



Appeal Ref No. AP 11/2018

Aquaculture Licences Appeals Board
Final Version January 21, 2020

Technical Advisor's Report
T12/498A



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Client	Aquaculture Appeals Board
Project	AP11/2018
Title	Technical Advisors Report
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Summary

Description	Appeal against the decision of the Minister of Agriculture, Food and Marine to grant an Aquaculture licence to Mr Barry Mc Guinness for the cultivation of Pacific Oysters using bags and trestles on the eastern portion of Loughros Beg Bay, Co Donegal
Licence Application	T12/498A
Appeal Reference	AP11/2018
Applicant	Barry McGuinness
Ministers Decision	decision of the Minister of Agriculture, Food and Marine to grant an Aquaculture licence to Mr Barry Mc Guinness for the cultivation of Pacific Oysters using bags and trestles on the eastern portion of Loughros Beg Bay, Co Donegal
Appeal	Appeal by 109 people against the decision of the Minister of Agriculture, Food and Marine to grant an Aquaculture licence to Mr Barry Mc Guinness for the cultivation of Pacific Oysters using bags and trestles on the eastern portion of Loughros Beg Bay, Co Donegal
Appellant	Shelia McFerran and Others
Observers	Applicant
Technical Advisor	Marie Louise Heffernan CEnv, MCIEEM, MSc Aster Environmental Consultants Limited www.aster.ie
Site Inspection	03/04/2019

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1.0 General Matters / Appeal Details

1.1 Appeal Details & Observer Comments / Submissions

Date Appeal Received by the Aquaculture Licences Appeals Board: 7 September 2018
Location of Site Appealed: Loughros Beg Bay, Co Donegal T12/498A

1.2 Name of Appellants:

The grant of permission is appealed by Shelia McFerran and 109 others.

1.3 Name of Observer

The only observer is the licensee Barry McGuinness, Largy, Killybegs, Co. Donegal; observations received 13 November 2018

1.4 Grounds for Appeal

The appeal document was 98 pages in length. In order to address the issues raised in a comprehensive manner it was decided to group and summarise them by topic. Topics are as follows

Public Consultation/Information Availability –
Site suitability
Existing Non-Compliance of shellfish cultivation
Navigation and Safety
Erosion/deposition
Ecology
Man Made Heritage
Economy
Visual

Unsubstantive Issues

There were two unsubstantive issues.

1. Ecological concerns regarding the cultivation of Manila Clam.
2. Link between salmon farms, lice and decline in sea trout in the area.

Substantive Issues

The appeal runs to 98 pages and we endeavour to accurately list all substantive issues here.

Public Consultation/Information Availability –

The appellants are critical of the information available to the public in respect of the application and process. Specifically

- According to the appellants there are two applications T12/498 and T12/498A which show different areas 21 ha and 8.839 ha respectively. No information was available to the public regarding change in specification.
- Lack of consultations with the public were raised and narrow timeframe for response.
- Difficulty of getting information – specifically they refer to public advertisement and lack of requirement for site notices.

Site Suitability

Site suitability was queried in three respects

- a. Due to the dynamic nature of the lough, the appellants say trestles will have to be moved according to the position of the ever-changing sandbanks. This makes licensing a specific area difficult-
- b. Water Quality. This Bay is one of the eight bays between 2009 and 2015 that failed to meet national standards.
- c. The appellants state that the Admiralty Chart No 1879-0 also shows a large licensed area at Cloughboy, immediately to the west of the Application area which is close to the licence applied for and could result in Spatial Overlap

Existing Non-Compliance

The applicants raised the issue of noncompliance of other operators currently for example

- Rusty trestles abandoned on the beach
- Use of an unlicensed route
- Use of unlicensed areas

Navigation and Safety

According to the appellants the trestles are potentially dangerous to navigation, recreation and fishing in this shallow Bay.

Ecology

The appellants are concerned that existing aquaculture is having an impact negatively on the general ecology of the area.

The appellant points to the following issues

1. Apparent disappearance of cockles and mussels in the locality and link it to an increase in oyster cultivation. They ask the question is has the carrying capacity of the Bay being calculated in respect of food availability i.e. phytoplankton. However, another appellant notes that the “Strand is recognised locally as a cockle strand...and is in recovery from a red tide event a few years ago”.
2. Decline in Grey seals in Loughros Beg Bay 2005 to 2007.
3. The invasive species Sargassum is apparently present in Loughros Beg Bay and may have been introduced with oyster cultivation.
4. Pacific Oysters have been recorded breeding in Ireland thus are considered unsuitable for cultivation by An Taisce.
5. General concerns regarding ecological health of the bay e.g. disappearance of Sea trout and mergansers.
6. Concern it may impact on wintering Curlews, Chough and or Twite.

Going forward they have concerns that

7. oyster trestles may act as barriers to connectivity otter movement in the area
8. There may be compaction of the beach area as a result of vehicle tracking across the Sands with potentially negative impacts on the organisms associated with this habitat.

Erosion/Deposition

Concerns were raised in respect of the presence of the new and existing trestles disturbing sediment flow and potentially impacting on erosion and deposition patterns in the bay.

Man Made Heritage

The appellant identifies pilgrimage route including megalithic tombs, inscribed stones and marked Ancient Stones across the bay which may be negatively affected on by traffic to and from the oyster Farm. The premise is that the oyster farm would interfere with the route from the land to Sand Island at low tide.

Economy

The appellants are opposed to shellfish cultivation within the SAC and state that that will not have a positive impact on the economy. They state that this is an area of outstanding landscape which is being compromised for relatively few employment (often part time) opportunities this project compromises unique wild natural landscapes which underpin tourism which is the largest employer in the area. Ardara is on the Wild Atlantic Way.

Visual

The appellants disagree with the Landscape assessment and makes the point that's where the trestles are located within an application the applicant has the freedom to move the trestles within that area regardless visual impact.

The Donegal County Development Plan has classified it as an especially high Scenic area with limited capacity to assimilate additional development.

The bay is very shallow with the difference between low tide and high tide estimated at 0.775 m. The trestles are estimated at 0.55 m and there are concerns they would be visible during the majority of the tidal cycle.

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.’

No submissions were made by the Minister or any other party in light of this appeal. The Applicant submitted observations on 13 November 2018.

1.6 Applicant response

The applicant response was summarised using the topics identified in the appeal.

Public Consultation/Information Availability –

According to the applicant, the suffix 'A' was added at point of revision to the application, with the original T12/498 reference deemed obsolete.

Site Suitability

According to the applicant, the quality of water in Loughros beg has been proven and approved both by the Department and existing oyster farmers.

Regarding concerns over shifting tides and levels within the site the applicant acknowledges while every m2 of the site will not be suitable, the proposed site has more than a substantial area for the proposed level for oyster cultivation

Existing Non-Compliance

According to the applicant, all requirements of the licence will be adhered to and the upmost respect shown to the environment and every detail and requirement outlined in the licence will be strictly adhered too.

Other Users

According to the applicant, it is a substantial walk to proposed site T12/498A and should not impede any of the activities on the strand.

Navigation and Safety

According to the applicant, the site will be clearly marked for vessel navigation during high tide.

Ecology

According to the applicant, with regard to indigenous cockles and mussels at Ballyganny beach farmed shellfish release ammonia and organic particles into the water column which

...promote additional phytoplankton and macro algal leading to a healthier bay and is of benefit to all shellfish within the bay.

He states that the use of machinery will be kept to an absolute minimum at T12/498A as he has a strong environmental conscience and will do little to disturb the natural habitat of the bay and will also be strictly adhering to restrictions laid out by the department.

He notes that the road leading to Ballyganny strand is tarmacadam and the site T12/498A will lead to one additional van once a day and very occasionally a tractor using it which is not a significant increase on the numbers currently using the road. He explains that vast majority of travel to site T12/498A across the strand will be on foot following the route to disturb the natural habitat as little as possible. Vehicle will only be used for set-up and harvest.

Erosion Deposition

He notes that Loughros beg is an incredibly turbulent bay with strong currents and wind, sediment and obstruction to water and currents will be insignificant.

Man Made Heritage

The applicant states that the proposed site will not hinder access to Sand Island as the channel is the main obstruction from the shore.

Economy

The applicant acknowledges that being a new venture it is incredibly difficult to determine the requirement for staff, but as the business grows all staff would be hired from the local community.

Visual

Site T12/498A will have little effect on tourism as the vast majority of the site will be hidden from the Loughros point road and is 700 meters from the Maghera road, a popular tourist route.

The intention of the site is to use the Loughros shore as cover visually from the road. The applicant states that he has the highest regard for the areas natural beauty and will ensure to do as little as possible to endanger the visual appeal of the area.

The applicant concludes by stating that the NATURA document was heavily considered in the process and took a significant amount of time in that consideration. This process has taken well over 3 years in the determination and all factors have been taken into consideration by the department and data compiled on the matter and the site has been deemed appropriate by the department.

2.0 Consideration of Non-Substantive Issues

There are two non-substantive issues

1. Manila Clams. The appellants have ecological concerns regarding the cultivation of this species at Loughros Beg Bay. Manila Clams were mentioned in the T12/498 licence application but were omitted from T12/498A. The Grant of licence under appeal is only for Pacific Oyster cultivation.
2. Sea Lice
The applicants raise the issue of the link between salmon farms, lice and decline in sea trout in the area. This is not relevant as Salmon farming is not applied for in this

application. The licence T12/498A under appeal is only for Pacific Oyster cultivation.

3.0 Oral Hearing Assessment

Following Section 49 of the Fisheries Amendment Act 1997 an oral hearing may be conducted by the ALAB regarding the licence appeals. An oral hearing was requested by the appellants.

Having reviewed the Minister's File, correspondence from the appellant/applicant/ Department of Agriculture, Food and the Marine and carried out a site visit, there is sufficient evidence in this technical report to make a clear decision in relation to the appeal.

4.0 Minister's file

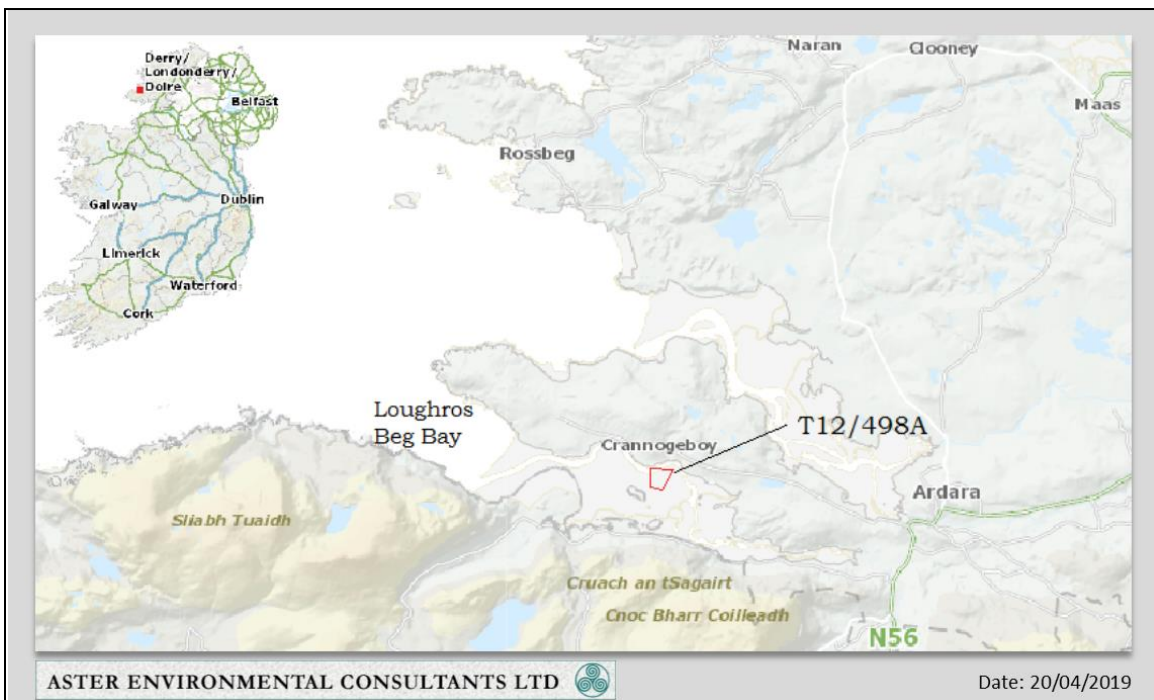
In line with particulars of Section 43 of the Fisheries Amendment Act 1997 the following documented items were sent to the ALAB from the Minister and were reviewed:

Item	Date
Copy of the Application Form with maps, charts, co-ordinates and drawings	July 2015
Copy of Visual Impact report	May 2 nd 2018
Copy of Appropriate Assessment Screening Report	Sept 2016
Copy of relevant observations from Statutory Consultees and Others	not dated
Copy of Notification to the Applicant of Minister's Decision	Aug 2 nd 2018
Copy of the advertisement of Minister's Decision	Aug 9 th 2018
Copy of Appeal	September 4 th 2018
Copy of the Applicants' Appeal Response to concerns and observations.	November 10 th 2018

5.0 Context of the Area

5.1 Physical descriptions

This large and scenic estuarine site is located some 1.5km SW of Ardara in Donegal. Loughros Bay is in part the estuary of the Brackey River. The area just to the entrance of the river to the estuary appears to be saltmarsh. The bay faces North West and is 7km long site with the entrance to the bay 1.4km in width. The Bay itself is fringed by a range of coastal habitats, including sea cliffs, stacks, islets, caves, sand dunes as well as salt marshes. Inland, the area is generally mountainous, rising to 511 m O.D to the south. The underlying rock is quartzite (32).



Map 1 Location Loughros Beg Bay and site T12/498A

The main population centre to the east of the Bay is Ardara (732 people in 2016 census). The NW facing Bay is sheltered and protected from the prevailing south westerly winds and is relatively shallow in nature (28).

Loughros Bay is located in temperate climate with the closest weather station being Finner Camp Station at Sligo (45 km to the south), which has on average over 1250 mm of rain

per annum Figure 3. It has a 30-year long term average Max of 17°C (July/Aug) and Min of 2°C (January/February) (see figure 1 below) (31).

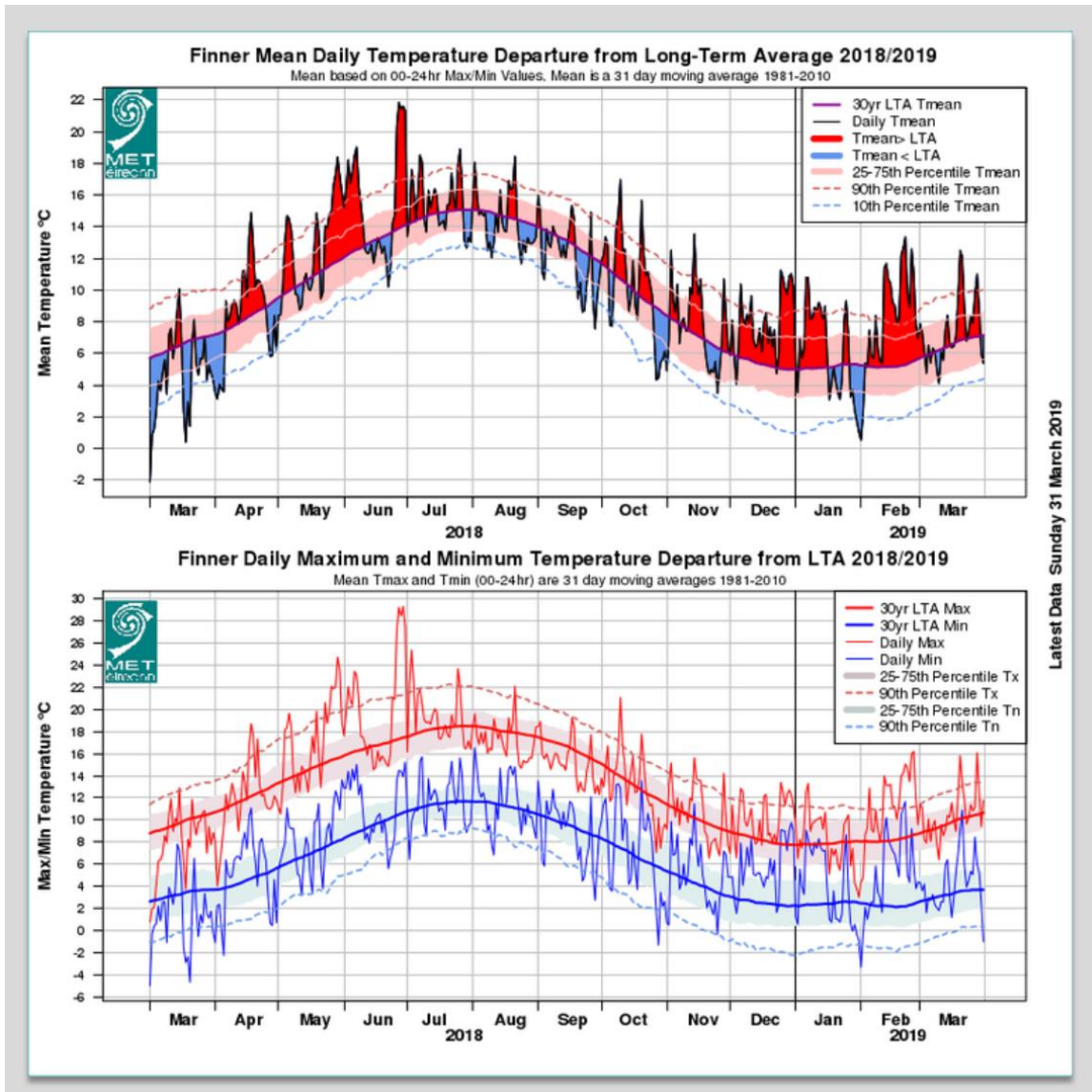


Figure 1: Temperature Ranges at Finner Camp

5.2 Resource Users

Aquaculture Activity



Map 2: Shellfish Aquaculture Loughros Beg Bay

Within Loughros Beg Bay there is an Oyster Fishery Order marked in red on the Map 2 above (30). According to the information presented in the Natura Screening Matrix this has not been used for twenty years.

On further investigation of the Oyster Fishery Order on the Department of Marine website the following information was found. The order was known as the Loughros Beg order 1977 for extensive cultivation of oysters within Loughros Beg Bay. It has a file number T12/002 and according to DAFM this Order belonged to Beirtreach Teoranta but has not been in

use for the past 20 years. A search of the Companies Registration office disclosed that the company was dissolved effective 2002.

To the southern there is a relatively large area of oysters on trestles with a smaller area mid bay. No other type of aquaculture activity is known from the bay. On the day of site visit 3/04/2019 this area of Pacific Oyster cultivation was visible clearly on low tide.



Photo 1: Oyster Trestles in Loughros Beg Bay April 2019.

Angling Activity

According to fishing in Ireland (25) Loughros Point at the tip of the northern entrance to Loughros Beg Bay is good for rock fishing for dogfish, pollack wrasse, mackerel and coalfish.

To the southwest of Ardara, on the Bracky River estuary at Maghera Strand the southern shore is known for bait digging for lugworm, white ragworm and clam.

It is worth noting that Loughros Mor Bay, parallel to, and north of Loughros Beg Bay is the estuary of two salmon rivers the Owenea and Owentocker Rivers.

Tourism and Leisure Uses

The North West region (Donegal) is a popular holiday destination particularly by people from Northern Ireland. The domestic and Northern Ireland traveller market is estimated at 376,000 people with an additional 255,000 overseas tourists travelling to this region (24)

No specific figures are available for tourism in Ardara, but tourism and recreation are important contributors to the local and regional economy.

The town of Ardara sits on the neck of three peninsulas on the stunning North West coast. The southern side of Loughros Beg Bay is particularly attractive for tourists wishing to explore the sea Caves of Maghera by kayak or to those driving the scenic route to stop off to see the Assaranca Waterfall close to the southern shore at Maghera.



Map 3. Wild Atlantic Way (Blue line)

Ardara is on the Wild Atlantic Way which is the world's longest defined coastal touring route. From Malin Head in County Donegal, the country's most northerly point, to Mizen Head in County Cork, the most southerly point, the route is 2,500km in length. Note the town of Ardara is on the Wild Atlantic Way but the roads either side of the bay are not.

Two points of interest are shown Maghera Strand to the south west of the application area and Loughros point to the west (Map 3).

At around 35km west of Ardara are located the Slieve League Cliffs At 596 metres it has some of the highest sea cliffs on the island of Ireland almost three times higher than the Cliffs of Moher (24).

Donegal is also known for its history of cloth making. Ardara is a well-known weaving centre and tourists can visit the weavers at work and see the region's most traditional crafts in action.

Agriculture

Agricultural activity has for many decades been a primary sector of economic and social importance in the Donegal. There were a total of 9,240 farms in County Donegal in 2010, decreasing by 4.9% (435 farms) over the 2000-2010 period and by 9.7% (988 farms) over the 1991-2010 period. Farm sizes are also increasing in County Donegal, from an average farm size of 26.2 HA in 2000 to 27.9HA in 2010.

In the Rural District Glenties (CSO Area Code RD DL04) there are 1688 farms of which 890 are less than 20 ha in size. Total area farmed is 47,282 ha, Total crops grown occupy just 154 ha with land given over to silage and hay at 4,100 ha and grazing land around 43,000 ha (19).

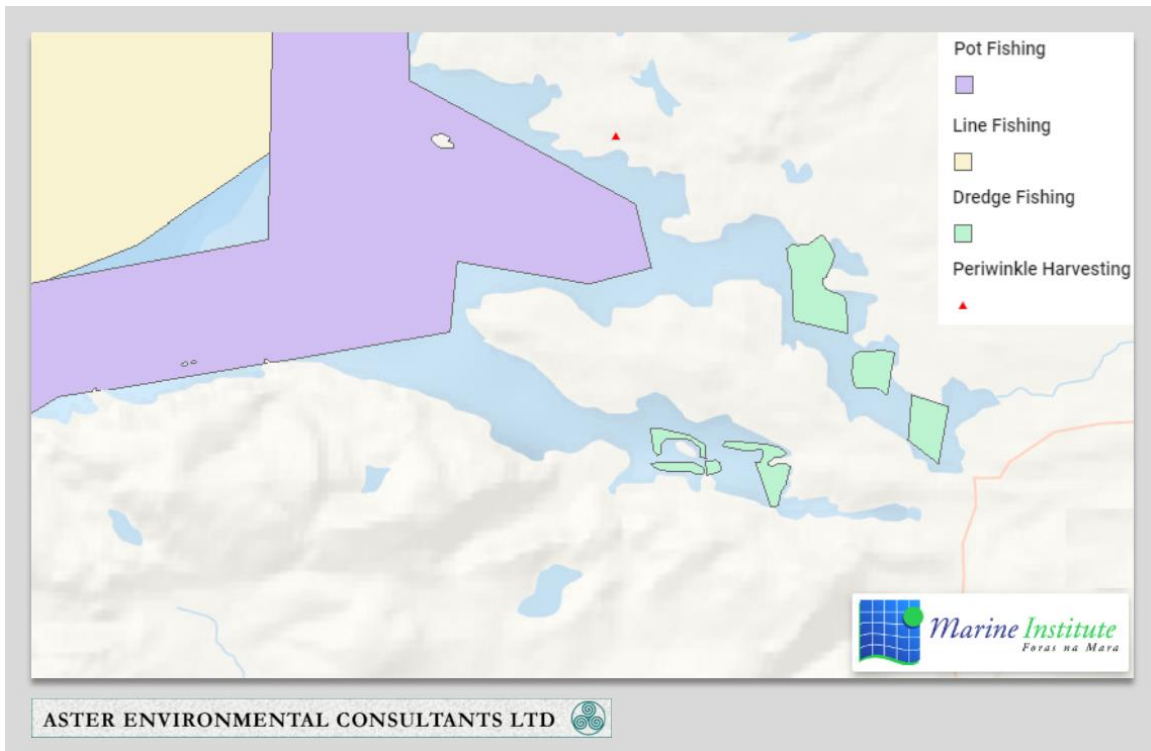
Donegal is the country with the highest number of sheep in Ireland. In this district there are just under 103,000 recorded. Cattle numbers are lower at 8,100 cattle.

Total numbers of people working on the farms are 2663 individuals with only 22% of the landholders under 44 years old (19).

Inshore Fishing activity

There are low levels of inshore fishing activity in the area. According to the Marine Institute in Loughros beg bay we have dredge fishing for cockles in the intertidal with pot fishing

mainly for lobsters in an area close to shore. Beyond that the inshore fishing is principally by line (26, 30).



Map 4: Inshore Fishing Activity Loughros Beg Bay

Leisure Users of the water body & surrounding area

One of the big attractions of the area is the southern side of Loughros Beg Bay which is particularly attractive beach area at Maghera strand and west of that is kayaking for tourists wishing to explore the sea caves of Maghera.

Other activities of the beach and surrounding area include horse riding, walking, cycling, fishing and golf.

Seaweed

Seaweed is traditionally harvested on much of the western shorelines. It is not known if this activity occurs in this area.

Traditionally *Ascophyllum nodosum* or egg wrack, associated with sheltered shores, is the main species targeted commercially. *A. nodosum* is harvested for use in alginates, fertilisers, and the manufacture of seaweed meal for animal and human consumption. Along the west coasts small amounts of with dillisk and carrageen are usually harvested for personal use.



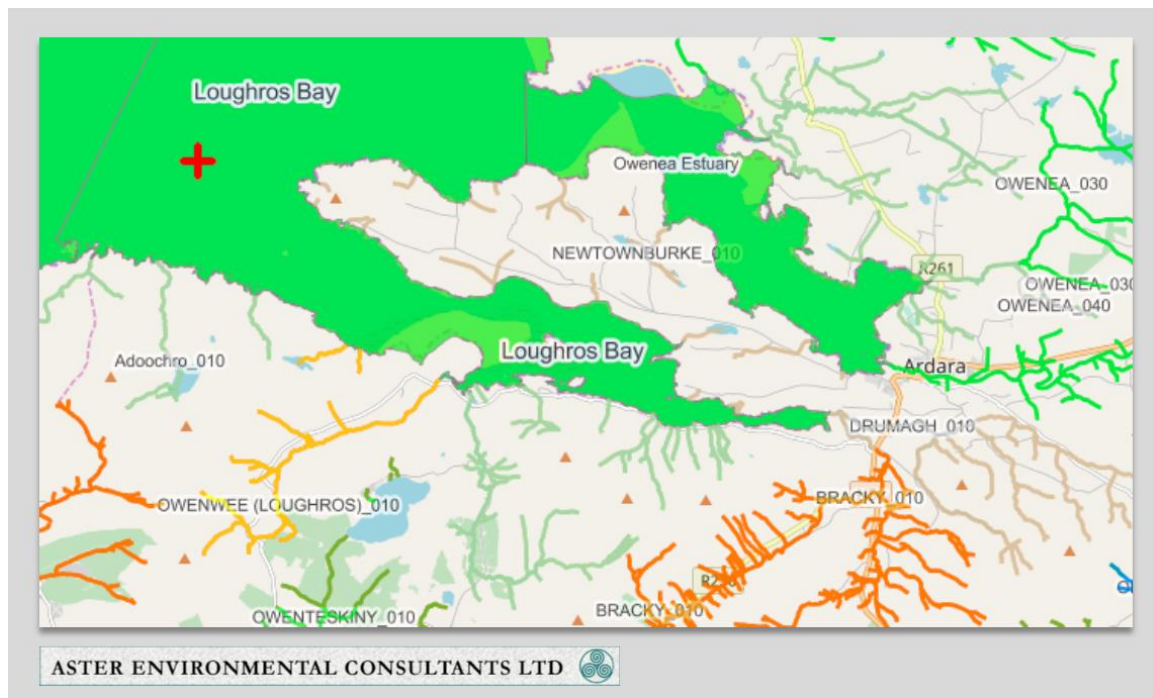
Photo 2: *Ascophyllum Nodosum*

5.3 Environmental Data

Water Quality

Environmental Protection Agency (EPA) Results

The EPA Marine Monitoring Programme monitors for general components in water samples at a large number of coastal and transitional waters around Ireland. Loughros Bay Beg is not one of the bays covered. It is classified as “not at risk” (36)



Map 5: EPA maps illustrating water quality in the Loughros Beg Bay Catchment

WFD Monitoring Programme

Loughros Beg Bay has two rivers entering it. The Bracky River to the east (IE NW 38B020100) is classified as WFD status “poor” see map 4 and the Owenwee River to the South is classified as WFD water status moderate (IE NW 38O080050). Note on the map High water quality is blue, good quality is green, moderate is yellow and poor quality is orange (36).

Water Framework Directive

The EU Water Framework Directive (2000/60/EC) requires all Member States to protect and improve water quality in all waters so that we achieve good ecological status by 2015 or, at the latest, by 2027. It was given legal effect in Ireland by the European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003). It applies to rivers, lakes, groundwater, and transitional coastal waters. The Directive requires that management

plans be prepared on a river basin basis and specifies a structured method for developing these plans.

These are called River Basin Management Plans (RBMP's). RBMPs are plans to protect and improve the water environment. They are prepared and reviewed every six years. The first RBMPs covered the period 2010 to 2015. The second cycle plan covers the period 2018-2021 and was published by the Government on 17 April 2018. These plans include the rivers in the catchment of Loughros Beg Bay (37).

Shellfish Flesh Monitoring Programme

Sea-Fisheries Protection Authority (SFPA) carries out a number of functions, including protecting and conserving fisheries resources for long-term use; promoting compliance with sea-fisheries legislation; and ensuring seafood safety. They sample the bays and classify them according to the finding of sampling.

Shellfish production areas in Ireland are categorised based on the level of treatment that shellfish require prior to being sold. The best category (Class A) is where shellfish can be sold directly with no pre-treatment. Class B requires purification for 48 hours, while Class C is the lowest category and requires the shellfish to be relayed in clean water for a two-month period

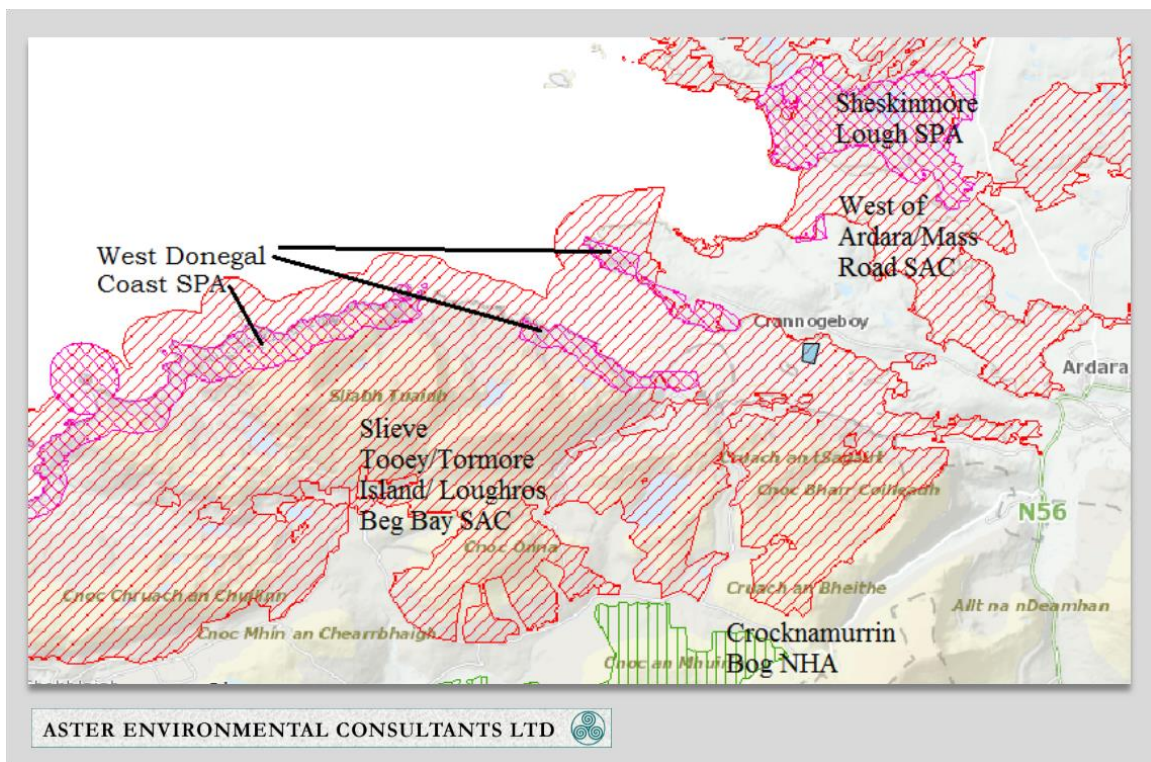
Shellfish flesh classifications are carried out under the European Communities (Live Bivalve Molluscs) (Health Conditions for Production and Placing on the Market) Regulations, 1996 (S.I. No. 147 of 1996)). In 2019/2020 List of Classified Bivalve Mollusc Production Areas in Ireland (27 June 2019) Loughros Beg Bay was classified as Class B.

5.4 Statutory Status

Nature Conservation Designations

Loughros Beg Bay is within the Slieve Tooley/Tormore Island/ Loughros Beg Bay Special Area of Conservation (SAC) (Site Code: 0190) and within 1km of The West Donegal Coast Special Protection Area designated for birds (SPA) (Site Code: 04150).

Other SACs West of Ardara/Mass road SAC and Sheskinmore Lough SPA are found to the north and a small bog of national importance Crocknamurrin NHA to the south (32).



Map 6: Designated areas Loughros Beg Bay and surrounds.

Loughros Beg Bay is within the Slieve Tooey/Tormore Island/ Loughros Beg Bay Special Area of Conservation (SAC) (Site Code: 0190)

The SAC is designated for a number of habitats and species as listed in Annex I and Annex II of the Habitats Directive. These are set out below:

- 1014 - Narrow-mouthed Whorl Snail (*Vertigo angustior*)
- 1230 - Vegetated sea cliffs of the Atlantic and Baltic coasts
- 1355 - Otter (*Lutra lutra*)
- 1364 - Grey Seal (*Halichoerirs grypus*)
- 2110 - Embryonic shifting dunes
- 2120 - Shifting dunes along the shoreline with white dunes
- 2140 - Decalcified fixed dunes with *Empetrum nigrum*
- 2150 - Atlantic decalcified fixed dunes (*Calluno-Ulicetea*)
- 4060 - Alpine and Boreal heaths
- 7130 - Blanket bogs (if active bog).

Conservation Objectives for the SAC

The Conservation Objectives for the Slieve Tooey/Tormore Island/Loughros Beg Bay SAC (Site Code: 0190) were identified by NPWS (2015) and relate primarily to the requirement to maintain or restore the favourable conservation condition of habitat distribution, structure and function. For designated species, the objective is to maintain various

attributes of the populations including population size, habitats quality and the distribution of the species in the bay.

West Donegal Coast SPA

Loughros Beg Bay is adjacent to West Donegal Coast SPA (Site Code: 04150)

Special Conservation Interests for the SPA

This SPA is designated for the following bird species:

- Fulmar (*Fulmaris glacialis*)
- Cormorant (*Phalacrocorax carbo*)
- Shag (*Phalacrocorax aristotelis*)
- Peregrine (*Falco peregrines*)
- Herring Gull (*Lares argentatus*)
- Kittiwake (*Rissa tridactyla*)
- Razorbill (*Alta torch*)
- Chough (*Pyrrhocorax pyrrhocorax*).

Conservation Objectives for the SPA

The Conservation Objectives for the SPA were identified by NPWS (2016) and relate primarily to maintaining or restoring the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA (32).

5.5 Protected Species other than those of the Natura 2000 network

Cetaceans

The Irish Whale and Dolphin Group Cetacean Sightings were searched in the vicinity of Lough Beg and Lough More Bays (www.iwdg.ie). No records of cetaceans in the bay were found. It is a very shallow bay and unsuitable for these marine mammals. Biodiversity

Ireland has the following records within the G69 10km square grid hectad recorded in the last 10 years (38). These are all located off shore from Loughros beg point.

Cetacean	Habitat Directive annex
Bottle-nosed Dolphin (<i>Tursiops truncatus</i>)	Annex II
Common Dolphin (<i>Delphinus delphis</i>)	Annex IV
Common Porpoise (<i>Phocoena phocoena</i>)	Annex II
Long-finned Pilot Whale (<i>Globicephala melas</i>)	Annex IV
Minke Whale (<i>Balaenoptera acutorostrata</i>)	Annex IV
Sperm Whale (<i>Physeter macrocephalus</i>)	Annex IV

Birds

The proposed site is not within a Special Protection Area (Birds Directive) or Ramsar site.

However, the site is close to the West Donegal SPA designated for the following bird species (32):

- Fulmar (*Fulmaris glacialis*)
- Cormorant (*Phalacrocorax carbo*)
- Shag (*Phalacrocorax aristotelis*)
- Peregrine (*Falco peregrines*)
- Herring Gull (*Larus argentatus*)
- Kittiwake (*Rissa tridactyla*)
- Razorbill (*Alta torch*)
- Chough (*Pyrrhocorax pyrrhocorax*).



Photo 3: Fulmar nesting on cliff faces

All the species listed above nest on the cliffs at the mouth of Loughros beg bay as well as on the Slieve League Cliffs.

They forage at sea with the exception of the red billed chough which forages on coastal grasslands and machair.



Photo 4: Red Billed Chough breeding in the area

Loughros Beg bay also attracts low numbers of waders and wildfowl. The following species were recorded from G69 10km2 hectad since 2011. All are present in low numbers 2-14 individuals (38).

Bird Species	Listed	Habitats Directive
Black-tailed Godwit (<i>Limosa limosa</i>)	Amber List	
Black-throated Diver (<i>Gavia arctica</i>)	Amber List	Annex I Bird Species
Common Eider (<i>Somateria mollissima</i>)	Amber List	
Common Goldeneye (<i>Bucephala clangula</i>)	Amber List	
Common Pochard (<i>Aythya ferina</i>)	Amber List	
Common Shelduck (<i>Tadorna tadorna</i>)	Amber List	
Eurasian Curlew (<i>Numenius arquata</i>)	Red List	
Great Crested Grebe (<i>Podiceps cristatus</i>)	Amber List	
Great Northern Diver (<i>Gavia immer</i>)		Annex I Bird Species
Little Grebe (<i>Tachybaptus ruficollis</i>)	Amber List	
Red-breasted Merganser (<i>Mergus serrator</i>)	Amber List	
Red-throated Diver (<i>Gavia stellata</i>)	Amber List	Annex I Bird Species
Sanderling (<i>Calidris alba</i>)		
Tufted Duck (<i>Aythya fuligula</i>)	Amber List	

Twite

The twite (*Carduelis flavirostris*) is a small brown passerine bird in the finch family Fringillidae, has disappeared from most of Ireland. It has a current estimated total breeding population of 54-110 birds and 15-20 of those are located in Donegal in the Loughros Beg Bay Slieve League area (12).

5.6 Statutory Plan

Donegal County Development Plan 2018-2024

The County Donegal Development Plan is the principal statutory land use plan for the County, and it sets out a strategic vision for the future growth and development of the County over the 6-year life of the Plan (to 2024) and beyond to a 20 year timeframe (to 2038). This spatially-based strategic framework seeks to manage and coordinate change in land use in the County setting out a clear view ahead in development terms together with clear priorities to drive growth (4).

Of relevance are statements and policies in respect of seafood and development within the coastal zone

Chapter 10 deals with The Marine Resource and Coastal Management.

According to the County Development Plan

The Council will facilitate onshore marine related development at appropriate locations. In accordance with the economic development policies of the plan. The county has a strong aquaculture sector (e.g. Salmon, Oyster and Mussel farming) providing considerable local employment both onshore and offshore for coastal communities around the Donegal Coastline. Consent for aquaculture developments on the Foreshore and in coastal waters remain the remit of the Department and fish farming activities in particular require careful environmental management. However, the Council will support the sustainable development of onshore/ancillary aquaculture developments to maximise the potential of the sector in terms of employment and product export.

The relevant objectives in relation to these are as follows

MRCM-O-1: To maximise the social and economic potential of Donegal's marine sector:

- Supporting the offshore primary production sector of the aquaculture industry, subject to adequate environmental assessments and safeguards being provided to

the satisfaction of the Council and to the avoidance of the development giving rise to an overbearing visual impact on the locality in which it is proposed.

MRCM-O-2: To safeguard and improve and the health of our Marine ecosystem by:

- Protecting the qualifying habitat and species of Natura 2000 sites through Appropriate Assessment of development proposals.
- Maintaining and improving water quality in our estuaries and seas by implementing River Basin Management Plan and any future programmes under the Marine Strategy Framework Directive.
- Ensuring that there is; sufficient sewage treatment capacity to serve development in urban areas, adequate on-site effluent treatment to EPA standards for developments in rural/unserved areas, and adequate pollution control measures for commercial/industrial development.

MRCM-O-3: To manage our coastal environment in a sustainable manner by:

Managing development in a manner which protects sensitive coastal environments (e.g. dune environments) and undertaking coastal zone management projects.

MRCM-P-9: It is a policy of the Council to ensure that development proposals in coastal areas do not significantly impact on, and incorporate appropriate measures to protect, sensitive coastal environments (e.g. beaches, sand dunes and other soft shorelines).

MRCM-P-10: It is a policy of the Council to ensure that development proposals do not adversely compromise the recreational amenity and environmental quality of coastal areas including Flag Beaches, Natura 2000 sites and areas of Especially High Scenic Amenity

Landscape Character Areas.

Ardara Bays, Coast and Gaeltacht Landscape is classified as Landscape Character Area 30

It is described as a low lying undulating area with an open aspect, framed by the higher uplands of the surrounding LCAs and by a long and varied coastline indented by long sandy tidal estuaries. The area has a myriad of landscape types; the inland landscape is predominantly bog and lake interspersed with fertile riverine agricultural corridors to the south following the Owenea and Owentocker Rivers and large commercial coniferous forestry plantations within the east. Agricultural lands along river valleys and in the hinterland of Ardara and Glenties are characterised by larger hedgerow bound geometric fields, at variance with the coastal farmland of a more open nature with historic fields patterns of note at Loughros and Portnoo. The coast extends from within the tidal estuary at Gweebarra bay, past Inishkeel Island, around Dawross Head and into Loughros More Bay and estuary before following the shore around Loughros Point and Loughros Beg Bay and estuary. The Wild Atlantic Way extends through this area along the route of the R261,

skimming the north coast that already has an established tourism and recreation base at Nairn and Portnoo. This area has been settled throughout history and many important historic sites and monuments remain, including Doon Fort, an island crannog dating from the 4th Century, and the ruins of a 6th century monastery and church on Inishkeel island (4).

The Loughros beg bay is within Seascape Unit 12 and Seascape Unit 13 are within the Ardara Bays, Coast and Gaeltacht Landscape Character Area.

Key characteristics uses: Predominantly low-lying bog and lakes with agricultural, tourism, forestry, marine and aquaculture uses. Coastal edge: Rocky cliffs off Dunmore Head, tidal estuaries, intertidal, sandy beaches and dune systems. Visibility: There are intermittent uninterrupted views of the bays and sea from stretches of the coastal road network and viewing areas along the headlands. Special features significant buildings, landmarks, biodiversity and cultural features: Gweebarra Salmonid River, shell fish, fresh water pearl mussel catchment area, sand beaches large dune complexes, Inishkeel Island, Ardara (Heritage Town).

These seascapes and landscape area descriptions form a marker against which development is assessed in conjunction with the objectives and policies of the County Development Plan.

Scenic Classification Loughros Beg Bay

The 2018-24 Donegal County Development Plan scenic amenity map indicates the scenic quality classification levels in Loughros Beg Bay and the general coastal area west of Ardara town.

Land lying to the south of the Bay is steeply rising mountainous upland (from Glengesh to Slievetooley and points further west) and is designated as area of "Especially High Scenic Amenity"- The designation of "Especially High Scenic Amenity" is in the County Donegal Development Plan 2018-24 and is the highest of three scenic quality classifications used in that document.

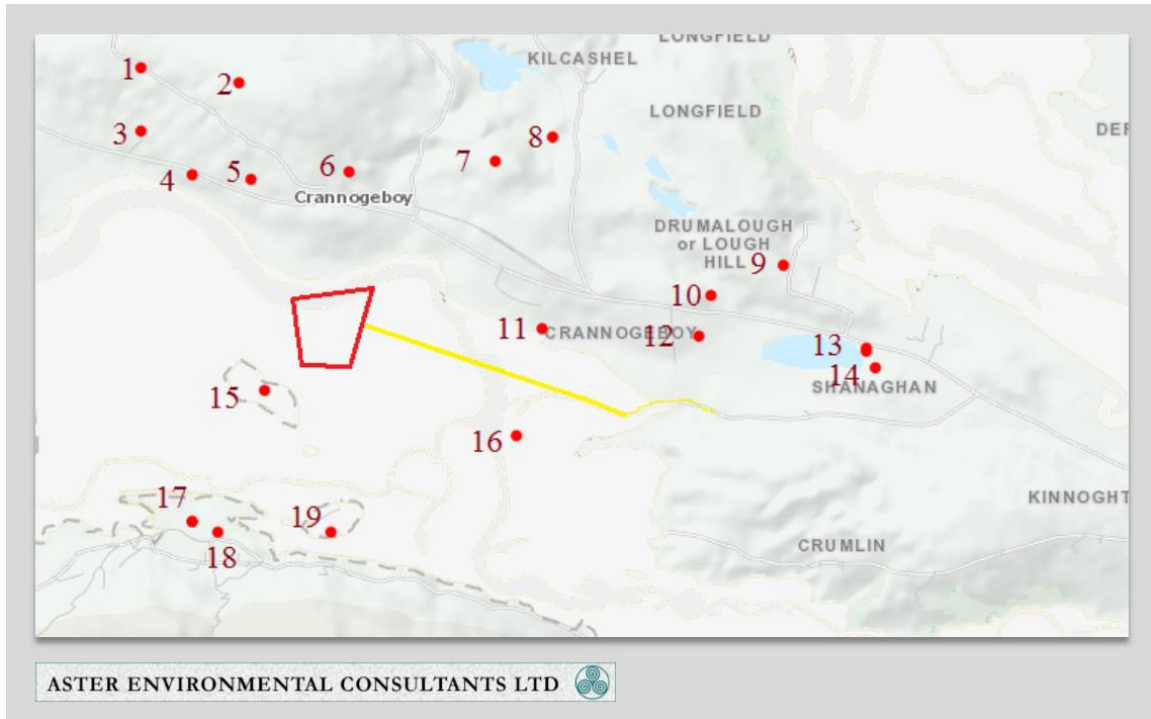
The two large islands in the inner bay area (Illuncreeve and Sand Island) are also designated as areas of Especially High Scenic Amenity.

Most of the coastal strip along the northern shore of Loughros Beg Bay is designated as an area of "Especially High Scenic Amenity". Land north of the coastal strip on the north side of Loughros Beg Bay (the Loughros Point peninsula) has a lower level classification being designated as area of High Scenic Amenity.

There are no designated views and prospect overlooking Loughros Beg Bay.

5.6 Man-made heritage

The Loughros Beg Bay area is extremely rich in manmade heritage including many inscribed cross slabs, as well as enclosures, tombs, ruined churches and graveyards (22).



Map 7: Archaeological records of Loughros Beg Bay area

Descriptions of the national monuments may be seen below.

1. National Monument Number DG073-017

Class: Cross-slab (present location)

Townland: CLOGHBOY

A cross-inscribed slab probably broken but now .68m in length and 0.33m at one end and 0.15m at the other. It is up to .06m thick. It is decorated on both sides (I) A single Latin cross with T-bar terminals. (II) Three smaller Latin crosses two of which have T-bar terminals. It now lies in front of a private house but originally came from an unknown location in the townland of Newtownburke (DG073-043).

2. DG073-018----

Class: Cross-slab

Townland: NEWTOWNBURKE

A stone slab 1.05m high, .35m wide and up to .15m thick. On one face is a Latin cross with T-bar terminals. A cross on the other side is nearer in shape to the Greek form. It also has

T-bar terminals. It is at present located beside a field boundary in marshy pasture land, but is not in situ and its original location is unknown.

3. DG073-019

Class: Cross-slab

Townland: CLOGHBOY

A NNW-facing area of vertical rock face, 10m long × 1m in height, has a Latin cross with T-bar terminals inscribed on it. The cross is .37m × 0.19m. The site is located on a South facing slope overlooking Maghera strand in an area of rough grazing and rock outcrop.

4. DG073-020

Class: Cross-slab

Townland: NEWTOWNBURKE

Description: An irregularly-shaped slab .7m in height and 0.6m in maximum width. The stone is aligned E-W. There is a Greek cross with T-bar endings on each face. The slab is located in a field boundary in marshy pasture land.

5. DG073-021

Class: Cross-slab

Townland: NEWTOWNBURKE

Description: A trapezoidal-shaped slab .7m x .13m to .28m x .13m has been re-erected on a cairn 8.1m x 6.2m and 2m in height. A Latin cross with T-bar endings is inscribed on both

sides. The site is located on a small mound of rock outcrop N of Maghera strand on generally barren land.

6. DG073-022

Class: Cross-slab

Townland: CRANNOGEBY

Scheduled for inclusion in the next revision of the RMP: Yes

Description: A slab, 1m high × 0.5m wide with a Greek cross with T-bar terminals on each face, is located lying against a fence. It is located in fair pasture.

7. DG073-023

Class: Ringfort - unclassified

Townland: CRANNOGEBY

Description: A local report indicates a 'Fort' on Drumacrolly Hill. This was not located. The area consists of rough mountainous terrain.

8. DG073-024

Class: Crannog

Townland: CRANNOGEBY

Scheduled for inclusion in the next revision of the RMP: Yes

Description: An elongated mound of stone 18m E-W × 9m N-S and 2.2m in height. A modern field wall cuts into the N face of the mound and runs off the mound to the E and W. The site is located in a small boggy area. A number of stone axe-heads and three saddle querns have been found on the mound. The nature of the site is not clear but seems likely to have been some form of lake habitation.

9.0 DG073-027

Class: Bullaun stone

Townland: DRUMALOUGH OR LOUGH HILL

Description: no details available

10 DG073-052----

Class: Bullaun stone

Townland: DRUMALOUGH OR LOUGH HILL

Description: Situated on SE facing slope of rock outcrop in an area of poorly drained land immediately to N of newly constructed silage pit. Natural rock outcrop with single bowl

(diam. 0.3m; D 0.3-0.45m) that is very circular and deep and has been well worked into the surface of the rock outcrop.

11 DG073-026

Class: Ritual site - holy well

Townland: CRANNOGEBY

Description: 'Toberconnell' a holy well. Located close to the shore on the S end of Loughros peninsula in fair pasture land.

12 DG073-028----

Class: Ringfort - unclassified

Townland: CRANNOGEBY

Description: Marked on the 1st and 2nd editions of the OS 6-inch maps as a single-ringed 'Fort'. No trace of the site survives. It is located to the W of Shanaghan Lough in fairly good pasture land.

13 DG073-029001

Class: Church

Townland: SHANAGHAN

Description: Marked on the 2nd and 3rd editions of the OS 6-inch maps as the site of 'Loughros Church'. No trace of either a church or burial ground survives.

14. DG073-029002

Class: Well

Townland: SHANAGHAN

St. Shanaghan's well. The site is located in rough grazing land to the E of Shanaghan Lough.

15 DG073-036----

Class: Megalithic tomb - portal tomb

Townland: SAND ISLAND

Description: This monument is not shown on any edition of the OS 6-inch map. The site lies c. 5km W of Ardara on the N side of Sand Island, which is at the inner end of Loughros Beg Bay. Sand Island is an extensive sandhill c. 400m by 150m on Maghera Strand just N of Laconnell townland. It is accessible on foot when the tide is out. To the S the mountains extending westward from Glengesh Hill to Slievetooley form the skyline. The view westward out to sea is restricted by sandhills at the outer end of Maghera Strand. The island provides rough grazing on its sandy surface.

The presence of two sizeable orthostats, one apparently a gabled backstone and the other

an inward-leaning sidestone, suggested that the structure may be a ruined portal tomb and it is tentatively classified as such.

16 DG073-039----

Class: Ringfort - Cashel

Townland: INISHFALLEN

Description: A roughly rectangular platform enclosed by a low bank of earth and stone. Internal dimensions 11.3m N-S × 12.3m E-W. The bank incorporates bedrock in places, the bank survives up to .5m in height. The platform is c. 1m in height, above the surrounding ground. The interior is flat. The site takes up most of the area of Inisfallen Island situated on Maghera strand.

17. DG073-039

Class: Ringfort - Cashel

Townland: INISHFALLEN

Scheduled for inclusion in the next revision of the RMP: Yes

Description: A roughly rectangular platform enclosed by a low bank of earth and stone. Internal dimensions 11.3m N-S × 12.3m E-W. The bank incorporates bedrock in places, the bank survives up to .5m in height. The platform is c. 1m in height, above the surrounding ground. The interior is flat. The site takes up most of the area of Inisfallen Island situated on Maghera strand.

18 DG073-037003

Class: Cross-inscribed stone

Townland: LEAC CHONAILL

Description: A natural rock outcrop 1.25m x 1.03m x .28m giving the appearance of a standing stone. A small cross (DG073-037003-) is carved on the SW face near the base. The top and base of the cross have T-bars, but the arms are indistinct. A holy well (DG073-037002-) was located in a field of good land to the W but it is now filled in. Nearby, carved on an erratic boulder (DG073-037001-) 2m x 1.33m x .6m is a rock-basin .25m in diameter and 0.15m deep.

19 DG073-038

Class: Ritual site - holy well

Townland: LEAC CHONAILL

Description: A local tradition remembers a 'holy well' on the S side of Illancreeve Island on Maghera strand. No trace of this could be found.

6.0 Section 61 Assessment

This Act 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 11

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 aqua-culture 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:

- The species to be farmed (Pacific oyster *Crassostrea gigas*) has been and is currently being grown within the Bay.
- The water quality is suitable. In 2019/20 List of Classified Bivalve Mollusc Production Areas in Ireland (27 June 2019) Loughros Beg Bay was classified as Class B.
- The sandy beach is solid under foot and can support trestles and workers
- The development is not out of scale relative to other operators in the bay.
- The development is reversible as all trestles can be removed from the foreshore.
- It will not need additional infrastructure developments (e.g. new roads, landing facilities).
- Terrestrial land use will not be affected and there is no significant spatial overlap with other users of the intertidal foreshore as the channels on the beach will restrict access to the beach.



Photo 5: Location of proposed farm and route within Loughros Beg Bay (Bing Maps)

Marine Engineering Division had some reservations about site suitability and recommended that the original site area be reduced and varied. This concern was addressed, and a smaller reduced area was licenced. MED noted that the mix of elevations on site may be helpful for managing differing growth requirements of oyster seed and half-

grown oysters. A new proposed layout provided showing trestle lines running north -south was proposed

It is considered that the site is suitable.

6.2 Other uses

Tourism/Recreation/Leisure

The proposed aquaculture site is located close to Ardara Village which is part of the Wild Atlantic Way. The strand is used by dog walkers, swimmers, horse riders and kayakers.

The proposed aquaculture site will **not significantly impact** on recreational users of the area due to spatial separation as much of the activities in the area are at the upper shore levels.

There will be a **moderate adverse impact** in terms of visual impact which will impact local and tourist users of the area.

Fishing/ Harvesting

No conflict between fishing and harvesting was identified. The vast majority of the site is intertidal, and as a result would be difficult to fish, except for only the smallest of inshore boats at high tide. There is an area of cockle picking to the east of the bay closer to Ardara. There is no spatial overlap. Bord lascaigh Mhara had no objection to the application and stated that they are satisfied that the operation does not conflict with any other aquaculture or inshore fisheries interests in the area.

IFI had concerns the migration of salmon and sea trout should not be hindered by this development and this issue was addressed through licencing conditions which were included in the draft licence granted by the minister.

Loughros Mor Bay, parallel to, and north of Loughros Beg Bay is the estuary of two salmon rivers the Owenea and Owentocker Rivers. According to the Conservation of Salmon and Sea Trout (Catch and Release) Bye Law No 967 of 2018, these rivers are within the No. 14 or Letterkenny District and are catch and release only in 2019. Rivers falling into this category are those the SSC and Technical Advisory Group on Salmon deems that they have a "high probability of achieving 50% of their conservation limit (CL) or exceeding a qualifying fry threshold of ≥ 15 fry (0+) per 5 minute electro-fishing (multiple site catchment average)".

The Bracky River which flows into Loughros Beg Bay under the Conservation of Salmon and Sea Trout (Closed Rivers) Bye law No 327, 2018 is closed for fishing due to low numbers.

The trestles are located on the shallow areas of the bay leaving the deeper channels free for migrating salmon. This is true particularly in relation to T12/498A where the size of the

licenced site now has been reduced from 21Ha to 8.839 and repositioned to avoid the channel entirely.

According to the Marine Institute (2017) independent research indicates that subtidal rack and bag systems can act as refuge for a variety of marine organisms, including the juvenile stages of various fish. Thus, it is concluded that Intertidal oyster cultivation will not have a negative impact on success or movements of salmon or seatrout.

No cumulative Impact is foreseen.

Conditions which relate to movement of salmon and seatrout are as follows

Schedule 4 contains:

Special conditions applicable to this licence

A central channel width of 15m minimum is to be maintained on the site in order not to obstruct migratory fish movement. The site management and trestles layout needs to take account of this channel and its location is to be agreed with DAFM with some variation allowed due to the shifting nature of the sands on site. The Licence conditions could be extended to require the Applicant consult with DAFM regarding the location of the Channel on an annual basis

The proposed aquaculture site will **not significantly impact** on harvesting users or the fisheries of the area.

Statutory Status

Donegal County Council raised concerns about the cumulative impact of the proposed new licence applications which they considered to be excessive relative to the need to protect the amenities of the bay and therefore contrary to the objectives and policies of the County Development Plan 2012-2018. The County Council did not consider the new applications on an individual site impact basis.

The Visual Impact Assessment considered each site both separately and cumulatively. The findings were that Visual impact arising from development of sites 161A, 162A, 403A, 460A and 498A (individually and cumulatively) is within acceptable range for licensing. It found two other sites 431A and 417A to be outside the acceptable impact range for licencing with a substantial impact.

There will be a **moderate adverse impact** in terms of visual impact of licensing T12/498 which will impact local and tourist users of the area. This is considered to be within acceptable limits in respect of the landscape objectives of the County Development plan.

Natura 2000 sites. Loughros Beg Bay is within Loughros Beg Bay is within the Slieve Tooley/Tormore Island/ Loughros Beg Bay Special Area of Conservation (SAC) (Site Code: 0190) and within 1km of The West Donegal Coast Special Protection Area designated for birds (SPA) (Site Code: 04150). The screening for Appropriate Assessment found no negative impacts on the Natura 2000 network.

The proposed licensed site will have a **non-significant impact** on the statutory status of the site in respect of the designated areas.

6.4 Economic effects

The granting of the Aquaculture licence has the potential to provide small scale economic benefits to the local community.

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

6.5 Ecological Effects

AA Screening

The Appropriate Assessment Screening (2) looked at the impact of the aquaculture on the habitats, species for which the Slieve Tooley/Tormore Island/Loughros Beg Bay SAC are designated for as well as the birds for which West Donegal Coast SPA is designated. The conclusions are drawn out below;

Aquaculture and Habitats:

Reduction of habitat area: The Screening Report concluded that there is no reduction in habitat area arising from aquaculture production activities, within any of the Natura 2000 sites considered.

Aquaculture and Species:

Otter (*Lutra lutra*): The likely interaction between the existing and proposed aquaculture activities and the Annex II Species Otter were assessed. The objectives for this species in the Slieve Tooley/Tormore Island/Loughros Beg Bay SAC focus upon maintaining the good conservation status of the population. Shellfish culture operations are likely to be carried out in daylight hours and the interaction with the Otter is likely to be minimal given that Otter foraging is primarily crepuscular. The Screening Report found that proposed and existing shellfish culture activities are likely to be non-disturbing to the Otter.

Grey Seal (*Halichoerus grvpus*): An assessment of the effects of aquaculture production on the Grey Seal was also examined. The objectives for the Grey Seal relate primarily to the requirement to maintain various attributes of the populations including population size and the distribution of the species. Given the distance of 3.5km from the proposed

aquaculture operations to the nearest identified locations for the Grey Seal and the shallow and sheltered nature of the aquaculture locations it is unlikely that the Grey Seal will access the sites during operational times. Therefore, the existing and proposed levels of shellfish culture within Loughros Beg Bay are considered non-disturbing to the Grey Seal.

Whorl Snail (*Vertigo angustior*): The Screening Report concluded that there is no spatial overlap or obvious interactions with the narrow-mouthed Whorl Snail which features within the Slieve Tooley/Tormore Island/Loughros Beg Bay SAC.

Aquaculture and Bird Species:

The aquaculture activity in Loughros Beg Bay is directly adjacent to the West Donegal Coast SPA which is designated for 8 types of bird species as outlined above. The Screening Report found that there is no spatial overlap between the bird species and aquaculture activities (including the access routes). The foraging range of the species is extensive and while some may utilise the aquaculture areas for feeding (which are proximate to a small portion of the SPA) it is unlikely the activities or structures used will impact on the Conservation Objectives and targets. For the most part the bird species will range beyond the scope or influence of the shellfish culture operations. Therefore, shellfish culture and associated activities do not pose a significant risk to the conservation features found in the West Donegal Coast SPA. The Screening Report concludes that the aquaculture activity therein is considered non-disturbing and no further analysis is necessary.

Introduction of non-native species

Oyster culture may present a risk in terms of the introduction of non-native species such as the Pacific oyster (*Crassostrea gigas*). However, the risk of recruitment of *C. gigas* is considered low given the very large intertidal extent in the bay resulting in short residence times and also due to triploid (non-reproducing) oysters being used.

An Taisce raised a number of issues regarding the designation of the area for otters and grey seals the concerns raised about the impact of physical structures causing obstruction to otters and seals is dealt with in the Natura Screening report and the Licensing Authority's

Conclusion Statement. The existing and proposed shellfish culture was found not to be disturbing to otters and grey seals.

The proposed licensed site will have a no significant **negative** impact on the ecology of the area.

There is no finding of cumulative impact in respect of the Natura 2000 network

Other protected species

Cetaceans. Although a variety of cetaceans including Annex II Bottlenose Dolphins and harbour porpoise are known offshore the licenced area is too shallow for these species and no interactions are predicted. The proposed licensed site will have a **no significant negative** impact on these species.

Waders and Wildfowl

These are known in very low numbers from the area. They are occasional species. The proposed licensed site will have a **no significant negative** impact on these species.

There is no finding of cumulative impact in respect of the other protected species.

6.6 General Environmental Effects

Results of the Shellfish Waters Directive do not indicate any water quality issues in the vicinity of the proposed licensed areas. The surrounding waterbodies are poor quality, but the bay is considered suitable for oyster cultivation at Class B. The presence of Oyster cultivation in the bay may encourage better protection of these watercourses.

The production of faeces and pseudofaeces by oysters and the impact of the deposition is likely to be minimal at this site. This is because the bay is well flushed and build-up of excess organic matter in this bay is considered unlikely.

The implementation of proper waste management procedures will ensure the removal of any trestles, bags, rubbers and other material associated with the cultivation process.

There is a risk of Invasives with oyster cultivation. Sarragassam is already in the area and is found along much of the west coast. Triploid Oysters will prevent the non-native Pacific oysters breeding in this location. Licence conditions will help protect the area.

Schedule 4 contains:

Special conditions applicable to this licence

- *The Licensee may only use Triploid Oysters at this site.*
- *The Source of Seed must be approved by the Department of Agriculture, Food and the Marine*

The Licensee is required to prepare a contingency plan for the approval of the Department of Agriculture, Food and the Marine, which should identify, inter alia, methods for the removal from the environment any non-target species introduced as a result of operations at this site.

There is likely to be **no significant** general environmental effects as a result of the proposed granting of licences.

6.7 Effect on man-made heritage

Although the area is very rich in national monuments the footprint of the farm and route does not spatially overlap these heritage sites. The access route to Sand Island is made difficult by the channels in the bay it is not envisaged that access will be impeded by the oyster farm. The proposed aquaculture site will **not significantly impact** on known man-made heritage of the Area

6.8 Section 61 Assessment Conclusions

A technical review was carried out by Aster Environmental Consultants Ltd in relation to an aquaculture licence appeal against the grant by the Minister for Aquaculture, Food and the Marine for a Foreshore Licences to Barry McGuinness for the cultivation of oysters

using bags and trestles at Loughros Beg Bay T12/498A. Here below is the summary of the findings

Site Suitability

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

- Oysters are already being cultivated in the bay successfully
- The site has been examined by MED and revisions have been made to site size and trestle layout as well as management recommendations to improve oyster growth in this area.

Other Uses

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

- Located away from main areas of activity on the beach
- No spatial overlap with fishery or harvesting interests

Statutory Status

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

- Although visual impact is rated as up to moderate from four of five receptor sites T12/498A is considered within acceptable limits. Two other applications were

refused due to a higher visual impact level of Substantial Thus this is not considered to be out of line with the County Development Plan (4).

- The aquaculture licence area screens out for Appropriate Assessment so no impact on the natura 2000 network is predicted.

Economic effects

There will be a non-significant positive effect on the economy of the area for the following reasons:

- Small oyster farm with ability to support a few local jobs only

Ecological Effects

There is a non-significant 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;

- Project screens out for Appropriate Assessment
- No impacts on other birds or cetaceans were identified

General Environmental Effects

There are no significant general environmental effects as a result of the proposed development for the following reasons;

- Oyster cultivation may drive improved water quality in the area as a positive pressure on the local and national authorities
- Risk of invasive species –mitigated with licencing conditions

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 reasons;

- No spatial overlap

These were the findings of the technical expert.

6.9 Confirmation re Section 50 Notices

We confirm there are no matters which arise section 61 which the Board ought to take into account which have not been raised in the appeal documents, and therefore 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.

Environmental Impact Assessment (EIA) Directive (2014/52/EU) Annex II (ARTICLE 4(2)) includes 1. AGRICULTURE, SILVICULTURE AND AQUACULTURE specifically (f) Intensive fish farming. Oyster cultivation is two types; ranching of native oysters and cultivation of pacific oysters in bags. The latter given the densities involved could be considered intensive fish farming and subject to the directive.

Annex III of the directive lists SELECTION CRITERIA REFERRED TO IN ARTICLE 4(3) (These CRITERIA TO DETERMINE WHETHER THE PROJECTS LISTED IN ANNEX II SHOULD BE SUBJECT TO AN ENVIRONMENTAL IMPACT ASSESSMENT). Criteria which are relevant for shellfish farming include the following (highlighted in bold and underlined)

- 1. Characteristics of projects**

The characteristics of projects must be considered, with particular regard to:

(a) the size and design of the whole project;

(b) the cumulation with other existing and/or approved projects;

(c) the use of natural resources, in particular land, soil, water and biodiversity;

(d) the production of waste;

(e) pollution and nuisances;

(f) the risk of major accidents having regard in particular to substances or technologies used and/ or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge;

(g) the risks to human health (for example due to water contamination or air pollution).

2. Location of projects

The environmental sensitivity of geographical areas likely to be affected by projects must be considered, having regard in, with particular regard to:

(a) the existing and approved land use;

(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground;

(c) the absorption capacity of the natural environment, paying particular attention to the following areas:

(i) wetlands, riparian areas, river mouths;

(ii) coastal zones and the marine environment;

(iii) mountain and forest areas;

(iv) nature reserves and parks;

(v) areas classified or protected under Member States' national legislation; special protection Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC;

(vi) areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation have already been exceeded and relevant to the project, or in which it is considered that there is such a failure;

(vii) densely populated areas;

(viii) landscapes and sites of historical, cultural or archaeological significance.

3. Type and characteristics of the potential impact

The potential likely significant effects of projects on the environment must be considered in relation to criteria set out in points 1 and 2 of this Annex, and having with regard in particular to the impact of the project on the factors specified in Article 3(1), taking into account:

(a) the magnitude and spatial extent of the impact (for example geographical area and size of the affected population likely to be affected);

- (b) the nature of the impact; (b)
- (c) the transfrontier transboundary nature of the impact; (
- (d) the magnitude intensity and complexity of the impact;
- (e) the probability of the impact;
- (f) the expected onset, duration, frequency and reversibility of the impact;
- (g) the cumulation of the impact with the impact of other existing and/or approved projects;**
- (h) the possibility of effectively reducing the impact.

The conclusion of the EIA screening document is “given the information available including the Marine Institute screening document and the Landscape and Visual impact assessment coupled with the information gathered during the preparation of the technical advisors report it is my opinion that the proposed aquaculture is not likely to have a significant effect on the environment and that an Environmental Impact Statement is not required for this project.”

8.0 Screening for Appropriate Assessment.

A full Appropriate Assessment was not deemed necessary as the proposed licensing of shellfish culture in Loughros Beg Bay was concluded by the screening not to have any significant effects on the qualifying interests of the SAC, the West Donegal Coast SPA or other proximate Natura 2000 sites as there is no direct impact (spatial overlap) or likely interactions with the conservation features of these sites. This technical report agrees with the statement in the Ministerial file in that the proposed cultivation will have no significant effects, either individually or cumulatively, on the conservation objectives of the Natura 2000 network.

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

The issues raised by the appellants are collectively considered and are addressed under the following sections:

1. Public Consultation/Information Availability –
2. Site suitability
3. Existing Non-Compliance of shellfish cultivation
4. Navigation and Safety
5. Erosion/deposition
6. Ecology
7. Man Made Heritage
8. Economy
9. Visual

Public Consultation/Information Availability

Having reviewed the information available to the public it is noted that the project applied for including species and area is not the same as what was granted. Changes were made to site layout and area by Marine Engineering division, following site investigations, in line with best practice and in response to input during the consultation process. This information is on the files available to the public.

Public consultation and advertising appear to be within guidelines.

Site Suitability /maps

The OSI maps are legal maps and although they may not reflect the position of the channel they are required for a valid application. The Marine Engineering Division had reservations about site suitability and recommended that the original site area be reduced, the trestle layout redesigned and varied to address this. This resulted in the reduction of the area from 21 to 8.39 ha in size. It is the opinion of the technical advisor that this addressed the

shifting sands issues raised by the appellants and that the adaptations proposed by MED and accepted by the applicant has resulted in a site suitable for aquaculture.

The Loughros Beg Bay Water quality is considered adequate by the licencing authority for Pacific Oysters and is a location already used successfully to grow this species. The bay is classified under the shellfish regulations as Class B.

There is no spatial overlap with the existing Lough Beg Order 1977 (See Map 2)

Non-compliance of existing Aquaculture

The applicants raised the issue of noncompliance of other operators. It was considered to list this as non substantive but given the relevance to this site it was included here.

Examples cited are

- Rusty trestles abandoned on the beach
- Use of an unlicensed route
- Use of unlicensed areas

Operations of other licence holders is outside control of this applicant.

These issues, as listed above, are addressed in the licence agreement to be granted to the applicant. Waste management conditions and use of licenced areas if breached can result in the loss of a licence. See below for conditions.

Waste Management

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

Inspection

3.20. The licensed area and any equipment; .structure, thing, or premises wherever situated used in connection with operations carried out in the licensed area shall be open for inspection, at any time, by an authorised person (within the meaning of Section 292 of the Fisheries (Consolidation) Act 1959) (No. 14 of 1959) (as amended by Fisheries Act 1980) a Sea Fisheries Protection Officer (within the meaning of Sea Fisheries 'and Maritime

Jurisdiction Act 2006) (No. 8 of 2006) or any other person appointed in that regard by the Minister or other competent State authority.

Revocation,

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

(a) He considers that it is in the public interest to do

(b) He is satisfied that there has been a breach of and, condition specified in the licence e.g., operating outside the licensed area;

(c) The licensed area to which the licence relates is not being properly maintained,

(d) Water quality results or general performance; do not meet the standards set by the Minister or the competent State authority.

Navigation and Safety

According to the appellants the trestles are potentially dangerous to navigation, recreation and fishing in this shallow Bay.

The Marine Survey Office has no objection to this application from a navigational viewpoint. The site will be marked with navigational markers.

Ecology

The appellants are concerned that existing aquaculture is having an impact on the bay and that further aquaculture may exacerbate it.

Carrying Capacity

The appellants note the apparent disappearance of cockles and mussels in the locality and link it to an increase in oyster cultivation. They ask the question, has the carrying capacity of the Bay being calculated in respect of food availability i.e. phytoplankton?

The technical advisor notes that a study of carrying capacity has not been carried out. Carrying capacity is difficult to calculate. Only a few bays have been subject to a rigorous assessment of carrying capacity (18). Mulroy bay in Donegal has had considerable work done on carrying capacity but despite this the conclusion is unclear “Further work should

be undertaken to refine the estimate of carrying capacity within Mulroy Bay as better information and data becomes available”.

No information was found in respect of the decline mentioned in mussels and cockles in the locality but could be due to many other factors such as overfishing.

Generally, it is accepted that with good flushing rates such as at Loughros Beg Bay, where the bay empties nearly completely on a low tide, that food availability will not be a limiting factor.

Decline in Grey seals 2005 to 2007.

This area is only one of the seven most important grey seal areas in Ireland listed as Sturrall to Maghera and the population estimate in 2005 was 795-1022 (O’Cadhla et al., 2005). This survey was repeated in 2012 and the estimate was 844 – 1,085 (O’Cadhla et al., 2013). The results do not indicate a decline but suggest the population is stable and possibly increasing. (10,13,14)

Invasive species

According to the appellants, the invasive species *Sargassum* is apparently present in Loughros Beg Bay and may have been introduced with oyster cultivation. *Sargassum muticum* is a Japanese invasive brown seaweed that has recently found its way to the shores of Ireland. It is now widespread. It has now spread to virtually all coastal areas in the S, SE, SW, W and NE of Ireland. It appears to have come to Ireland in 1995 in Strangford Lough. The transplantation of oyster seed from infected regions of Europe and the transportation of fertile fronds by currents or by boats or ships are believed to be the most likely sources of inoculation to new areas. The appellants may be right about the source of the infestation. Licence conditions specifically refer to invasive species.

Cultivated Species

Pacific Oysters have been recorded breeding in Ireland and are considered unsuitable for cultivation by an Aisce. One of the conditions of licence here is that the Licensee may only use Triploid Oysters at this site. These are not capable of breeding.

Obstruction to Seals and otters

The issue of obstruction was raised. It was argued that oyster trestles may act as barriers to connectivity otter movement in the area. The concerns raised about the impact of physical structures causing obstruction to otters and seals is dealt with in the Natura

Screening report and the Licensing Authority's Conclusion Statement. The existing and proposed shellfish culture was found not to be disturbing to otters and grey seals.

Sea trout and mergansers

The point is made that sea trout (*Salmo trutta*) and mergansers have disappeared from the area. It is known that the sea trout population has declined all along the west coast in the past 40 years with no evidence to link this decline with oyster cultivation. Red-breasted Merganser (*Mergus serrator*) have been recorded on the Biodiversity Ireland website as in this area with (Hectad G69) the most recent record being in 2011. However, it is not known what the current status is in Loughros Beg as it is not counted as part of the national IWeBS annual counts. Nationally and Europe wide this species is not under threat and is green listed. This bird is a small diving duck which winters in sheltered coastal estuaries and bays. No negative interaction with oyster cultivation is predicted (38).

Curlews, Chough and or Twite.

Choughs and Twite are coastal birds. Twite feed on grains and insects associated with moorland and hay meadows and Choughs feed on insects associated with grassland and cattle. Their nesting or foraging habitat does not overlap with oyster cultivation on sandflats (12,23).

Curlew do feed along the coast however they prefer muddy to sandy sediments (1) and muddy substrate is not favoured for oyster cultivation. No conflicts are foreseen.

Compaction of Habitat

There may be compaction of the beach area as a result of vehicle tracking across the Sands with potentially negative impacts on the organisms associated with this habitat. This is addressed through licence conditions.

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

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

Therefore, compaction will be limited spatially and is not considered significant.

Erosion/Deposition

The question arose in respect of the presence of the new trestles disturbing sediment flow and impacting on erosion and deposition patterns in the bay. This is a highly mobile

environment with shifting sands no significant impact on these erosion or deposition patterns are foreseen as a result of grant of this licence application.

Man Made Heritage

The appellant identifies pilgrimage route including megalithic Tombs inscribed stones and marked Ancient Stones across the bay which may be negatively affected on by traffic to and from the oyster Farm. Having examined the location of the national monuments in the area it is noted that there is no spatial overlap between these and the licenced area or access route. No impact is predicted in relation to protection of manmade heritage.

Economy

The appellants are opposed to shellfish cultivation within the SAC and state that that will not have a positive impact on the economy. They state that this is an area of outstanding landscape which is being compromised relatively few employment opportunities this project compromises unique wild natural landscapes which underpin tourism which is the largest employer in the area. The tourism industry in Donegal supports in excess of 29,000 jobs in the NW region, attracting approximately 174,000 overseas visitors annually.

Concerns were raised regarding the potential impact of this project on the tourism industry. However, aquaculture has the potential to provide a range of benefits to the local community such as the attraction of investment capital, employment and development of support services etc.

Visual

Trestles within the site

The appellants disagree with the Landscape assessment and make the point that's where the trestles are located within an application the applicant has the freedom to move the trestles within that area regardless visual impact.

This particularly issue has been addressed by MED through the reduction of the area to be licensed and through strict conditions of grant of licence.

Visibility of trestles

According to the appellants the bay is very shallow with the difference between low tide and high tide estimated at 0.775 m. The trestles are estimated at 0.55 meaning they would be visible during the majority of the tidal cycle.

The finding of this technical report is that trestles must be covered for most of the tidal cycle to facilitate growth of the oysters. Therefore, it would be expected that the visual impacts will be limited to low tides.

County Development Plan

The applicants state that according to the County Development Plan this is especially high Scenic area with limited capacity to assimilate additional development.

Donegal County Council raised concerns about the cumulative impact of the proposed new licence applications which they considered to be excessive relative to the need to protect the amenities of the bay and therefore contrary to the objectives and policies of the County Development Plan 2012-2018. However, the County Council did not consider the new applications on an individual site impact basis.

MED has responded to these comments and produced a LVIA report which found that it would not be appropriate to licence all the proposed new sites on visual impact grounds. Using visualisation techniques and by a process of trials with various combinations of sites developed, the LVIA report concluded that the cumulative visual impact arising from the development of certain sites including 498A would be acceptable provided certain other sites were not developed.

Marine Engineering Division (MED) prepared a comprehensive LVIA for existing and proposed aquaculture sites in Loughros Beg Bay, including this site T12/498A. The report considered the landscape and visual impact of two renewal and five proposed licence

applications for trestle based oyster aquaculture in the bay. Five viewpoints were identified (Photo 6) and the impact from each site was assessed.



Photo 6: Aerial photo showing viewpoints for visual impact assesment

Two relevant assessment tables are reproduced here from the LVIA. Table 1 is an assessment of T12/498A alone and Table 2 is that site in combination with the other proposed licenced sites and renewal sites.

Viewpoint	Type of View/viewer	Sensitivity	Viewing distance	Magnitude of Change	Assessment
1	Maghera Strand amenity Beach user	High	1.4km	Low	Moderate
2	Maghera Road at Leaconnell	Local	1.03km	Low	Slight
		Visitor			High
3	Maghera Road at Mullanacarry	Local	1.60km	Low	Negligible
		Visitor			Moderate
4	Users of local road at Crumlin	Low	1.80km	Low	Negligible
5	Users of Point Road west of Crannog Bhui	Moderate	0.83km	Moderate	Moderate

Table 1: Individual assessment of Landscape impact of application T12/498A

Table 1 shows the impact from T12/498A. The most significant magnitude of change is from viewpoint 5 “Point road to Crannog Bhui”. The assessment identifies a moderate visual impact from the amenity beach Maghera Strand and increasing from slight to moderate on the local road running south of the bay east west between Ardara and the strand. This route is used by holiday makers but is not on the Wild Atlantic Way.

Overall assessment finds that the significance of visual and landscape impacts for the development of site 498A would not be above moderate levels.

The cumulative impact table looking at all 5 sites recommended to be licenced finds the biggest impact is to the south of the bay. None of these impacts are higher than moderate. The conclusion of that report is that visual impact arising from development of sites 161A, 162A, 403A, 460A and 498A (individually and cumulatively) is within acceptable range for licensing. The report specifically identified two other sites which would have had a

substantial impact on the visual amenity of the bay. These were recommended for refusal on this basis (17).

Viewpoint	Type of View/viewer		Viewing distance	Magnitude of Change	Impact Significance
1	Maghera Strand	High	1.41	Low	Moderate
2	Maghera Road at Leaconnell	High	0.41	Low	Moderate
3	Maghera Road at Mullanacarry	Low	0.08	High	Moderate
4	Crumlin	Moderate	0.64	Low	Slight
5	Point	Moderate	0.83	Low	Slight

Table 2: Cumulative Landscape Impact significance 5 sites developed 161A, 162A, 403a, 460A, 498A.

The bay is within an area much of which is classified as "Especially High Scenic Amenity"- including the two large islands in the inner bay area (Illauncreeve and Sand Island) It is for this reason that within a sensitive landscape the other two licences classified as having **substantial** visual impact were refused.

In conclusion the landscape and Visual Impact Assessment rates the development T12/498 as no higher than a moderate impact and concludes that the visual impact is within the acceptable range for licensing.

There are no designated views and prospects overlooking Loughros Beg Bay listed in the County Development plan and roads either side of the Bay are close to, but not on, the Wild Atlantic Way. The technical advisor agrees with the landscape assessment above for site T12/498A.

10.0 Recommendation of Technical Advisor with Reasons and Considerations.

Having carried out an inspection of the proposed site, reviewed the appropriate literature and in accordance with Sections 59 & 61 of the Fisheries (Amendment) Act 1997, it is recommended **to grant the licence for the site.**

The reason for the decision is agreement with the findings of all other experts and associated reports in respect of this application.

11.0 Draft Determination Refusal /or Grant

It is recommended to uphold the Minister's decision and grant a licence for this site, with the inclusion of an additional condition regarding maintenance of the channel on site.

Technical Advisor: Marie Louise Heffernan CEnv, MCIEEM, MSc

Date:16/01/2020

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