadew
B A L L Y N E
409B
441A
515A
407B
500A
502A
409A
509A
441C
441B
R257
Magheraroarty School
Ronaroe
M A G H E R A R O A R T Y
(E.D. Gortahork)
A R P
1007 2 31
Boyle's Island
A R P
0 2 6
R257
MAP 1
Site location
SCALE
0 100 200m



MAP 2
Zone of Visual Influence Site 409A
ZVI
Scale
0 0.5 1.0km
409A
Ballyness Bay
Baile an Easa
Béal Bhaile an Easa
Finlays Bar
Dooey
An Dumhaigh
Peninsula
Port Marsh
Carn na Máilleach
Drumnatinny
Droim na Tine
Black Rock
Ballyness
Baile an Easa
Ballyconnell
Baile Chonaill
Fort Town
Ronaghmore
Ballyness Strand
Trá Bhaile an Easa
Meenlaragh
Mín Lárach
Crocknaneeve
Cnoc na Naomh
Oileán Uí Bhaoill
Ards Point
Binanea Strand
Trá Bhinn an Fhéich
Illanreagh
Pier
Killult Lower
Falcarragh
An Fál
Carrowcannon
Megalithic Tomb
Church and Cross
Doire Chonaire
An Ardaidh Mhór
Cnoc na hArdagh Bige
Calhaem
Craigtown
Baile an Creige Thoir
Gortahork
Gort an Choirce
Clonbara
Cluain Báire
Oldtown
Sruhangreagh
An Cloiseal
Errarooey
Oirear Dhumhaí
R256
R257
N56
88
89
90
91
92
93
94
95

The N56 and R257 sections of road from Gortahork to Magheraroarty are on the Wild Atlantic Way tourist route with extensive sea view opportunities and would have intermittent views of the proposed development site.

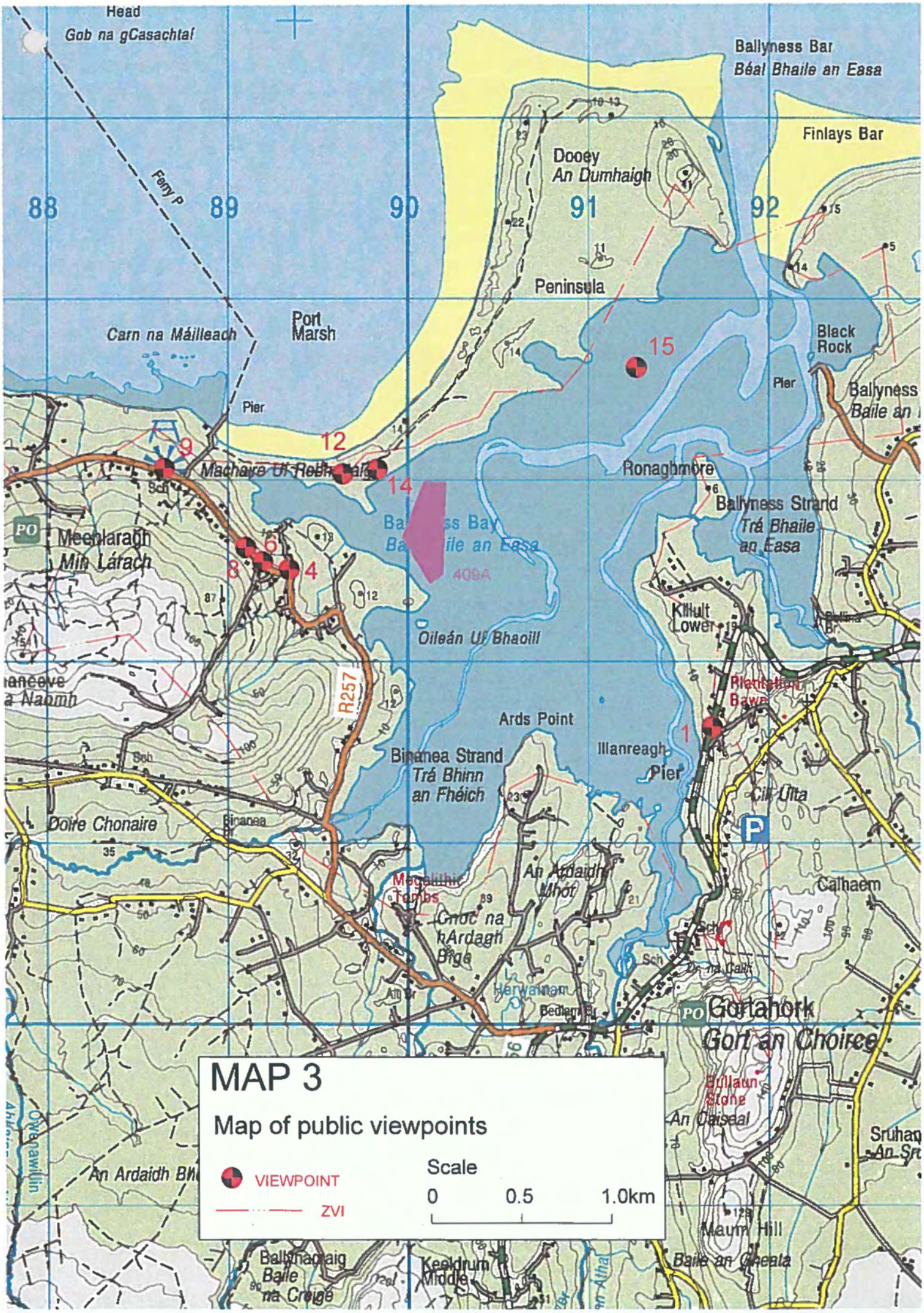
Areas of Especially High Scenic Amenity (shown dark green in image below) are the Dooey peninsula, the Drumnatinny dune area and a 100m wide strip above high water mark around Ballyness Bay.



Designated views shown in Blue (from Donegal County Development Plan 2018-24)

I have identified important public views on MAP 3 overleaf – these include the designated views - and have assessed significance of visual impact from these viewpoints in accordance with DMNR "Guidelines for Landscape and Visual Impact Assessment of Marine Aquaculture (2001).

Certain designated views are specified in the County Donegal Development Plan 2018-2024. Two of these designated views are relevant to application T12/409A and are shown by arrowed blue line on map above. There is a designated view from the R257 at Meenlaragh looking northeast to the Dooey peninsula and there is also the designated view to the west from the N56 at Cill Ulta (north of Gortahork village).


Head
Gob na gCasachtaí
Ballyness Bar
Béal Bhaile an Easa
Finlays Bar
Dooey
An Dumhaigh
Ferry P
88
89
90
91
92
Peninsula
Port
Marsh
Carn na Máilleach
Pier
Black
Rock
Pier
Ballyness
Baile an
15
12
14
9
Machaire Uí Reáin
Ronaghmore
Ballyness Strand
Trá Bhaile
an Easa
Meenlaragh
Mín Lárach
6
8
4
409A
Oileán Uí Bhaoill
Killult
Lower
R257
Ards Point
Binanea Strand
Trá Bhinn
an Fhéich
Illanreagh
Pier
1
Cill Ulta
Doire Chonaire
Binanea
An Ardaidh
Mhór
Megalithic
Tombs
Cnoc na
hArdagh
Bige
Calhaem
Gortahork
Gort an Choirce
Bullaun
Stone
An Claiseal
An Ardaidh Bh
Maum Hill
Baile an Gheata
Ballynacraig
Baile
na Creige
Keeldrum
Middle
MAP 3
Map of public viewpoints
VIEWPOINT
ZVI
Scale
0
0.5
1.0km

A summary of my findings of visual impact significance from various viewpoints is given in the table below:

Table of visual receptors and visual impact significance : Site 409A

Viewpoint	Irish National Grid Coordinates	Type of View/Viewer	Sensitivity	Viewing Distance (km)	Magnitude of change	Impact Significance
1 Designated View N56 Killult Middle	191688 431641	Visitors/ user of N56 road	High	1.73	Low	Moderate
4 View from R257 west side of junction with L50332	189341 432507	Visitors/ user of N56	Moderate	0.66	High	Substantial
6 View from R257 near west L5033 junction	189194 432550	Visitors/local user of R257 local road	High/ Moderate	0.78	High	Very Substantial/ Substantial
8 View from R257 (120m west of viewpoint 6)	189100 432629	Amenity users	High/ Moderate	0.87	High	Very Substantial/ Substantial
9 Designated viewpoint near Teach Coll	188646 433066	Visitors/ user of N56 road/car park users/ Teach Coll customers	High	1.38	Low	Moderate
12 Access track Back dune area	189639 433036	amenity users/livestock owners/ shellfish gatherers	Moderate	0.44	Low	Slight
14 View of inner Bay from near access track	189829 433061	amenity users/livestock owners/ shellfish gatherers	Moderate	0.26	Moderate	Moderate
15 Views from Foreshore	various	amenity users/shellfish gatherers	Moderate - Low	Varies 0-2.40km	Moderate - Low	Moderate - Negligible

For the designated viewpoints (Viewpoint 1 and Viewpoint 9) I conclude that the visual impact caused by developing site 409A for aquaculture will be moderate significance.

For the elevated views of the site that would be available to passing motorists on the R257 (looking eastwards and north-eastwards) at viewpoints 4, 6 and 8, the visual impact arising is in the substantial to very substantial significance range.

To help check the estimated magnitude of visual change from the relevant section of the R257 a photomontage exercise was carried using output from photo survey carried out on 27/9/18– photos were taken with 50mm lens at viewpoints. While lighting conditions were not ideal (weather over overcast on the date), the output of the visualisation exercise confirmed that magnitude of visual change would be moderate (at least). The visualisation image for viewpoint 6 (before and after views for development of site 409A) is shown overleaf.

Cumulative Visual impact

I also considered the cumulative visual impact arising should site 409A and its neighbouring sites all be developed. The neighbouring sites of most relevance are application sites 502A and 509A where trestle based oyster farms are proposed. The outcome of my assessment of cumulative visual impact for aquaculture development on all 3 sites is shown in table overleaf.

Viewpoint 6 on R257; view to east - no aquaculture development in place

Viewpoint 6 on R257 ; view to east - aquaculture development on site 409A

Table of visual receptors and visual impact significance : sites 409A, 502A and 509A combined

Viewpoint	Irish National Grid Coordinates	Type of View/Viewer	Sensitivity	Viewing Distance (km)	Magnitude of change	Impact Significance
1 Designated View N56 Killult Middle	191688 431641	Visitors/ user of N56 road	High	1.51	Low	Moderate
4 View from R257 west side of junction with L50332	189341 432507	Visitors/ user of N56	Moderate	0.66	High	Very Substantial/ Substantial
6 View from R257 near west L5033 junction	189194 432550	Visitors/local user of R257 local road	High/ Moderate	0.79	High	Very Substantial/ Substantial
8 View from R257 (120m west of viewpoint 6)	189100 432629	Amenity users	High/ Moderate	0.87	High	Very Substantial/ Substantial
9 Designated viewpoint near Teach Coll	188646 433066	Visitors/ user of N56 road/car park users/ Teach Coll customers	High	1.38	Low	Moderate
12 Access track Back dune area	189639 433036	amenity users/livestock owners/ shellfish gatherers	Moderate	0.44	High	Substantial
14 View of inner Bay from near access track	189829 433061	amenity users/livestock owners/ shellfish gatherers	Moderate	0.27	High	Substantial
15 Views from Foreshore	various	amenity users/shellfish gatherers	Moderate - Low	Varies 0-2.40km	Moderate - Low	Moderate - Negligible

The visualisation image for viewpoint 6 (before and after views for development of the three sites) is shown overleaf.

Note that cumulative visual impact level is in the substantial or very substantial category from elevated viewpoints on R257 (viewpoints) and is at the substantial category from nearby locations on access track in back dune area of the Dooey peninsula.

Viewpoint 6 on R257; view to east - no aquaculture development in place

Viewpoint 6 on R257 ; view to east - aquaculture development on site 409A, 502A and 509A

Cumulative visual impact levels are higher than for single site visual impact of 409A at viewpoints 2, 12 and 14

It may be concluded that cumulative visual impact levels would be excessive if all 3 sites were developed.

Landscape impact
I anticipate an impact of developing site 409A (alone) on landscape to be slight to moderate.

Cumulative landscape Impact
I anticipate that the impact of developing site409A, [redacted] on the landscape to be of moderate significance.

My conclusion is that the visual impact arising from development of site 409A (full site applied for) would be of such significance that it is grounds for refusal of that proposed development application. This applies in the context of single site development of 409A alone as well as for cumulative impacts arising when neighbouring sites are also taken into account. Landscape level impacts arising are not problematic.

Potential for impact mitigation by site area reduction

In order to reduce the visual impact significance for overlooking viewpoints on the R257 to an acceptable moderate significance, it is necessary to reduce the magnitude of visual impact arising from high to low magnitude. This cannot be achieved by artificial means such as screening and there is little improvement that would arise with changing the structure layout.

However reducing the extent of the proposed development may be of some benefit in this regard. Significant reduction of the site width (north to south) and reduction of its overall foreshore footprint would be required to reduce the magnitude of visual impact sufficiently.

Confining the development area to the north part of the site keeps the development closer into the shoreline features on the west side of the Bay and avoids the impact arising from occupying the central part of site (most clearly in view) and the south part of the site which is closest to land and the viewpoints themselves.

The visualisation exercise carried out for a reduced site area of 2.2119 hectares (north part only of original site applied for) is shown overleaf. The significance of visual impact arising with this more restricted development extent reduces to substantial/moderate or moderate from viewpoints 4, 6, 8, 12 and 14 – which I suggest would be borderline acceptable in this case.

Viewpoint 6 on R257; view to east - no aquaculture development in place

Viewpoint 6 on R257; View to east -aquaculture developed at north part of site 409A only

In terms of cumulative impact the combined visual impact of development of [redacted] and north part (only) of 409A would still remain very substantial/substantial at viewpoints 4, 6, and 8 and would be substantial at 12 and 14.
To get cumulative visual impact levels down sufficiently it seems necessary to not licence oyster farm development at site [redacted] The cumulative visual impact of developing site [redacted] and the north part (only) of 409A would be of moderate significance and acceptable.

I attach for information the visualisation images for the above 2 development combinations.

My assessment of various combinations of sites 409A, [redacted] leads me to a conclusion that any development combination that is greater in extent than [redacted]+ north part of 409A would lead to levels of cumulative visual impact that would exceed the threshold level of impact significance and be in the Very Substantial or Substantial categories.

The sub area of 409A that might be licensable is shown on map overleaf and is defined by the following coordinates :

190091 432995
190209 432987
190204 432837
190032 432843

Area 2.2119 hectares.

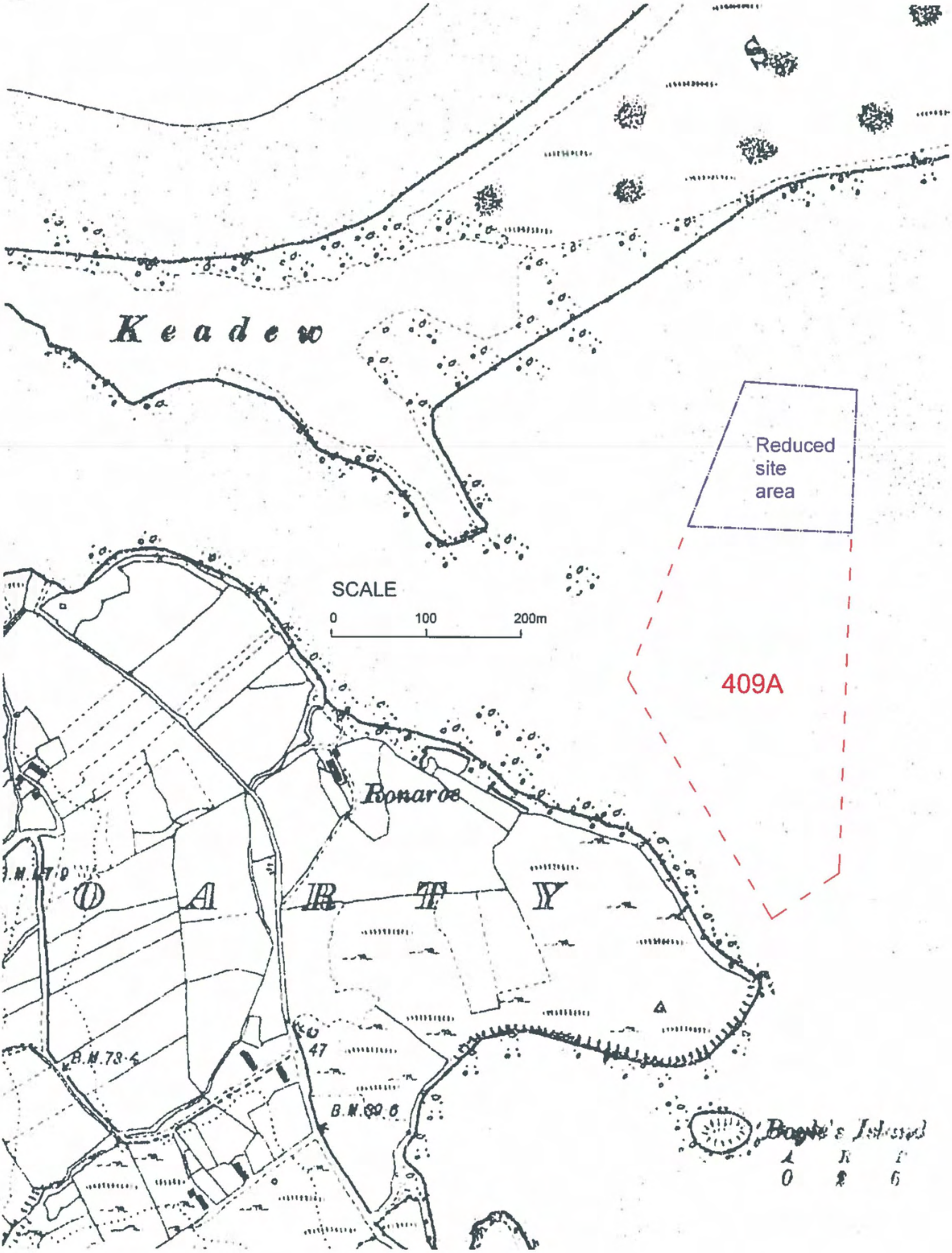
The applicant may not be interested in a reduced scale development area such as this. If licensed the outcome may be appealed by the applicant or by third parties. For now this suggested reduced area is an option for consideration by the Department perhaps at a later stage in the licence application assessment process.

<u>Site 409B</u>
The applicant proposes development of this 6.68 hectare site for trestle based oyster culture.

Site 409B is at least 1.5km distant from the critical viewpoints 4, 6, 8 and 9. It is not visible from viewpoint 1.

Note that there have been trestles on parts of this site (in small numbers) before. My opinion at the time (5 years ago) is that standard height trestles (0.6m high) + bag system did not seem to create a significant visual impact problem when viewed from the elevated sections of the R257 road. The introduction of larger structures (higher trestle + plastic pack) did increase the magnitude of visual impact later on and these had to be removed.

Visual and landscape impacts arising from proposed development of site 409B would not be substantial because most public views of the site are middle or long distance views where the magnitude of visual and landscape impact arising would be low.


Keadew
Reduced
site
area
SCALE
0
100
200m
409A
Ronaroe
O A R T Y
B.M.73·4
47
B.M.69·6
Boyle's Island

Viewpoint 6 on R257; view to east - no aquaculture development in place

Viewpoint 6 on R257; View to east - aquaculture developed on 502A, 509A and north part of 409A only

Viewpoint 6 on R257; view to east - no aquaculture development in place

Viewpoint 6 on R257; View to east - aquaculture developed on 502A and north part of 409A only

Conclusions

Substantial negative visual impact would arise with proposed development of site 409A. The cumulative visual impact arising from development of 409A and neighbouring sites would also be excessive. I recommend that application to develop site 409A as applied for be refused on visual impact grounds.

AFMD may wish to consider at a later stage the possibility of licensing a much reduced area of some 2.2119 hectares for site 409A.

There is not an obstacle on visual or landscape impact grounds with the proposed development of site 409B.

Paul O'Sullivan

Paul O'Sullivan

15/2/19

Final Appropriate Assessment Conclusion Statement by Licensing Authority in support of the Appropriate Assessment of Aquaculture in Ballyness Bay SAC (Site Code: 01090)

This Conclusion Statement outlines how it is proposed to licence and manage aquaculture activities in the above Special Area of Conservation (SAC) – Natura 2000 site - in compliance with the Habitats Directives. Aquaculture in this Natura Site will be licensed in accordance with the standard terms and conditions as set out in the aquaculture licence templates. These are available for inspection on the Department's website at
http://www.agriculture.gov.ie/seafood/aquacultureforeshoremanagement/aquaculturelicensing/
Furthermore, the licences will also incorporate specific conditions so as to accommodate Natura requirements, as appropriate, in accordance with the principles set out in this document.

An Article 6 (Habitats) Assessment and, specifically, an Appropriate Assessment report relating to aquaculture in the Ballyness Bay SAC has been prepared by the Marine Institute on behalf of the Department of Agriculture, Food and the Marine. The Appropriate Assessment considered the potential ecological impacts of aquaculture activities on Natura features in the SAC.

In addition to the Ballyness Bay SAC, there are a number of other SACs and SPAs proximate to the proposed aquaculture activities and a screening was carried out on their likely interaction with the proposed aquaculture activities in Ballyness Bay.

The information upon which the Appropriate Assessment is based is the definitive list of applications for aquaculture (as there are no existing licences) available at the time of assessment.

Existing and proposed Aquaculture Activity in Ballyness Bay SAC

Ballyness Bay is a large and very shallow estuarine complex, with extensive areas of sandflats which are exposed at low tide. No aquaculture operations currently operate in Ballyness Bay SAC. The Appropriate Assessment considered 20 applications for aquaculture operations which consisted of 14 for the cultivation of oysters only, 5 for the cultivation of oysters and clams and 1 for the cultivation of clams only. The number of sites being applied for has subsequently been reduced to 18 applications with two sites for oyster cultivation (T12/407A & T12/442A) withdrawn.

All applicants will use bag and trestle as the method of cultivation for oysters. Use of suspended wooden trays and ongrowing under mesh are the proposed methods of cultivation for clam. The profile of the aquaculture industry in the SAC, used in this assessment, was prepared by BIM and is derived from the list of licence applications received by DAFM and provided to the MI for assessment in August 2018.

SCREENING OF ADJACENT NATURA SITES FOR EX-SITU EFFECTS

In addition to the Ballyness Bay SAC there are four other SAC sites proximate to the proposed activities including Horn Head and Rinclevan SAC (000147), Gweedore Bay and Islands SAC (001141) and the Tory Island Coast SAC (002259).

It was deemed that there are no *ex-situ* effects on Qualifying Features of the Tory Island Coast SAC therefore they were screened out from further assessment.

It was also deemed that there are no *ex-situ* effects on the Qualifying habitat Features in the Gweedore Bay & Islands SAC and the Horn Head and Rinclevan SAC. However, as the Gweedore Bay & Islands SAC is c. 3km from the Ballyness Bay SAC *Lutra lutra* (Otter) may migrate into the Ballyness Bay SAC and could interact with aquaculture activities this was carried forward for further assessment. Also as the Horn Head and Rinclevan SAC is adjacent to the Ballyness Bay SAC, Grey seal may migrate into the Ballyness Bay SAC and could interact with aquaculture activities therefore this was also carried forward for further assessment.

In addition, there are 7 SPA sites in the vicinity of Ballyness Bay SAC. The characteristic features of these sites were identified and a preliminary screening was carried out on the likely interaction with aquaculture activities based primarily upon the likelihood of spatial overlap. No spatial overlap was identified and the SPAs were excluded from further analysis.

CONSERVATION OBJECTIVES FOR BALLYNESS BAY SAC

The Conservation Objectives for the Qualifying Interests for the SAC were prepared by NPWS (NPWS 2014a). The natural condition of the designated features should be preserved with respect to their area, distribution, and extent and community distribution. Habitat availability should be maintained for designated species and human disturbance should not adversely affect such species.

None of the proposed aquaculture activities overlaps or is likely to interact with the following features or species, and, therefore, the following habitats and species were excluded from further consideration in the appropriate 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]

Furthermore, all proposed aquaculture application sites do not overlap with the Annex I habitat Estuaries [1130] and this habitat was also excluded from further analysis.

After an initial screening exercise the following qualifying habitats/species were considered subject to potential disturbance and, therefore, carried further in the assessment:

- 1140 Mudflats and sandflats not covered by seawater at low tide
- 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)

The constituent communities of habitat 1140 considered in the appropriate assessment were coarse sediment to sandy mud with oligochaetes and polychaetes community complex and Mobile sand community complex.

ASSESSMENT OF THE EFFECTS OF AQUACULTURE PRODUCTION ON THE CONSERVATION OBJECTIVES FOR HABITAT FEATURES IN THE BALLYNESS BAY SAC.

A full assessment was carried out on the likely interactions between proposed culture operations and the Annex 1 habitat (2130) Fixed coastal dunes with herbaceous vegetation (grey dunes) and the Annex 1 habitat (1140) Mudflats and sandflats not covered by seawater at low tide. It was found that it is unlikely that the activities proposed will reduce the overall extent of permanent habitat within the feature (1140) Mudflats and sandflats not covered by seawater at low tide. The habitat area is likely to remain stable.

Based upon the scale of spatial overlap of proposed intertidal aquaculture activities (including access route activity) and the relatively high tolerance levels of the habitats and associated species, the general conclusion is that proposed intertidal culture activities are non-disturbing to the Qualifying Interest - 1140 and its constituent community types.

Overlap between an access route and coastal habitat designated as Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] occurs from Magheraroarty Pier. The access route follows an established track through the dunes system at Magheraroarty. While it is acknowledged that the access routes proposed will follow (for the most part) existing paths (currently subject to vehicular and pedestrian traffic), the licensing of aquaculture activity at this site could lead to additional risk of erosion and degradation of this dune habitat [2130]. The risk of damage from vehicular traffic to dune habitat (2130) in Ballyness Bay therefore, cannot be discounted.

Intertidal Clam Culture

It is proposed to culture the Manila Clam (*Ruditapes philippinarum*) on-bottom in intertidal areas. Clam culture may result in more chronic and long-term changes in community composition which were considered during the assessment process. High density clam culture may result in exclusion of native fauna and build-up of sedimentary material as a consequence of the netting. In addition, the harvest method employed using modified dredges attached to tractors is considered highly disturbing to all sedimentary marine community types.

Intertidal Oyster Cultivation

Published literature (Forde *et al*., 2015; O'Carroll *et al.,* 2016) suggests that the presence of bags on trestles is considered non-disturbing to the community type Coarse sediment to sandy mud with oligochaetes and polychaetes community complex. The sensitivity of the community type Mobile sand community complex is unknown given the wide variation in species composition and sedimentary characteristics that comprise this community type (NPWS 2014b). While some characteristics of this community type match those described and investigated in Forde et al (2015) and O'Carroll et al (2016) others are quite different. In particular, areas where there are very 'soft' mobile sands with impoverished communities would appear to be sensitive to the placement of trestles and even foot traffic among the trestle rows. On this basis, it is assumed that intertidal shellfish culture has the potential to disturb this community type.

The access routes used in intertidal areas, presumably by virtue of persistent compaction of the sedimentary habitats, are considered disturbing (De-Grave *et al.,* 1998; Forde *et al.,* 2015; O'Carroll *et al*., 2016). For the Qualifying Interests 1140 the spatial overlap of the access routes with the

constituent community type of Mobile sand community complex is 0.59% and for Coarse sediment to sandy mud with oligochaetes and polychaetes community complex is 1.2%

Introduction of non-native species

Oyster culture may present a risk in terms of the introduction of non-native species as the Pacific oyster (*Crassostrea gigas*) itself is a non-native species. The risk of Pacific oysters naturalising in Ballyness Bay cannot be discounted.

While there is minimal risk associated with the introduction of hitchhiker species with hatchery reared oyster seed; a risk of alien species introductions presents if '½-grown' or 'wild' seed originating from another jurisdiction (e.g. Britain, France) is introduced to the sites. However, it is noted that hatchery seed will only be used in the bay so the risk posed by the transfers of other sources of stock can be discounted.

In relation to the Manila clam (*Ruditapes philippinarum*), this species has been in culture in Ireland since 1984 and, to the best of our knowledge, no recruitment in the wild has been recorded.

ASSESSMENT OF THE EFFECTS OF AQUACULTURE PRODUCTION ON THE CONSERVATION OBJECTIVES FOR OTTER *LUTRA LUTRA (*OTTER*)* IN THE GWEEDORE AND ISLANDS SAC.

Shellfish culture operations are likely to be carried out in daylight hours. The interaction with the otter is likely to be minimal given that otter foraging is primarily crepuscular. It is unlikely that these culture types pose a risk to otter populations from the Gweedore Bay and Islands SAC.

On the basis of location and timing of activities, the proposed levels of licensed shellfish culture are considered non-disturbing to otter conservation features in the Gweedore Bay and Islands SAC.

ASSESSMENT OF THE EFFECTS OF AQUACULTURE PRODUCTION ON THE CONSERVATION OBJECTIVES FOR *HALICHOERUS GRYPUS* (GREY SEAL) IN THE HORN HEAD AND RINCLEVAN SAC.

All of the proposed aquaculture production activities within Ballyness Bay SAC are confined around low water and are located in shallow and sheltered areas. All of the proposed aquaculture production activities within Ballyness Bay SAC are >10km from the documented breeding, moulting and resting sites of the grey seal in the Horn Head and Rinclevan SAC and therefore, are unlikely to impact on the attributes relating to the site.

Notwithstanding, seals have been observed to haul-out within Ballyness Bay in particular, on a large sand bank in the centre of the Bay. Given that there are currently no aquaculture operations in Ballyness Bay, it is not certain that the introduction of significant levels of aquaculture operations will not impact on the site use by these Annex II species, in particular at those locations proximate to the haul-out location. Therefore, the risk posed by the proposed aquaculture activities in Ballyness Bay to seal conservation features cannot be discounted.

ASSESSMENT OF IN-COMBINATION EFFECTS OF AQUACULTURE, FISHERIES AND OTHER ACTIVITIES

There are no fishing activities within Ballyness Bay SAC and therefore, there are no likely in-combination effects.

Pollution Pressures

There are a number of activities which are terrestrial in origin that might result in impacts on the conservation features of the Ballyness Bay SAC. Primary among these are point source discharges from domestic sewage outfalls distributed along the harbour and municipal urban waste water treatment plants. The pressure derived from these point sources may impact upon levels of dissolved nutrients, suspended solids and some elemental components e.g. aluminium in the case of water treatment facilities.

Conclusion

Pressures resulting from aquaculture activities are primarily disturbance to sediments as a consequence of compaction of sediment along access routes and preparation of sites and harvest of clam sites. It was, therefore, concluded that given the pressure resulting from point discharge locations such as the urban waste-water treatment and/or combined sewer outfalls would likely impact on physico-chemical parameters in the water column any in-combination effects with aquaculture activities are considered to be minimal.

OVERALL APPROPRIATE ASSESSMENT FINDINGS

The Appropriate assessment makes the following conclusions in relation to interactions with shellfish culture:

- Based upon the scale of spatial overlap of proposed intertidal aquaculture activities (including access route activity) and the relatively high tolerance levels of the habitats and associated species, the general conclusion is that proposed intertidal culture activities are non-disturbing to the Qualifying Interests 1130 and 1140 and their constituent community types.

  Notwithstanding the conclusions noted in relation to Annex 1 habitat 1140, it should be noted that the nature of the community type, Mobile sand community complex is such that there are likely to be locations where the sediments are extremely mobile (and soft) thus making them unsuitable for aquaculture operations.

- The report highlights the overlap of access routes with the habitat - Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] which does appear to present a risk of erosion and habitat degradation. Specifically, the risk arises from the additional traffic likely to occur on existing tracks as a result of the need to access the sites.

- In relation to interactions between aquaculture operations and seal use of the site, the risk of disturbance cannot be discounted. The Bay, to date, has had very little aquaculture operations and therefore, the seals will have had little opportunity to habituate to the activities. Also of note, where there is no specific barrier to access (e.g. tidal channel), the seals are more likely to be disturbed.

BIRDS/HABITATS ISSUES RAISED DURING THE AQUACULTURE LICENSING PROCESS FOR SITES IN THIS SAC/SPA

A number of issues relevant to the Appropriate Assessment were raised during the aquaculture licensing consultation process. These issues have been considered by the Department and its scientific advisors and are addressed below:

1. Traffic disturbance
Comment:-

"- The increased traffic which would result from licensing of all the aquaculture applications poses a serious risk to fixed coastal dune habitats [2130]

- *A licence condition requiring strict adherence to the identified access routes over intertidal and nearshore habitat in order to minimise species/habitat disturbance will be included.*

- this condition will be entirely ineffective and does not address the risk posed. The risk arises due to the level of traffic, and has nothing to do with adherence to the existing track.

- Before these sites can be licenced the relevant authority must be certain that there will be no significant impact on the qualifying habitat, and it is obvious from the AA report that the licensing authority do not currently possess the necessary information to reach this conclusion. As such we submit that licencing cannot proceed without contravening Article 6(3) of the Habitats Directive.

- the licensing authority cannot proceed with licensing any of the proposed aquaculture applications without contravening both the Habitats Directive and the Aarhus convention."

Response:-

The Department in conjunction with its scientific and engineering advisors have considered the comments and as outlined in the draft conclusion statement have also considered alternative routing The alternative routing as stated in the draft conclusion statement will avoid the overlap of proposed access routes with Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]. Access routing from the south of the Bay rather than from the grey dune [2130] area represents an addition of approximately 1 km of access track (or 0.85 ha) on the Qualifying Interest 1140 (Mudflats and sandflats not covered by seawater at low tide) and on the community type Mobile Sand Community Complex. This represents total aquaculture access related coverage of 0.81% of the Qualifying Interest 1140 and 0.74% of the Mobile Sand Community Complex. Taking account of these revised values and habitat utilisation by the aquaculture sites themselves, the total spatial overlap will be below the threshold for disturbance of 15%.

It has been decided following these consultations, that the new route as shown in Figure 1.1 below which was assessed and referenced in the draft conclusion statement will be implemented in relation to all sites to be licensed on the west side of the Bay, that had proposed routes which overlapped with the grey dunes habitat .

As stated all licences granted will contain a condition requiring strict adherence to the identified access route in order to minimise species/habitat disturbance.

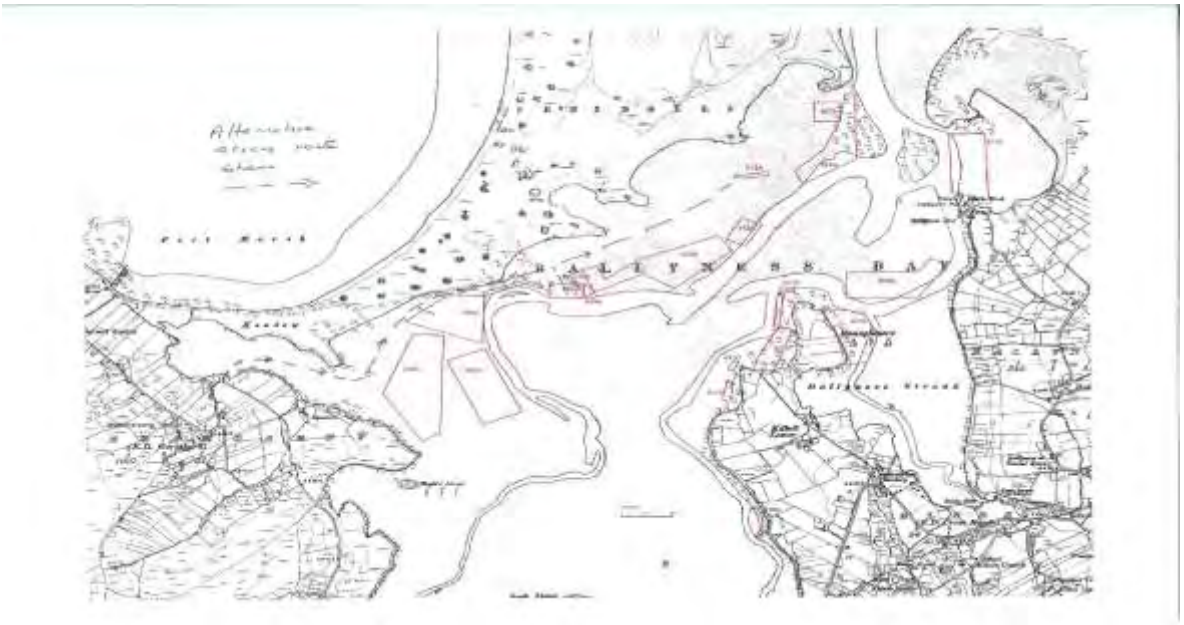


Figure 1.1

2. Grey Seals

Comments:-

"- The introduction of aquaculture into Ballyness Bay poses a serious risk to Grey Seals.

- while we welcome the decision to refuse licensing of site T12-508A, which is closest to the seal haul out area, the risk to the Grey Seals applies to the licensing of all of the aquaculture applications, as outlined above 'i t is not certain that...significant levels of aquaculture operations will not impact on the site use by these Annex II species.

- while site T12-508A posed the greatest risk, the conclusions reached in the AA document indicate that it is the aquaculture activity in general which poses a risk, and this cannot be discounted."

Response:-

It must be noted that the use of the term 'serious risk' was not used in the AA report. While it is noted that the species observed at the haul-out location in Ballyness Bay was not defined and could have been the Common Seal or the Grey Seal the conclusions of the report are based upon experience at other seal locations. Where seals do not have to share space (i.e., sandbank) with other activities, there tends to be acclimation and less likelihood of disturbance. It is considered the greatest risk will originate from activities at the proposed aquaculture site identified. The management measures proposed are appropriate.

3. Mobile sand community

Comments:-

"The sensitivity of the community type Mobile sand community complex is unknown given the wide variation in species composition and sedimentary characteristics that comprise this community type. In particular, areas where there are very 'soft' mobile sands with impoverished communities would

appear to be sensitive to the placement of trestles and even foot traffic among the trestle rows. On this basis, it is assumed that intertidal shellfish culture has the potential to disturb this community type."

- highlight that these habitats are by definition mobile, and mapping of these will be subjective and unreliable considering the habitats are in constant flux. As such, a large degree of uncertainty remains, and licencing of oyster trestles within a habitat which is constantly in flux puts this community type at risk of disturbance.
- without the necessary degree of certainty of suitability of these sites for supporting oyster trestles, the licencing authority should not proceed with licencing in this Bay.

Response:-
The quote attributed to the AA Report above is incomplete and should read:- "The sensitivity of the community type Mobile sand community complex, is unknown given the wide variation in species composition and sedimentary characteristics that comprise this community type (NPWS 2014b). ***While some characteristics of this community type match those described and investigated in Forde et al (2015) and O'Carroll et al (2016) others are quite different.*** *In particular, areas where there are very 'soft' mobile sands with impoverished communities would appear to be sensitive to the placement of trestles and even foot traffic among the trestle rows. On this basis, it is assumed that intertidal shellfish culture has the potential to disturb this community type."*

It is clear that in the inner parts of the bay (at proposed culture sites), there are extremely stable sedimentary habitats representative of this community complex that are suitable for trestle culture and sufficiently resilient to disturbance.

Based on the AA Report which noted "Mobile sand community complex is such that there are likely to be locations where the sediments are extremely mobile (and soft) thus making them unsuitable for aquaculture operations." The Department's Engineering Division have clearly identified any such areas and excluded those from licensing.

4. Screening Out of SPAs
Comments:-
"The Appropriate Assessment screens out a number of SPAs on the basis of no spatial overlap. However, the following SPAs - Falcarragh to Meenlaragh SPA (site code 004149), Inishbofin, Inishdooey and Inishbeg SPA (site code 004083) and Horn Head to Fanad Head SPA (site code 004194) lie within the 15km zone of impact (DEHLG, 2010) of Ballyness Bay. No rationale is given as to how or why potential detrimental interactions between the conservation features of these SPAs and aquaculture activities within Ballyness Bay were ruled out. It is therefore recommended that a more thorough and complete consideration of theses SPAs and their conservation features be documented in order to complete this appropriate assessment process."

Response: -
It is noted that to date, 30+ Natura reports have been produced and the comment from DCHG in relation to SPA screening is the first time, to our knowledge, this Department have requested additional detail in relation to a screening exercise of proximate Natura sites. The Department scientific advisors concur that connectivity with regard to Natura sites is an important issue and this was considered when examining conservation objectives set for all proximate Natura sites.

It should be noted that particular focus on the SPA sites considered in Natura assessment reports are Species of Conservation Interest (SCI) that would exclusively use intertidal sand-flat/mud-flat habitats. Mud-flat and sand-flats are not typical feeding areas for many of the SCIs identified in the SPAs in question. These species as they are likely to feed in a diverse range of offshore or terrestrial (in the case of corncrake) habitats (Gittings and O'Donoghue 2012[1]). As such, many SCIs were considered unlikely to interact with the proposed activities. For those species that may utilise intertidal sedimentary habitats (i.e., gull species), it is the view of the MI that gull species will not rely to any great extent on the intertidal sandflats found in Ballyness Bay given alternative feeding habitat is available, e.g., terrestrial or open water—as is the case in this instance.

Furthermore, it should be noted, that the interaction with trestles by gull species was considered variable in the Gittings and O'Donoghue (2012) study, and at low abundance levels (up to 10) the predicted levels closely matched the observed levels (Gittings and O'Donoghue 2012), indicating little or no negative interaction. Given the low numbers of breeding pairs (i.e. 20) of Common Gulls found on Inishbofin, Inishdooey and Inishbeg SPA and that alternative habitat between these areas and the proposed culture sites can be found, we consider it unlikely that gulls that might attend the aquaculture areas in numbers that would result in adverse impact.

The Department based on all the above considerations does not see any need to revise the outputs or conclusions in the AA report underpinning the assessment process.

SUMMARY OF MITIGATION MEASURES AND MANAGEMENT ACTIONS THAT ARE BEING IMPLEMENTED AS A CONSEQUENCE OF THE FINDINGS IN THE APPROPRIATE ASSESSMENT REPORT

Taking account of the recommendations of the Appropriate Assessment, as well as additional technical/scientific observations/further information, the following measures are being taken in relation to licensing aquaculture in this SAC:

- Sites T12/441B and T12/441C which were originally assessed as oyster and clam cultivation are now being processed as oyster cultivation only sites.
- On the basis of the Appropriate Assessment findings only Triploid seed will be licensed for use in the Bay.
- Source of seed and changes to source of seed to be approved by the Department of Agriculture, Food and the Marine in advance.
- Due to the proximity of the site and the fact that there is no specific barrier to access e.g. tidal channel between it and the Seal Haul out area it is proposed to not licence site T12-508A applied for on the same sand bank.
- Proposed sites where there is proximity to seal sites will be reduced where possible or not licensed to maintain a buffer between the aquaculture sites and the seal areas.
- To avoid the overlap of proposed access routes with Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]. The new access route shown above which was assessed in the AA and referenced in the draft conclusion statement will be implemented in relation to any sites to be licensed on the west side of the Bay, that had proposed routes which overlapped with the grey dunes habitat.

- Locations where the sediments are extremely mobile (and soft) thus making them unsuitable for aquaculture operations will be excluded from licensing.
- A Licence condition requiring strict adherence to the identified access routes over intertidal and nearshore habitat in order to minimise species/habitat disturbance will be included.
- A Licence condition requiring full implementation of the measures set out in the draft Marine Aquaculture Code of Practice prepared by Invasive Species Ireland (e.g. http://invasivespeciesireland.com/cops/aquaculture).
- The movement of stock in and out of the Ballyness Bay SAC should adhere to relevant fish health legislation.
- The use of updated and enhanced Aquaculture and Foreshore Licences containing terms and conditions which reflect the environmental protection required under EU and National law.

Proposed Licensing

The Licensing Authority is satisfied that, given the conclusions and recommendations of the Appropriate Assessment process, the implementation of the above measures will mitigate pressures on Natura 2000 features. The Conclusion Statement will be updated, as appropriate.

Conclusion

Accordingly, the Licensing Authority is satisfied that, subject to adoption of the above listed mitigation measures and management actions; aquaculture licensing is not likely to significantly and adversely affect the integrity of the Ballyness Bay SAC.

November 2019