



AP1/2016

**Drumcliff Bay Oyster Cultivation Appeal**

**Produced by**

**AQUAFACT International Services Ltd**

**On behalf of**

**Aquaculture Licences Appeals Board**

**FEBRUARY 2017**

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**Appeal Ref No. AP1/2016**  
**Aquaculture Licence Appeal Board**  
**Technical Advisor's Report**

**Description:** Assessment of the appeal against the Minister's decision to refuse an aquaculture licence for the cultivation of pacific oysters in Drumcliff Bay, Co. Sligo.

**Licence Application**

**Department Ref No.** T11/85

**Applicant:** Eamonn Caffrey, 9 Priory Chase, St. Raphael's Manor, Celbridge, Co. Kildare.

**Minister's Decision:** Licence refused.

**Appeal**

**Type of Appeal:** Appeal against the decision of the Minister for Agriculture, Food and the Marine to refuse an Aquaculture and Foreshore Licences to Dr Eamonn Caffrey for the cultivation of pacific oysters on site T11/85 on the foreshore in Drumcliff Bay, Co Sligo.

**Appellant:** Eamonn Caffrey

**Observers:** Dr David Tierney, National Parks and Wildlife Service.

**Technical Advisor:** AQUAFACT International Services Ltd.

**Date of Site Inspection:** No site inspection

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## 1. General Matters/Appeal Details

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

Date Appeal Received: AP1/2016 received by ALAB on 14<sup>th</sup> December 2016.

Location of Site Appealed: Site reference number T11/85 Ardtermion/Drumcliff Bay, Co. Sligo.

### 1.2. *Name of Appellant*

Eamonn Caffrey, 9 Priory Chase, St. Raphael's Manor, Celbridge, Co. Kildare.

### 1.3. *Name of Observer*

Dr. David Tierney, National Parks and Wildlife Service.

### 1.4. *Grounds for Appeal*

#### Substantive Issues

1. The appellant maintains that there is no evidence to suggest that aquaculture activities within the proposed site will negatively impact the conservation objectives for this designated feature of the Drumcliff Bay SPA. He states that the status of the Bar-tailed Godwit is favourable in population and that population trends in Drumcliff Bay SPA are positive. The appellant states that the Bar-tailed Godwit is not a bird of conservation classified as a red-listed species in County Sligo.

2. The appellant states that the Bar-tailed Godwit is a wintering bird present in Ireland from October to April and that these months are the least active months for oyster farming in Ireland.

3. The appellant maintains that the habitat disturbance threshold values applied in the appropriate assessment to determine the significance of disturbance to benthic habitats or waterbird populations indicate that the proposed license site is below any thresholds for immediate concern.

4. The appellant cites appropriate assessment information from two other bays in Ireland that indicate no evidence of impact on the long term population trends of the Bar-tailed Godwit from oyster farming in those bays.

5. The appellant states that the Bar-tailed Godwit population in Sligo is the lowest ranked region as an important area for this bird and that licences have been granted in bays where this bird is higher in importance in the national rankings in Ireland.

6. The appellant states that data for the Drumcliff Bay SPA show that aquaculture is not impacting the population of the Bar-tailed Godwit as exemplified by the oyster production already in place in Drumcliff Bay.

7. The appellant raises concerns about the limitations of bird surveys at the proposed site with respect to length and infrequency of surveys as well as accuracy of counts during challenging weather.

8. The appellant notes that no objections were received from the general public or bird authorities such as Birdwatch Ireland or National Parks and Wildlife.

9. The appellant states that the proposed licence site is located with the designated shellfish area of Drumcliff Bay.

10. The appellant states that a pre-screening assessment was carried out in 2016 without objections being raised.

#### Non-Substantive Issues

There were no non-substantive issues raised by the appellant.

### **1.5. Minister's Submission**

Section 44 of the Fisheries (Amendment) Act 1997 part 2 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 deadline for receipt of submissions accordance with Section 44(2) was set at 16<sup>th</sup> of January, 2017.

The Minister made the following submissions:

- A. *"In relation to the "Birds" aspect it is important to point out that the Conservation Objectives for bird Species of Conservation Interest (SCI) must to be considered primarily on a site-by-site basis. While the population of Bar-Tailed Godwit is considered stable/increasing the long-term population trend only addresses Attribute 1 (Population Trend) of the bird conservation objectives. The concern with regard to Bar-Tailed Godwit centres on Attribute 2 which relates to species distribution within the SPA (and hence displacement). The primary basis for this concern and subsequent conclusions is that much of the data underpinning the conclusions are limited and highly variable. This was highlighted in the Appropriate Assessment report. Some very high counts of Bar-Tailed Godwit were recorded at the area in question (Ardtermon Strand) and given that a strong negative interaction has been demonstrated between this species and oyster trestle culture, the risk to a high proportion of the numbers found at the site cannot be definitively discounted.*

*The Red list has no particular relevance to the SCI species (Special Conservation Interest).*

*Oyster farming activity tends to be at a peak during winter months when harvesting is carried out for seasonal markets.*

*As mentioned above, consideration of national trends of the population of the bird species is not appropriate when considering populations within this specific Natura 2000 site, as Attribute 2 is the issue of concern here.*

- B. *The reference to habitat disturbance has little or no bearing on Conservation Objectives for Bird species. The 15% threshold cited in the appeal refers specifically to Guidance for Qualifying Interests of the Special Area of Conservation (SAC)<sup>1</sup> and not the SPA. The 25% cited*

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<sup>1</sup> NPWS. 2013. Cummeen Strand/Drumcliff Bay SAC(000627): Conservation Objectives supporting document – marine habitats and species. Department Arts, Heritage and the Gaeltacht. Version 1 (July 2013); 23pp.



*relates to Attribute 1 (covered above). For Attribute 2, the identification of threshold of significance of disturbance/displacement are clearly identified in the relevant SPA report submitted to DAFM<sup>2</sup>. The significance level chosen for Attribute 2 (i.e. 5%) is conservative and the confidence in the conclusions is also a function of the extent of data (and its variability) underpinning its calculation.*

- C. As indicated above, assessments are carried out in a site-by-site basis and conclusions identified for one site cannot be easily applied to others. There can be considerable difference between sites in respect of the nature, scale and distribution of suitable feeding areas for bird species.*
- D. Bar-tailed Godwit and Sanderling are SCI species for this SPA and as such their interaction with existing or proposed aquaculture activities must to be assessed in a fashion similar to all other SPAs.*
- E. The statement is correct in that current levels of aquaculture do not appear to be having an impact on conservation attributes of the Bar-tailed Godwit; however, the concern centres around the in-combination effect that additional new activities within the SPA, particularly at Ardtermon, might have on the bird taxa.*
- F. The assessment was conducted based upon information and data available at the time of the assessment.*
- G. The statement relating to count accuracy in challenging conditions is important and could possibly lead to the underestimates of bird numbers in the area in question, thus possibly increasing the importance of the site. The conservative conclusions in the AA report are therefore justified.*
- H. It is important to point out that the designation of an area as a "Shellfish Growing water Area" and the Classification of a site are separate and unrelated processes. The Classification*

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<sup>2</sup>

<http://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/appropriateassessments/AnnexIICummeenStrandDrumcliffSPAs290515.pdf>

*of an area is done under Annex II of EU Regulation 854/2004 (the “Hygiene Regs”) while the designation of a site is done under Directive 2006/113/EC.*

1. *It is important to point out that the purpose of the EIA screening assessment referred to is solely to determine whether or not a licence application needs to be accompanied by an Environmental Impact Statement. It is not, and should not be considered to be, a licence determination or be interpreted as meaning a licence will be granted.*

*Following public and statutory consultation phase of the application the Department forwarded the observations and comments to the applicant on 2<sup>nd</sup> August 2016 with a 3 week timeframe within which any response should be forwarded. The Department has no record of receiving any response from Dr. Caffrey.*

*In the context of Natura 2000 sites, the competent National Authorities can agree a project only after having ascertained that it will not adversely affect the integrity of the site concerned. In this case it cannot be said that no reasonable scientific doubt remains as to the absence of such effects. Accordingly, the application has been refused to mitigate the risk of the deterioration of the conservation status of birds at site level, in particular the Bar-tailed Godwit, which is directly attributable to the proposed oyster culture operations in Ardtermon Strand.”*

## **1.6. Applicant Response**

The Applicant may submit a response to appeal submissions under the provision set out in Section 44(2) of the Fisheries (Amendment Act) 1997 which states:

*“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.”*

In this case the Applicant has made a submission as the Appellant. Whilst section 44(4) of the Fisheries (Amendment Act) 1997 specifically provides that a party shall not be entitled to make any further submissions or observations in writing in relation to the appeal, the Act also entitles the Board in section 46 where it is the opinion that, in the particular circumstances of an appeal, it is

appropriate in the interests of justice to request a party or other person who has made submissions or observations to the Board in relation to the appeal to make submissions or observations in relation to any matter which has arisen in relation to the appeal, it may, in its discretion, notwithstanding section 44(4), serve on the party notice requesting the party to submit to the Board submissions or observations in relation to the matter.

In light of the submission received by the Board from the Minister on 11<sup>th</sup> of January 2017, the Appellant was requested to submit any further observations within 28 days of notification of the Minister's submission on 20<sup>th</sup> January 2017. The Applicant/Appellant response to the Minister's submission was received on 17<sup>th</sup> February 2017 and is outlined as follows:

The appellant acknowledges that advice from the European Court of Justice (C-127/02, September 2004) provided a very strong precautionary interpretation of Article 6 of the EC Habitat's Directive and that this is why the licence was refused. However, the appellant maintains that the precautionary principle could still be upheld by way of a more practical approach while allowing a viably strong oyster farming business to gain approval.

The appellant references the report by the NPWS for the bird study that was undertaken in Drumcliff Bay in 2010/2011, indicating that the study showed that the number of birds were a lot lower in December 2010 (*i.e.* 184 birds sighted), for Drumcliff Bay as a whole, and again in January 2011, when 38 birds were recorded. He also noted that peak migration patterns for the Godwit bird occur at the beginning of November and February. This, he states, coincides with high figures collected during this period, showing that these figures could include passage birds as well as wintering birds. The appellant also notes that this survey was carried out during the coldest winter since 1930.

The appellant accepts that total displacement across the whole SPA is potentially marginally above 5%, but that the fact is that the site is still below this threshold at 4.66% and that assessments are carried out on a site by site basis.

The appellant indicates that in accordance with the site application, the proposed number of trestles planned for the site is 1000 only. The appellant states that considering the dimensions of the trestles, which when deployed would cover an area of 2400 m<sup>2</sup>, the proposed number

of trestles would only occupy 4.8% of the licence application area/site (approximately 0.24 Ha). This he calculates would translate to an area covering 0.38% of Ardtermon Strand.

The appellant concludes his submission by suggesting some form of compromise towards a viable solution could be met such as resizing of the site, reviewing systems to farm oysters, monitoring or severe winter mitigation measures.

#### **1.6.1. Other Responses**

In accordance with the provisions of section 47(1) (a) of the Act, the Board, where it is of the opinion that any document, particulars or other information is or are necessary for the purpose of enabling it to determine an appeal, it shall serve on a party who has made submissions or observations to the Board in relation to the appeal a notice requiring the party to submit to the Board such documents, particulars or other information as are specified in the notice.

In this instance the Board drew attention to a Report in support of Article 6 Assessment of Aquaculture Activities in Cummeen Strand/Drumcliff SAC (site code 000627) Drumcliff Bay Special Protection Area (004013) and Cummeen Harbour Special Protection Area (004035) prepared by the Marine Institute (Marine Institute, 2015a) in which it was noted that, when referring to Drumcliff Bay and the Bar-tailed Godwit, it states as follows:

*“We understand that NPWS (pers comm) have recently undertaken further low tide work in the Bay (this was not available at the time of writing); we would, however, recommend that this be reviewed to recheck the above findings. If these data do not provide the necessary insight we would recommend that further monitoring of the low tide use of the key Bar-tailed Godwit sites within the SPA by should be undertaken in order to fully assess the potential for negative impacts at Ardtermon.”*

Thus in accordance with section 47(1)(a) of the Act, the Board required NPWS to supply the following information within 28 days of receipt of notification:

1. *Full details of any further low tide work or monitoring undertaken by NPWS or on its behalf in the Bay, as referred to in the Report concerning Bar-tailed Godwit or indeed as may have been undertaken subsequently;*
2. *The impact of such information on the findings of the Report, as detailed above; and*
3. *In light of any such additional information, the NPWS assessment of the potential for negative impacts at Ardtermon Strand.*

In response to the Board's request for information under section 47 as outlined above, Dr David Tierney on behalf of NPWS responded on 16<sup>th</sup> February 2017 as follows:

*In relation to No.1:*

*I attach two datasets containing count data from 19/02/15 and from 16/11/16.*

*In relation to No.2:*

*Your excerpt of the report in your letter refers to "While no significant impacts are predicted for any other Licence renewal/application blocks for this species in Drumcliff Bay SPA; the total displacement across all sides would range from 5.2% (based on mean count values) to 8.03% (based on maximum counts). This predominantly is at the Ardtermion site and overall is greater than the 5% threshold used as a guide for identifying potentially significant impact on this SCI."*

*The two datasets describing the survey data confirm that Ardtermion continues to be one or even the most important subsite for Bar-tailed Godwit. On the 19/02/15 373 individuals were recorded at this subsite, which equates to 85% of the total number of Bar-tailed Godwit recorded at this SPA on this occasion. On the 16/11/16 450 individuals were recorded at this subsite, which equates to 96% of the total number of Bar-tailed Godwit recorded at this SPA on this occasion.*

*In relation to No.3:*

*I attach a report whose executive summary states:*

*"Atkins was commissioned by the Marine Institute to provide ornithological services in relation to the appropriate assessment of aquaculture and fisheries activities on coastal Special Protection Areas for birds (SPAs). Intertidal culture of the Pacific Oyster using oyster trestles is widespread in Ireland and occurs in 16 SPAs and the potential impact of this activity on waterbird populations will be an issue in a number of Appropriate Assessments. There is little published information available about this potential impact. Therefore, a research programme was designed by Atkins, in consultation with the Marine Institute, to fill this information gap. This research programme included a review of the distribution of intertidal oyster culture in Ireland in relation to coastal Special Protection Areas, and other areas of*

*importance for waterbirds and extensive and intensive studies of the relationship between waterbird distribution and intertidal oyster culture”*

*This report summary goes on to say that “The species that showed a negative response are mainly species that tend to feed in large flocks of tightly packed individuals (Knot, Sanderling, Dunlin, Black-tailed Godwit and **Bar-tailed Godwit**, and to a lesser extent Ringed Plover).”*

## **2. Consideration of Non-Substantive Issues**

There were no non-substantive issues to consider with respect to this appeal.

## **3. Oral Hearing Assessment**

In line with section 49 of the Fisheries (Amendment) Act 1997 an oral hearing may be conducted by the ALAB regarding the licence appeal.

An oral hearing has not been requested by the Appellant at this stage.

#### 4. Minister's file

In line with section 43 of the Fisheries Amendment Act 1997 the following documented items were sent to the ALAB from the Minister and were reviewed:

No.	Date	Item
1.	6 <sup>th</sup> June 2013	Application for Aquaculture and Foreshore licence for T11/85
2.	22 <sup>nd</sup> Jan. 2016	Environmental Impact Assessment (EIA) Screening Document
3.	18 <sup>th</sup> May 2016	Ministerial Determination in relation to requirement for Environmental Impact Statement
4.	May 2016	Appropriate Assessment documents (3) for Cummeen Strand/Drumcliff Bay SAC and Cummeen Strand SPA
5.	1 <sup>st</sup> Sept. 2016	Nature conservation observation from Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHRRGA).
6.	5 <sup>th</sup> Oct. 2016	Marine Institute response to DAHRRGA observations.
7.	undated	Appropriate Assessment conclusion statement for Cummeen Strand/Drumcliff Bay SAC and Cummeen Strand SPA.
8.	18 <sup>th</sup> Oct. 2016	Submission to Minister for Aquaculture Licence.
9.	18 <sup>th</sup> Oct. 2016	Submission to Minister for Foreshore Licence.
10.	11 <sup>th</sup> Nov. 2016	Notification to applicant of Minister's decision.
11.	14 <sup>th</sup> Nov. 2016	Notification to ALAB of Minister's decision.
12.	15 <sup>th</sup> Nov. 2016	Publication of Ministerial decision in Sligo Champion.
13.	undated	Map of sites (2) Drumcliff Bay and Cummeen Strand.

## 5. Context of the Area

### 5.1. Physical descriptions

Drumcliff Bay is situated on the coast of County Sligo in the Western River Basin District. The bay is shallow and tidal and comprised of extensive mudflats and sandflats. The inner part of the bay is protected from the Atlantic Ocean by a sand dune spit that splits the bay in two, leaving a narrow opening to the north. The licence application under appeal (T11/85) is located in the outer part of Drumcliff Bay on the foreshore of Ardtermon Strand and is illustrated in Figure 5.1.

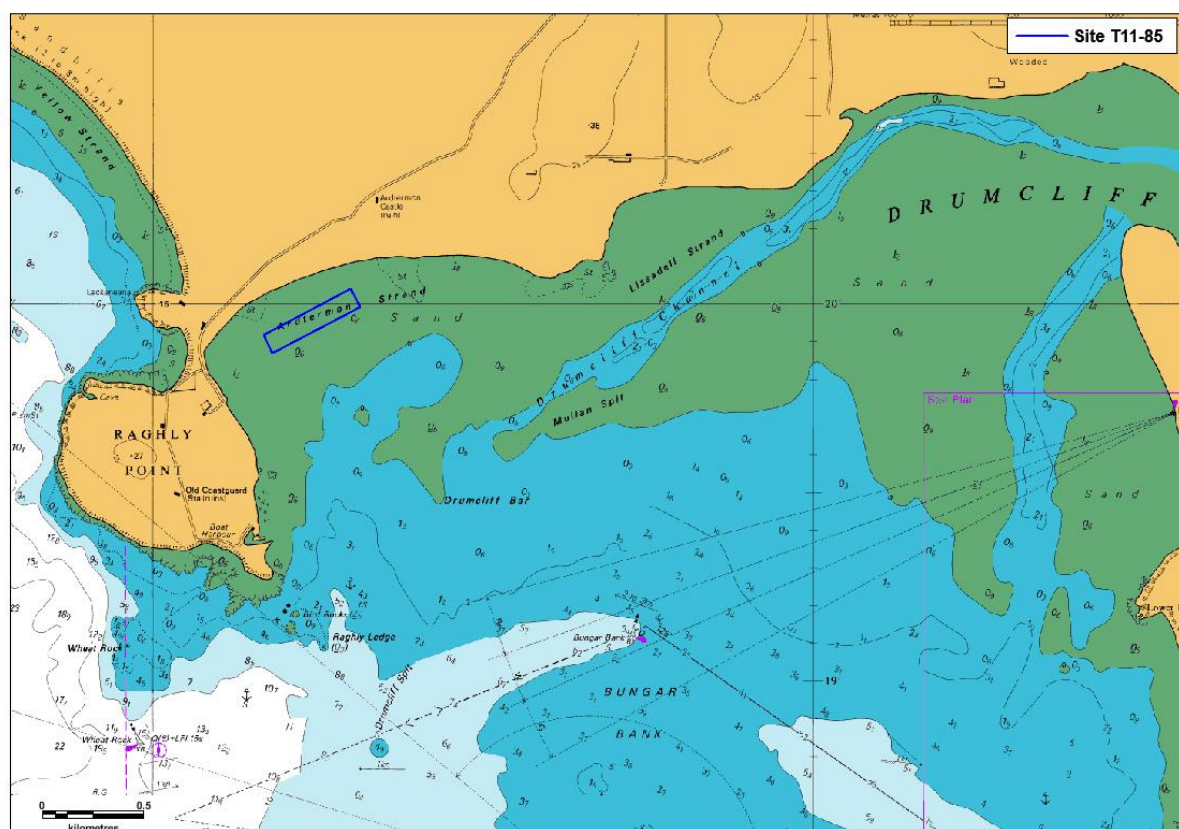


Figure 5.1 Location of proposed aquaculture site T11/85 on Ardtermon Strand, Drumcliff Bay, Co. Sligo.

Drumcliff Bay is a designated shellfish area and must comply with the Shellfish Directive (2006/113/EC) and the Quality of Shellfish Waters Regulations 2006. The designated shellfish area is 15.1 km<sup>2</sup> and extends from Raghly Point east to Rosses Point and from Rosses, south to the townland of Doonierin and across the mouth of the Carney River. The Sligo Bay Designated Shellfish Area is situated in the adjacent Sligo Bay directly to the south. The contributing catchment of the shellfish area is almost 112.4 km<sup>2</sup> in area. The main rivers in the catchment are the Carney, the



Drumcliff and the Doonowney. There are a few other minor streams that discharge directly into the Bay. Figure 5.2 illustrates the extent of the Shellfish Designated Waters and location of the rivers within Drumcliff Bay.

The main villages around the bay are Carney with a population of 349 (Census 2011) and Drumcliff with a population of 62. The town of Rosses Point with a population of 824 (Census 2011) lies just south of Drumcliff Bay, at the entrance to Sligo Harbour. Agriculture, tourism and aquaculture are the main commercial activities around Drumcliff Bay (DoEHLG, 2009).



Figure 5.2 Drumcliff Bay Shellfish Designated Waters.

## 5.2. Resource Users

### 5.2.1. Aquaculture Activity

Aquaculture in Cummeen Strand/Drumcliff Bay SAC focuses solely on two shellfish species oysters and clams. Growers are supplied with juvenile oysters and clams by a locally based hatchery, Lissadell Shellfish Co. Ltd., which has also been in production since the 1980s and is the largest

producer of clam seed in Ireland. Figure 5.3 illustrates the aquaculture sites within the area including the licence T11/85 which is the subject of the current appeal.

#### Shellfish Culture – Drumcliff Bay (Clams and Oysters)

Currently in Drumcliff Bay there are three operators, cultivating clams and oysters. Clam farms in the area have not been seeded in recent years due to ‘Brown Ring disease’ which currently has caused all operators in Drumcliff Bay to cease clam farming until fallowing of sites has taken place which is taking a number of years. The three operators in the bay that were farming clams have harvested out the final 8 tonnes of clam crop during 2014. These operators have had their licenses renewed (as of November 2016) for clams as well as the cultivation of oysters. They foresee that it will be unlikely clams will be seeded for a number of years due to the ‘Brown Ring’ issue, but are keen to farm clams in the future, when the issue has been resolved. As a consequence, oysters will be the primary species. Clams will be the secondary species. The oyster production in the bay currently is being produced by one operator and production is at 70 tonne (Marine Institute, 2015b).

#### Shellfish Culture – Cummeen Strand

Within Cummeen Strand there are a number of licensed sites for oysters and clams combined. Only oysters are currently being cultivated on these sites as the clam sites in the area have not been seeded in three years due to Brown Ring disease which currently has caused all operators in Cummeen Strand to cease clam farming until fallowing of sites has taken place which is taking a number of years (Marine Institute, 2015b).



**Figure 5.3 Aquaculture sites within Drumcliff Bay and Cummeen Strand.**

### **5.2.2. Angling Activity**

Rosses Point, at the entrance to inner Sligo Bay is a fished for mackerel and sea trout in summer and can yield bass. Coney Island, at the mouth of the bay is approachable from the land only at low tide. Flounder and sea trout can be caught in the main channel. South of the village of Carney, about a mile west of the N15, on the northern shore, lugworm and clam are plentiful at low tide and are dug on the banks of the river channel to be used as bait for shore angling. Charter boats for sea angling can be hired at Rosses Point and Raghly Pier.

The Sligo District possesses a wide variety of game fisheries in scenic locations. These include rivers and lakes containing salmon, sea trout and brown trout (Grange River, Drumcliff River, Glencar Lake, Lough Gill, Garavogue River, Ballysadare River and Ballysadare Estuary.

### **5.2.3. Tourism**

International tourism to the West of Ireland declined significantly in both visitor numbers and share of holiday visits to Ireland in the period 2007-2010. County Sligo had 156,000 overseas tourists in 2006 (who generated revenue of 39m euro), but only 133,000 overseas tourists in 2013 (revenue generated – 44m euro). In an attempt to reverse the decline in tourist numbers, Fáilte Ireland has developed the Wild Atlantic Way (WAW) as a tourism initiative of strategic importance for the West of Ireland. This initiative, which is undertaken on an unprecedented scale, is expected to play a significant role in generating employment and revenue from national and international tourism in County Sligo. There are seven WAW Discovery Points identified in Co. Sligo, at Mullaghmore Head, Streedagh Beach, Rosses Point Beach, Strandhill Beach, Aughris Head, Easky Pier, Enniscrone Pier. In addition, sea angling, leisure boating (sailing and kayaking), scuba diving, surfing and other water sports, bird watching, walking, mountaineering, swimming, cycling, scenic routes, music, food and cultural scene have all been identified as part of the integrated and sustainable tourism strategy in the Sligo County Development Plan 2017-2023 (<http://www.sligococo.ie/cdp/>)

### **5.2.4. Agricultural Activity**

Most of the land around the bay is used for mixed farming. Upland areas are used for sheep grazing. The estimated numbers of cattle and sheep in the catchment area are 9,462 and 33,200 respectively (CSO 2000 survey) (DoEHLG, 2009).

### **5.2.5. Inshore Fishing activity**

The fishing industry in Sligo is less well-developed than in nearby Donegal and Mayo. However, there are some localised areas where fishing is important. Commercial fishing boats operate at Raghly, Mullaghmore, Pollnadvva, Pullaheeney, Rosses Point, Aughris and Easky.

Static fishing gear activity in the area includes line fishing (lines set on the seabed with baited hooks at intervals) and the widespread use of pots (baited traps set on the seabed targeting crustaceans).

### **5.2.6. Leisure Users of the water body & surrounding area**

#### **Marine**

- Yachting/Sailing. The Sligo Bay area has visitor moorings at Sligo harbour, Sligo Yacht club, Rosses Point and Mullaghmore Sailing Club are established sailing clubs offering training and holding regattas.
- Surf Schools are located in the popular surf spots of Strandhill and Mullaghmore.
- Kitesurfing at Lissadell, Rosses Point and Strandhill.
- Sea Kayaking tours of Oyster Island and Coney Island.
- Scuba diving. Offshore Dive School at Mullaghmore.
- Marine Wildlife watching. Whale, dolphin, seal and basking shark watching are popular in the region with boats available for charter.

#### **Coastal**

- Golf. County Sligo Golf Club, Rosses Point & Strandhill Golf Club.
- Angling. Sea angling, both shore and charter boat as well as salmon and trout fishing as outlined above.
- Walking and Hiking are popular in this part of Sligo with the Wild Atlantic Way and coastal paths (Lissadell, Raghly and Rosses Point), lake walks (Glencar Lake and waterfall), forest routes (Benbulbin Looped walk) and mountain hikes (the Devil's Chimney).
- Cycling. Popular scenic coastal cycle routes, such as the North West Trail.
- Bird watching. Ballygilgan (Lissadell) Nature Reserve is located 8km north west of Sligo town. In summer it is an ordinary pasture grazed by cattle and sheep, managed by NPWS. In winter however, it is an essential grazing site called the 'the Goose Field' for a large flock of Barnacle Geese (c. 3000). The winter freshwater pond also attracts other waterfowl and waders, and a cereal patch at the east end attracts wintering finches and buntings.

## **5.3. Environmental Data**

### **5.3.1. Water Quality**

#### **5.3.1.1. Waste water**

There are 1,149 on-site waste water treatment systems in the contributing catchment and their density is much higher than the national average. The risk to surface waters from pathogens and

phosphorus is extremely high throughout the catchment as is the likelihood of inadequate percolation. The majority of the systems are therefore located in hydrologically unsuitable conditions. These systems therefore could possibly be affecting shellfish water quality in this shellfish area. This is a reason for the Class B classification of the waters as outlined in section 5.3.1.4 below.

Three urban waste water treatment systems were identified in the catchment during expert review carried out in October 2009. Two of them, at Drumcliff and Carney, are considered a likely source of the faecal contamination affecting shellfish water quality in this shellfish area. The third plant is at Ballintogher and is considered to be too far away from the shellfish area to be impacting on it. (DoEHLG, 2009).

#### *5.3.1.2. Environmental Protection Agency (EPA) Results*

The EPA Marine Monitoring Programme undertakes analyses of general components in water samples of coastal and transitional waters around Ireland. Sligo Bay (including Drumcliff Bay), Drumcliff Estuary and Garavogue Estuary are classified as “unpolluted” and Ballysadare Estuary is classified as “intermediate” (EPA, 2017).

#### *5.3.1.3. WFD Monitoring Programme*

The proposed site falls within the Sligo Bay Coastal Waterbody (WE\_450\_000) which is currently (2010-2015) classified as ‘High’ status under the WFD. The Transitional waterbody of the Garavogue Estuary (IE\_WE\_470\_0100) is classified as ‘Good’ status and the Ballysadare Estuary (IE\_WE\_460\_0300) is classified as ‘Moderate’ status. The nearest river monitored under the WFD is the Drumcliff River (IE\_WE\_35D040400) which currently classified as “Good Status” (source: <https://www.catchments.ie/maps/>)

#### *5.3.1.4. Shellfish Flesh Monitoring Programme*

Drumcliff Bay is a designated shellfish area and must comply with the Shellfish Directive (2006/113/EC) and the Quality of Shellfish Waters Regulations 2006. Shellfish flesh classifications are carried out under the European Communities (Live Bivalve Molluscs) (Health Conditions for Production and Placing on the Market) Regulations, 1996 (S.I. No. 147 of 1996)). Sampling is carried out by the Sea Fisheries Protection Authority (SFPA) on at least a monthly basis. The licensed area is within “Drumcliff Bay” (SO-DB-DB) area is classified as Class B meaning that shellfish may be



placed on the market for human consumption only after treatment in a purification centre or after relaying so as to meet the health standards for live bivalve molluscs laid down in the EC Regulation on food safety (Regulation (EC) No 853/2004). This indicates faecal contamination in this shellfish area (DoEHLG, 2009).

#### **5.3.1.5. Bathing Water Quality**

Bathing Water Quality is monitored by the EPA at Rosses Point at the south of Drumcliff Bay. For the 2014, 2015 and 2016 bathing seasons, Rosses Point achieved excellent water quality status. In 2012 and 2013 it achieved good water quality status.

(source: [http://splash.epa.ie/files/profile/BWPR00052\\_2011\\_01\\_profile.pdf](http://splash.epa.ie/files/profile/BWPR00052_2011_01_profile.pdf))

### **5.4. Statutory Status**

#### **5.4.1. Nature Conservation Designations**

The proposed site is located within Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (site code 000627) (NPWS, 2013a), Drumcliff Bay SPA (site code 004013) (NPWS, 2013b) and adjacent to Cummeen Strand SPA (site code 004035) (NPWS, 2013c). There are also a number of other SPAs located within 15km of these bays, namely Ballysadare Bay SPA (site code 004129) (NPWS, 2010), Aughris Head Bay SPA (site code 004133) (NPWS, 2012), Ardboline Island and Horse Island SPA (site code 004135) (NPWS, 2002), Ballintemple and Ballygilgan SPA (site code 004234) (NPWS, 2011), Inishmurray SPA (site code 004068) (NPWS, 2006) and Sligo/Leitrim SPA (site code 004187) (NPWS, 2015). Adjacent SPAs were also considered because of their proximity to Drumcliff/Cummeen Strand and the potential usage of aquaculture areas by birds for which these SPAs have been designated. Cummeen Strand has also been designated as a wetland of international importance under the Ramsar Convention. This area (Ramsar site 842) features important mudflats and sandflats and is an important arrival point for Brent geese (*Branta bernicla hrota*) and also has internationally important numbers of Ringed Plover (*Charadrius hiaticula*). Details of each nature conservation site are provided in Table 5.1 and a map outlining the sites is presented in Figure 5.4.

**Table 5.1 Nature conservation sites within the Drumcliff Bay area. (\* indicates a priority habitat under the Habitats Directive).**

Natura 2000 site	Features of Interest
Cummeen Strand/Drumcliff Bay (Sligo Bay) cSAC Site code 000627.	<ul style="list-style-type: none"> <li>• [1130] Estuaries</li> <li>• [1140] Tidal Mudflats and Sandflats</li> <li>• [2110] Embryonic Shifting Dunes</li> <li>• [2120] Marram Dunes (White Dunes)</li> <li>• [2130] Fixed Dunes (Grey Dunes)*</li> <li>• [5130] Juniper Scrub</li> <li>• [6210] Orchid-rich Calcareous Grassland*</li> <li>• [7220] Petrifying Springs*</li> <li>• [1014] Narrow-mouthed Whorl Snail (<i>Vertigo angustior</i>)</li> <li>• [1095] Sea Lamprey (<i>Petromyzon marinus</i>)</li> <li>• [1099] River Lamprey (<i>Lampetra fluviatilis</i>)</li> <li>• [1365] Common (Harbour) Seal (<i>Phoca vitulina</i>)</li> </ul>
Drumcliff Bay SPA Site code 004013	<ul style="list-style-type: none"> <li>• [A144] Sanderling (<i>Calidris alba</i>)</li> <li>• [A157] Bar-tailed Godwit (<i>Limosa lapponica</i>)</li> <li>• [A999] Wetlands</li> </ul>
Cummeen Strand SPA Site code 004035	<ul style="list-style-type: none"> <li>• [A046] Brent Goose (<i>Branta bernicla hrota</i>)</li> <li>• [A130] Oystercatcher (<i>Haematopus ostralegus</i>)</li> <li>• [A162] Redshank (<i>Tringa totanus</i>)</li> <li>• [A999] Wetlands</li> </ul>
Cummeen Strand Ramsar Site 842	<ul style="list-style-type: none"> <li>• Brent Goose (<i>Branta bernicla hrota</i>)</li> <li>• Common Ringed Plover (<i>Charadrius hiaticula</i>)</li> </ul>
Ballysadare Bay SPA Site code 004129	<ul style="list-style-type: none"> <li>• [A046] Brent Goose (<i>Branta bernicla hrota</i>)</li> <li>• [A141] Grey Plover (<i>Pluvialis squatarola</i>)</li> <li>• [A149] Dunlin (<i>Calidris alpina alpina</i>)</li> <li>• [A157] Bar-tailed Godwit (<i>Limosa lapponica</i>)</li> <li>• [A162] Redshank (<i>Tringa totanus</i>)</li> <li>• [A999] Wetlands</li> </ul>
Aughris Head Bay SPA Site code 004133	<ul style="list-style-type: none"> <li>• [A188] Kittiwake (<i>Rissa tridactyla</i>)</li> </ul>
Ardboline Island & Horse Ireland SPA Site code 004135	<ul style="list-style-type: none"> <li>• A017 Cormorant (<i>Phalacrocorax carbo</i>)</li> <li>• A045 Barnacle Goose (<i>Branta leucopsis</i>)</li> </ul>
Ballintemple & Ballygilgan SPA Site code 004234	<ul style="list-style-type: none"> <li>• A045 Barnacle Goose (<i>Branta leucopsis</i>)</li> </ul>
Inishmurray SPA Site code 004068	<ul style="list-style-type: none"> <li>• A018 Shag (<i>Phalacrocorax aristotelis</i>)</li> <li>• A045 Barnacle Goose (<i>Branta leucopsis</i>)</li> <li>• A184 Herring Gull (<i>Larus argentatus</i>)</li> <li>• A194 Arctic Tern (<i>Sterna paradisaea</i>)</li> </ul>
Sligo/Leitrim SPA Site code 004187	<ul style="list-style-type: none"> <li>• [A103] Peregrine (<i>Falco peregrinus</i>)</li> <li>• [A346] Chough (<i>Pyrrhocorax pyrrhocorax</i>)</li> </ul>



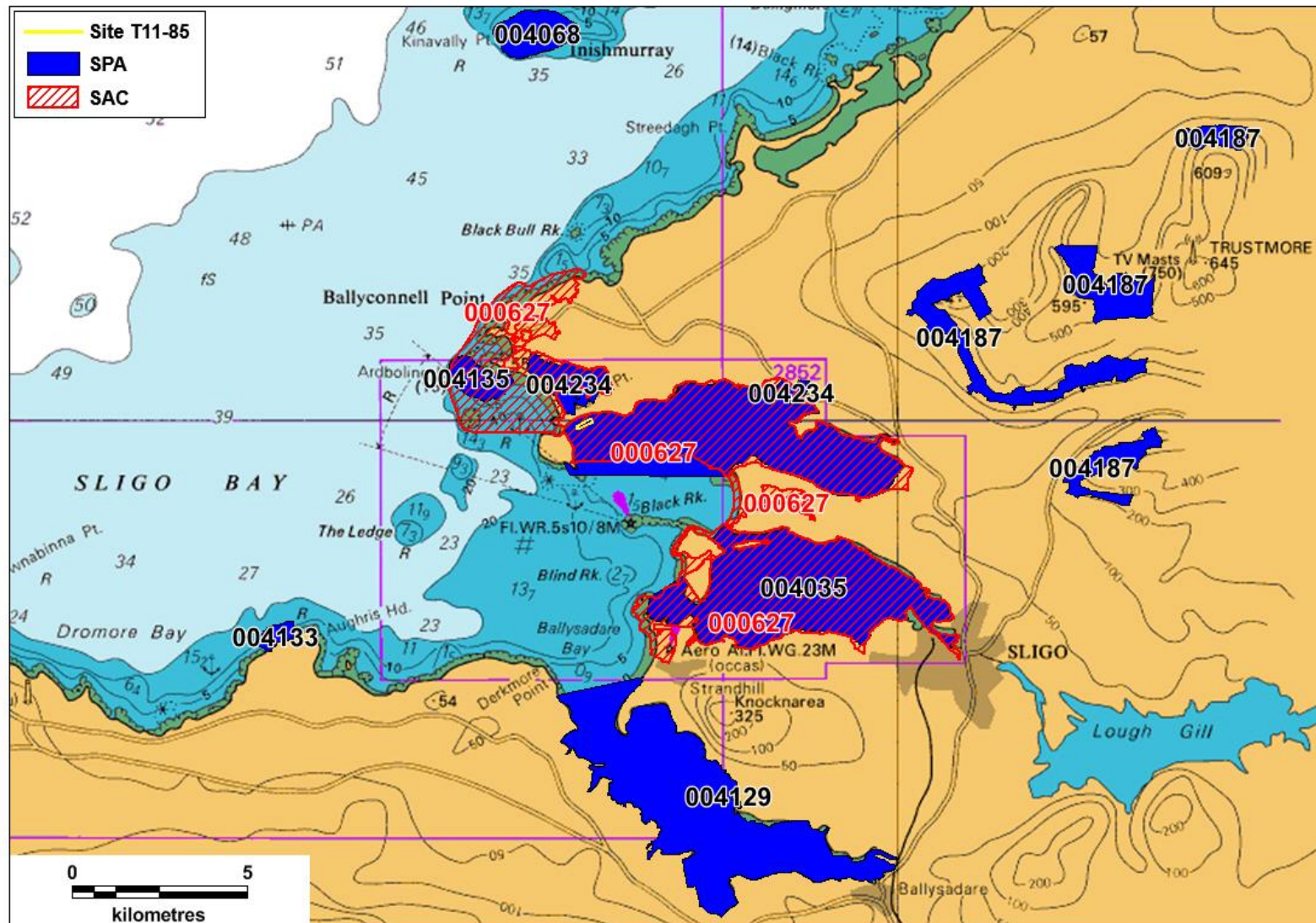


Figure 5.4 Cummeen Strand/Drumcliff Bay SAC and surrounding SPAs.

## 5.4.2. Protected Species

### 5.4.2.1. Mammals

The Harbour Seal (*Phoca vitulina*) in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC occupies both aquatic habitats and intertidal shorelines that become exposed during the tidal cycle. The species is present at the site throughout the year during all aspects of its annual life cycle which includes breeding (May to July approx.), moulting (August to September approx.) and non-breeding foraging and resting phases (October to April). Comparatively limited information is available for this site from the moult period in the annual cycle spanning the months of August and September. In acknowledging the limited understanding of aquatic habitat use by the species within the site it should be noted that all suitable aquatic habitat is considered relevant to the species range and ecological requirements at the site and is therefore of potential use by harbour seals. A number of locations in Drumcliff Bay have been identified as important to the overall welfare and health of the Harbour Seal population (Marine Institute, 2015a).

### 5.4.2.2. Birds

The Special Conservation Interests (SCIs) of Drumcliff Bay SPA include non-breeding populations of Bar-tailed Godwit and Sanderling, while the SCIs of Cummeen Strand are Light-bellied Brent Goose, Oystercatcher and Redshank. The conservation objectives for these species are to maintain their favourable conservation condition, which are defined by there being stable or increasing long-term population trends and no significant decrease in numbers or range of areas used within Drumcliff Bay SPA and Cummeen Strand SPA, respectively. The wetland habitats within the Drumcliff Bay SPA and Cummeen Strand SPA and the waterbirds that utilise this resource are an additional SCI (the wetlands and water birds SCI) (Marine Institute, 2015c). The conservation objective for this SCI is to maintain its favourable conservation condition, which is defined by there being no significant decrease in the permanent area occupied by wetland habitats (DAFM, 2016).

## 5.4.3. Statutory Plans

The Sligo County Development Plan 2017-2023 under the section on Rural Development and Enterprise states that: *It is the policy of Sligo County Council to:*

**P-RDD-1** Facilitate farm diversification and the development of rural resource-based enterprise (such as organic farming, equestrian activities, bird watching, biomass and energy production, poultry, mushroom growing, flower growing etc.), subject to normal planning considerations and the protection of the environment. Where a proposed development needs to locate near an existing natural resource, it will be necessary to demonstrate that it can be accommodated without damage to the environment, natural or built heritage, visual amenity, and that it will not have a negative impact on the character of the area.

**P-RDD-2** Adopt a flexible approach to proposals for complementary economic enterprises undertaken to supplement income from farming. Such enterprises may be established at existing farm locations, subject to appropriate scale and intensity of development, having regard to traffic, environmental, landscape and residential amenity considerations. Where the enterprise is not dependent on a rural location, and the scale and intensity grow beyond family or personal income needs, it will be required, where appropriate, to relocate to a nearby town or village.

The Sligo County Development Plan 2017-2023 under the section on Aquaculture, mariculture and Fishing states that: *It is the policy of Sligo County Council to:*

**P-AMF-1** Facilitate sustainable fishing, aquaculture and mariculture development associated with job creation, in a manner that is compatible with other uses of the Sligo coast, and subject to compliance with the requirements of the Habitats Directive, Water Framework Directive, the provisions of the EC (Quality of Shellfish Waters) Regulations and objectives of Shellfish Pollution Reduction Programmes.

The Sligo County Development Plan 2017-2023 under the section on Landscape character assessment and protection policies states that: *It is the policy of Sligo County Council to:*

**P-LCAP-1** Protect the physical landscape, visual and scenic character of County Sligo and seek to preserve the landscape character by assessing all development proposals on the basis of the Landscape Characterisation Map. Planning applications that have the potential to impact significantly and adversely upon landscape character or scenic views may be required to be accompanied by a visual impact assessment using agreed and appropriate viewing points and methods for the assessment.

**P-LCAP-2** Discourage any developments that would be detrimental to the unique visual character of designated Visually Vulnerable Areas.

**P-LCAP-3** Preserve the scenic views listed ... by controlling development along designated Scenic Routes and other roads, while facilitating developments that may be tied to a specific

*location or to the demonstrated needs of applicants to reside in a particular area. In all cases, strict location, siting and design criteria shall apply, as set out in Section 13.4 Residential development in rural areas (development management standards).*

The area from Raghly Point along Ardtermon Strand to Lissadell Strand is described within the County Development Plan as a Visually Vulnerable Area (with distinctive and conspicuous natural features of significant beauty or interest, which have extremely low capacity to absorb new development – examples are the Ben Bulbin plateau, mountain and hill ridges, the areas adjoining Sligo's coastline, most lakeshores etc.). Additionally, there is a proposed Scenic Route running through Ardtermon townland towards the coast and on to Raghly Point taking in views of Ben Bulbin, Knocknarea, Sligo Bay, Ox Mountains, and Knocklane Head.

The proposed licence site is not included in any Local Area Plan.

#### **5.4.4. Water Quality Status**

The WFD water quality status (2010-2015) of Drumcliff Bay, which is contained within Sligo Bay coastal water body, is classified as 'High' status. Drumcliff Estuary transitional water body has not been assigned a quality status, whereas the Garavogue Estuary transitional water body is classified as 'Good' status. The Ballysadare Estuary is classified as 'Moderate' status (source: <https://www.catchments.ie/maps/>).

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

The Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs made some comments on the licence application; however, they were received outside of the timeframe provided for in the Aquaculture (Licence Application) Regulations 1998.

According to the 'Archaeological Survey of Ireland', there are numerous sites of archaeological interest located on the land around Drumcliff Bay including country houses, fortified houses, churches, graveyards, castles, a round tower, bastioned forts, ringforts, standing stones, megalithic tombs, and souterrains. The closest feature of man-made heritage to the proposed licensed site is a

cist (SL007-039) on Ardtermon strand located on the sand dune above the shingle strand. It was exposed by coastal erosion in 1994. The Site and Monuments Record for the townlands in close proximity to the proposed licence application site is presented in Table 5.2 below.

**Table 5.2 Sites and Monuments Record for townlands around Ardtermon Strand.**

Record No.s	Type	Townland	Eastings	Northings
SL007-051	Mound	Raghly	558177	841600
SL007-028	Ringfort – rath	Raghly	557872	841792
SL007-049	Midden	Raghly	557595	842559
SL007-022	Ringfort – rath	Ballymuldorry	558243	843247
SL007-023	Boundary stone	Ballymuldorry	558375	843359
SL007-036	Enclosure	Ballymuldorry	558633	843577
SL007-024	Ringfort – rath	Ballymuldorry	558679	843511
Reg No. 32400704	Ardtermon Castle	Ardtermon	558785	843458
SL007-039	Cist	Ardtermon	559182	843200
SL007-041	Bullaun stone	Ardtermon	559202	843591
SL007-037	Standing stone	Cloghcor	559639	843663
SL007-026	Megalithic tomb-portal tomb	Cloghcor	559850	843809
SL007-027	Megalithic tomb	Cloghboley	560525	843617
SL007-052	Bastioned fort	Doonfore	560750	843518
SL008-006	Castle	Lissadill	561848	843994
SL008-007	Church	Lissadill	562258	844041
Reg. No. 32400808	Lissadell Hse farmyard complex	Lissadill	561954	844014

## 6. Section 61 Assessment

### Section 61 of the Fisheries (Amendment) Act 1997

Section 61 states that:

*“The licensing authority, in considering an application for an aquaculture licence or an appeal against a decision on an application for a licence or a revocation or amendment of a licence, shall take account, as may be appropriate in the circumstances of the particular case, of—*

- (a) the suitability of the place or waters at or in which the aquaculture is or is proposed to be carried on for the activity in question,*
- (b) other beneficial uses, existing or potential, of the place or waters concerned,*



- (c) the particular statutory status, if any, (including the provisions of any development plan, within the meaning of the Local Government (Planning and Development) Act, 1963 as amended) of the place or waters,*
- (d) the likely effects of the proposed aquaculture, revocation or amendment on the economy of the area in which the aquaculture is or is proposed to be carried on,*
- (e) the likely ecological effects of the aquaculture or proposed aquaculture on wild fisheries, natural habitats and flora and fauna, and*
- (f) the effect or likely effect on the environment generally in the vicinity of the place or water on or in which that aquaculture is or is proposed to be carried on—*
  - (i) on the foreshore, or*
  - (ii) at any other place, if there is or would be no discharge of trade or sewage effluent within the meaning of, and requiring a licence under section 4 of the Local Government (Water Pollution) Act, 1977, and*
- (g) the effect or likely effect on the man-made environment of heritage value in the vicinity of the place or waters.”*

### **6.1. Site Suitability**

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

1. The species to be farmed (Pacific oyster *Crassostrea gigas*) has been and is currently being grown at a number of sites 2km to the east within Drumcliff Estuary.
2. The sandy beach is solid under foot and can support trestles and workers. There is suitable access to the site by boat from Raghly Harbour.
3. High levels of plankton occur naturally at the location and shellfish cultivation at this scale will not result in limiting plankton growth or abundance.
4. The development is not out of scale relative to other operators in the bay.
5. The development can be considered as minor and reversible as all trestles can be removed from the foreshore.
6. It will not need additional infrastructure developments (e.g. new roads, landing facilities).
7. Terrestrial land use will not be affected and there is no spatial overlap with other users of the intertidal foreshore.

The proposed site **is not** suitable for the intended purpose for the following reason:

1. The Sea Fisheries Protection Authority noted that the site is in close proximity to Raghly

Point from which a number of fishing vessels operate. Some of these vessels have moorings and crab/lobster keeps between the harbour and the proposed site and there is the possibility that pollution from vessels using the harbour may impact the quality of shellfish to be grown there.

2. The site is located in an area that is important to the Bar-tailed Godwit – a species that is negatively affected by oyster trestle farming.

## **6.2. Other uses**

Inland Fisheries Ireland and BIM are satisfied that the proposed operation does not appear to have any significant implications for the operation of commercial/recreational salmon and other inshore fisheries interests in the area.

The Commissioner of Irish Lights and the Marine Survey Office stated no objection to the licence application from a navigational viewpoint.

The majority of club sailing for Sligo Yacht club takes place in Sligo Bay during high tide periods. The club calendar indicates that the majority of events take place from April to October when bird populations are at their lowest.

Ardtermon Strand can be accessed by the public for recreational activities such as swimming and walking (including with dogs), but these and other activities can be accommodated by this project.

## **6.3. Statutory Status**

The proposed licensed site is located within an area described in the Sligo County Development Plan 2017-2023 as a Visually Vulnerable Area (an area with distinctive and conspicuous natural features of significant beauty or interest, which have extremely low capacity to absorb new development). There is also a proposal for a new Scenic Route which would run alongside Ardtermon Strand and on towards Raghly Point. The proposed development would be visible only at low tide and in a restricted stretch of the Scenic Route that runs alongside the shore as well as a small number of residences close to Ardtermon Strand. This in conjunction with the presence of other oyster cultivation sites within Drumcliff Bay Shellfish Designated area would indicate that the impact on the landscape character of the area would be slight.

The proposed licensed site will have a non-significant **negative** impact on the statutory status of the area.

#### **6.4.        *Economic Effects***

The granting of the Aquaculture licence has the potential to provide benefits to the local community. It is expected by the applicant that the development will initially employ two part time workers which will, in year 2 become one full time and two part time workers involved directly in the farming and harvesting of oysters in the licensed area.

The proposed licensed site will have a non-significant **positive** impact on the economy of the area.

#### **6.5.        *Ecological Effects***

The cultivation of oysters at the proposed site on Ardtermon Strand will have a number of ecological impacts.

##### **6.5.1.        *Natura 2000 sites***

The proposed site is located within the Cummeen Strand/Drumcliff Bay SAC and the Drumcliff Bay SPA. An Article 6 Assessment (Marine Institute, 2015a) has been carried out in relation to aquaculture activities in the SAC/SPA and a Conclusion Statement (DAFM, 2016) was prepared by the Department and its scientific/technical advisors indicating that the proposed site is located in an area that is important to the Bar-tailed Godwit and that this species is negatively impacted by oyster trestle farming (see below).

##### **6.5.1.1.        *Qualifying Interests***

The SAC is designated for a number of habitats and species as listed in Annex I and II of the EU Habitats Directive.

A number of habitat features and species were screened out (Marine Institute, 2015b) out as there is no likely overlap or likely interaction with aquaculture activities (existing or proposed). These include:  
[2110] Embryonic shifting dunes



[2120] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)

[2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)

[5130] *Juniperus communis* formations on heaths or calcareous grasslands

[7220] Petrifying springs with tufa formation (*Cratoneurion*)

[1014] *Vertigo angustior* (Narrow-mouthed Whorl snail)

Qualifying interests within the SAC that could potentially be impacted by aquaculture activities include:

[1095] Sea Lamprey - *Petromyzon marinus*

[1130] Estuaries

[1140] Mudflats and sandflats not covered by seawater at low tide

[1365] Harbour seal - *Phoca vitulina*

Of these, a number of constituent community complexes, recorded within the qualifying interests of Estuaries [1130] and Mudflats and sandflats not covered by seawater at low tide [1140] were also excluded from the assessment as there was no overlap with aquaculture activities. Furthermore, the aquaculture activities do not present a barrier to either migration through the estuary or to the (freshwater) attributes of Sea Lamprey (*Petromyzon marinus*) (DAFM, 2016).

*Crassostrea gigas* is an alien aquaculture species. The EIA screening assessment found that with the exception of Article 3 and 4, Regulation EC 708/2007 (concerning use of alien and locally absent species in aquaculture) does not apply to the production of *Crassostrea gigas* i.e. exempt from the risk assessment requirement of the Regulation. In any case, the high flushing rate of the area (5-10 days residence time) and the lack of suitable habitat will minimise the risk of the formation of extensive natural populations of *C. gigas*.

#### 6.5.1.2. Marine mammals

The Harbour seal (*Phoca vitulina*) in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC occupies both aquatic habitats and intertidal shorelines that become exposed during the tidal cycle. The proposed aquaculture site is located in an area within the broad range of the Harbour Seal in the SAC. It is located away from identified haul-out sites.

The conservation status of this species is considered favourable within the SAC. The conservation

objectives for this species are to maintain a favourable conservation condition and that its range of use within the site should not be restricted by artificial barriers; all sites (breeding, moult haul-out and resting) should be maintained in a natural condition; human activities should occur at levels that do not adversely affect the Harbour Seal population at the site.

The current favourable conservation status of the Harbour seal has been achieved given the current levels of aquaculture within the SAC. The aspect of the culture activities that could potentially disturb the Harbour seal status relates to the location of structures at one site in inner Drumcliff Bay and the movement of people and vehicles to and from as well as within the sites.

Provided that oyster trestles are positioned so as not to impeded seal movement between the resting/breeding locations and main drainage channel, and that operators continue to note sensitive times of years for seals (pupping and moulting seasons) and to continue to tailor their activities to minimise potential disturbance, aquaculture activities are unlikely to have a detrimental impact on the conservation status of the Harbour Seal (Marine Institute, 2015a; DAFM, 2016).

#### 6.5.1.3. *Birds*

The Special Conservation Interests (SCIs) of Drumcliff Bay SPA (004013) include non-breeding populations of Bar-tailed Godwit (*Limosa lapponica*) and Sanderling (*Calidris alba*). The conservation objectives for these species are to maintain their favourable conservation condition, which are defined as having stable or increasing long-term population trends (Attribute 1) and no significant decrease in numbers or range areas (Attribute 2) utilised within Drumcliff Bay SPA.

The wetland habitats [A999] within the Drumcliff Bay SPA and the water birds that utilise this resource are an additional SCI. The conservation objective for the wetland SCI is to maintain its favourable conservation condition and, which is defined by there being no significant decrease in the permanent area occupied by wetland habitats. Aquaculture cultivation proposed by this licence application (and any other aquaculture activities in the SPA) will not cause any change in the permanent area being occupied by the wetland habitats (DAFM, 2016).

Bar-tailed Godwit and Sanderling both show negative response to oyster trestles (Gittings and O'Donoghue, 2012). The appropriate assessment for the potential for impact was therefore assessed on the basis of complete exclusion for oyster trestles.

### Sanderling

According to the Appropriate Assessment (Marine Institute, 2015a), the main area where Sanderling could be impacted by the granting of licence applications / renewals would be at Ballinphunta; here displacement of 1.5% of the SPA population is predicted for oysters based on mean numbers (this increases to 1.8% when the peak Sanderling count is used). This is well below the 5% threshold for a significant impact on this SCI. While the NPWS low tide counts did not record Sanderling from Ardtermon, NPWS noted that Sanderling do use this site; suitable intertidal habitat certainly occurs at this site.

While the population trends in Drumcliff Bay SPA are negative for Sanderling (-59; compared to +125 nationally), the low number / variability in timing of early IWeBS coverage (counts per winter, months of coverage and years with no data) does not allow confidence in the trends for this species in Drumcliff Bay. In recent years counts have been more frequent; with a strong correlation between the number of counts and the number of Sanderling recorded and a pattern of increasing numbers in the last 5 year period. Thus the predicted level of impact (<2%) is unlikely to have a significant impact on Sanderling at Drumcliff Bay SPA.

### Bar-tailed Godwit

The proposed licensed site is located on Ardtermon Strand. This location has been identified within the Drumcliff Bay SPA as the primary risk of impact on Bar-tailed Godwit where trestles could displace 4.66% of the SPA population. Trend analysis has shown that Bar-tailed Godwit is increasing within the SPA. The Appropriate Assessment (Marine Institute, 2015a) indicated that caution should be exercised in assessing the impacts at Ardtermon Strand as the assessment was based on relatively restricted datasets (4 no. NPWS low tide counts from 2010/2011). For example, the peak count of 790 birds recorded at Ardtermon highlights the high degree of variation between counts (*i.e.* 6.3% of the population in this instance). Following a section 47 request for further information, Dr David Tierney (NPWS) supplied details of count data from two further bird surveys (on 19/02/15 and 16/11/16) that were not available to the Marine Institute prior to completion of the Appropriate Assessment. These datasets confirm that Ardtermon continues to be one or even the most important sub-site for Bar-tailed Godwit. On 19/02/15 373 individuals were recorded at this sub-site, which equates to 85% of the total number of Bar-tailed Godwit recorded at this SPA on this occasion. On 16/11/16 450 individuals were recorded at this sub-site, which equates to 96% of the total number of Bar-tailed Godwit recorded at this SPA on this occasion.

The AA (Marine Institute, 2015a) concluded that while no significant impacts are predicted for any of the other licence renewal/application blocks for this species in Drumcliff Bay SPA, the total displacement across all sites would range from 5.2% (based on mean count values) to 8.03% (based on maximum counts). This is predominantly in the Ardtermon site and the overall is greater than the 5% threshold used as a guide for identifying potentially significant impact on this SCI. In light of the subsequent survey data supplied under section 47 requests, it was the opinion of Dr. Tierney that his concerns about how the proposed aquaculture development would negatively impact the conservation objectives for Bar-tailed Godwit at this site remain.

## **6.6. General Environment Effects**

An EIA screening Assessment was carried out for site T11/85 by the Department's Aquaculture and Foreshore Management Division. The assessment was included in the ministerial file sent to the ALAB. It is proposes to cultivate Pacific oysters (*Crassostrea gigas*) on the foreshore, with seed sourced from a local hatchery. The proposed production would be Year 1 – 0 tonnes, Year 2- 40 tonnes, Year 3 – 60 tonnes and Year 4 – 120 tonnes.

The screening assessment found that the proposed site has the potential to impact on the qualifying interests of the Natura 2000 sites as outlined in section 6.5.1 above.

The screening assessment found that there would be potential benthic impacts limited to the footprint of the site:

- The cultivation of shellfish will produce faeces and pseudofaeces, but the amount will be small and limited to the area of the site. The site is also well-flushed and build-up of excess organic matter on site with subsequent reduction in oxygen in the water is not considered likely.
- Grading and removal of mortalities will result in shells being discarded but the amounts of shell discarded will be small and build-up of excess on site will not be permitted.
- Trestles and bags associated with the growing process may need to be replaced. However, discarding of damaged old bags, trestles and other material in to the sea or on the foreshore is not permitted.

With respect to the potential release of pollutants or any hazardous, toxic or noxious substances into the air, the screening assessment found that “there will be emissions associated with husbandry and harvesting of shellfish from tractors or other machinery” but that emission levels would not be significant. There will be no release in to the air of other hazardous, toxic or noxious pollutants.

There will also be noise associated with husbandry and harvesting of shellfish from tractors and other noise, but the noise levels will not be significant.

There are likely to be **no significant** general environmental effects from the proposed licensed site.

### **6.7.        *Effect on Man-made Heritage***

The proposed aquaculture site will **not** significantly impact on known man-made heritage, either terrestrial or marine; in 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 species to be farmed (Pacific oyster *Crassostrea gigas*) has been and is currently being grown at a number of sites 2km to the east within Drumcliff Estuary.*
- 2. The sandy beach is solid under foot and can support trestles and workers. There is suitable access to the site by boat from Raghly Harbour.*
- 3. High levels of plankton occur naturally at the location and shellfish cultivation at this scale will not result in limiting plankton growth or abundance.*
- 4. The development is not out of scale relative to other operators in the bay.*
- 5. The development can be considered as minor and reversible as all trestles can be removed from the foreshore.*
- 6. It will not need additional infrastructure developments (e.g. new roads, landing facilities).*
- 7. Terrestrial land use will not be affected and there is no spatial overlap with other users of the intertidal foreshore.*

*The site under appeal is **not suitable** for the intended purpose for the following reasons;*

- 1. The Sea Fisheries Protection Authority noted that the site is in close proximity to Raghly Point from which a number of fishing vessels operate. Some of these vessels have moorings and crab/lobster keeps between the harbour and the proposed site and there is the possibility that pollution from vessels using the harbour may impact the quality of shellfish to be grown there.*
- 2. The site is located in an area that is important to the Bar-tailed Godwit – a species that is negatively affected by oyster trestle farming.*

#### Other uses

*The proposed development has a non-significant adverse impact on the possible other uses or users of the area for the following reasons;*

- 1. Inland Fisheries Ireland and BIM are satisfied that the proposed operation does not appear to have any significant implications for the operation of commercial/recreational salmon and other inshore fisheries interests in the area.*
- 2. The Commissioner of Irish Lights and the Marine Survey Office stated no objection to the licence application from a navigational viewpoint.*
- 3. The majority of club sailing for Sligo Yacht club takes place in Sligo Bay during high tide periods. The club calendar indicates that the majority of events take place from April to October when bird populations are at their lowest.*
- 4. Ardtermon Strand can be accessed by the public for recreational activities such as swimming and walking (including with dogs), but these and other activities can be accommodated by this project.*

#### Statutory Status

*The proposed development has a non-significant adverse impact on the statutory status of the area for the following reasons;*

- 1. Presence in a Visually Vulnerable Area*
- 2. Presence adjacent to a proposed Scenic Route*
- 3. Visible only at low tide and from limited parts of the proposed Scenic Route.*

#### Economic effects

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*There is a non-significant positive impact on the economy of the area for the following reasons;*

- 1. Provision of two part time jobs in the initial year of cultivation, followed by one full time and two part time jobs in subsequent years.*

#### *Ecological Effects*

*There is (or could be) a significant/non-significant adverse/positive effect on the natural habitats, wild fisheries and fauna and flora of the area as a result of the proposed operation for the following reasons;*

- 1. The majority of aquaculture activities are consistent with the Conservation Objectives of the SAC*
- 2. The risk of establishment of Pacific oysters within the SAC is low*
- 3. The proposed development is considered non-disturbing to Harbour Seal conservation features within the SAC, provided no oyster cultivation will be allowed to impede seal movement between resting/breeding locations and operations minimise potential disturbance during sensitive times of years for seals.*
- 4. The proposed development is unlikely to have a significant impact on Sanderling at Drumcliff Bay SPA.*
- 5. There could be a **significant adverse impact** on the conservation objectives of the site for Bar-tailed Godwit as a result of the proposed aquaculture development on a site that is currently free of aquaculture activity.*

#### *General Environmental Effects*

*There are non-significant general environmental effects as a result of the proposed development for the following reasons;*

- 1. The cultivation of oysters will produce faeces and pseudofaeces, but the amount will be small and limited to the area of the site. The site is also well-flushed and build up of excess organic matter on site with subsequent reduction in oxygen in the water is not considered likely.*
- 2. Grading and removal of mortalities will result in shells being discarded but the amounts of shell discarded will be small and build up of excess on site will not be permitted.*

#### *Man-made Heritage*

*There is no effect on the man-made heritage of value in the area as a result of the proposed*

operation for the following reason;

*The absence of any protected structures or recorded monuments in the area of the proposed aquaculture activity per the Sligo County Development Plan and the Record of Monuments and Places.*

#### **6.9. Confirmation re Section 50 Notices**

There are no pertinent matters which arise in Section 61 which the Board ought to take into account which 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. Screening for Environmental Impact Assessment**

A pre-screening assessment was carried out according to various documents in the Ministerial file.

As stated in the Ministerial file this project is an Annex II project, i.e. the granting of a licence for the proposed fish farm would initially qualify under Annex II-1(f) of Council Directive 2014/52/EU. As outlined in S.I. 468 of 2012:

*“3. (1) The Board shall, as part of its consideration of an appeal, in accordance with paragraph (2), ensure that before a decision is made aquaculture likely to have significant effects on the environment by virtue, inter alia, of its nature, size or location is subject to an environmental impact assessment.*

*(2) An environmental impact assessment shall be carried out by the Board in respect of an appeal of-*

*(a) aquaculture of a class specified in Regulation 5(1)(i) and (ii) of the Application Regulations,*

*or*

*(b) aquaculture of a class specified in Annex II of the Council Directive which the Board determines would be likely to have significant effects on the environment.”*

The Technical Advisor is of the view that the proposed aquaculture will not have significant effects on the environment by virtue of inter alia, its nature, size of location. As a result it should not be subject to an environmental impact assessment in accordance with S.I. 468 of 2012.



## 8. Screening for Appropriate Assessment

The proposed aquaculture site is located within and adjacent to a number of Natura 2000 sites, namely Cummeen Strand/Drumcliff Bay SAC (000627), Drumcliff Bay SPA (004013) and Cummeen Strand SPA (004035).

An Appropriate Assessment (AA) was carried out by the Marine Institute to assess the potential ecological impacts of aquaculture activities within Cummeen Strand/Drumcliff SAC (000627) on the Conservation Objectives of the site and also the potential impacts of those activities on the Special Conservation Interests in the Drumcliff Bay SPA (004013) and the Cummeen Harbour SPA (004035).

Screening was undertaken and a detailed evaluation of the Natura interests is set out in the AA documents prepared by the DAFM and the Marine Institute. With respect to the qualifying interests of the SAC, the AA highlighted the presence of populations of Harbour seal (*Phoca vitulina*) in the SAC, with a number of different locations identified as being important to their overall welfare and health, in particular areas of sandbanks in the central portion of the SAC. The AA acknowledged that the favourable conservation status of the Harbour seal population has been achieved given the current levels of aquaculture and the importance of keeping disturbance to minimum during the sensitive pupping and moulting season is highlighted. The AA concluded that the proposed licensed activity was not likely to have a significant effect on the integrity of Cummeen Strand/Drumcliff Bay SAC.

With respect to the Special Conservation Interests of Drumcliff Bay SPA the Appropriate Assessment Conclusion Statement by the licensing authority concluded that the proposed aquaculture site (T11/85):

*“covers an area that is important to the Bar-tailed Godwit and that this species is negatively impacted by oyster trestle farming. This Department has concerns about the significant impacts of such a development at this site, which is currently free of aquaculture activity, on the conservation objectives of the site for the Bar-tailed Godwit. Given the concerns expressed during the consultation phase of the Aquaculture Licence application T11/85 on the interaction between the activity and shorebirds at Ardtermon Strand the Minister is proposing to take a precautionary view to licensing and is proposing not to grant this licence.”*

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

A technical review of the substantive issues and submissions was carried out by AQUAFACT International Services Ltd. in relation to an aquaculture licence appeal against the decision by the Minister to refuse a licence for oyster cultivation to Eamonn Caffrey under Section 61 of the Fisheries (Amendment) Act 1997. The issues raised by the appellant raise a number of issues with respect to the Minister's decision to refuse the licence. These are collectively considered and are addressed under the following sections:

1. Issues relating to the status of the Bar-tailed Godwit population.
2. Issues relating to inadequacies or limitations in the bird surveys.
3. Issues relating to the impact of oyster trestles on Bar-tailed Godwit.
4. Issues relating to a perceived lack of objections to the licence application.

### **9.1. Status of Bar-tailed Godwit**

This wader breeds in arctic and subarctic regions of Eurasia and western Alaska. The birds of northern Scandinavia, European Russia and western Siberia over-winter mainly in Western Europe. In Ireland, they are found in areas of muddy sand where they can occur in flocks of up to 2,500 individuals. Bar-tailed Godwits commence their southward migration in late July/early August and start their northward flight in late March. The total European population is estimated at amount to about 125,000 individuals.

Global population trends have not been quantified, but the species is not believed to approach the thresholds for the population decline criterion of the IUCN Red List (*i.e.* declining more than 30% in ten years or three generations). For these reasons, the species is evaluated as Least Concern.

Even though the numbers of Godwits in Sligo is low, it is considered that the licensing of a new, previously unused site in combination with other oyster farms in the area may have a negative impact on species' numbers by displacement. The maximum count for Bar-tailed Godwit in Drumcliff Bay SPA is c. 790 and this represented a potential displacement of c. 6.3% of SPA population.

Dr. Tierney notes that on 16/11/16 the Bar-tailed Godwit records that were collected at the proposed oyster production site at Ardtermon represented 96% of the population of the overall bay area on this date. This clearly is a significantly high percentage.

The Bar-tailed Godwit population status in Drumcliff Bay SPA may be favourable at present but in combination effects with the addition of this new site may affect the population in the future.

### **9.2.        *Limitations of survey data***

In relation to the available data set, this is not a Bar-tailed Godwit specific issue. Multiannual data sets on a wide range of variables both at the breeding site and the wintering sites are needed to fully appraise the population status of many of our over wintering bird species. This lack of data also applies to sea bird species, summer bird visitors and indeed many non-avian species *e.g.* marine mammals.

In terms of when counts are made, it is of course most advisable to carry out counts when suitable weather conditions occur *e.g.* good visibility, low wind speeds, Neap tides. However, weather conditions can change, sometimes quickly, and this needs to be factored into the field work plan.

It should be noted that variations in densities of many, many bird species are highly variable from site to site and are dependent on levels of primary production and in turn secondary production (and specifically the prey food item of each bird species) but also, breeding success of each species. It is not possible to extrapolate population trends of a species in one bay to another bay.

### **9.3.        *Impact of oyster trestles on Bar-tailed Godwit***

Even though Bar-tailed Godwits are reasonably sensitive to disturbance and will shy away from activities at oyster farms, of greater concern is the introduction of a new site in this part of Drumcliff Bay that will bring an added level of disturbance to the population.

Regarding disturbance threshold levels arising from oyster culture, although the level may be below levels of immediate concern, when taken in combination with other oyster farming activities in Drumcliff, the disturbance level would be of concern given the fact that Ardtermon is a new site without any previous level of disturbance.

Population trends for birds such as Godwits are dependent on a number of factors and include breeding success, predator prey interactions at the breeding site, mortality during migration, feeding success at the summer and winter sites and winter weather conditions. As this suite of factors

contains much inter annual variations, a longer time scale of data is required to be able to state that the Bar-tailed Godwit is not being affected.

Dr. Tierney quotes a comment from a report commissioned by the Marine Institute and carried out by Atkins Consultancy on assessing the impact of oyster culture activities on water birds. In the summary of this document, it notes that *“the species that showed a negative response (to oyster culture) are mainly species that tend to feed in large flocks of tightly packed individuals”*. Bar-tailed Godwit is such a species.

The appellant has suggested that some form of compromise towards a viable solution could be met by resizing of the site. Area on its own is not an appropriate way to assess possible impacts. The fact that there has never been aquaculture activity at this site is the most relevant fact and considering the uncertainty regarding the possible levels of in-combination effects, it is not possible to devise a compromise.

#### **9.4.        *Lack of objections***

There may have been no objections in the initial phases of the licence application but both the Marine Institute and the NPWS did raise notes of concern latterly.

## **10. Recommendation of Technical Advisor with Reason and Considerations**

Given the facts that

1. this is a new site without any history of aquaculture activity in the past ,
2. that oyster cultivation at the proposed site would cause added disturbance in an area that is known to be an important foraging site for Bar-tailed Godwit and that
3. it is not possible to definitively state that there will be no impact or in-combination effects

it is recommended that an oyster culture licence is **not** issued for this site on Ardtermon Strand, Drumcliff Bay.

## 11. Draft Determination Refusal/or Grant

It is recommended that the Minister's decision to refuse the licence be upheld.

**Technical Advisor:** AQUAFACT International Service Ltd.

**Date:** 27/02/2017

## 12. References

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