ASTER ENVIRONMENTAL CONSULTANTS LTD

Appeal Ref No. AP54/2019, 55/2019, 56/2019
Aquaculture Licences Appeals Board

Technical Advisor's Report T01/054A, T01/054B, T01/119

Carlingford Lough Oyster Licence appeals

Final Version

August, 2020

Summary

Description	Appeal against the decision by the Minister for Agriculture, Food and the Marine to refuse to grant and to grant with variations Aquaculture and Foreshore Licences to cultivate pacific oysters using bags and trestles on sites on the subtidal foreshore in Carlingford Lough, Co. Louth
License Applications	T01/054A, T01/054B, T01/119
Appeal References	AP54/2019, 55/2019, 56/2019
Technical Advisor	Marie Louise Heffernan CEnv, MCIEEM, MSc Aster Environmental Consultants Limited www.aster.ie Photographs Adrian Heffernan Photography
Site Inspection	03/06/2020
Applicant	Cooley Oysters
License Application	T01/054A, T01/054B, T01/119 AP54/2019, 55/2019, 56/2019
Minister's Decision	The decision of the Minister of Agriculture, Food and Marine was to refuse an Aquaculture license to Cooley Oysters for the cultivation of Pacific Oysters using bags and trestles at Carlingford Lough. Note AP54/2019, 55/2019 are for renewal and 56/2019 is a new application
Appeal	Appeal by Cooley Oysters against the decision of the Minister of Agriculture, Food and Marine to refuse the license applied for T01/054A, T01/054B, T01/119
Appellant	Cooley Oysters

Contents

1.0 General Matters / Appeal Details

This report deals with 3 appeals AP54/2019, 55/2019, 56/2019 corresponding to applications T01/054A, T01/054B, T01/119. It should be noted that although of these appeals are dealt with under Carlingford appeals each is considered individually with the data examined for each application site case by case.

1.1 Appeal Details & Observer Comments / Submissions

Oyster Cultivation Appeals

Three appeals are in respect of oyster cultivation located in outer Carlingford Lough past Greenore. The appeal numbers are AP54/2019, 55/2019, 56/2019 in respect of applications T01/54A, T01/54B and T01/119A.

Photo 1. Existing Oyster cultivation adjacent to appeal areas (all photos by Adrian Heffernan)

Photo 2 Existing Oyster cultivation adjacent to appeal areas.

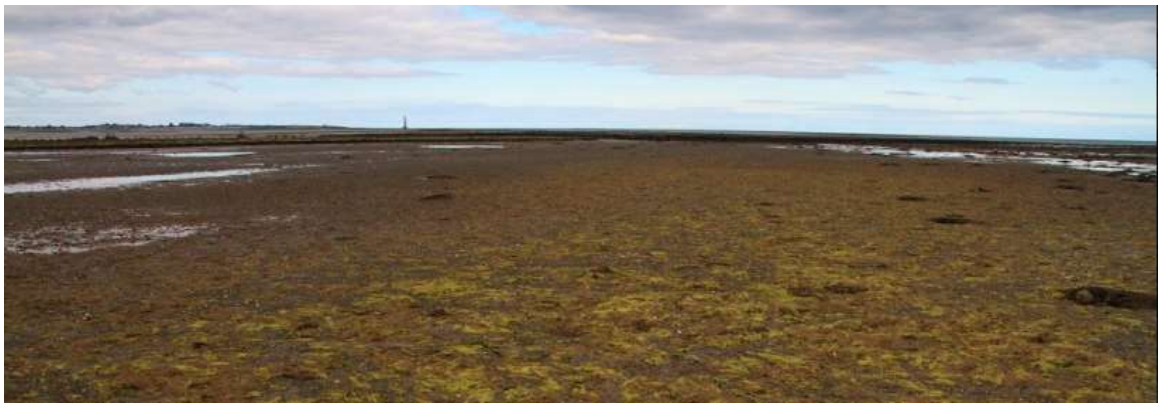
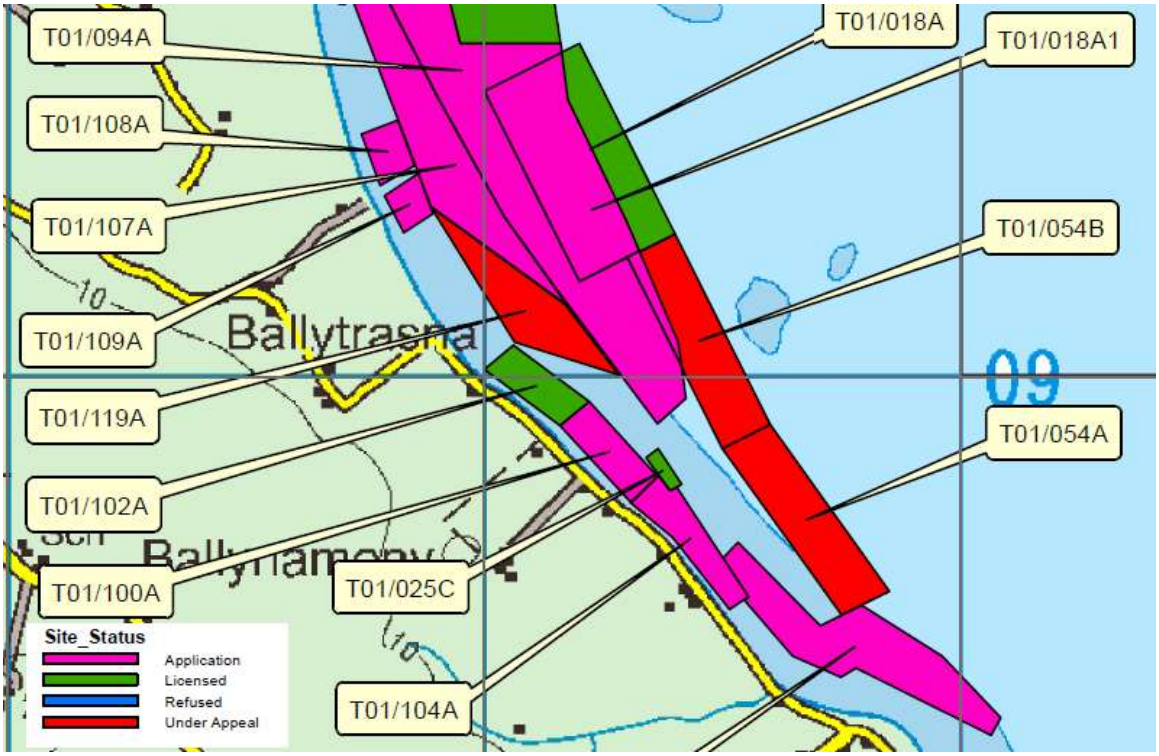


Photo 3: Appeal area T01/119 (AP56/2019) accessible at low tide.



Map 1: Oyster Cultivation at Carlingford Lough south of Greenore. Red areas under appeal.

1.2 Name and Address of Appellants

Site (North to South)	Appellant	Address
T01/054A	Cooley Oysters	Muchgrange, Greenore, dundalk, Co Louth, ireland A91FN50
T01/054B	Cooley Oysters	Muchgrange, Greenore, dundalk, Co Louth, ireland A91FN50
T01/119A	Cooley Oysters	Muchgrange, Greenore, dundalk, Co Louth, ireland A91FN50

1.3 Name of Observer

No observers except for appeal number T01/119A. Observation in support of grant of this licensing from **Ambrose Ferguson including a visual impact statement.**

1.4 Grounds for Appeal

T01/054A	The applicant contend that this site renewal/realignment forms an integral part of the farm realignment first requested in 2007. Addressing this issue is not an attempt to gain additional production areas but rather to align the maps with the historic location of the farm. In fact the BIM statement from the statutory consultee responses said "BIM support the renewal of the realigned version of this licence. In their considered view, it is the realigned version that should legitimately be considered for renewal purposes".
T01/054B	The applicant contend that this site renewal/realignment forms an integral part of the farm realignment first requested in 2007. Addressing this issue is not an attempt to gain additional production areas but rather to align the maps with the historic location of the farm. In fact the BIM statement from the statutory consultee responses said "BIM support the renewal of the realigned version of this licence. In their considered view, it is the realigned version that should legitimately be considered for renewal purposes".
T01/119	The application is for a new licence for intertidal oysters .The refusal was principally on visual and amenity impact. The applicant wishes to contend that the extension does not negatively impact on the nature of the view (Which already contains a portion of the oyster farm). He states that "viewing opportunities are curtailed by frequency of low tides" and "as the site is below the level of the road it does not impinge on either the foreground or skyline from that route". He also states that "Oysters are an integral part of the tourism offering of Carlingford Lough, and rather than detracting from the amenity value of the area, our business supports initiatives such as Origin Green and the national Food Board An Bord Bia, community beach clean ups, the Carlingford Oyster Festival and the recently announced Louth Seafood trail".

Substantive Issues

The above grounds for appeal were all considered to be substantive issues

Non Substantive Issues

There were no issues arising

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 received from the Minister or any other party in respect of this appeal.

1.6 Applicant response

As per Section 44 part 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."

It should be noted that in all three appeals at Carlingford Lough the Appellant is also the Applicant, as the appeals are against the decision by the Minister for Agriculture, Food and the Marine to refuse to grant and to grant with variations Aquaculture and Foreshore Licences to pacific oysters using bags and trestles on sites on the subtidal foreshore in Carlingford Lough, Co. Louth.

2.0 Consideration of Non-Substantive Issues

Each issue raised by the appellants is considered substantive and has been reviewed.

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.

Having reviewed the Appeal, the Minister's File, and carried out a site visit, the conclusion is that there is sufficient evidence in the technical reports provided to make a clear decision in relation to the appeals. The appellants not seek an oral hearing. No oral Hearing is recommended.

4.0 Minister's file

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

	Oyster Appeals		
	T01/54A	T01/54B	T01/119
Copy of the Application Form with maps, charts, co-ordinates and drawings	X	X	X
Copy of the Appropriate Assessment Report Special Protection Area	X	X	X
Copy of the Appropriate Assessment Report Special Area Conservation	X	X	X
Copy of submission to the Minister	X	X	X
Copy of relevant observations from technical advisors to the Minister			
Copy of objections to Public Notice	X	X	X
Copy of the Minister's decision	X	X	X
Copy of Notification to the Applicant of Minister's Decision	X	X	X
Copy of the advertisement of Minister's Decision	X	X	X

5.0 Context of the Area

5.1.1 Physical descriptions

Carlingford Lough is sea inlet that sits on the border between Northern Ireland to the north and the Republic of Ireland to the south. It runs in a North West / South East direction emptying into the Ireland Sea. On its northern shore is County Down and on its southern shore is County Louth. It is fed by both the Newry River and the Newry Canal.

The Lough overall is shallow with the average depth between 2 and 10 m, although the narrow centre channels may be as deep as 25 m. The underlying rock of the wider site is generally limestone and this appears at times in the form of bedrock shore or reefs. Granite boulders are occasionally found as are sand/gravel banks and intertidal mudflats

Photo 3: Carlingford Lough (Bing Maps)

Carlingford Lough has extensive intertidal banks which are gravel with mud and a high proportion of shells in the sediment. Lugworm (*Arenicola marina*) casts and Sandmasons (*Lanice conchilega*) are commonly found. Seaweeds recorded include gut weed (*Entromorpha*), egg wrack (*Ascophyllum nodosom*) and bladderwrack (*Fucus vesiculosus*).


Photo 4: Cockle shells, lugworm casts and bladderwrack in oyster cultivation areas

5.1.2 Population

There are two small villages on the southern side of the Lough. These are Carlingford and Omeath. Omeath had 603 people and Carlingford village 1,445 people living there individuals in the 2016 census..

5.1.3 Climate

Carlingford Lough has a mid oceanic climate. The nearest weather station is Dublin Airport situated around 100km south. Relatively speaking it is a dry part of Ireland with

757m of rain on average a year. As can be seen from the charts below the temperature is mild throughout the year normally ranging between 2 and 20 degrees.

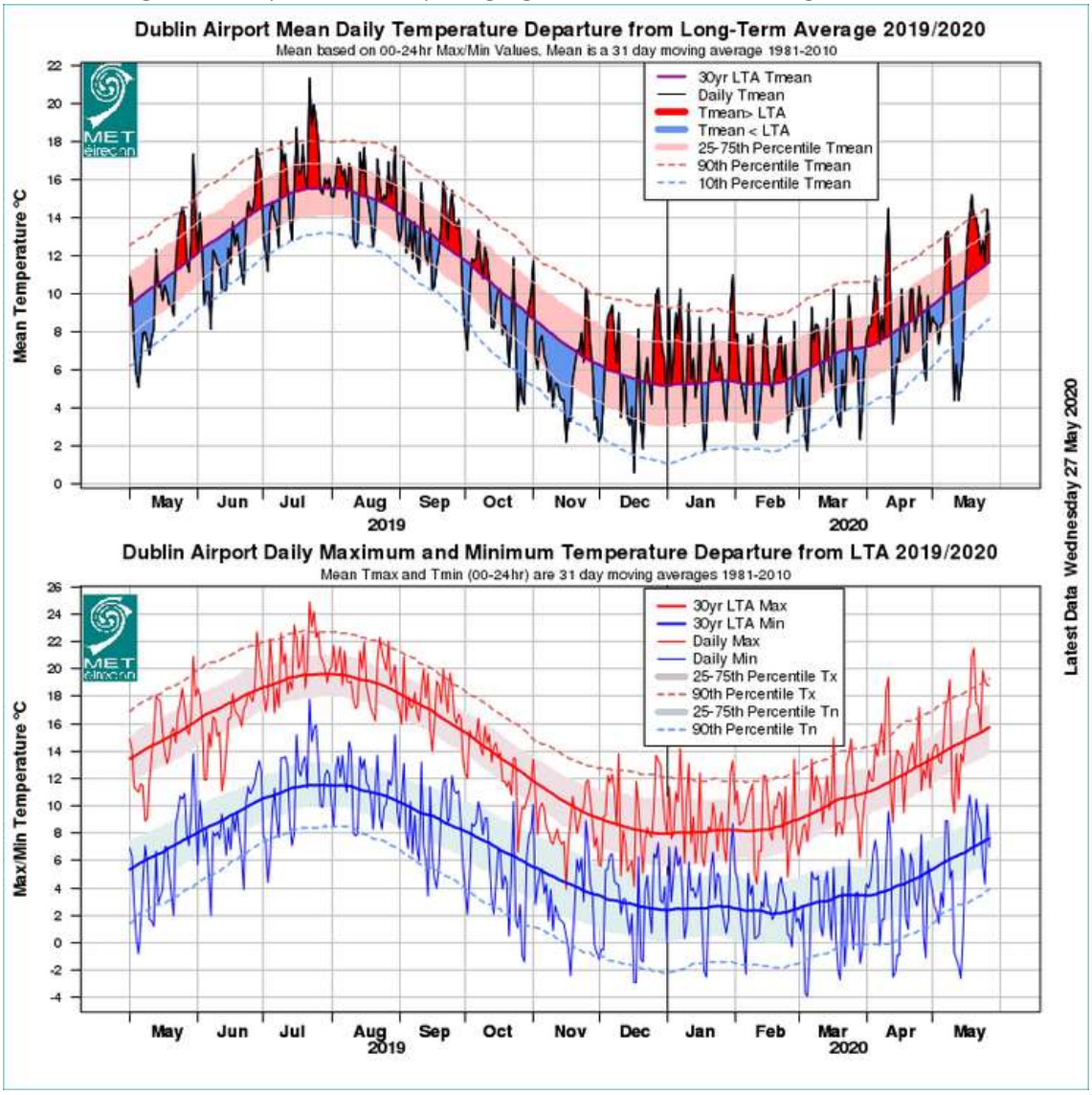


Figure 1: Temperature Data Dublin Airport

5.2 Resource Users

The following text is taken directly from Marine institute Report supporting Appropriate Assessment of Aquaculture in Carlingford Shore SAC and is a detailed description of the type of cultivation taking place within Carlingford Lough

5.2.1 Oyster Farming

Oyster farming within Carlingford Lough is a form of intensive culture which has been taking place since the early 1970s. There 17 fully licensed sites and five entities involved in oyster farming within Carlingford Lough (4 companies and 1 sole traders) with a maximum of 10 tractors that are used in the production area. There are an additional 5 sites licensed for oysters and clams to two of the five entities.

Cultivation of the Pacific oyster (Crassostrea gigas) is carried out by growing oysters in bags placed on a variety of trestle designs. The trestle type used in the Lough varies depending on location. The most common trestle type typically measure 3m x 1m and stand 0.4 – 1.2m in height, holding 6 bags each. Bags are made of a plastic (HDPE) mesh and are fastened to trestles using rubber straps and hooks. Bags vary in mesh size depending on oyster stock grade (6mm, 9mm, and 14mm). Higher trestles, trestles with enclosed bags (frames) and trestles with hanging baskets have been used by a number of operators for over 30 years to maximise return and to minimise man hours on the shore.

Husbandry activities

The production cycle begins in the Lough when G4 – G6 seed (6-10mm) is introduced from UK or French hatcheries beginning in spring and/or autumn of each year. Mixed stocks of Diploid and Triploid oysters are grown in Carlingford Lough and no settlement and recruitment of these oysters to the wild has ever been reported from the Lough. Mixed stocking helps spread mortality risk and minimise overall losses. All trestle lines and blocks are labelled for traceability. Some of the growers employ the use of a dedicated holding area on the upper shore close to the land base for finishing stock and to allow for ready access for grading or final harvesting during slack tides. New seed can also be placed in this area to allow for ongoing observation of its condition. Oysters are kept in the holding area for periods of up to 6 weeks. Growth cycle, depending on seed intake size ranges from 2.5 to 3 years. Market size is approximately 100g, by which stage they are around 120 -160 shells in each bag.

Activity levels

The intertidal area is typically accessed during mean and spring tides. Preparatory work is always conducted in the packing areas (outside the protected areas) in the intervening periods, including grading and packing, depuration, preparation of bags and trestles and general maintenance.

Sites are accessed by tractor and trailer. Each operator observes one or 2 dedicated access routes to the sites Oysters are thinned out and graded as the oysters grow. Through the ongrowing period, they are taken to the handling / sorting facility twice per year for grading and re-packing, and subsequently returned to the trestles.

In the final stage they will be 'hardened' and stored in the upper intertidal area, before removal, grading, depurated (If required), packed and shipped for distribution. The programme of work is continuous over all suitable low tide periods. The farms are positioned between mean Low Water Spring and mean Low Water Neap, allowing on average 3 hours exposure depending on tidal and prevailing weather conditions. Carlingford low tides are early morning and late evening.

As a general rule, growers access the growing areas 6 days per fortnight – 156 days per year. When packing, daily access is required to the hardening/storage areas further up the shore - 250-300 days per year. Maintenance activities on-site include shaking and turning of bags, removal of fouling and seaweed by hand and movement of stocks as necessary.

Access Routes Access Routes have been established over many years and occur in areas where the ground is suitable to support the weight of a tractor and trailer. Between all the operators a maximum of 10 tractors (2 at Ballagan, 8 in inner Carlingford) are used to access the sites from five main access points.

5.2.3 Periwinkle Picking and Lobster Pots

Periwinkle Picking is the only inshore fishing mapped by the Marine Institute at carlingford close to Carlingford village. During the low tide site visit 03/06/2020 periwinkle picking was also observed at the tide edge east of Omeath.

Nets are used for inshore fishing outside the mouth of Carlingford Lough and lobster pots to the south

5.2.4 Angling Activity

According to the Loughs agency sea at Carlingford Lough angling is available along the coastline– shore, rock and boat fishing with ray, spurdog, tope and dogfish during the summer months for

The shore around the lighthouse provides for an array of species including mackerel, sea trout (game licence required), pollack, spurdog, ray and dogfish. Bass can also be taken in this area.

Greenore is a commercial port and bottom fishing off this point in low water conditions offers dogfish, with spurdog and ray possible in summer. Wrasse can be taken on float

gear near the rocks and weedy margins, whilst autumn / winter codling are mostly caught at night. Greenore is a popular spot for mackerel fishing

The village of Carlingford produces good catches of mackerel in summer, with flounder and whiting in winter.

5.2.5 Leisure Users of the water body & surrounding area

Most of the recreation in the area is either on the water yachting or other boating or hill walking associated with the Cooley Mountains. The shores are not particularly suitable for recreation/swimming being a mixture of mud and gravel with seaweed. However they do attract low numbers of local walkers often with dogs.

5.2.6 Tourism

The area has been a tourist destination since Victorian times when the railway between Dublin and Belfast was opened. The Cooley peninsula situated between the two cities, combined with its scenery and sheltered location make it an important tourist destination. Carlingford is a very attractive heritage village with St Johns Castle and other noteworthy historical buildings.

This area is classified as the Mid-East and Midlands area by Failte Ireland. It has low numbers of international tourists with approximately 1 million visitors annually in 2018 and around half of these from Britain. Domestic visitor numbers are in the region of 1.4 million. The revenue from both domestic and overseas normally is approximately 600 million euro.

5.2.7 Agricultural Activity

The land in this area of Ireland is very productive. In 2010 the CSO carried out a detailed agricultural census by rural district.

The data from the CSO 2010 in relation to County Louth (CSO Area Code CTY 10) which encompasses Carlingford is as follows.

There are 1676 total farms of which 1000 are less than 30 ha in size. Total area farmed is nearly 61,000 ha. Total crops grown occupy c21,000 ha with land given over to silage and hay 14000 ha and grazing land around 26,000 ha.

The area has approximately 80,000 cattle mainly beef production and 67,000 sheep. Total numbers of people working on the farms are 3361 with only 23.7% of the landholders under 44 years old.

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5.3 Environmental Data

5.3.1 Water quality and the Water Framework Directive

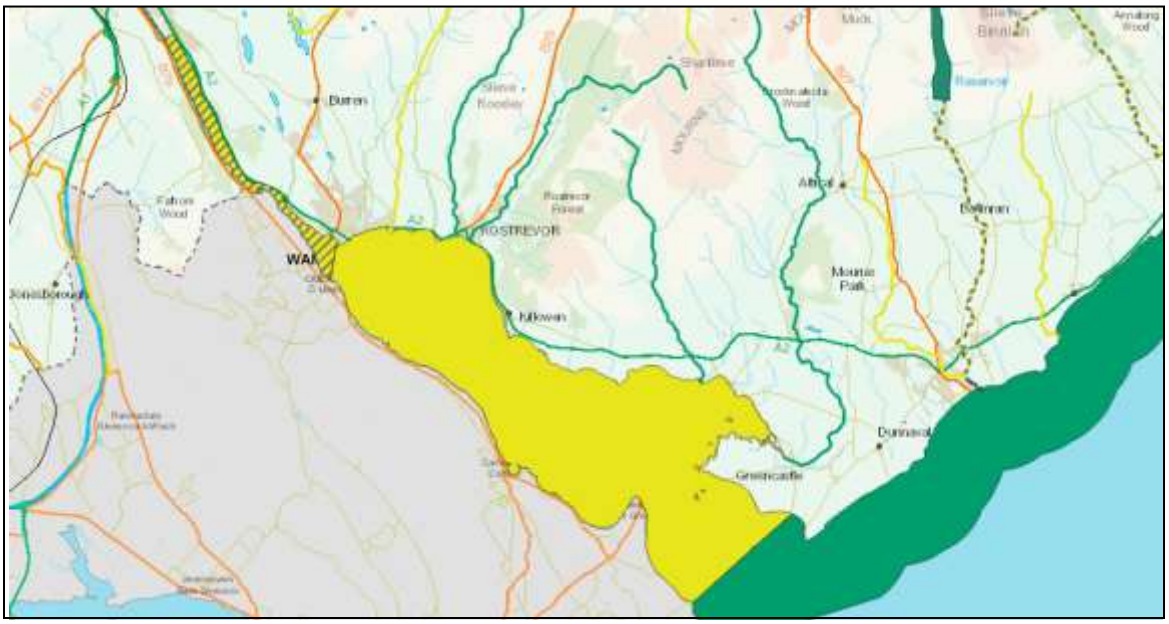
The EU Water Framework Directive (2000/60/EC) requires all Member States to protect and improve water quality in all waters so that Europe achieves good ecological status by 2015 or, at the latest, by 2027. The Directive requires that management plans be prepared on a river basin basis and specifies 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 Carlingford Lough.

The Eastern River Basin District (RBD) RBD incorporates all or part of twelve local authority areas: Dublin (Dublin City, Dun Laoghaire-Rathdown, Fingal, South Dublin) Meath, Kildare, Wicklow, Cavan, Offaly, Westmeath and small parts of Wexford and Louth. It encompasses the catchments of the rivers Liffey, Boyne, Avoca/Vartry and Nanny/Delvin, along with the coastline from Drogheda, Co. Louth to Arklow, Co. Wicklow, and all the groundwater of the region. It also includes 524 natural lakes.

Carlingford Lough receives its water from Northern Ireland and no substantial rivers flow into it from the south. Therefore in this case the Northern Ireland water framework directive maps are more relevant. The north eastern river basin district (NE RBD) covers an area of around 4000 km2, including 1000km2 of marine waters. It takes in large parts of Counties Antrim and Down and a smaller portion of Londonderry.

The principle river systems are the Lagan, Bush and Quoile as well as the smaller systems draining from the glens of Antrim, and the County Down Coastline. The NE RBD has an extensive coastline including Larne, Belfast and Strangford Loughs, with Lough Mourne, Clea Lakes and Silent Valley the main lakes.



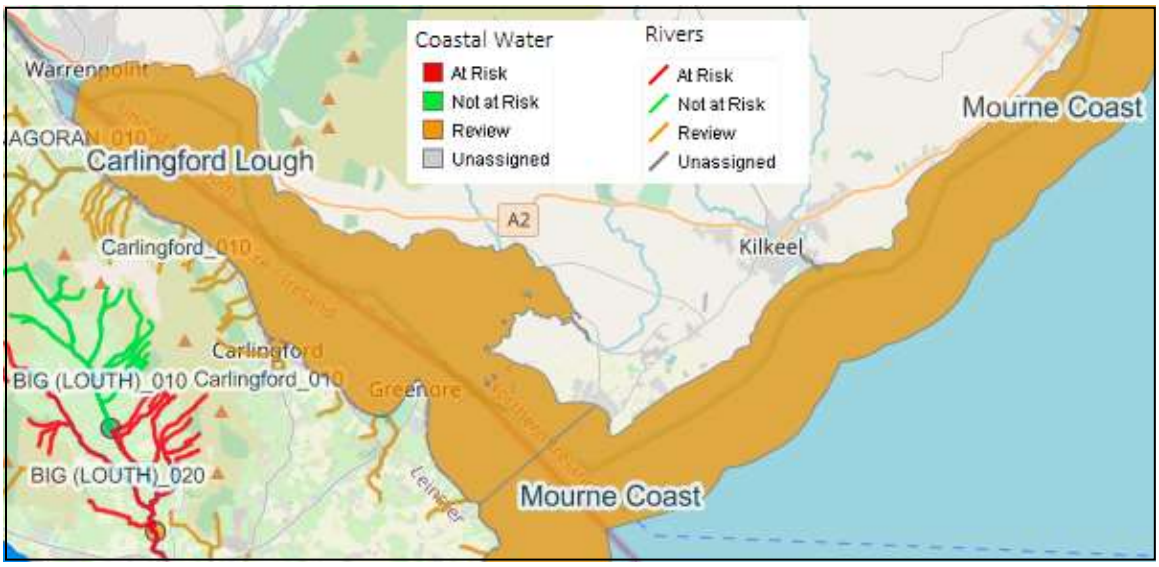
Map 2: Water Framework Directive Map Northern Ireland

Water Body Name: Carlingford Lough
Water body Code - UKGBNI6NB030
2018 Status - MODERATE
Target Status 2021 - MODERATE
Target Status 2027 - GOOD

Water Body Name: Newry Estuary
Water body Code - UKGBNI5NB030010
2018 Status - MEP
Target Status 2021 – MEP Maximum Ecological potential
Target Status 2027 - GEP

River Name: Moygannon River
Water body Code - UKGBNI1NB060604042
2018 Status - MODERATE
Target Status 2021 - GOOD
Target Status 2027 - GOOD

River Name: Kilbroney River
Water body Code - UKGBNI1NB060604041
2018 Status - GOOD
Target Status 2021 - GOOD
Target Status 2027 - GOOD



Map 3: Water Framework Directive Map Southern Ireland (Source EPA)

Note The EPA maps show that the in the categories for the Water Framework Directive that Carlingford lough is under review as are the rivers entering the lough from the south. The data from Northern Ireland is more relevant as the lough fed by large rivers Lagan, Bush and Quoile.

5.3.2 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 pretreatment. 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

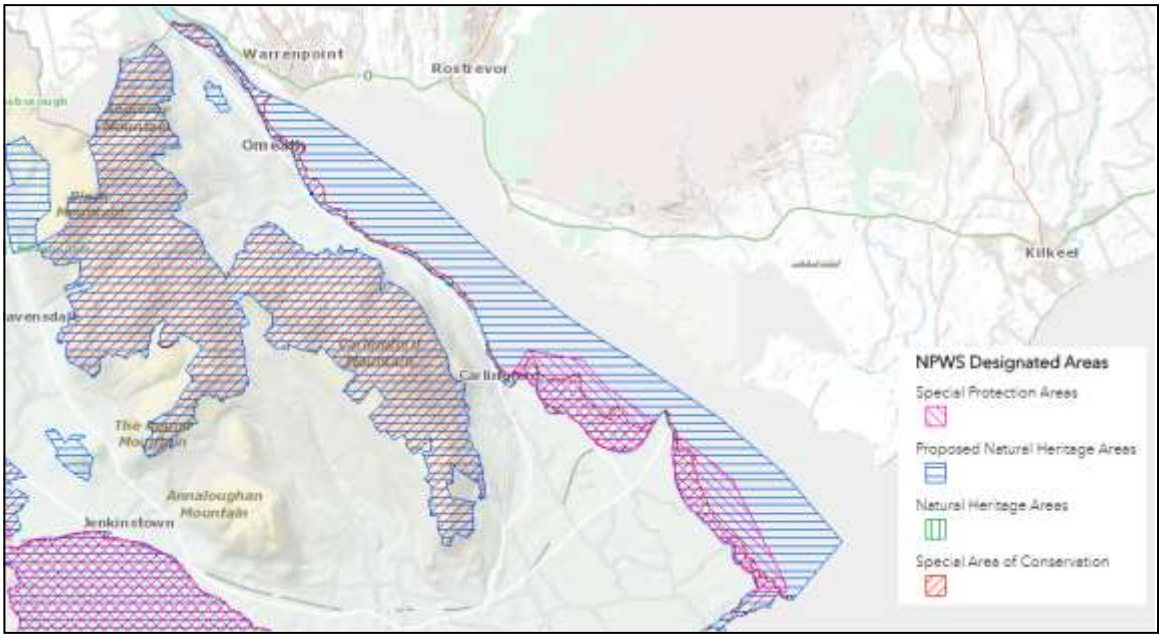
Shellfish flesh classifications are carried out under the European Communities (Live Bivalve Molluscs) (Health Conditions for Production and Placing on the Market) Regulations, 1996 (S.I. No. 147 of1996)). In 2019/2020 List of Classified Bivalve Mollusc Production Areas in Ireland (27 June 2019)

Waterbody	Location		Species	Classification
Carlingford Lough (Irish Waters)	Ballagan Point to Cranfield Point and Carlingford Point to Carrigaroan	Ballagan	Oysters	A
		Greenore	Oysters	A
		Carlingford outer	Mussels	A
	Rostreavor Quay to Greers Quay and Black Rock to Carrigaroan	Carlingford Inner	Mussels	B

5.4 Statutory Status

5.4.1 Nature Conservation Designations

Carlingford Lough is designated under the Natura 2000 network - Birds and Habitats Directives. It is also designated as a proposed NHA which has no statutory status.



Map 4: Map of Designated sites at Carlingford Lough (Source NPWS.ie)

The following areas are designated in Carlingford Lough

Proposed Natural Heritage Areas: Carlingford Lough

Site Code000452

Special Protection Areas: Carlingford Lough SPA

Sitecode 004078

Special Area of Conservation Carlingford Shore SAC

Sitecode 002306

The mussel cultivation appeals are outside all Natura 2000 designated areas and the proposed oyster cultivation is within both the SAC and SPA. The proposed NHA is not designated on a statutory basis.

Special Protection Area

Ireland is required under the terms of the EU Birds Directive (2009/147/EC) to designate Special Protection Areas (SPAs) for the protection of endangered species of wild birds. In particular

- Listed rare and vulnerable species
- Regularly occurring migratory species, such as ducks, geese and waders.
- Wetlands, especially those of international importance, which attract large numbers of migratory birds each year.

Carlingford Lough SPA (Site code 004078) is a wetland of international importance particularly for migratory wildfowl and is selected for the protection of the following bird species

- Light-bellied Brent Goose (Branta bernicla hrota) [A046]
- Wetland and Waterbirds [A999]

Special Area of Conservation

Special Areas of Conservation are prime wildlife conservation areas in the country, considered to be important on a European as well as Irish level.

The Habitats Directive lists certain habitats and species that must be protected within SACs. Irish habitats include raised bogs, blanket bogs, turloughs, sand dunes, machair (flat sandy plains on the north and west coasts), heaths, lakes, rivers, woodlands, estuaries and sea inlets. The 25 Irish species which must be afforded protection include Salmon, Otter, Freshwater Pearl Mussel, Bottlenose Dolphin and Killarney Fern.

Carlingford Shore SAC (Site code 002306) is designated for the following habitats as listed in Annex I of the Habitats Directive:

Annual vegetation of drift lines [1210]

Perennial vegetation of stony banks [1220]

5.5 Protected Species

5.5.1 Birds

The proposed aquaculture areas (T01 /119 and T01/54A and B) are within a Special Protection Area (Birds Directive) and a Ramsar site. However other birds of interest have been recorded off shore here since 2011. The data is extracted from Biodiversity maps. It is data from hectad J11. Which is a ten km grid square encompassing the aquaculture licence application. These birds, as listed, are ones only relevant to the application such as offshore divers, gulls and predatory birds.

Bird	Source	Protected Species: Wildlife Acts	Birds of conservation concern	EU Birds Directive Annex I
Brent Goose (Branta bernicla)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
Common Buzzard (Buteo buteo)	Birds of Ireland	Protected Species: Wildlife Acts		
Common Goldeneye (Bucephala clangula)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
Common Greenshank (Tringa nebularia)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
Common Guillemot (Uria aalge)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
Common Raven (Corvus corax)	Birds of Ireland	Protected Species: Wildlife Acts		
Common Redshank (Tringa totanus)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Red List	
Common Shelduck (Tadorna tadorna)	Birds of Ireland	Protected Species: Wildlife Acts	Amber List	
Eurasian Curlew (Numenius arquata)	Birds of Ireland	Protected Species: Wildlife Acts	Red List	
Eurasian Oystercatcher (Haematopus ostralegus)	Birds of Ireland	Protected Species: Wildlife Acts	Amber List	
Eurasian Teal (Anas crecca)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	

Table 1: Table of other birds of Interest and their conservation status (continued next page)

Eurasian Wigeon (Anas penelope)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
European Golden Plover (Pluvialis apricaria)	Birds of Ireland	Protected Species: Wildlife Acts	Red List	Annex I Bird Species
European Shag (Phalacrocorax aristotelis)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
Great Black-backed Gull (Larus marinus)	Birds of Ireland	Protected Species: Wildlife Acts	Amber List	
Great Cormorant (Phalacrocorax carbo)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
Great Crested Grebe (Podiceps cristatus)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
Greater Scaup (Aythya marila)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
Grey Heron (Ardea cinerea)	Birds of Ireland	Protected Species: Wildlife Acts		
Hen Harrier (Circus cyaneus)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts		Annex I Bird Species Amber List
Herring Gull (Larus argentatus)	Birds of Ireland	Protected Species: Wildlife Acts	Red List	
Lesser Black-backed Gull (Larus fuscus)	Birds of Ireland	Protected Species: Wildlife Acts	Amber List	
Little Egret (Egretta garzetta)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts		Annex I Bird Species
Little Grebe (Tachybaptus ruficollis)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
Mallard (Anas platyrhynchos)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts		
Mew Gull (Larus canus)	Birds of Ireland	Protected Species: Wildlife Acts	Amber List	
Northern Fulmar (Fulmarus glacialis)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts		
Northern Lapwing (Vanellus vanellus)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Red List	

Table 1: Table of other birds of Interest and their conservation status (continued next page)

Peregrine Falcon (Falco peregrinus)	Birds of Ireland	Protected Species: Wildlife Acts		Annex I Bird Species
Razorbill (Alca torda)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
Red Knot (Calidris canutus)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Red List	
Red-breasted Merganser (Mergus serrator)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts		
Red-necked Grebe (Podiceps grisegena)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts		
Red-throated Diver (Gavia stellata)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
Ringed Plover (Charadrius hiaticula)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts	Amber List	
Ruddy Turnstone (Arenaria interpres)	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts		
Surf Scoter (Melanitta perspicillata)	Rare birds of Ireland	Protected Species: Wildlife Acts		

Table 1: Table of other birds of Interest and their conservation status

The birds found are very typical of the Irish coast with waders and wildfowl recorded most often in winter and low numbers of birds of prey using the Carlingford for foraging.

5.5.2 Sea Mammals

Otters *Lutra lutra* are designated under Annex II EU Habitats Directive. There are records from the Biodiversity Ireland maps in particular in the vicinity of Carlingford village to Greenore and Ballagan where the oyster appeals are. These counts were recorded during the Mammals of Ireland survey 2010-2025. The habitat in the bay is suitable and the intertidal area is likely to be used by foraging otters.

Seals

Grey seals (*Halichoerus grypus*) and Common Seal (Phoca vitulina) are designated under Annex II EU Habitats Directive. Sightings of 10 or more individuals of both species were recorded in Carlingford Lough in April and May 2018.

5.5.3 Cetaceans

These records (table 2) presented below are post 1995 and were collected by the Irish Whale and Dolphin Group Cetacean Sightings (www.iwdg.ie) and sourced on Biodiversity Ireland maps hectad J20.

Name	Habitats Directive
Bottle-nosed Dolphin (Tursiops truncatus)	Annex II
Common Porpoise (Phocoena phocoena)	Annex II
Common Dolphin (Delphinus delphis)	Annex IV
Striped Dolphin (Stenella coeruleoalba)	Annex IV

Table 2: Post 1995 sightings of Whales and Dolphins in vicinity of Carlingford Lough

It is unlikely that cetaceans would visit the oyster aquaculture appeal areas given the fact that the majority of these are intertidal in nature.

5.6 Statutory Plans

The ***Louth County Development Plan 2015-2021*** was adopted on 28th September 2015.The Plan contains an overall strategy for the proper planning and sustainable development of County Louth over the lifetime of the Plan.

Relevant sections are as follows

Development Zone 3 - To protect the recreational and amenity value of the coast. The coastline of County Louth stretches from the County Down border, along Carlingford Lough and Dundalk Bay to the Boyne Estuary outside Drogheda. It is of considerable intrinsic, special amenity and recreational value. Furthermore, the coastline is home to a variety of natural habitats and many species of flora and fauna. The coastline is protected by a number of statutory designations. Special Areas of Conservation (SAC), proposed Natural Heritage Areas (pNHA) and Special Protection Areas (SPA) designations cover much of the coastline.

Natural Heritage and Biodiversity
Natural heritage comprises the biological and geological underpinnings of our existence, our biodiversity and geodiversity, which express themselves through our farming, wildlife and landscapes (and to some degree, our built heritage). Biodiversity (short for biological diversity) refers to the whole variety of life on earth. It includes habitats and ecosystems, covering all plants, animals and micro-organisms both on land and in the water. Biodiversity relates to both wildlife and to domesticated crops and animals. Wildlife conservation is a legal requirement of development plans and is good for people as well as for wildlife. County Louth is rich in biodiversity, thanks to an extensive coastline (stretching from Carlingford Lough to the Boyne Estuary), marine environments, wetlands, woodlands, rivers and upland habitats. Together, these habitats support a rich variety of plant and animal species.

A total of 9 Landscape Character Areas were identified in County Louth. These represent geographical areas with a particular landscape type or types. The premier category is of International Importance. This classification relates to Carlingford Lough and Mountains including West Feede Uplands.

Areas of Outstanding Natural Beauty County Louth contains two distinct areas that have been designated as Areas of Outstanding Natural Beauty (AONB) by reason of their unspoiled natural landscapes and spectacular scenic quality.
AONB1 Carlingford and Feede Mountains
AONB2 Clogherhead and Port Oriel

Spectacular views are available from a number of vantage points over Carlingford Lough to the Mourne Mountains in Northern Ireland and the Ring of Gullion in County Armagh and over Dundalk Bay to central and south County Louth.

No specific mention is made in respect of aquaculture in the County Development Plan

5.7 Man-made heritage

National Monuments Service data of recorded National Monuments in the area was accessed and the map is presented below is any located within or immediately adjacent to Carlingford Lough and thus licence application appeal areas.

Map 5: National Monuments in the vincinity of Carlingford Lough Source (Reproduced under OSI License number EN 0070910)

There are many multiple National Monuments at Carlingford Lough and these have no relevance to aquaculture so the data presented only relates to those within 50m of the shore. There are three groups of these; one at Omeath, one at Carlingford village and a third at Greenore.

Site 1. National Monument Record Reference Reg. No. 13833010
National Monument of regional importance house dating to 1780-1820

Site 2. National Monument Record Reference Reg. No. Reg. No. 13833008
National Monument of regional importance house dating to 1780-1820

Site 3. National Monument Record Reference Reg. No. 13825044
National Monument of regional importance pier/jetty dating to 1830 - 1850

Site 4. National Monument Record Reference LH005-042002-
King John's Castle is a Anglo-Norman masonry castle situated in the townland of Liberties Of Carlingford dates from the twelfth century

Site 5. National Monument Record Reference LH005-042022-
This Souterrain is situated in the townland of Liberties Of Carlingford dates and is within the Curtilage of King John's Castle

Site 6. National Monument Record Reference Reg. No. Reg. No. 13825048
National Monument of regional importance boathouse dating to 1850 - 1890

Site 7. National Monument Record Reference Reg. No. 13825043
National Monument of regional importance pier/jetty dating to 1840 – 1860

Site 8. National Monument Record Reference LH005-029002-
Church situated in the townland of Liberties Of Carlingford

Site 9. National Monument Record Reference Reg. No. Reg. No. 13831026
National Monument of regional importance Hotel dating to 1865 - 1885

Site 10. National Monument Record Reference Reg. No. 13831044
National Monument of lighthouse keeper's house 1820 to 1840

Site 11. National Monument Record Reference Reg. No. Reg. No. 13831043
National Monument of regional importance lighthouse dating to 1825 - 1835

Site 12. National Monument Record Reference Reg. No. Reg. No. 13831038
National Monument of 5 workers houses dating to 1860 - 1880

Site 13. National Monument Record Reference LH009-012
Prehistoric site - lithic scatter situated in the townland of Greenore

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6.0 Section 61 Assessment

Section 61 of the Fisheries Amendment Act 1997
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 pro-visions 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

6.1.1 Site Suitability

The oyster cultivation areas T01/054A, T01054B and T01/119A under appeal are **suitable** for the intended purpose for the following reasons:

1. The adjoining areas are already successfully cultivated for Pacific Oyster
2. Within a designated shellfish water
3. The proposed developments are not close to National Monuments in the area.
4. The access routes to the appeal areas are the same as existing licenced routes

Specifically T01/119A is considered suitable for oyster cultivation
According to Marine Engineering Division "The site is located on intertidal area. The substrate is generally clean sand apart from the northern corner where there are some cobbles on the surface. Substrate is moderately firm throughout the site and suitable for supporting trestles. Gradient is an even fall from west to east. The higher site elevation on the west side is likely to be more suitable for oyster holding than oyster growing. Neighbouring sites are being successfully used for growing oysters and site 119A which has similar physical characteristics should also be suited for that purpose."

However T01/054A and T01054B are **unsuitable** for the following reasons

T01/054A
According to Marine Engineering Division: " The site is located east of Greenore. This site is sub-tidal with most of the site having depths of greater than 5m below chart datum. A spot depth of 6.9m is noted at the centre of the site on the chart. These depths are far in excess of recommended depths for trestle based oyster aquaculture. Ground on the western boundary of this site was generally too soft for safe foot access or vehicle access. In general this site is not suitable for trestle and bag system proposed due to the excessive depth over most of the site. No evidence was found of significant use of this site for trestle based culture in the past. It is clearly unsuited to trestle and bag oyster culture."

T01/054B
According to Marine Engineering Division "The site is located east of Greenore. This site is sub-tidal with most of the site having a depth in excess of 2m below chart datum. Spot depths of 4.5m and 4.6m within the site are noted. It is far in excess of recommended depths for trestle based oyster aquaculture. There is a small sub area at the northwest corner of less than 0.3 Ha however in area terms it covers just 6% of the site the rest being completely unsuitable due to depth and substrate reasons."

6.2 Other uses

6.2.1 Tourism/ Leisure /Recreation

The proposed oyster cultivation sites T01/054A, T01054B and T01/119A are shorelines of gravel with mud. The shoreline is dominated by oyster cultivation, has wet areas where water pools and seaweed is abundant thus is not particularly attractive for other recreational activities. It is not suitable for swimming but is used by locals for walking.

Sites T01/054A, T01054B are beyond existing oyster cultivation and are semi subtidal in nature. They effectively blend with existing cultivation.
No impact is foreseen in respect of tourism leisure or recreation.

Site T01/119
According to Marine Engineering Division "site T01/119 is located in a designated Natura 2000 area in Carlingford Shore SAC and Carlingford Lough SPA. This site will be visible at close range (150m) from the shore road at Ballytrasna and this narrow road is a popular road for tourist cars in the summer and is used by walkers and joggers throughout the year… visibility is higher due to its location and proximity to the shore road. There is a cumulative impact issue due to the scale of existing oyster farm activity and it is important a balance is struck between shellfish farm development and amenity value of the shore …The magnitude of visual change occasioned by development of this site will be high resulting in a substantial visual impact from the shore road at Ballytrasna. Cumulative visual impact is also likely to be in the substantial category. …Based on the information available MED recommends refusal of this application on visual amenity grounds"

A visual impact assessment was prepared and submitted by Ambrose Ferguson the father of the applicant in support of the licence T01/119. The VIA was prepared in line with the guidelines for Landscape and Visual Impact Assessment of Marine Aquaculture (ERM, 2001).

In this report he states "In the Louth County Development Plan 2015-2021, the roadway adjacent to site T01/119A is designated as a scenic route (SR 15). These views and prospects are reflective of Louth's unique scenic quality and are notable for their natural scenery and striking landscapes" according to Mr Ferguson the plans states "Developments should not interfere with or adversely affect these scenic routes" but he makes the point that "Aquaculture sites are already visible from this route and were visible at the time of designation… Louth co. co. did not object to any oyster licence applications or renewals in this area."

He uses photomontages to illustrate the impact of the development.

Photo 5 existing view crest of hill on scenic route (Source A Ferguson VIA report)

Photo 6 Projected post grant of T01/119 view crest of hill on scenic route (Source A Ferguson VIA report)

Mr Ferguson identified his potential impacts, pathway and receptors in detail
He specifically focuses on short distance views (scenic route and local residences) and proposes standard mitigation in terms of trestle alignment and size. He concludes that "the magnitude of change is medium due to the size of the visual envelope (Large), the fact that the site will be covered by seawater most of the time and the presence of existing oyster structures in this area".

In respect of Cumulative Impact Assessment he states "As described above, impacts on landscape and visual amenity as a result of the Project will be confined to a 4 km Zone of Visual Amenity. There are existing oyster aquaculture sites within this zone. But the current proposal is not considered to be a significant addition in terms of visual or landscape intrusion but rather a small addition to an existing culture block. Cumulatively

Sensitivity is Low and the Magnitude of change is Low, therefore the cumulative impacts will be of Negligible Significance and therefore Acceptable."

The technical advisor based on the site visit and the photomontages presented dose not agree with the assessment of impacts presented in the report prepared by Ambrose Ferguson specifically in relation to cumulative impacts. The technical advisor agrees with MED in that "Cumulative visual impact for public views on the shore road is also likely to be in the substantial category. Cumulative visual impact has been increasing in line with expansion of the trestle covered area of intertidal shore in recent years. Licensing 119A would cause add on impact."

The Technical Advisors view is that the application T01/119 will be significant both individually and cumulatively particularly in respect of the designated scenic route and would, if granted, reduce further the already limited area for walkers on the foreshore.

In respect of site T01/119 there will be a significant impact visually or spatially in respect of tourism or recreation.

6.2.2 Fishing/ bait digging

Periwnkle picking was observed during visit at inner Carlingford Lough. This activity is also mapped mid bay by the marine institute. Oyster cultivation appeals are located away from the areas mapped or observed for periwinkle picking.

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

6.2.3 Navigation

The oyster cultivation sites T01/054A and T01/054B have a limited potential impact on navigation and according to Marine Engineering division would require Navigation markings if licensed for structures as boat access to and into the appeal areas from the outer lough would be possible at all tidal stages.

For site T01/119A Marine Engineering Division states "No navigation impact is foreseen. The appeal area is readily accessible by tractor and trailer from the Ferguson Shellfish Ltd work shed and yard at Ballytrasna"

The proposed oyster aquaculture sites will **not significantly impact** on navigation the area.

6.3 Statutory Status

Oyster Appeals

The oyster cultivation sites T01/054A, T01054B and T01/119A are located within Carlingford Shore SAC (Site Code: 002306) and within the Carlingford Lough SPA (Site Code:

All these aquaculture appeal areas are within 15km of a designated Natura 2000 site and thus subject to Appropriate Assessment. The potential impact will be addressed under section 8.0.

6.4 Economic effects

All the aquaculture appeals are linked to existing enterprises which support jobs in the Carlingford Lough area. Aquaculture is positive for the economy in this area.

The licensing of proposed sites is likely to have a **positive effect** on the local economy of the area.

6.5 Ecological Effects

Section 61 (e) considers the likely effect that the proposed aquaculture operation would have on wild fisheries, natural habitats and the fauna and flora of the area.

T01/54A, T01/54B and T01/119

An Taisce notes "that in Table 8.1 in the SAC AA report sector 22, in which both applications are situated, is identified as being almost at the carrying capacity threshold at approx 29%. An Taisce highlights that the impact of licensing should be seriously considered in terms of its potential to breach the carrying capacity as the data and findings presented would appear to indicate that the sector is just 1% away from breaching the carrying capacity limit"

Other protected species
Cetaceans. Although a variety of cetaceans including are known offshore the Oyster appeals area is too shallow for these species and no interactions are predicted.

The proposed licensed sites would have a no significant negative impact on these species if granted.

Other Birds
Wildfowl, waders, divers and cormorants are recorded in the area and are likely to use the site for foraging. It is not foreseen that oyster trestles in this areas will have a negative impact on these birds. Predatory birds such as Buzzard will not likely be impacted on as there are many thousands of wild birds and other wildlife to prey on within the area.

The proposed licensed sites would have no significant negative impact on these species.

6.6 General Environmental Effects

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

The proposed aquaculture site will not significantly impact on known ecological status of the Area

6.7 Effect on man-made heritage

There are no effects anticipated on the man-made environment heritage of value in the area; The proposed aquaculture appeals will not significantly impact on known man-made heritage of the area.

6.8 Conclusion

A technical review was carried out by Aster Environmental Consultants Ltd in relation to Appeals against the decision by the Minister for Agriculture, Food and the Marine to refuse to grant and to grant with variations Aquaculture and Foreshore Licences to cultivate pacific oysters using bags and trestles on sites on the subtidal foreshore in Carlingford Lough, Co. Louth

6.8.1 Site Suitability

T01/054A	This appeal area is classed as unsuitable by MED due to the depth at which the trestles are proposed and the substrata beneath the trestle area.
T01/054B	This appeal area is classed as unsuitable by MED due to the depth at which the trestles are proposed and the substrata beneath the trestle area.
T01/119A	This site was considered suitable by MED for growing oysters on trestles.

6.8.2 Other Uses

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

T01/054A	No impacts on recreation, tourism, fishery or any other identified.
T01/054B	No impacts on recreation, tourism, fishery or any other identified
T01/119A	Potentially significant impacts identified visually and in terms of recreation.

6.8.3 Statutory Status

Some of the proposed developments have the possibility of significant impacts on Natura 2000 network for the following reasons. Please also see Section 8.

Impact on Special Protection Area

T01/054A	If licences granted there is a **potential negative impact** on Brent Geese according to the Appropriate assessment report prepared by Atkins 2019
T01/054B	If licences granted there is a **potential negative impact** on Brent Geese according to the Appropriate assessment report prepared by Atkins 2019
T01/119A	If licences granted there is a **potential negative impact** on Brent Geese according to the Appropriate assessment report prepared by Atkins 2019

Impact on Special Area of Conservation

T01/119A	There was is no identified direct/indirect impact on the qualifying interests of the SAC. Carrying capacity was examined in relation to cumulative impact and **no significant impact** was identified in this section of the bay in respect of impact on phytoplankton abundance.
T01/054A	There was is no identified direct/indirect impact on the qualifying interests of the SAC. Carrying capacity was examined in relation to cumulative impact and **no significant impact** was identified in this section of the bay in respect of impact on phytoplankton abundance.
T01/054B	There was is no identified direct/indirect impact on the qualifying interests of the SAC. Carrying capacity was examined in relation to cumulative impact **and no significant impact** was identified in this section of the bay in respect of impact on phytoplankton abundance.

6.8.4 Economic effects

There would likely be a **positive effect** on the economy of the area, if the proposed licences were granted as aquaculture is an important employer locally.

6.8.5 Ecological Effects

No significant impacts on natural habitats, wild fisheries and fauna and flora of the area were identified as pertaining to grant of these appeals.

The Appropriate Assessments looked at terns nesting, seal haul outs and location of Zostera beds and there are no overlap of these sensitive areas with these applications.

See above under Statutory Status for the impact on SPA/SACs

6.8.6 General Environmental Effects

There are **no significant general environmental** effects predicted as a result of the proposed development. None were identified in terms of invasive species, water quality or any other.

Man-made Heritage

There is **no negative impact** predicted on the man-made heritage of value predicted in the area is predicted to result from a grant of the proposed operations as there is no spatial overlap. No national monuments were identified in the intertidal or subtidal areas where these operations occur

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.

No EIA screening was prepared in respect of these applications. As the decision is to recommend refusal none is required.

8.0 Appropriate Assessment.

Two Appropriate assessment reports were prepared for the Lough. One in respect of the SPA (Atkins, 2019) and the other in respect of the SAC (Marine Institute, 2019). The following is a summary and interpretation of the data in respect of the licenced areas.

8.1 Special Protection Area

Oyster Appeals T01/54A, T01/54B and T01/119

Noting that the only special conservation interest species for Carlingford Lough SPA is Brent Geese according to the Atkins Appropriate Assessment Report (2019) "With respect to south of Greenore the existing trestles on the lower shore do appear to have moved up the shore to follow the shoreline and avoid the deeper subtidal channel. Behind the trestles is an area of shore that can be utilised by Light-bellied Brent geese. However, there are also new applications south of Greenore which propose to extend further up the shore as well as extend the area of trestle cover southwards towards Ballagan. While Brent geese seem to have acclimated to present patterns of aquaculture activity it is not clear whether they could continue to use the site [Carlingford Lough SPA] if the area between the existing trestles and the shoreline were infilled; or if loss of foraging opportunities would be adequately offset by growth of green algae on the trestles. During the Loughs Agency 2012 survey this area south of Greenore (S2) accounted for 23% of goose observations; displacement of birds to this extent would result in a significant level of displacement if geese were displaced by proposed activities."

It is noted that farming activity for oyster cultivation only occurs at low tide and some trestles will only be uncovered twice per month. Using aerial photographs the extent of active oyster cultivation in Carlingford was mapped.

Photo 5: Green indicates visible trestles on aerial photo and brown appeal areas.

Clearly the application T01/119 is very close to the shore and is referred to in the sentence in the SPA Atkins report "it is not clear whether they could continue to use the site if the area between the existing trestles and the shoreline were infilled". Therefore, there is no doubt that licencing this area would have a significant impact on the Brent Geese for which Carlingford Lough SPA is selected and is of international importance.

The grounds for appeal for T01/54A and B state that this application " … not an attempt to gain additional production areas but rather to align the maps with the historic location of the farm" However, both of these areas are not in use with no overlap with the production areas as seen on aerial photos. The Atkins (2019) report states that "Behind the trestles is an area of shore that can be utilised by Light-bellied Brent geese" this is appears to correspond to these areas. Therefore there is the potential for significant impact on the Brent Geese for which Carlingford Lough SPA is selected and is of international importance.

This is a potential **significant negative impact** in respect of all oyster applications T01/54A, T01/54B and T01/119

8.2 Special Area of Conservation

Where the overlap between intertidal oyster or subtidal mussel aquaculture activities, and a feature is zero and there is no likely interaction of risk identified, it is screened out and not considered further.

Annual vegetation of drift lines [1210] habitat occurs primarily on deposits of shingle found lying at or above mean high-water spring tides. Intertidal oyster aquaculture occurs on the lower intertidal zone and there therefore will not be any spatial overlap between oyster aquaculture and this feature of the SAC.

Perennial vegetation of stony banks [1220] habitat is found at the limit of high tide. As Intertidal oyster aquaculture occurs on the lower intertidal zone there will therefore not be any spatial overlap between aquaculture and this feature of the SAC.

In addition, the 5 established access points to the shore (and multiple access routes on the shore) do not overlap either of these habitat types.
Therefore, the following habitats (and only qualifying interests of the Carlingford Shore SAC) are excluded from further consideration in this assessment:
Annual vegetation of drift lines [1210]
Perennial vegetation of stony banks [1220]

No significant direct or indirect impact predicted by licencing Oyster appeal areas at Carlingford lough in respect of appropriate assessment related to the Special Area of Conservation.

8.3 Carrying Capacity

As part of the Appropriate Assessment for Carlingford Shore SAC an assessment was done of carrying capacity this is an important issue for the long terms sustainability of the industry as it can impact on growth rates as well the success and recruitment of wild species. The conclusion was that the ecological carrying capacity in Carlingford appears to be exceeded in all, bar two, aquaculture sectors.

The ecological carrying capacity model considered the likely impact filtration by shellfish aquaculture species will have on the background chlorophyll (Chla) levels in the lough (SMILE-Ferreira et al (2007)). It is clear that all bar one sector relative to the current licensing considerations exceed or are close to the 30% threshold. This would suggest that all sectors inside Greenore cannot accommodate any additional aquaculture activities and that in some sectors the level of existing activity might be reduced. It is important to note that the models assume that all sites are being utilised and there is full occupancy of the aquaculture sites. As indicated above some sites are likely to be underutilised.

Examining the models predictions relative to the position of the appeals the following table is presented. This gives an indication of the percentage reduction in Chlorophyll levels (related to phytoplankton abundance) based on the area of licensed sites in 2007.

Appeal Code	Predicted % reduction due to aquaculture
T01/054A	16.67%
T01/054B	16.67%
T01/119A	16.67%

This table is an interpretation or the data presented in the SAC Appropriate Assessment and relies on estimation of location of appeal areas in relation to the sections analysed in the model described. The oyster cultivation areas are not close to the 30% threshold of phytoplankton depletion of the resource as indicated by the Appropriate Assessment for the SAC .

No significant impact is predicted by licencing Oyster appeal areas at Carlingford lough in respect of carrying capacity.

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

It was concluded that all 5 appeals were valid and the questions posed by the appellants and observers have been fully addressed by this report.

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 refuse the licence for the all the appeal sites.

T01/054A T01/054B	The case made by appellant was considered, in particular the issues of realignment as well as site suitability. We note the following BIM comment "BIM support the renewal of the realigned version of this licence." We note that the proposal for realignment of both oyster cultivation area was first submitted in 2007 and again in the aquaculture profile submitted by BIM to the MI to inform the Appropriate Assessment". However, mapping these licence areas (photo 5) shows that there is no current usage of this area for oyster cultivation. According to the expert opinion of Marine Engineering division neither of these sites are suitable for oyster cultivation intertidally due to the depth on site and the

	nature of the substrate. In addition it is clear from Map 1 that there is already significant Oyster Cultivation on site and according to the SPA Appropriate Assessment report there is potential for significant impact through additional licencing. Specifically they state "While Brent geese seem to have acclimated to present patterns of aquaculture activity it is not clear whether they could continue to use the site if the area between the existing trestles and the shoreline were infilled; or if loss of foraging opportunities would be adequately offset by growth of green algae on the trestles. During the Loughs Agency 2012 survey this area south of Greenore (S2) accounted for 23% of goose observations; displacement of birds to this extent would result in a significant level of displacement if geese were displaced by proposed activities." Under the Habitats Directive activities that could interfere with the conservation objectives of the site cannot be permitted. In this case the conservation objective is "To maintain the favorable conservation condition of Light-bellied Brent Goose in Carlingford Lough SPA". Therefore given the requirements of Directive and the potential for significant impact on the conservation objectives the only decision compatible with the Habitats Directive to be made is a refusal of these licences at this location. Therefore, the recommendation of the Technical Advisor is to uphold the Minister's decision.
T01/119	The case made by appellant in respect of this application was in relation to visual impact. This assessment considered both the detailed visual impact assessment produced by the appellants father Ambrose Ferguson and the independent visual impact assessment carried out by Paul O Sullivan of MED as well as the technical advisors own observations on site. We considered also the amenity aspect of the application as this was one of the reason for refusal. The technical advisor having considered all the evidence agrees with MED "the magnitude of visual change occasioned by development of site119A will be high - which when coupled with say moderate level sensitivity (on average) of visual receptors will result in a substantial visual impact from the shore road at Ballytrasna" In addition it is clear from Map 1 that there is already significant Oyster Cultivation on site and according to the SPA Appropriate Assessment report there is potential for significant impact through additional licencing. Specifically they state "While Brent geese seem to have acclimated to present patterns of aquaculture activity it is not clear whether they could continue to use the site if the area between the existing trestles and the shoreline were infilled; or if

	loss of foraging opportunities would be adequately offset by growth of green algae on the trestles. During the Loughs Agency 2012 survey this area south of Greenore (S2) accounted for 23% of goose observations; displacement of birds to this extent would result in a significant level of displacement if geese were displaced by proposed activities." Under the Habitats Directive activities that could interfere with the conservation objectives of the site cannot be permitted. In this case the conservation objective is "To maintain the favourable conservation condition of Light-bellied Brent Goose in Carlingford Lough SPA". Therefore given the requirements of Directive and the potential for significant impact on the conservation objectives the only decision compatible with the Habitats Directive to be made is a refusal of this licences at this location. **Therefore, the recommendation of the Technical Advisor is to uphold the Minister's decision**.

11.0 Draft Determination

It is recommended to uphold the Minister's decision for all appealed areas.

Technical Advisor: Marie Louise Heffernan Aster Environmental Consultants Ltd
Date:18/08/2020

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