



***AP20/ 2019***

***Technical Advisor's Report***

<b>Client:</b>	Aquaculture Licence Appeals Board
<b>Address:</b>	Kilminchy Court, Dublin Road, Portlaoise, Co Laois. R32 DTW5

<b>Document control</b>				
<b>Rev</b>	<b>Date</b>	<b>Originated by</b>	<b>Checked by</b>	<b>Approved by</b>
0.1	5.6.2020	N. P.	L.S.	N.P.
0.2	2.7.2020	N. P.	L.S.	N.P.



**Appeal Ref No. AP20/2019**

**Aquaculture Licences Appeals Board**

**Technical Advisor's Report**

**Description:** Assessment of the appeal against the Minister's decision to refuse the aquaculture and foreshore licences for the collection of spat and the cultivation of mussels (*Mytilus edulis*) at Illauneagh Island, Sneem, Kenmare Bay, Co. Kerry.

**Licence Application**

**Department Ref No:** T06/326A

**Applicant:** John T. O'Sullivan of BioAtlantis Marine Ltd.

**Minister's Decision:** Application for licence T06/326A refused.

**Appeal**

**Type of Appeal:** Appeal against the decision of the Minister for Agriculture, Food and the Marine to refuse the granting of aquaculture and foreshore licences to John T. O'Sullivan of BioAtlantis Aquamarine Ltd. for aquaculture and foreshore licences for the cultivation of mussels (*Mytilus edulis*) (AP20/2019).

**Appellant(s):** John T. O'Sullivan of BioAtlantis Aquamarine Ltd

**Observers:** John T. O'Sullivan of BioAtlantis Aquamarine Ltd

**Technical Advisor** MERC Consultants

**Date of site**

**Inspection** Tuesday 26<sup>th</sup> May 2020

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## **1. General Matters / Appeal Details**

### **1.1 Appeal Details & Observer Comments / Submissions**

Date Appeal Received: 01/11/2019

Location of Site Appealed: Illauneagh Island, Sneem, Kenmare Bay, Co. Kerry

### **1.2 Name of Appellant (s):**

John T. O'Sullivan, BioAtlantis Aquamarine Ltd., Clash Industrial Estate, Tralee, Co. Kerry.

### **1.3 Name of Observer (s)**

John T. O'Sullivan, BiolAtlantis Aquamarine Ltd., Clash Industrial Estate, Tralee, Co. Kerry.

### **1.4 Grounds for Appeal**

#### **Substantive Issues**

The Appellant in case AP20 for the refusal of aquaculture and foreshore licences for spat collection and mussel cultivation responded to the reasons given for refusal:

- **The site is too exposed to south westerly swells allowing severe swells to enter the proposed site.**

The Appellant maintains that the exposure of the site and its impact on the cultivation taking place at the proposed site will be mitigated by:

1. Spat collection is seasonal in nature from May to July therefore avoiding large swells.
2. The proposed method of operation.
  - **The site is situated in significant water depths allowing severe swells to enter the proposed site.**

The Appellant maintains:

1. Significant water depth at the proposed site a positive aspect of the licensing request. With improved health of the cultivated stock, reduced impact to the benthic environment and visual aspect of the site.
2. There are national and international precedents for aquaculture in exposed locations.
3. Increased flushing of the site due to the exposure of the proposed site.
4. Impacts to migratory fish species are reduced in deep water sites.

- **The combination of these factors would allow severe swells to enter the proposed site.**

The Appellant maintains that the cultivation system has been designed to withstand the predicted wave environment for the proposed site. The Appellant maintains that the exposure of the site is a positive aspect in licensing the proposed site as detailed above.

### **Non -substantive issues**

There were no non-substantive issues

### **1.5 Minister's submission**

Section 44(2) of the Fisheries (Amendment) Act 1997 states that

*“The Board shall, as soon as practicable after receiving a notice of appeal, give a copy to each other party to the appeal.”*

Section 44(2) of the Fisheries (Amendment) Act 1997 states that

*“The Minister and each other party except the Appellant may make submissions or observations in writing to the Board in relation to the appeal within a period of one month beginning on the day on which a copy of the notice of appeal is sent to that party by the Board and any submissions or observations received by the Board after the expiration of that period shall not be considered by it.”*

The *Notice of Appeal* for AP 20 was received by the Department of Agriculture, Food and Marine on the 25/11/19. While the Department responded within the required time frame and in so doing provided copies of relevant documentation relating to the application and internal process, no Ministerial submission in relation to the appeal was received by the Board within the specified timeframe. It is therefore determined that no Ministerial submission was made in response to the appeal which the Board is required to consider.

### **1.6 Applicant response**

The applicant (as the appellant) may submit responses to appeal submissions under the provision set out in Section 44 (2) of the Fisheries (Amendment Act) 1997. Furthermore, Section 45 provides that any person who is not a party to the appeal may make submissions or observations in writing to the Board in relation to an appeal. The Board may also request a submission from any party to the appeal under Section 46 of the Act.

The applicants made submissions as appellants in this case. No submissions were received from third parties in relation to the appeal

## 2.0 Consideration of Non-Substantive Issues

There were no non-substantive issues.

## 3.0 Oral Hearing Assessment

The appellant requested an oral hearing in the Notice of Appeal. Having reviewed the Ministers File, additional correspondence from the appellant/applicant and Department of Agriculture, Food and the Marine and having carried out a site visit, it is considered that there is sufficient information and documentation available to the technical review in order to make a clear recommendation in relation to the appeal. An oral hearing is therefore not considered necessary in the circumstances.

## 4.0 Minister's file

No	Date	Item
1	29 <sup>th</sup> August 2018	Application to the Aquaculture and Foreshore Management Division (DAFM) for aquaculture and foreshore licence
2	3 <sup>rd</sup> May 2018	Report on Aquaculture Licence Application, Marine Engineering Division (DAFM) regarding License Application T06/326A .
3	18 <sup>th</sup> May 2018	Letter to the Aquaculture and Foreshore Management Division (DAFM) from the Commissioners of Irish Lights
4	22 <sup>nd</sup> May 2018	Letter to the Aquaculture and Foreshore Management Division (DAFM) regarding license T06/326A from the Sea Fisheries Protection Authority.
5	16 <sup>th</sup> April 2019	Letter to the Aquaculture and Foreshore Management Division (DAFM) regarding license T06/326A from the Marine Institute.
6	8 <sup>th</sup> May 2019	Email to the Aquaculture and Foreshore Management Division (DAFM) regarding license T06/326A from Foreshore EPA Marine, Department of Culture, Heritage and Gaeltacht.

## 5.0 Context of the Area

### 5.1 Physical descriptions

The proposed site under review is located in outer Kenmare Bay, Sneem, County Kerry. At its closest point the proposed aquaculture site is 112 m south of Illauneagh Island and 1km from the north shore of Sneem, Kenmare Bay County Kerry.

The proposed aquaculture site is 27.43 hectares in area. Approximate water depths for this area are in the region of 30m BCD. The predominant seabed habitat in the area within and surrounding the proposed licence application is classified as reef. The site is exposed to south westerly Atlantic swells.

The adjacent shoreline is characterised by rocky cliffs and headlands. The landscape in the area is characterised by small areas of improved agricultural grassland and rough grazing with scattered housing and farmsteads. The nearest urban centre to the proposed aquaculture installation is Sneem 5km to the northeast. The position of the proposed site within Kenmare Bay SAC is shown in Figure1.



Figure 1. The proposed aquaculture site T0/326A and its position in Kenmare Bay SAC.



## 5.2 Resource Users

### Aquaculture

The nearest licensed aquaculture site is 2.8 km to the east at Sneem harbour T06/338A an extensive roped mussel cultivation site.

### Angling Activity

At its closest point the proposed aquaculture site is 112 m south of Illauneagh Island and one kilometre (1) from the north shore Sneem, Kenmare Bay. There are no listed fishing marks in this area however, given the water depth it is possible that charter angling boats based in Sneem and Kenmare Town may fish in the area as general reef fishing is their primary activity. Pollack, ling, coalfish, conger, pouting, cod, bull huss, tope and blue mouths are the common target species of charter angling boats operating in Kenmare Bay.

Shore angling activity within Kenmare Bay is found in the outer Bay area around Lambs Head for pollack, mackerel, dogfish, dab and wrasse.

The River Sheen, draining into the head of Kenmare Bay on the southern shore provides salmon fishing from March with grilse arriving in June. The Blackwater River (Kerry SAC) has Atlantic salmon as a qualifying interest. The Finnihy River in upper Kenmare Bay has a small run of grilse from May.

### Tourism

The southwest of Ireland is the most visited place in Ireland by tourists generating the largest tourism revenue in Ireland outside of Dublin. In 2015 1 million overseas visitors spent time in Kerry. Tourism generates €420 million per annum for the Kerry economy. The north shore of Kenmare Bay where the aquaculture sites under appeal are located is part of the Ring of Kerry and both shores of the bay are on the Wild Atlantic Way.

### Agricultural Activity

Farming in the area is dominated by sheep and cattle grazing. The average farm size in this locality is 34 to 42 hectares. The soils of the area are dominated by acid brown earths and gleys.

### Inshore Fishing activity

Six vessels less than 8m in length fish for lobster and crab along the coast from Ballinskelligs into Kenmare River using 1500 pots and a further 8 vessels under 10m in

length fish 2500 pots in inner Kenmare. A further 19 vessels fishing 9500 pots fish for shrimp (*Palaemon serratus*) in inner Kenmare. Potting for prawns (*Nephrops*) occurs at the edge of trawling ground in outer and mid Kenmare.

Scallops are fished with dredges on the south shore of inner Kenmare. Tangle netting for crayfish occurs at the outer edges of the SAC and in coastal waters to the north and south of the site. Bottom trawl fisheries, targeting *Nephrops* and mixed demersal fish, occur on fine sedimentary habitats in outer Kenmare River. Pelagic trawling for sprat occurs in winter in inner Kenmare River. Inshore fishing vessels fish for Mackerel and Pollack in outer Kenmare River SAC in summer and autumn using hook and line techniques.

#### Leisure Users of the water body & surrounding area

There are a number of commercial operations offering water based activities including diving, kayaking and sailing from Kenmare town and other towns and villages within the bay area. Water borne eco tours operate from Kenmare Town pier focusing primarily on seal and sea eagle watching.

### **5.3 Environmental Data**

#### Water Quality

The proposed aquaculture site is within the Outer Kenmare River waterbody (IE-SW-190-0000). Water quality monitoring and assessments carried out on Irish coastal waters for the Reporting period 2013-2018 by the EPA has classified the water of this area as “good” and their and their ecological status as “good” (Source <https://gis.epa.ie/EPAMaps/WaterQuality>). However, Outer Kenmare Bay surface water body was classified as “disimproved” between monitoring periods 2007- 2009 and 2010 – 2015 (EPA 2018).

The water quality status of transitional and coastal waterbodies assessed under the EU Water Framework Directive (2000/60/EC) is provided under section 5.4. Under the Water Framework Directive an approved risk is assigned to each feature by catchment scientists. The approved risk for IE-SW-190-0000 is currently “review” (Source <https://gis.epa.ie/EPAMaps/WaterFrameworkDirective>).

### **5.4 Statutory Status**

#### Nature Conservation Designations

Natura 2000 sites Special Areas of Conservation (SAC’s) established under the EU Habitats Directive (92/43/EEC) and Special Protection Areas (SPA’s) established under the EU Birds Directive (79/409/EEC).

The proposed aquaculture site is located within the Kenmare River Special Area of Conservation (Site Code: 002158).

**Table 1.** Features of interest within the Kenmare Bay SAC.

Kenmare Bay SAC (Site Code: 002158)
Large Shallow inlets and bays [1220]
Reefs [1170]
Perennial vegetation of stony banks [1220]
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]
Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritima</i> ) [1330]
Mediterranean salt meadows [ <i>Juncetalia maritima</i> ] [1410]
Shifting Dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]
European dry heaths [4030]
<i>Juniperus communis</i> formations on heaths or calcareous grasslands [5130]
Calaminarian grasslands of the <i>Violtalia calaminariae</i> [6130]
Submerged or partially submerged sea caves [8330]
<i>Vertigo angustior</i> (Narrow-mouthed whorl snail.
<i>Rhinolophus hipposideros</i> (lesser Horseshoe Bat) [1303}
<i>Lutra lutra</i> (Otter) [135]
<i>Phoca vitulina</i> (Harbour seal) [1365]

In addition nine (9) SAC's and two (2) SPA's lie within a 15km radius of the proposed aquaculture site.

**Table 2.** Additional Natura 2000 sites within a 15km radius of the proposed aquaculture site.

Site Code	Name	Distance from proposed aquaculture site (Km)
000093	Caha Mountains SAC	14 km
000365	Killarney National Park, Macgillicuddy's Reeks and Caragh River catchment SAC	4.9 km
001043	Cleanderry Wood SAC	6 km
001342	Cloonee and Inchiquin Loughs, Uragh Wood SAC	11.2 km
001879	Glanmore Bog SAC	11.5 km
002173	Blackwater River (Kerry) SAC	14 km
002098	Old Domestic Building , Askive Wood SAC	5 km
002817	Drongawn Lough SAC	6.7 Km
004154	Iveragh Peninsula SPA	12 km
004155	Beara Peninsula SPA	13km

**Table 3.** Features of interest for all Natura 2000 sites within a 15km radius of the proposed aquaculture site.

**Caha Mountains SAC**

- Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]
- Natural dystrophic lakes and ponds [3160]
- Northern Atlantic wet heaths with *Erica tetralix* [4010]
- European dry heaths [4030]
- Alpine and Boreal heaths [4060]
- Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]
- Blanket bogs (\* if active bog) [7130]
- Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110]
- Calcareous rocky slopes with chasmophytic vegetation [8210]
- Siliceous rocky slopes with chasmophytic vegetation [8220]
- *Geomalacus maculosus* (Kerry Slug) [1024]
- *Trichomanes speciosum* (Killarney Fern) [1421]

**Killarney National Park, Macguillycuddy's Reeks and Caragh River catchment SAC (Site Code: 000365)**

- Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]
- Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and /or *Isoeto-Nanojuncetea* [3130]
- 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]
- *Juniperus communis* formations on heaths or calcareous grasslands [5130]
- *Calaminarian* grasslands of the *Violetalia calaminariae* [6130]
- *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]
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0]
- *Taxus baccata* woods of the British Isles [91J0]
- *Geomalacus maculosus* (Kerry Slug) [1024]
- *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029]
- *Euphydryas aurinia* (Marsh Fritillary) [1065]
- *Petromyzon marinus* (Sea Lamprey) [1095]
- *Lampetra planeri* (Brook Lamprey) [1096]

- *Lampetra fluviatilis* (River Lamprey) [1099]
- *Salmo salar* (Salmon) [1106]
- *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]
- *Lutra lutra* (Otter) [1355]
- *Trichomanes speciosum* (Killarney Fern) [1421]
- *Najas flexilis* (Slender Naiad) [1833]
- *Alosa fallax killarnensis* (Killarney Shad) [5046]

#### **Cleanderry Wood SAC**

- Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]
- *Trichomanes speciosum* (Killarney Fern) [1421]

#### **Clonee and Inchiquin Loughs, Uragh Wood SAC (Site cod:)**

- Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]
- Northern Atlantic wet heaths with *Erica tetralix* [4010]
- European dry heaths [4030]
- Siliceous rocky slopes with chasmophytic vegetation [8220]
- *Geomalacus maculosus* (Kerry Slug) [1024]
- *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]
- Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]
- *Trichomanes speciosum* (Killarney Fern) [1421]
- *Najas flexilis* (Slender Naiad) [1833]

#### **Glanmore Bog SAC**

- Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]
- Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260]
- Northern Atlantic wet heaths with *Erica tetralix* [4010]
- Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]
- Blanket bogs (\* if active bog) [7130]
- *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029]
- *Trichomanes speciosum* (Killarney Fern) [1421]

#### **Blackwater River (Kerry) SAC**

- European dry heaths [4030]
- *Geomalacus maculosus* (Kerry Slug) [1024]
- *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029]
- *Salmo salar* (Salmon) [1106]
- *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]
- *Lutra lutra* (Otter) [1355]

#### **Old Domestic Building, Askive Wood SAC**

- *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]

#### **Drongawn Lough SAC (Site code: 002187)**

- Coastal lagoons [1150]

#### **Iveragh Peninsula SPA**

- Fulmar (*Fulmarus glacialis*) [A009]
- Peregrine (*Falco peregrinus*) [A103]
- Kittiwake (*Rissa tridactyla*) [A188]
- Guillemot (*Uria aalge*) [A199]

#### **Beara Peninsula SPA**

- Fulmar (*Fulmarus glacialis*) [A009]
- Chough (*Pyrrhocorax pyrrhocorax*) [A346]

#### Natural Heritage Areas (NHA's) and Proposed Natural Heritage Areas (pNHA's)

There is one (1) NHA and sixteen (16) pNHA's within a 15km radius of the proposed aquaculture site.

**Table 4.** NHA and pNHA within a 15km radius of the site under appeal.

Designation	Site Code	Name
NHA	001059	Hungry Hill Bog
pNHA	000093	Caha Mountains
pNHA	000352	Dromlusk Bog
pNHA	000365	Killarney National Park, Macgillycuddy's Reeks and Caragh River catchment
pNHA	000593	Kilcatherine Heath
pNHA	001043	Cleanderry Wood
pNHA	001050	Eyeries Island
pNHA	001284	Cappul Bridge
pNHA	001342	Cloonee and Inchiquin Loughs, Uragh Wood
pNHA	001346	Darrynane Bay Islands and Marsh Lambs Head
pNHA	001354	Glanmore Lake
pNHA	001364	Lehid Harbour
pNHA	001375	Rossdohan Island
pNHA	001378	Spanish Island
pNHA	001879	Glanmore Bog
pNHA	002042	Old Domestic Building, Derreenafoyle
pNHA	002098	Old Domestic Building, Askive Wood

#### ***Protected Species***

#### *Marine Mammals*

The 1992 EC Habitats Directive as transposed by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) requires that both seal species (Common seal and Grey seal) and all cetaceans occurring in Irish waters are maintained at favourable conservation status. Under Article 12 of the Directive, all cetaceans should receive strict protection within the Exclusive Economic Zone. Under the Wildlife (Amendment) Act 1976-2005, all cetaceans and seals are protected species listed on the 5th Schedule. Under this Act, Natural Heritage Areas (NHAs) may be established to protect habitats or species. Whilst some terrestrial and coastal NHAs may encompass adjacent marine areas, no NHA's have been established for marine mammals to date.

### Cetaceans

Twenty-four species of cetacean have been recorded in Ireland to date. Of these 10 are considered to be year-round residents. Those that have been recorded off the west coast include those listed below:

**Humpback whales:** have been seen off all Irish coasts, though less frequently in the Irish Sea.

**Fin Whale:** Although they prefer deeper waters along the Continental shelf edge, they can be seen from Irish headlands when inshore feeding opportunities occur. A high-number sightings have been reported along the southern Irish coast, extending from Slea Head, Co. Kerry east towards Hook Head, Co. Wexford.

**Minke whale:** This is the most frequently recorded baleen whale in Irish waters can be seen off most headlands throughout the year along the entire Irish coast, although most sightings are recorded from the south and west Coasts.

**Harbor porpoise:** This is the most frequently reported and widespread species in Ireland and can be seen around the entire coast, although they appear to be most abundant off the southwest coast.

**Bottlenose Dolphin:** This species can be seen inshore on all Irish coasts although they are most frequently recorded off the west coast.

### Birds

Bird species of particular importance that have been recorded in Kenmare River SAC include Common/Arctic Tern (95+ pairs in 2008) an Amber listed species on the list of Birds of Conservation Concern in Ireland, meaning they are particularly vulnerable. This species has been recorded breeding on rocky islands in Derrynane Bay and on other islands within the site including Eyeries Island, Spanish Island and Brennel Island. In 1995 two pairs of the rare Little Tern bred within the SAC (NPWS 2016) The Little Tern is an Annex I listed species under the EU Birds Directive and has been amber listed under the Birds of Conservation Concern in Ireland. and Sandwich Tern occasionally breed in the SAC (NPWS 2016).

### Otters

Kenmare River SAC is designated for otter, a species listed in Annex IV(a) of the habitats directive.

### Seals

Kenmare River SAC holds a nationally important population of common seals (maximum count of 310 in the September 2009) an Annex II listed species under the Habitats Directive. The seals frequently haul out on rocky outcrops at Sneem, Templenoe and Castle Cove, as well as Brennel Island, Illaunsillagh, Kilmackilloge Harbour and Ballycrovane Harbour (NPWS 2010 and 2016). The nearest recorded site of importance for Harbour seal to the proposed aquaculture site is 2.5 km to the east . Figure 2 shows harbour seal sites in the vicinity of the proposed site.



Figure 2. Harbour seal sites in the vicinity of the proposed site under review.



### Statutory Plans

Illauneagh Island, Sneem, Kenmare Bay, the location of the proposed aquaculture site under review, is not the subject of a statutory plan in its own right but is covered under both the Kerry County Development Plan 2015-2021 and the Cahersiveen, Waterville and Sneem Functional Area Plan , Local Area Plan 2013-2019 (Kerry County Council Planning Policy Unit 2013) The local Area Plan contains nothing of relevance to this review.

Chapter 8 of the Kerry County Development Plan deals with Natural resources of the county and Section 8.4 with Fisheries and Aquaculture. Several statements within this section of the plan are of relevance:

- Ocean wealth is considered a key element for economic recovery and sustainable growth in the county.
- Aquaculture among other industries in this sector generates significant levels of employment and remains an important resource for the county which has the potential for further sustainable development.
- The Council will support the sustainable development of the operations of the fishing and aquaculture industry while protecting and preserving the biodiversity and ecosystems in our oceans, so they can continue to provide essential monetary and non-monetary goods and services.
- Aquaculture and food processing both have the potential to continue to expand in the County

Objectives of the Council in the county Plan related to aquaculture include:

**NR 20** Support and promote the sustainable development of the aquaculture sector in order to maximise its contribution to employment and growth in coastal communities and the economic well-being of the County, while ensuring environmental protection through the implementation of the objectives and Development Management, Guidelines and Standards of this Plan

**NR-26** Have regard to the need to maintain Blue Flag Beach status, recreational use and nature conservation interests in an area when assessing maritime development proposals on sites.

**NR 27** Support the sustainable development of marine aquaculture and fishing industries and its diversification at appropriate locations having regard to the requirements of the EU Water Framework Directive, the relevant River Basin Management Plans, the Habitats Directive, the integrity of the Natura 2000 network and visual amenity.

## Water Quality Status

### *Bathing Waters*

Annual bathing water quality following monitoring is carried out by Local Authorities over the bathing period. The assessments are carried out on designated Bathing water locations as part of the legislation governing the quality of bathing waters that is set out in the Quality of Bathing Waters Regulations, 1992 (S.I 155 of 1992) and amendments, which transposed the EC Directive 76/160/EEC concerning the quality of bathing water.

*There are no identified bathing waters in Kenmare Bay.*

### **5.5 Man-made heritage**

There are no recorded terrestrial archaeological or heritage sites in the near vicinity of the proposed aquaculture site. No ship-wrecks are recorded in close proximity to the proposed aquaculture site (Archaeology Department of Culture, Heritage and the Gaeltacht, 2019). The nearest known shipwreck “The Netta” is located 2.5km to the east. The nearest national monument is located on Sherky Island to the south east of the proposed aquaculture site. The Development Application Unit of the Department of Culture, Heritage and Gaeltacht requested that an appropriate Underwater Archaeological Impact Assessment be carried out for aquaculture application in Kenmare Bay.

1. National Monument identifier: KE10607  
Class: Graveyard  
Located close to a cliff edge on the North coast of Sherky island. No surface trace of the graveyard remains.

## **6.0 Section 61 Assessment**

### **6.1 Site Suitability**

*The site for which aquaculture and foreshore licences have been granted is suitable for the proposed collection of seed mussel for the following reasons:*

- *The proposed aquaculture site is located in designated shellfish waters*
- *Other aquaculture sites in the Sneem area are producing shellfish classified as A or B under the SFPA E. coli shellfish monitoring scheme*
- *The outer Kenmare Bay area has been used successfully to collect mussel spat down to 17m and grow mussels for market*

- *Yields on mussel meat from on grown mussels in the outer Kenmare Bay area was described by Bord Iascaigh Mhara as exceptional with a mussel meat yield greater than 45%(BIM 2007)*
- *There is a possibility to collect mussel spat in winter in Outer Kenmare Bay (BIM 2007)*
- *Placing of seed collection equipment on the proposed site can be achieved without significant impacts to boating and angling interests*
- *Impacts on commercial fishing interests is low. There is a small overlap of the proposed site with commercial pot fishing. Other commercial fishing activities do not overlap with the proposed aquaculture site*
- *The proposed aquaculture site due its' depth and exposure may reduce the ecological impacts associated with roped mussel cultivation.*
- *The proposed farm layout and type of structures adhere to the best practices outlined in the Guidelines for Landscape and Visual Impact Assessment of Marine Aquaculture, 2001*
- *In general, the views of the proposed aquaculture site are obscured and limited from scenic routes. Therefore, placing of seed collection equipment on the site can be achieved without creating a development that will be visible from a majority of local coastal vantage points*

*The site for which an aquaculture site licences have been granted is not suitable for the harvest of mussel seed for the following reasons:*

- *The previously licensed aquaculture activity at this site was destroyed by winter wave activity.*

*The Marine Engineering division of the Department of Agriculture, Food and Marine does not consider the site suitable for the proposed cultivation of mussels because:*

- *The proposed site is directly exposed to south westerly swell waves from the Atlantic Ocean*
- *The proposed site is situated in significant water depths*
- *The combination of these factors would allow severe swell waves to enter the proposed site*
- *Previously licensed mussel farming activity at the same location failed due to the exposed nature of the site and redundant equipment remained on-site for many years afterwards*

## 6.2 Other uses

No other significant use of this site has been identified during the application process or during this review.

The granting of aquaculture and foreshore licenses **will not cause significant** negative impacts on other users of the site.

## 6.3 Statutory Status

The proposed aquaculture site is located within the Kenmare River SAC, there are a number of other designated Natura 2000 sites in the locality, as detailed in section 5.4. The nearest Natura designated site (c 4.9 km) is a terrestrial site with no marine component. However, within a 15km radius of the proposed site there is one Natura 2000 site with marine components, Drongawn Lough SAC. This site at its nearest point is 6.7 km to the east of the proposed site. At its nearest point the Blackwater River (Kerry) SAC, with Atlantic salmon as a qualifying interest, is 14 km to the east of the proposed site.

Therefore, it is opinion of the Technical Advisor that due to the distance from the aquaculture sites under review and type of aquaculture taking place at the sites that there is no significant risk of negatively impacting the features of interest or the conservation objectives of nearby Natura 2000 sites.

The Kerry County Development Plan 2015-2021 sets out the overall strategy for the proper planning and sustainable development of County Kerry for the plan period and beyond. The plan consists of a written statement and plans that indicate the development objectives for County Kerry.

Chapter 8 of the Kerry County Development Plan deals with Natural resources of the county and Section 8.4 with Fisheries and Aquaculture. Several statements within this section of the plan are of relevance:

- Ocean wealth is considered a key element for economic recovery and sustainable growth in the county.
- Aquaculture among other industries in this sector generates significant levels of employment and remains an important resource for the county which has the potential for further sustainable development.
- The Council will support the sustainable development of the operations of the fishing and aquaculture industry while protecting and preserving the biodiversity and ecosystems in our oceans, so they can continue to provide essential monetary and non-monetary goods and services.

- Aquaculture and food processing both have the potential to continue to expand in the County

Objectives of the Council in the county Plan related to aquaculture include:

**NR 20** Support and promote the sustainable development of the aquaculture sector in order to maximise its contribution to employment and growth in coastal communities and the economic well-being of the County, while ensuring environmental protection through the implementation of the objectives and Development Management, Guidelines and Standards of this Plan

**NR-26** Have regard to the need to maintain Blue Flag Beach status, recreational use and nature conservation interests in an area when assessing maritime development proposals on sites.

**NR 27** Support the sustainable development of marine aquaculture and fishing industries and its diversification at appropriate locations having regard to the requirements of the EU Water Framework Directive, the relevant River Basin Management Plans, the Habitats Directive, the integrity of the Natura 2000 network and visual amenity.

***The granting of aquaculture and foreshore licenses will not cause significant negative impacts to statutory designations of the site, nearby designated sites or statutory plans including Kerry County Development Plan.***

#### **6.4 Economic effects**

The Appellant projects that during the construction phase of the proposed site 4 jobs will be created on a short-term contract. When the site becomes operational for spat collection two people will be employed seasonally. If the proposed aquaculture site moves into on-growing of seed mussels, as envisaged by the Appellant, two permanent positions will be created. The proposed aquaculture site is considered to have a very limited positive impact on the local economy.

It is the view of the Technical Advisor that there will likely be additional significant beneficial economic effects for the mussel on-growing industry both locally and in other parts of the country as a result of improvement to the supply of seed mussel.

***The granting of aquaculture and foreshore licenses will have little positive impact on the local economy but may have significant positive economic impacts on the wider economy.***

## 6.5 Ecological Effects

The technical review has considered the potential for the development to impact negatively on a range of ecological features including marine mammals, avi-fauna, wild fisheries and adjacent seabed and terrestrial/coastal habitats. No significant ecological effects are predicted for the following reasons:

- The proposed site is situated in an exposed subtidal location, at a significant distance from the shore and is located over a mixed reef and sandy substrate
- The depth of water at the proposed site is relatively deep at approximately 30m
- While the cultivation of rope grown mussel seed has potential to lead to the production of faeces and pseudo-faeces, the site initially will not be used for on-growing of mussel seed. If the site moves into on-growing of mussels at a later date both the exposed nature and depth of water at the site are likely to minimise any impact of faeces or pseudo-faeces build up over benthic habitat
- Any build-up of faeces or pseudo-faeces will be limited to the foot-print of the site
- No non-native species will be brought onto the site. Only native and naturally occurring mussel seed will be cultured until it is of suitable size for harvesting and relaying elsewhere for on growing or on grown on site
- The proposed aquaculture site is located within the Kenmare River SAC, there are a number of other designated Natura 2000 sites in the locality, as detailed in section 5.4. The nearest Natura designated site (c 4.9 km) is a terrestrial site with no marine component. However, within the 15km radius of the proposed site there is one Natura 2000 site that has marine components, Drongawn Lough SAC which at its nearest point is to 6.7 km to the east of the proposed site. At its nearest point the Blackwater River (Kerry) SAC, with Atlantic salmon as a qualifying interest, is 14 km to the east of the proposed site. It is opinion of the Technical Advisor that due to the distance from the aquaculture sites under review and type of aquaculture taking place at the sites that there is no potential for impact on the features of interest or conservation objectives of these Natura 2000 sites

***The granting of aquaculture and foreshore licenses will not cause significant negative ecological impacts.***

## 6.6 General Environmental Effects

No significant additional general environmental effects are considered likely to arise.

***The granting of aquaculture and foreshore licenses will not cause significant negative environmental impacts.***

## 6.7 Effect on man-made heritage

Licensing of the proposed site being considered in the appeal will not significantly impact the known man-made heritage of the area, including known coastal features, as well as intertidal and subtidal features.

***Licensing of the application site is unlikely to give rise to significant impacts on the man-made heritage of the area.***

## 6.8 Section 61 Assessment Conclusions

### Site Suitability

*The site under appeal is suitable for the intended purpose for the following reasons:*

- 1. The proposed aquaculture site is located in designated shellfish waters*
- 2. Other aquaculture sites in the Sneem area are producing shellfish classified as A or B under the Shellfish Waters Directive annual classification scheme*
- 3. The outer Kenmare Bay area has been used successfully to collect mussel spat down to 17m and grow mussels for market*
- 4. Yields on mussel meat from on grown mussels in the outer Kenmare Bay area was described by Bord Iascaigh Mhara as exceptional with a mussel meat yield greater than 45%(BIM 2007)*
- 5. There is a possibility to collect mussel spat in winter in Outer Kenmare Bay (BIM 2007)*
- 6. Placing of seed collection equipment on the proposed site can be achieved without significant impacts to boating and angling interests*
- 7. Impacts on commercial fishing interests is low. There is a small overlap of the proposed site with commercial pot fishing. Other commercial fishing activities do not overlap with the proposed aquaculture site*
- 8. The proposed aquaculture site due its' depth and exposure may reduce the ecological impacts associated with roped mussel cultivation.*
- 9. The proposed farm layout and type of structures adhere to the best practices outlined in the Guidelines for Landscape and Visual Impact Assessment of Marine Aquaculture, 2001*
- 10. In general, the views of the proposed aquaculture site are obscured and limited from scenic routes. Therefore, lacing of seed collection equipment on the site can be achieved without creating a development that will be visible from a majority of local coastal vantage point*

*The proposed site under appeal is not suitable for the harvest of mussel seed and on-growing of mussel seed for the following reasons:*

- 1. The proposed site is directly exposed to south westerly swell waves from the Atlantic Ocean*
- 2. The proposed site is situated in significant water depths*
- 3. The combination of these factors would allow severe swell waves to enter the proposed site*

### *Other Uses*

The proposed development would have **no significant** effect on other users of the area for the following reasons:

- 1. Overlap with commercial fishing activity is confined to potting activity and the overlap is small.*
- 2. No other significant use of the site has been identified during the application process or during the Technical Review.*

### *Statutory Status*

*The proposed development would have no impact on the statutory status of the area for the following reasons;*

- 1. The aquaculture activity at the proposed site is not considered to have any impact on the conservation objectives of Kenmare Bay SAC.*

### *Economic effects*

The proposed development would have a non-significant effect on the local economy for the following reasons:

- 1. The number of jobs created by licencing the proposed site are very low and likely to be seasonal in the case of mussel seed collection activity. If the site moves to on growing of mussels only two permanent jobs will be created*
- 2. There is no indication from the appellant that these jobs will not be filled by staff members of BioAtlantis already employed*

The proposed development may have a positive effect on the local and wider economy for the following reasons:



*1.Improvement to the supply of seed mussel would help to stabilise the on growing sector and reduce uncertainty*

### Ecological Effects

The proposed development would have no significant effect on the ecology of the area for the following reasons:

- 1. The area of overlap with qualifying habitats within this SAC is small*
- 2. The exposure of the proposed site and the water depth at the site will minimise any negative impacts associated with rope mussel culture.*
- 3. Some beneficial ecological impact may arise in this and other areas by a reduced need to capture seed mussel by dredging the seabed elsewhere for seed mussel*

### General Environmental Effects

No significant additional general environmental effects are considered likely to arise as a result of the proposed development for the following reasons:

- 1. Any environmental impacts will be limited to the footprint of the site*
- 2. Exposure and water depth at the proposed site will minimise impacts*

### Man-made Heritage

There would be no impact on the man-made heritage of value in the area as a result of licensing of the proposed site for the following reasons:

- 1. The absence of any protected structures or recorded monuments in the area of the proposed aquaculture licence application as indicated by the Record of Monuments and Places.*

## **6.9 Confirmation regarding Section 50 Notices**

There are no pertinent matters arising outside of Section 61 which the Board ought to take into account that have not been raised in the appeal documents and it is not necessary to give notice in writing to any parties in accordance with Section 50(2) of the 1997 Act.

## **7.0 Screening for Environmental Impact Assessment.**

Under S.I. No. 468/2012 - Aquaculture Appeals (Environmental Impact Assessment) Regulations 2012 an Environmental Impact Statement is required for aquaculture the Board determines would be likely to have significant effects on the environment. the EIA Screening process.

The Marine Institute on behalf of Department of Agriculture, Food and the Marine has assessed the proposed aquaculture development in relation to the marine environment and concluded that there will be no significant impacts on the marine environment and that the quality status of the area will not be adversely impacted

Environmental impact assessment means an assessment, to include an examination, analysis and evaluation to identify, describe and assess the effects of certain public and private projects on the environment including the direct and indirect effects of a proposed development on the following:

- (a) Human beings, flora and fauna
- (b) Soil, water, air, climate and the landscape,
- (c) Material assets and the cultural heritage, and
- (d) The interaction between the factors mentioned in paragraphs (a), (b) and (c) above

Having reviewed the proposed aquaculture project in relation to its potential impacts on the elements listed above (a to d) it is the opinion of the Technical Advisor that the proposed aquaculture site and its operation is unlikely to have significant effects on the environment by virtue of inter alia, its nature, size or location. We are of the view that in-combination effects are also unlikely. Therefore, an environmental impact assessment in accordance with S.I. 468 of 2012 is not required.

## **8.0 Screening for Appropriate Assessment.**

An Appropriate Assessment AA has been carried out for the licenced and application aquaculture sites in Kenmare Bay SAC by the Marine Institute on behalf of Department of Agriculture, Food and the Marine.

This assessment concluded that, "There is no potential for proposed aquaculture sites to impact the conservation objectives of Kenmare River SAC. The aquaculture activities individually and in-combination do not pose a risk of significant disturbance to the conservation features for habitats (and community types) in Kenmare River based primarily upon the spatial overlap and sensitivity analysis carried out." It is the opinion of the technical advisor that the AA carried out by DAFM is adequate and that the production

of mussel spat seed and mussels at the proposed site, individually or in combination with other plans or projects, is not likely to have a significant effect on Kenmare Bay SAC.

This technical advisor has also examined all Natura 2000 sites within a 15km radius of the proposed aquaculture site. As stated in section 5.4, nine (9) SAC's and two SPA's lie within a 15km radius of the proposed aquaculture site under review. One of these Natura 2000 sites has marine components, Drongawn Lough SAC which at its nearest point is to 6.7 km to the east of the proposed site. At its nearest point the Blackwater River (Kerry) SAC, with Atlantic salmon as a qualifying interest, is 14 km to the east of the proposed site. Therefore, it is opinion of the Technical Advisor that due to the distance from the aquaculture sites under review and type of aquaculture taking place at the sites that there is no potential for impact on the features of interest or conservation objectives of these Natura sites, alone or in combination with other projects or plans. Therefore it is considered that Appropriate Assessment is not required.

## **9.0 Technical Advisor's Evaluation of the Substantive Issues in Respect of Appeal and Submissions/Observations Received**

- 1. The site is too exposed to south westerly swells allowing severe swells to enter the proposed site.**
- The appellant maintains spat collection is seasonal in nature taking place from May to July therefore avoiding large winter swells and that the proposed method of operation mitigates against the effects of storm surge. Other licensed mussel operators in Kenmare harbour collect spat between April and June. The appellant states that initially production at the proposed site will be mussel seed but that the site will be used for on growing mussels at a later date if possible. The appellant used data generated by modelling from an EIS completed for a salmon farm at Shot Head, Bantry Bay, in 2011 to predict the maximum storm event waves likely to be encountered at the proposed site in Outer Kenmare Bay. The data from this EIS suggests that the maximum wave height for a 1 in 50 year storm would be from 3.9m to 4.8m in Bantry Bay. The Appellant states that head ropes within the site will be kept at a depth of 6 m to avoid potentially the worst possible scenario for wave events at the proposed site under appeal, 4.8m. The EIS completed for Shot Head, Bantry Bay (Watermark, 2011) stated that certain combinations of weather, easterly winds with swell waves from an Atlantic depression may produce difficult conditions which may temporarily affect staff accessibility and workability of the site and increase equipment stress just as much as, if not more, than Atlantic storms alone, running from the west. Further, Westpoint Shellfish Ltd. working with Bord Iascaigh Mhara at a licensed mussel aquaculture site on the southern shore of Outer Kenmare Bay (T05/490A) off

Cleandra Harbour lost its' entire mussel cultivation system in winter storms. Recorded wave heights at the site during this storm event were 12m (BIM 2007).

The proposed site under appeal was previously licensed to the same applicant using a different cultivation system. The previous 'Smart farm' system was destroyed by winter swells at the proposed site.

**2.The site is situated in significant water depths allowing severe swells to enter the proposed site.**

- The Appellant maintains significant water depth at the proposed site is a positive aspect of the licensing request and that there are national and international precedents for aquaculture in exposed locations. The site is located in waters with a depth of approximately 30m. The production of faeces/pseudofaeces by mussel aquaculture systems can negatively impact benthic habitats depending on settlement of the material. The depth and exposure of this site is likely to reduce this impact. The depth of the water at the proposed site also allows the passage of large swell through the site. Wave heights of 12m have been recorded off Cleandra Harbour on the Southern side of Outer Kenmare Bay (BIM 2007). The Appellant maintains aquaculture at exposed deep water sites improves the health of cultivated species. This is supported by mussel meat production of 45% at site T05/490A off Cleandra Harbour, Outer Kenmare Bay (BIM 2007). The Appellant maintains that the proposed method of mussel cultivation reduces the visual impact at the proposed site. The number of surface floats used with this cultivation method is low when compared to other roped mussel cultivation techniques.

The Appellant maintains that there are both international and national precedents for deep water aquaculture in exposed locations supporting his appeal. The literature referenced by the Appellant with regard to international precedents for exposed site mussel culture refers to:

- Sites that have been licensed in the Bay of Plenty New Zealand in water with depths ranging from 30 to 50 metres. Wave exposure at these sites is less than 3m for 99% of the year (Knight 2017).
- The Open Ocean Aquaculture Farm, New Hampshire. Seas of greater than 10 m were recorded at this aquaculture site.

Insufficient evidence has been provided that demonstrates the wave climate of the bay of Plenty, NZ is comparable to the wave climate at the site under appeal and significant uncertainty remains concerning the actual wave climate and the ability of the technology (moorings and sub-surface structures) to withstand the conditions. In the case of the Open Ocean Aquaculture farm, the high maintenance costs, exposed nature of the site, and slow growth of marine fish species (cod, haddock and halibut) created operational and economic challenges for this operation (Goseberg et. Al. 2017).

**3.combination of these factors would allow severe swells to enter the proposed site.**

- Appellant maintains the proposed site is suitable for mussel aquaculture for the reasons outlined above.

## **10.0 Recommendation of Technical Advisor with Reasons and Considerations.**

The grounds for appeal (substantive issues) have been considered, evaluated and responded to in previous sections of the evaluation report. The reasoning and considerations of the Technical Advisor with respect to the appeal are provided below and a final recommendation to the Board follows.

The substantive issues raised by the appellant have been considered and reviewed in detail during the technical review process. A number of the grounds for appeal appear to be supported in the literature with regard to the health of stock and the lessening of environmental and ecological impacts associated with rope mussel aquaculture by using exposed deep-water production sites. However, a number of uncertainties remain with respect to the licence application appeal for T06/326A.

The Appellant has used wave energy data generated by modelling for a site in another bay to the south of Kenmare Bay. The maximum wave height for which the cultivation equipment is designed to withstand is multiples below recorded wave heights in Outer Kenmare Bay. It is noted that the applicant states in their appeal that head ropes will be 6 m below the surface well below any swell height at the site. However, there is information to suggest that wave heights significantly in excess of the stated 6m are likely to be encountered at the site. In this regard, BIM recorded 12m waves on the opposite side of the bay, close to southern shore of Kenmare River.

Offshore cultivation of mussels in exposed locations must be regarded as being in the developmental stage rather than a proven cultivation technique in Ireland. That this cultivation technique is developmental is supported by the fact that BIM is currently part

funding a three-year project to test the viability of growing mussels in exposed locations. University College Cork and a number of other state agencies and international private companies are involved in this research project. The project, Wild Atlantic Mussels, is due to finish in 2021. As part of this project, new technologies for the rope culture of mussels are being trialled within an existing licensed aquaculture site at a location close to Seal Harbour in Bantry Bay (MaREI, 2018).

Although there is only limited wave climate data specific to the proposed location, there is significant uncertainty regarding the ability of the proposed cultivation technique and the proposed farm mooring technology and equipment to withstand the wave environment at the proposed site, which is highly likely to be subject to occasional extremes of ocean swell height and wave periods, as well as large and potentially damaging swells on a more regular basis.

Given the clear uncertainties concerning the application of new technologies to growing mussels in exposed locations, it is recommended that the Ministers decision to refuse aquaculture and foreshore licences is upheld in this instance.

### **11.0 Draft Determination Refusal /or Grant**

It is recommended that the Minister's decision to refuse aquaculture and foreshore licences in respect of the application for site reference T06/326A be upheld.

**Technical Advisor:** MERC Consultants

**Date:** 2.7.2020

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