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

Accompanying Guidance Notes should be read before completing this form.

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

USE BLOCK CAPITALS IN BLACK INK

For Office Use
Application Ref. No. T3155
Date of receipt, (Dept. Stamp):

Aquaculture & Foreshore Management Division
23 APR 2012
Dept. of Agriculture, Food & the Marine

PART 1: PRELIMINARY DETAILS

Name(s) of Applicant(s) in full:
1.A CRESCENT SEAFOOD
1.B

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

1.A	1.B
1 REDWOOD PARK MURRINTOWN CO WEXFORD	

Fax:

* Limited Companies must include their VAT No.

1.C TYPE OF APPLICATION — Insert X in relevant box

Indicate the relevant type of application:

-(i) Aquaculture Licence	(i)	X T3155
-(ii)Trial Licence		
-(iii)Review of Aquaculture Licence		
-(iv)Renewal of Aquaculture Licence	(iv)	X
-(v) Foreshore Licence		

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

1.D TYPE OF AQUACULTURE

Indicate the relevant type of application:

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

1.E DOCUMENTS ENCLOSED WITH THIS APPLICATION

The following documents are enclosed with this application:

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

(2) - British Admiralty Chart (largest available scale) ☐

(3) - Decision of planning authority under Planning Acts ☐

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

(5) - Environmental Impact Statement ☐

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

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

(8) - Application Fee OBLIGATORY ☐

(9) - Other (specify): MAPS ARE ALREADY WITH DEPARTMENT

PART 2: DETAILS RELATING TO PROPOSED AQUACULTURE PROJECT

2.A Employment, Qualifications, Experience, Etc.

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

15 iN AQUACULTURE iN WEXFORD HARBOUR

(ii) Other relevant experience (courses attended, etc):

B.i M SAFETY COURSES

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

THERE ARE 5 FULL TIME JOBS in THIS COMPANY PLUS 3 PART TIME DURING CRITICAL TIMES

(iv) Projected employment (number of persons):

SEE ABOVE.

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

2.B Aquaculture Site Details

Indicate type of site:

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

2.C .Land-Based Site

(To be completed if appropriate)

(i) State species to be farmed: N/A

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

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

(iv) Tonnage to be produced: between 800 and 1000 at present.

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

(v) Proposed source of stock: EAST COAST SEED AND WALES

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

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

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

(ix) Area of proposed site (hectares):

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

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

(xii) If yes, supply details:

Land-based Site (continued)

2.D The following must be supplied:

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

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

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

2.F Marine-based Site(s)
(To be completed if appropriate)
Location -(i) Bay: WEXFORD HARBOUR

-(ii) County: WEXFORD

(iii) OS Map No: With DEPARTMENT

(iv) Site Co-ordinates _____

(v) Size (hectares):
100 HETRES APPROX

(vi) Species (common and scientific name):
MUSSEL - MYTILUS EDULIS
-Aquatic Plant(s)
-Any form of aquatic food suitable for the nutrition of fish

(vi) Method of culture (e.g., nets, ropes, tanks, trestles, etc.)_____
GROWN ON BOTTOM

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

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

-(a) Number: N/A

-(b) Type and shape:_____

-(c) Cubic Capacity:_____

-(d) Depth:_____

(ix) Proposed specific site locations (with reasons): THIS AREA IS CURRENTLY USED By US

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

Marine-based Site(s) (continued)

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

NO ISSUES OF PUBLIC HEALTH AS MUSSELS ARE TESTED WEEKLY

2.H Tonnage to be produced:

Species (To state)	Year 1:	Year 2:	Year 3:	Year 4:
CURRENT	PRODUCTION	ff	800 – 1000 Tonnes	

2.I Reasons for selection of site(s):

SITE IS BEING USED BY US FOR PAST 15 YRS

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

2.J Environmental Impact Statement (EIS).

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

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

Describe experimental or investigative nature of the proposed project:

N/A

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

B. MARKETING (continued)

3. Will the product be processed or packaged? YES ☐ NO ☑

4. If yes, give details: _____

I/We hereby declare the information provided in Parts 1, 2 and 3 above to be true to the best of my/our knowledge. I/We enclose an application fee* of €63.49 with this application.

Signature(s) of Applicant(s): D Kelly

Date: 16/4/12

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

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

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

1 NO. SITE AT WEXFORD HARBOUR CO.WEXFORD

Co-ordinates & Area

Site T03/055E (19.88 Ha)

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

303901, 124552 to Irish National Grid Reference point
304130, 124552 to Irish National Grid Reference point
304231, 124370 to Irish National Grid Reference point
304231, 123807 to Irish National Grid Reference point
304001, 123811 to the first mentioned point.

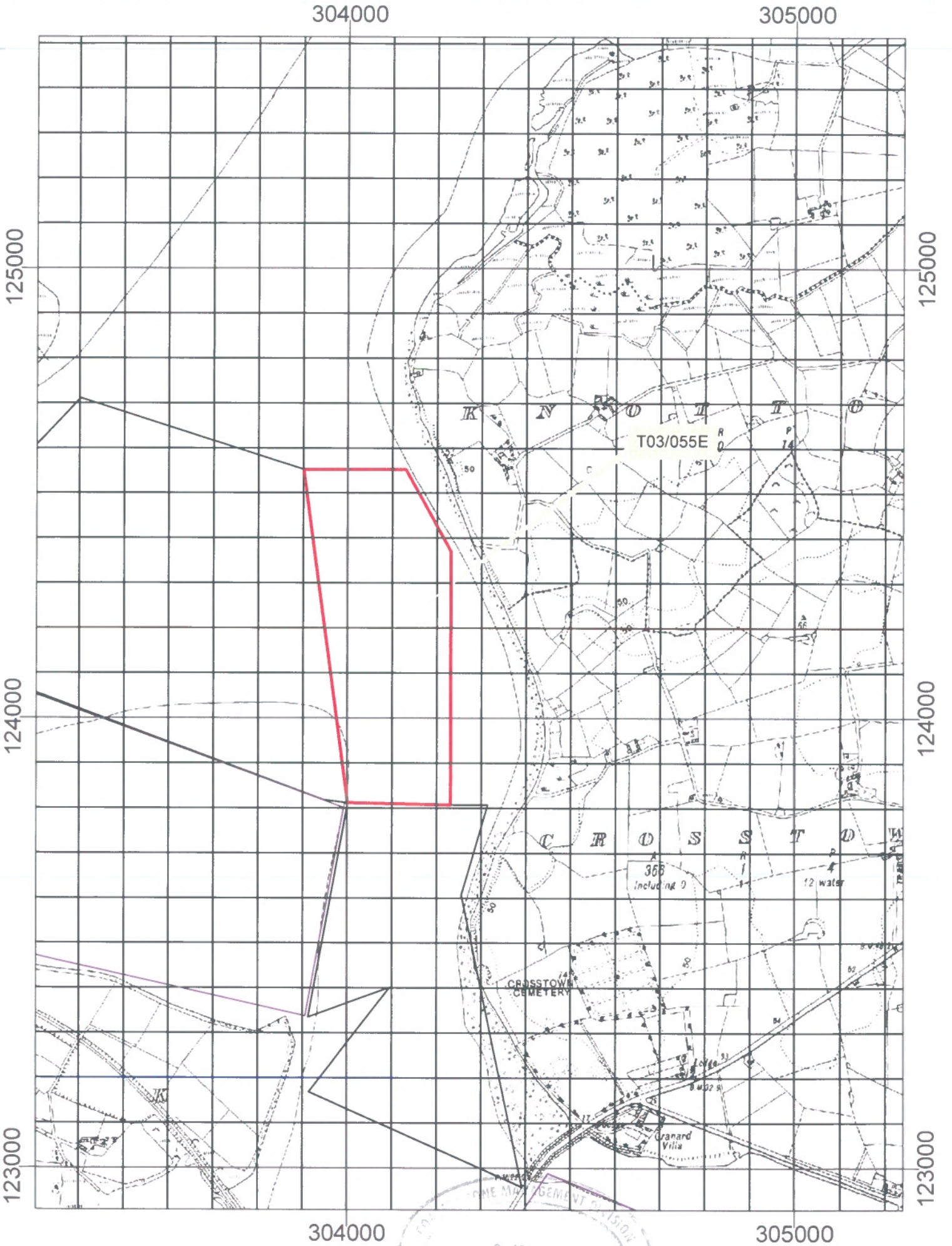
1 NO. SITE AT WEXFORD HARBOUR CO.WEXFORD

Co-ordinates & Area

Site T03/055F&C (92.6 Ha)

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

309217, 123450 to Irish National Grid Reference point
309700, 123444 to Irish National Grid Reference point
310011, 123085 to Irish National Grid Reference point
310235, 122495 to Irish National Grid Reference point
309720, 122497 to Irish National Grid Reference point
309476, 122794 to Irish National Grid Reference point
308922, 122623 to Irish National Grid Reference point
308816, 122944 to Irish National Grid Reference point
308858, 123400 to Irish National Grid Reference point
309217, 123363 to the first mentioned point.

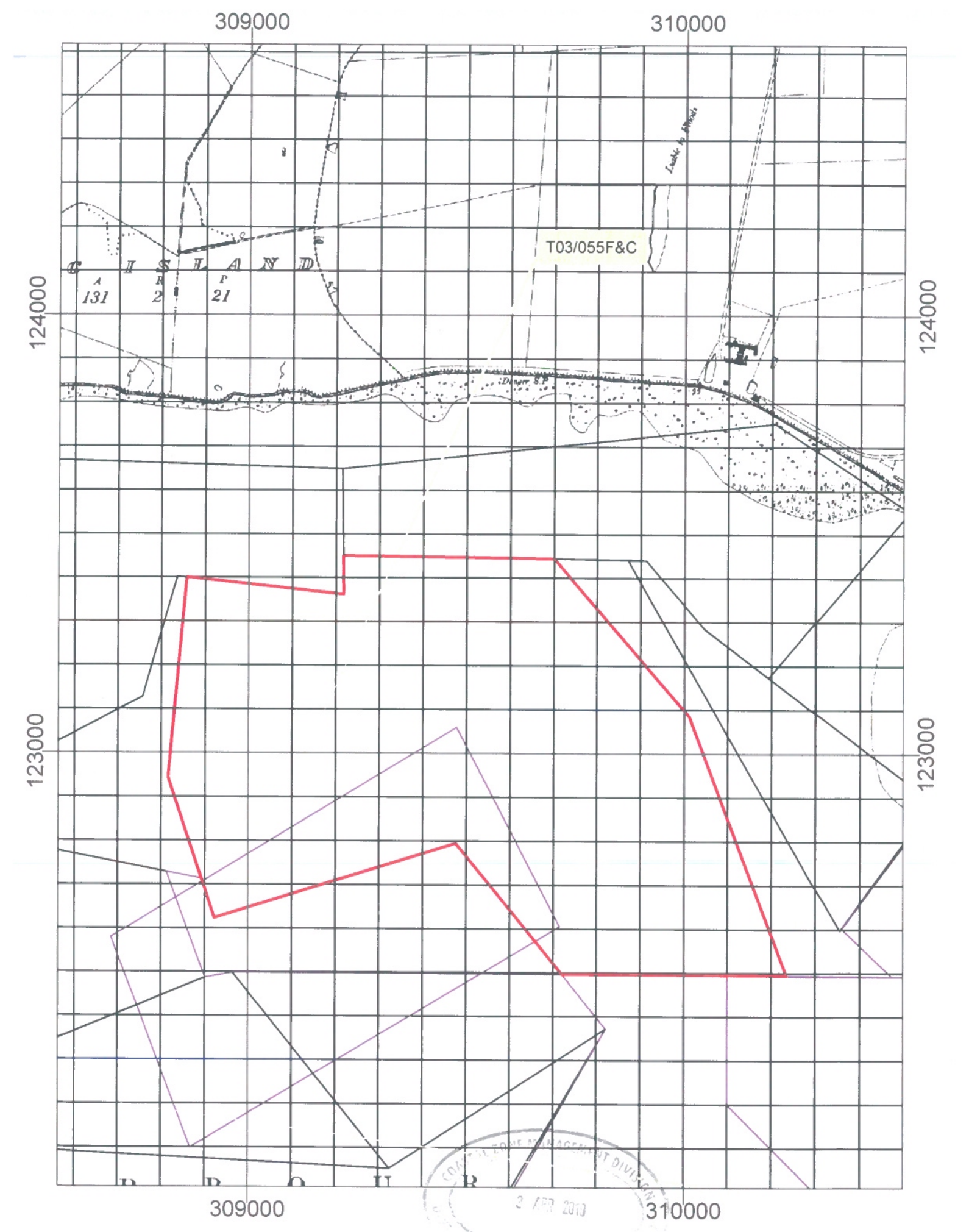


1:10,560

Sites highlighted in red denotes Application

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

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



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Sites highlighted in red denotes Application

Aqua Culture Sites
<all other values>
Site_Status
Application
Lapsed
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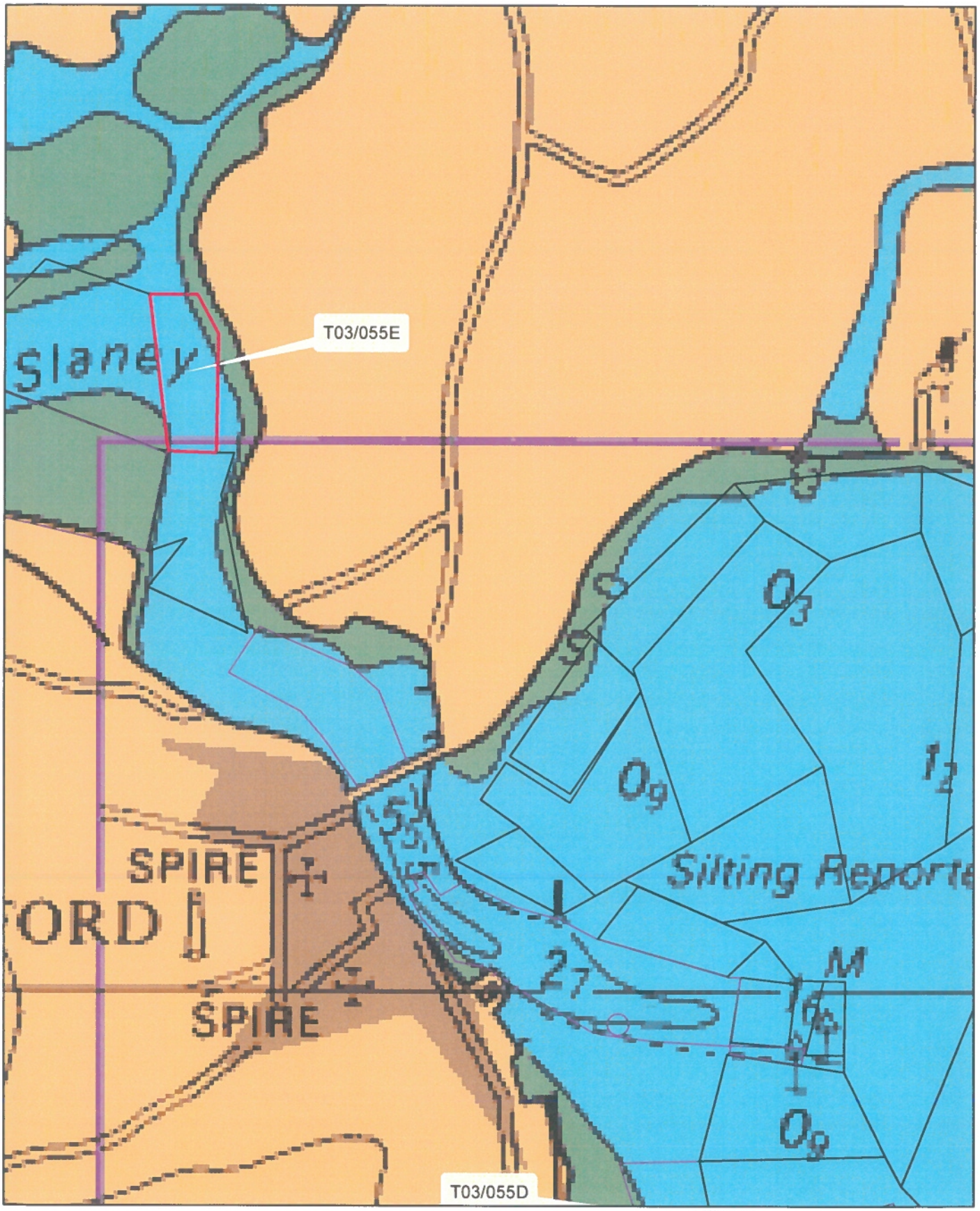


Aqua Culture Sites

<all other values>

Site_Status

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

1:24,000

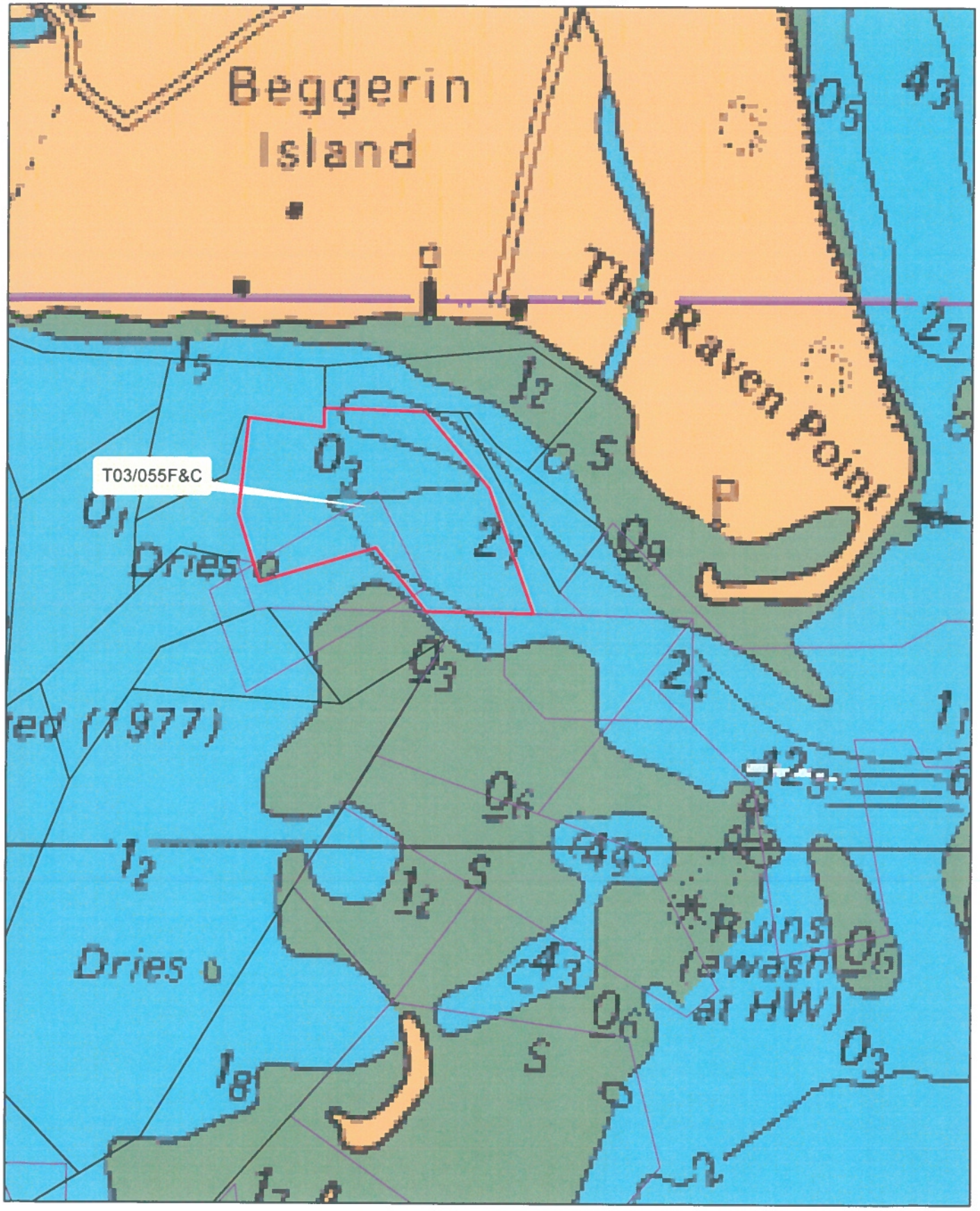
Sites highlighted in red denotes Application

Part of Admiralty Chart No =1787-0

Not to be used for Navigation

Department of Agriculture, Food and the Marine

An Roinn Talmhaíochta, Bia agus Mara



Aqua Culture Sites
<all other values>

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

1:24,000

Sites highlighted in red denotes Application

Part of Admiralty Chart No =1787-0

Not to be used for Navigation

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


T03_55E_Access 1 in 10560_Scale
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Map prepared by Brian O' Loan BIM under OSI Licence

Appropriate Assessment Conclusion Statement (Updated) by Licensing Authority for aquaculture activities in:
Slaney River Valley SAC (Site Code: 000781)
Raven Point Nature Reserve SAC (Site Code: 000710)
Wexford Harbour and Slobs SPA (Site Code: 004076) and
Raven SPA (Site Code: 004019) - (Natura 2000 sites)

This Conclusion Statement outlines how it is proposed to licence and manage aquaculture activities in the above Natura sites in compliance with the EU Birds and Habitats Directives. Aquaculture will be licensed in accordance with the standard licence terms and conditions as set out in the aquaculture licence templates.
These are available for inspection at:
www.agriculture.gov.ie/seafood/aquacultureforeshoremanagement/aquaculturelicensing/

Furthermore, the licences will also incorporate specific conditions to accommodate Natura requirements, as appropriate, in accordance with the principles set out in this document.

An Appropriate Assessment report for aquaculture activities, under Article 6 (3) of the EU Habitats Directive, has been carried out in the above 'Natura 2000' sites by the Marine Institute on behalf of the Department of Agriculture, Food and the Marine. This Appropriate Assessment assessed the potential ecological impacts of aquaculture activities on the qualifying interests of Natura sites in *and adjacent to* Wexford Harbour. Both the Special Areas of Conservation (SACs) and Special Protection Areas for birds (SPAs) were assessed. From an aquaculture perspective, the information upon which the Appropriate Assessment is based is the definitive list of applications and extant licences for aquaculture available at the time of assessment.

A number of other adjacent SACs and SPAs, located within 15 km of Wexford Harbour, were also considered, namely;-
Carnsore Point SAC (site code 002269), Long Bank SAC (site code 002161), Screen Hills SAC (site code 000708), Blackwater Bank SAC (site code 002953), Cahore Marshes SPA (site code 004143), Lady's Island Lake SPA (site code 004009), the Saltee Islands SPA (site code 004002) and Tacumshin Lake SPA (site code 004092).

Appropriate Assessment

The function of the Appropriate Assessment is to determine if the ongoing and proposed aquaculture activities are consistent with the Conservation Objectives for these sites; and in the case of SPAs also those neighbouring sites where there is the potential usage of aquaculture areas by birds for which these SPAs have been designated. NPWS provide guidance on interpretation of the Conservation Objectives which are, in effect, management targets for habitats and species in the sites. The assessment of activities was informed by this guidance, which is scaled relative to the anticipated sensitivity of the habitats and species to disturbance by the proposed activities.

Description of aquaculture activities

The main aquaculture activity within the SACs (and vicinity) is the bottom culture of mussels, as well as a small number of applications to carry out intertidal oyster culture and subtidal suspended mussel culture. Spatial extents of existing and proposed activities within the qualifying interests (Mudflats and sandflats not covered by sea water at low tide (1140) and Estuaries (1130)) within the two SACs were calculated using coordinates of activity areas in Geographic Information System (GIS).

THE SACS AND SPAS

Slaney River Valley SAC

Slaney River Valley SAC is a large site comprising extensive terrestrial, freshwater, estuarine and marine features. In addition, six aquatic species as well as two mammal species are designated within the site. The marine areas are designated for Annex 1 habitats, Estuaries [1130] and for Intertidal mud and sand flats not covered by seawater at low tide [1140]. The area supports a variety of sub-tidal and intertidal sedimentary community types, including those that are sensitive to aquaculture related pressures (e.g. dredging in bottom shellfish culture). The area is also designated for and supports significant numbers of Harbour Seal and Otter while Salmon and Sea Lamprey and Twaite Shad, migrate through the harbour as smolts and as mature animals returning from sea.

Conservation objectives - Slaney River Valley SAC

The Conservation Objectives were identified by NPWS (2011a, c) and NPWS guidance on these objectives was provided (2011b, d). The objectives relate to the requirement to maintain habitat distribution, structure and function, as defined by characterizing (dominant) species in these habitats. For designated species the objective is to maintain various attributes of the populations, including population size, cohort structure and the distribution of the species in the Harbour.

Qualifying interests of Slaney River Valley SAC

The SAC is designated for the following habitats and species (NPWS 2011a), as listed in Annex I and II of the Habitats Directive:

- 1029 Freshwater Pearl Mussel *Margaritifera margaritifera;*
- 1095 Sea Lamprey *Petromyzon marinus;* 1096 Brook Lamprey *Lampetra planeri;*
- 1099 River Lamprey *Lampetra fluviatilis;*
- 1103 Twaite Shad *Alosa fallax;*
- 1106 Atlantic Salmon *Salmo salar* (only in fresh water);
- 1130 Estuaries;
- 1140 Mudflats and sandflats not covered by seawater at low tide;

- 1355 Otter *Lutra lutra;*
- 1365 Harbour Seal *Phoca vitulina;*
- 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation (Floating river vegetation);
- 91A0 Old sessile oak woods with *Ilex* and *Blechnum*;
- 91E0 * Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*).

Three constituent community complexes recorded within the qualifying interests of Estuaries (1130) and Mudflats and sandflats not covered by seawater at low tide (1140) are listed below (NPWS 2011a (version 1)):

- Mixed sediment community complex
- Estuarine muds dominated by polychaetes and crustaceans community complex
- Sand dominated by polychaetes community complex.

An additional community complex 'fine sand with *Spiophanes bombyx* community complex' is described for subtidal elements outside of the Estuaries habitat.

AA Screening – Slaney River Valley SAC

None of the aquaculture activities (existing or proposed) overlaps or likely interacts with the following features or species, given their exclusive freshwater nature, and therefore these three habitats and three taxa are excluded from further consideration in the assessment:

- 1029 Freshwater Pearl Mussel *Margaritifera margaritifera;*
- 1096 Brook Lamprey *Lampetra planeri;*
- 1099 River Lamprey *Lampetra fluviatilis;*
- 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation (Floating river vegetation);
- 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles;
- 91E0 * Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*).

The **Atlantic salmon (*Salmo salar*)** migrates through outer Wexford harbour into the Slaney River Valley SAC. Given the nature of the activities proposed for aquaculture in Slaney River Valley, The AA indicated that it is unlikely that aquaculture activities will impact on the conservation attributes for Salmon.

The **Sea lamprey (*Petromyzon marinus*)** and the **Twaite shad (*Alosa fallax*)** migrate through outer Wexford Harbour into the Slaney River Valley SAC. The aquaculture activities do not present a barrier to migration of these species, given they are confined to on-bottom subtidal areas and any structures used (oyster trestles) will be deployed in intertidal areas away from channels. The AA report concludes that the aquaculture activities carried out or proposed for the Slaney River Valley SAC are unlikely to impact upon the other attributes for Sea lamprey and Twaite Shad, which are primarily freshwater in nature.

Raven Point Nature Reserve SAC

Ravens Point Nature Reserve SAC is a small reserve site adjacent to the Slaney River Valley SAC, comprising coastal and marine features.

The conservation objectives for the qualifying interests were identified by NPWS (2011c) and NPWS (2011d), respectively. The natural condition of the designated features should be preserved with respect to their area, distribution, extent and community distribution. Human disturbance should not adversely affect such habitats.

The SAC is designated for the following habitats:

- 1140 Mudflats and sandflats not covered by seawater at low tide;
- 1210 Annual vegetation of drift lines;
- 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*);
- 2110 Embryonic shifting dunes;
- 2120 Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes');
- 2130 *Fixed coastal dunes with herbaceous vegetation ('grey dunes');
- 2170 Dunes with *Salix repens ssp. argentea (Salicion arenariae*);
- 2190 Humid dune slacks

AA Screening – The AA report screened out 7 habitats from further consideration on the basis that none of the aquaculture activities (existing or proposed) overlapped (1210 Annual vegetation of drift lines; 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*), 2110 Embryonic shifting dunes; 2120 Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes'); 2130 *Fixed coastal dunes with herbaceous vegetation ('grey dunes'); 2170 Dunes with *Salix repens ssp. argentea (Salicion arenariae*); 2190 Humid dune slacks).

The remaining habitat, i.e. 1140 Mudflats and sandflats not covered by seawater at low tide was fully considered. There are four constituent community complexes recorded within this qualifying interest:

- Mixed sediment community complex
- Estuarine muds dominated by polychaetes and crustaceans community complex

- Fine sand with *Spiophanes bombyx* community complex
- Sand dominated by polychaetes community complex

There are a number of applications for the culture/collection of wild mussel seed on longlines and rafts that might occur outside of the boundaries but are proximate to Raven Point Nature Reserve SAC (and also to Slaney River Valley SAC). These applications are deemed to be non-disturbing to the conservation features of the SAC on the basis of:

- There is no spatial overlap with the SACs
- Any impact on the seabed is likely to be confined to the footprint of the licensed area and is unlikely to impact on features or ecological functions within the SACs
- The hydrology regime at the sites is such that any dissolved nutrients will be quickly dispersed from the site and will unlikely enter into the estuary
- On the basis of published literature, the structures and activities associated with this culture operation are unlikely to impact negatively on Annex II species, harbour seal and otter

Consequently, these mussel seed capture sites were screened out from full assessment.

Screening of Adjacent SACs

In addition to the two SACs under consideration, there are a number of other Natura 2000 sites proximate to the proposed activities. A preliminary screening was carried out on the likely interaction with aquaculture and fishery activities based primarily upon the likelihood of spatial overlap or other interactions (*ex-situ* effects). This assessment found no spatial overlap of aquaculture activities on the SACs.

Annex I assessment carried out in relation to the SACs

A full assessment was carried out on the likely interactions between aquaculture operations (as proposed) and the features Annex 1 habitats Mudflats and sandflats not covered by seawater at low tide (1140) and Estuaries (1130) in the Slaney River Valley SAC (0781) and Mudflats and sandflats not covered by seawater at low tide (1140) in Raven Point Nature Reserve SAC (0710). The likely effects of the aquaculture activities were considered in light of the sensitivity of the constituent communities of these Annex I habitats.

The habitats feature Mudflats and sandflats not covered by seawater at low tide (1140) is primarily based on Ordnance Survey Ireland (OSI) mapping which appears to underestimate the extent of this habitat type as indicated by direct observations or other mapping e.g. the Geological Survey of Ireland (GSI) method (i.e. mapping of intertidal habitat based on satellite-derived bathymetry data covering the entire harbour zone). The majority of intertidal habitat (1140) occurs in the outer part of the harbour (where the quality of the GSI data is considered reliable) and the activities primarily interacting with intertidal habitat are in the southern and eastern part of the harbour.

The extent of intertidal habitat mapped by the GSI method is estimated at approximately 1,400 ha, as opposed to 1,027 ha, calculated from the OSI maps and presented with the Conservation Objectives (NPWS 2011).

Based upon spatial extent presented in the Conservation Objectives the level of spatial overlap between aquaculture (licensed and applications) activities and 'Mudflats and Sandflats not covered by sea water at low tide' is 608ha, which represent 59.2% of this Annex I habitat feature within the Slaney River Valley SAC; between aquaculture (licensed and applications) activities and 'Estuaries' is, approximately, 990 ha which is equivalent to 52% of the feature within this SAC. Similarly, high spatial coverage was calculated between aquaculture activities and marine community types described for both Annex 1 habitats.

Within the Raven Point Nature Reserve SAC, the level of spatial overlap between aquaculture activities (active and proposed) and 'Mudflats and Sandflats not covered by sea water at low tide' is 2.6 ha, which represent 3.6% of this Annex I habitat feature within the SAC.

Wexford Harbour Slobs and, Raven SPAs

The Special Conservation Interests of the Wexford Harbour and Slobs SPA are: -

- non-breeding populations of: Bewick's Swan, Whooper Swan, Greenland White-fronted Goose, Light-bellied Brent Goose, Shelduck, Wigeon, Teal, Mallard, Pintail, Scaup, Goldeneye, Red-breasted Merganser, Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Coot, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Black-headed Gull and Lesser Black-backed Gull;
- a breeding population of Little Tern;
- a post breeding/roosting population of Hen Harrier and
- a wetland habitat within the Wexford Harbour and Slobs SPA.

The Hen Harrier has been screened out for further assessment as there is no potential for significant overlap between it and the aquaculture activities. In addition the wetland habitat within the Raven SPA is listed as an SCI. The AA found that none of the activities being assessed will cause any change in the permanent area occupied by wetland habitat in either Wexford Harbour and Slobs SPA or the Raven SPA.

The Special Conservation Interests of the Raven SPA are wintering populations of: Greenland White-fronted Goose, Red-throated Diver, Cormorant, Common Scoter, Grey Plover and Sanderling.

Other sites

Cahore Marshes SPA (004143)

The SCIs of the Cahore Marshes SPA are wintering populations of: Greenland White-fronted Goose, Wigeon, Golden Plover and Lapwing. In addition the wetland habitat within the Cahore Marshes SPA is listed as an SCI. All of the waterbird SCIs of Cahore Marshes SPA are also SCIs of the Wexford Harbour & Slobs SPA and/or

the Raven SPA. Some of the Greenland White-fronted Goose using the Cahore Marshes SPA are known to commute to Wexford Harbour and the Raven to roost each night (NPWS). Wigeon, Golden Plover and Lapwing are species that can have very mobile populations in winter. Therefore, all these SCIs were screened in for full assessment.

Lady's Island Lake SPA (004009)

The SCIs of the area of Lady's Island Lake SPA are wintering population of Gadwall and breeding populations of Black-headed Gull, Sandwich Tern, Roseate Tern, Common Tern and Arctic Tern. In addition the wetland habitat within the Lady's Island Lake SPA is listed as an SCI. The Wetland habitats within Lady's Island Lake SPA will not be impacted. Wexford Harbour and the Raven does not regularly support significant numbers of Gadwall; this SCI was screened out.

As the potential that Black-headed Gull, Sandwich Tern, Roseate Tern, Common Tern and Arctic Tern forage within Wexford Harbour during either the breeding season and / or period of post-fledging dispersal could not be discounted, the AA included these for full assessment.

Saltee Islands SPA (004002)

The SCIs of the Saltee Islands SPA are breeding populations of Fulmar, Gannet, Cormorant, Shag, Lesser Black-backed Gull, Herring Gull, Kittiwake, Guillemot, Razorbill and Puffin. Based on consultation with NPWS, and consideration of their breeding / foraging ecology, the only SCIs from the Saltee Islands SPA where there was considered to be potential for significant interchange with Wexford Harbour and the Raven are the Cormorant and Shag breeding populations; all other species forage offshore and were screened out.

Tacumshin Lake SPA (004092)

The SCIs of the Tacumshin Lake SPA include wintering populations of: Bewick's Swan, Whooper Swan, Wigeon, Gadwall, Teal, Pintail, Shoveler, Tufted Duck, Little Grebe, Coot, Golden Plover, Grey Plover, Lapwing and Black-tailed Godwit. The SCIs also includes post breeding/roosting Hen Harrier. In addition the wetland habitat within the Tacumshin Lake SPA is listed as an SCI.

Most of the waterbird SCIs of Tacumshin Lake SPA are also SCIs of the Wexford Harbour & Slobs SPA and/or the Raven SPA; due to the potential for interchange between sites these were fully assessed in the AA. The waterbird SCIs of Tacumshin Lake SPA that are not also SCIs of the Wexford Harbour & Slobs SPA and/or the Raven SPA are: Gadwall, Shoveler and Tufted Duck.

Gadwall and Shoveler do not regularly occur in Wexford Harbour and the Raven and were screened out. Tufted Duck regularly occur in significant numbers at Wexford Harbour and the Raven and were fully assessed.

There is no potential for significant spatial overlap of the Hen Harrier populations with the aquaculture activities included in the AA.

Aquaculture activities in Wexford Harbour and the Raven will clearly not have any impact on wetland habitat in Tacumshin Lake.

Other SPAs in the wider environs were also considered and screened out.

Annex II Species interactions with Aquaculture

The likely interactions between the proposed aquaculture activities and the Annex II Species Harbour Seal (*Phoca vitulina*) and Otter (*Lutra lutra*) were assessed.

HARBOUR SEAL

It was acknowledged in the appropriate assessment that the favourable conservation status of the Harbour seal (*Phoca vitulina*) has been achieved given current levels of aquaculture production within the SAC. The aspect of the culture activities that could potentially disturb the Harbour seal status relates to movement of people and vessels within the sites as well as accessing the sites over intertidal areas and via water.

The current levels of aquaculture production are considered non-disturbing to harbour seal conservation features in all areas of the SAC. It is important to note that area covered by the (subtidal) bottom mussel culture activities would appear to be considerably smaller than those represented by licensed areas, which extend into the intertidal areas. If actual production were to occur over or close to the seal haul-out areas then a risk of disturbance to seal cannot be discounted.

In relation to new licence applications, similar to licensed areas, there is considerable overlap with seal haul out locations and a number of new applications. If actual culture activities were to extend to intertidal / shallower areas proximate to the seal sites then this would present a risk to seals.

On the basis of distance from the seal haul out locations, the proposed oyster trestle culture sites are considered non-disturbing to seal conservation features.

Otter (*Lutra lutra*)

The Slaney River Valley SAC is designated for the Otter. The likely interactions between the proposed aquaculture activities and the Annex II Species, Otter were assessed.

The conservation objectives can be found in detail in NPWS (2013a). The otter is known to forage within an 80m of the shoreline. According to NPWS (2013) the overall conservation assessment is "good" for otter. Given the crepuscular nature of otter activity, likely interactions (and disturbance) with operators on the foreshore are considered low. Furthermore, shellfish culture (intertidal and suspended) is not considered a threat to otters. In the threat response plan NPWS (2009) state "Little evidence has come to light in recent studies to suggest that disturbance by recreation is a significant pressure".

The current and proposed levels of aquaculture are considered non-disturbing to otter conservation features in all areas of the Slaney River SAC.

Aquaculture and Fisheries interactions with SPA features

The following are potential impacts where the available evidence indicates a high likelihood of significant impacts occurring.

Bottom mussel culture impact on Red-breasted Merganser

Disturbance from bottom mussel-related boat activity may cause significant displacement impacts to Red-breasted Merganser. The mean area potentially disturbed could amount to around 19-27% of the total area of available habitat. High levels of impact could occur on around 80% of days in the October-December period, for periods of up to 55-66% of daylight hours. The population-level consequences of the displacement impact will depend upon whether the displaced birds can find suitable alternative habitat to feed in while they are displaced, or, if this is not the case, whether the undisturbed portion of the day provides sufficient feeding time for the birds to meet their daily energetic requirements. It should also be noted that the Merganser are likely to be there due to the presence of mussels (provision of habitat heterogeneity and therefore, increased fish abundance) and the level of disturbance from mussel vessels is unlikely to increase as the spatial extent of licensed mussel areas are likely to remain static or decrease.

Bottom mussel culture impact on Little Tern

There is potential for significant disturbance impacts to the Little Tern breeding colony. However, these can be avoided through an appropriate adaptive management strategy (see below).

Other potential impacts

The following are potential impacts where the available evidence is not sufficient to rule out significant impacts beyond reasonable scientific doubt. However, this does not mean that all these impacts are considered to be very likely to occur.

Bottom mussel culture impact on Greenland White-fronted Goose

Concerns were highlighted in the Appropriate Assessment report about the potential for dredger activity close to the North Slob to cause disturbance to Greenland White-fronted Geese feeding on the North Slob. The closest vessel activity to the North Slob will be around 400 m from the sea wall, or around 350m while the Branding is travelling to/from its site. It is not known whether Greenland White-fronted Geese are susceptible to disturbance from dredgers at these distances from the sea wall. Given the current low frequency of dredger activity in sites 46A, 49B and 52A, any disturbance of Greenland White-fronted Geese by dredger activity in these sites is likely to be a rare event and on a comparable scale to disturbance by licensed wildfowling (which occurs on around 5% of days during the October- March period).

There was another site close to the sea-wall (site 57F), but this licence has expired and no renewal application has been received.

Bottom mussel culture impacts on Scaup, Goldeneye, Red-breasted Merganser and Great Crested Grebe

There is potential for night-time dredging to cause disturbance to nocturnal roosts of these species. This potential impact can be mitigated by an appropriate licence condition prohibiting night-time dredging.

Bottom mussel culture impact on intertidal mussel beds

In the long term, it is possible that the seed collection method could prevent the regeneration of existing intertidal mussel beds and reduce the quality of the habitat for Oystercatcher, Knot, Curlew and Redshank.

Bottom mussel culture impact on high tide roosts

Mussel-related boat activity could cause disturbance to high tide wader and tern roosts on sandbanks in the mouth of Wexford Harbour.

Intertidal oyster culture impact on Golden Plover, Grey Plover, Knot, Sanderling and Bar-tailed Godwit

Taking all the relevant factors into consideration, it is probable that the displacement impacts for these species will be substantially less than 5%. However, there is a significant uncertainty attached to this assessment due to the very limited low tide count data.

Intertidal oyster culture impact on Little Tern

While the distance of site T03/092A from the Bird Island colony site appears sufficient to prevent disturbance to the colony (providing no dogs are brought out), there is some uncertainty about this assessment, given the lack of site-specific data on the response of Little Tern to disturbance in Wexford Harbour, and the perceived high sensitivity of Little Tern breeding colonies to disturbance in remote locations.

Assessment of impacts of suspended mussel cultivation

There are no sites currently licensed for suspended mussel cultivation in Wexford Harbour and the Raven. There are 10 sites (covering a total area of 128 ha) with applications for suspended mussel cultivation in the Raven SPA. There are also another six sites (covering a total area of 68 ha) in Rosslare Bay. The individual sites range in size from 7-15 ha, with a mean size of 12 ha. While the Rosslare Bay sites are outside the Wexford Harbour & Slobs and the Raven SPAs, they are considered in this assessment as they occur in an area that is likely to be used by some SCI populations from these SPAs. The Appropriate Assessment has not identified any potentially significant impacts from the proposed suspended mussel culture in the Raven and Rosslare Bay. However, the reliability of this assessment for Common Scoter and Red-throated Diver is only moderate due to the high potential sensitivity of these species to disturbance impacts, and the limited quantitative data available on the nature of their disturbance responses.

Cumulative impacts

Fishing activities in the Lower Slaney River Valley SAC are confined to activities associated with the bottom mussel culture. Specifically, this relates to potting for crabs as a predator control measure to remove crabs from the mussel beds. Other fisheries occur outside of the SAC and specifically seed mussel fisheries which supply the majority of seed into the harbour which was assessed separately during 2013, and presents no in-combination effects with the aquaculture activities in the SAC. The potting is unlikely to impact on the habitat or species features in the SAC.
There are a number of wastewater plants presenting a pollution risk to the SAC upstream and within the River Slaney Valley SAC. Details can be found in the shellfish water characterisation reports. Specifically, the wastewater treatment plant

in Wexford Town has secondary treatment, nutrient removal and UV disinfection. The pressure derived from these facilities is a discharge that may impact upon levels of dissolved nutrients, suspended solids and some elemental components e.g. aluminium in the case of water treatment facilities. It should be noted that the pressures resulting from fisheries and aquaculture activities are primarily morphological in nature. It was, therefore, concluded that given the pressure resulting from say, a point discharge location (e.g. urban waste-water treatment plant or combined sewer overflow) would likely impact on physico-chemical parameters in the water column, any in-combination effects with aquaculture activities are considered to be minimal or negligible.
Other activities that may occur in the SAC are primarily recreational activities (hunting, sailing, recreational fishing and beach activities). In summary, there are no likely in-combination effects between these other activities and aquaculture in relation to habitat qualifying features.

Ex-situ Effects
In addition to the two SACs under consideration in this report, Slaney River Valley SAC and Raven's Point SAC, there are a number of other Natura 2000 sites proximate to the proposed activities. The characteristic features of these sites were identified and a preliminary screening was carried out on the likely interaction with aquaculture and fishery activities based primarily upon the likelihood of spatial overlap or other interactions (*ex-situ* effects). All qualifying features screen out and are not considered further in this assessment.

CONCLUSIONS

Annex I Habitats

Conclusion 1
The culture/collection of wild mussel seed on longlines and rafts that might occur outside of the boundaries but are proximate to the two SACs are deemed to be non-disturbing to the conservation features of the SAC.

Conclusion 2
By virtue of extensive spatial cover (>15%) the levels of existing and proposed culture of bottom mussel culture activities are considered disturbing to habitat feature Estuaries (1130) and Mudflats and Sandflats not Covered by Seawater at Low Tide (1140) in the Slaney River Valley SAC as well as a number of constituent marine community types

Conclusion 3
By virtue of extensive spatial cover (>15%) the levels of existing and proposed culture of bottom mussel culture activities are considered disturbing to the community type - Estuarine muds dominated by polychaetes and crustaceans community complex within the habitat feature Mudflats and Sandflats not Covered by Seawater at Low Tide (1140) in the Raven Point Nature Reserve SAC.

Conclusion 4
The proposal to culture oysters (intertidally on trestles) is not considered disturbing to habitat feature Estuaries (1130) and Mudflats and Sandflats not covered by Seawater at Low Tide (1140) in the Slaney River Valley SAC.

Conclusion 5
Removal of seed resources from intertidal habitat will also result in disturbance to 1140 habitat features by destabilising the reef structure formed by mussels and reducing habitat complexity and associated biodiversity.

This conclusion formed part of the previous version of the Conclusion Statement and the Marine Institute has confirmed that only one site currently under consideration is affected. Full account of the relevant recommendations made in the Appropriate Assessment report will be taken in any licensing decisions.

Conclusion 6
Based upon experience elsewhere, the introduction of '½ grown' or 'wild' oyster or mussel seed stock into aquaculture plots (both within and proximate to the SAC) from outside of Ireland does pose a risk of establishment of non-native species in the SAC.

Annex II Species

Conclusion 1
The current levels of aquaculture production are considered non-disturbing to harbour seal conservation features in all areas of the SAC. It is important to note that area covered by the (subtidal) bottom mussel culture activities would appear to be considerably smaller than those represented by licensed areas, which extend into the intertidal areas. This is verified by aerial imagery which shows no mussel beds in the vicinity of the seal sites. If actual production were to occur over or close to the seal haul-out areas then a risk of disturbance to seal cannot be discounted.

Conclusion 2
In relation to new licence applications, similar to licensed areas, there is considerable overlap with seal haul out locations and a number of new applications. If actual culture activities were to extend to intertidal/shallower areas proximate to the seal sites then this would present a risk to seals. On the basis of distance from the seal haul out locations, the proposed oyster trestle culture sites are considered non-disturbing to seal conservation features.

Conclusion 3
The current and proposed levels of aquaculture are considered non-disturbing to otter (*Lutra lutra*) conservation features in all areas of the SAC.

MITIGATION / MANAGEMENT MEASURES

1. Benefits of mussels to the system
   Mussels have been a historical constituent in the waterbody in Wexford Harbour. The filtration capacity of the mussels may have a beneficial impact on the eutrophication status of the bay and the habitat provision by mussels can be beneficial to the ecological function of the system. In summary, the view is that bottom mussel culture, at current levels, does have an overall positive role in ecosystem.

   The addition of more mussels to the system (with new applications) should have additional benefit in terms of reducing effects of eutrophication, and may mitigate the water quality status in the Lower Slaney water-body.

2. Estuaries
   Threshold of 15% will be exceeded if all applications are licensed. However, the benefits of mussels to the system, as outlined above, are also a significant consideration in possibly allowing excedence of the 15% threshold in the estuaries feature.

3. Remove spatial coverage over Mudflats and Sandflats
   There is a clear distinction between current licence levels and current levels of activity. Mussel culture mainly occurs in deeper subtidal areas of the SAC. It is anticipated that no culture (and disturbance from same) will occur in intertidal and shallow subtidal areas. This is an important consideration, particularly in the outer parts of the water body where the qualifying feature is Mudflats and sandflats not covered by seawater at low tide (1140).

   The Department and its scientific advisors consider that the GSI estimates of intertidal areas are more accurate and reflect the reality of intertidal extent in Wexford. On this basis, the Department proposes that the determination of aquaculture licence applications for sub-tidal activities (bottom mussel culture) be informed by the outputs of GSI mapping. Therefore, all recommendations relating to likely disturbing activities will be on the basis of GSI mapping of intertidal habitat rather than the intertidal mapping primarily generated by the OSI discovery series.

   On the basis of the Appropriate Assessment report findings, it is proposed to re-draw the boundaries of sites which will take bottom mussels out of inter-tidal areas. This will result in minimal or no coverage of the qualifying feature Mudflats and sandflats not covered by seawater at low tide (1140).

4. Placing of appropriate Buffer zones around Seal haul out areas, as required. Vessel and human activity to be confined to mid-tide to high-tide periods only when seals are less likely to be hauling out.

5. Any licences issued will include a prohibition on night-time dredging

6. The use of updated and enhanced Aquaculture and Foreshore Licences containing terms and conditions which reflect the environmental protection required under EU and National law.

7. Full account will be taken of the recommendations made in the Appropriate Assessment in relation to the Little Tern Colony with regard to the licensing of affected sites.

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

T03/055E

AQUACULTURE LICENCE

AQUACULTURE MARINE SHELLFISH SEA-BED CULTURE/BOTTOM CULTURE

Crescent Seafoods Ltd.,

Mytilus,Ballaghablake

Curracloe

Co. Wexford

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T03/055E

AQUACULTURE LICENCE NO. XXXX

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

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

Crescent Seafoods Ltd.
Mytilus
Ballaghablake
Curracloe
Co. Wexford

(hereinafter referred to as the "Licensee") for the cultivation of mussels on a site in Wexford Harbour, Co. Wexford as specified in Schedule 1 attached (numbered T03/055E) and indicated by a red line on the attached map, as approved of by the Minister, subject to the Act and Regulations made under the Act and to the terms and conditions set out in the attached pages.

This Aquaculture Licence shall remain in force for a maximum period of ten (10) years commencing on XX XXXXXXXXX 2019, provided for so long as the Foreshore Licence granted on XX XXXXXXXXX 2019, under Section 3 (1) of the Foreshore Act 1933 (No.12 of 1933) in respect of the same site for the purpose referred to is in force.

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

TERMS AND CONDITIONS APPLYING TO THIS AQUACULTURE LICENCE

1. **Licensed Area**

1.1. The area specified in ***Schedule 1*** attached (6.6495 hectares) (labelled T03/055E) and outlined in red on the map(s) in ***Schedule 1***.

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

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

2.1. Species to be farmed: Mussels

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

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

3. **Infrastructure and Site Management**

Indemnity

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

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

Design, Arrangement and Maintenance of Structures

3.3. The Licensee shall ensure that any equipment is placed within the licensed area only. Storage or placement of equipment or stock on the foreshore or seashore outside the licensed area is not permitted under any circumstances.

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

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

3.6. The Licensee shall ensure that the ends of each fence in the licensed area legibly bear the Aquaculture Licence Number in an indelible weatherproof format.

Operational Conduct

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

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

3.9. If the shellfish are to be harvested using dredges, the Licensee shall ensure that only mussel dredges are used for harvesting the shellfish.

3.10. The Licensee shall ensure that all vessels, components thereof and all equipment used in connection with the licensed area are kept properly maintained.

3.11. The Licensee shall as soon as possible after the commencement of this licence advise the Department of the quantity of seed placed in the licensed area, the approximate date(s) of the placement and the source(s) of the seed placed and likewise thereafter as and when further seed is so placed.

3.12. The Licensee shall advise the Department on the 31st day of January 2020 and on each succeeding 31st day of January for each year during which this licence continues in force of the quantity of stock harvested in that year and the approximates date(s) of harvesting.

Waste Management

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

Inspection

3.14. 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 1959) (as amended by Fisheries Act 1980) (No.1 of 1980), a Sea Fisheries Protection Officer (within the meaning of Sea Fisheries and Maritime Jurisdiction Act 2006) (No. 8 of 2006) or any other person appointed in that regard by the Minister or other competent State authority.

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

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

3.17. The Licensee shall furnish to the Minister or other competent State authority in the form and at the intervals determined by the Minister or other competent State authority, such information relating to the licensed area as may be required to determine compliance by the Licensee with the terms of this licence and applicable legislation.

4. **Navigation and Safety**

4.1. The Licensee shall ensure that no hazard is caused to the safety of navigation across or near the licensed area in the use of any vessel or sea borne craft. The navigation and safety conditions are specified in ***Schedule 3***.

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

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

5. **Monitoring**

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

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

Fish Health Regulations

6.1. Before the site is stocked the Licensee shall ensure that a Fish Health Authorisation under statutory provisions giving effect to Council Directive No. 2006/88/EC, as amended, or any other legislative act that replaces that Directive on animal health

requirements for aquaculture animals and their products and on the prevention and control of certain diseases in aquatic animals, is in place.

Disposal of Mortalities

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

Movement of Fish

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

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

Duration, Cessation

7.1. This Licence shall remain in force until XX XXXXXXXX, 2029 and as long as the accompanying Foreshore Licence remains in force.

Review

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

Revocation, Amendment

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

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

Assignment

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

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

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

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

8. **Fees**

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

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

9. **General Terms and Conditions**

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

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

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

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

Notification

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

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

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

Tax Clearance Certificate

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

Companies and Co-operatives

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

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

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

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

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

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

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

Clearance of Site

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

SCHEDULE 1

Schedule 1 contains:

- **the co-ordinates of the site based on the Irish National Grid Co-ordinate System and the area of the site**
- **site map(s)**
- **a chart showing the location of the site in relation to the surrounding area.**

1 NO. SITE AT WEXFORD HARBOUR CO.WEXFORD

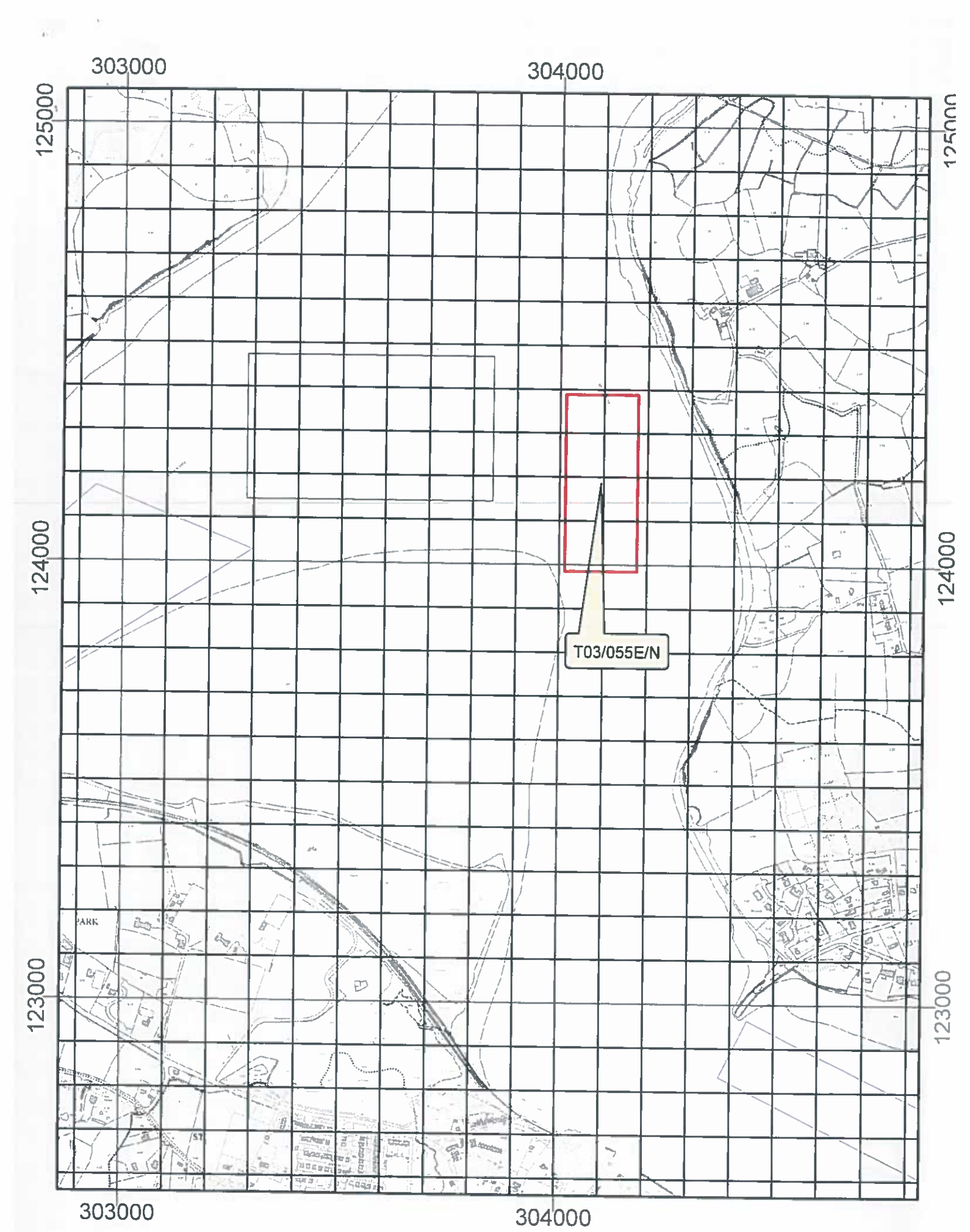
Co-ordinates & Area

Site T03/055E/N (6.6495 Ha)

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

304012, 124388 to Irish National Grid Reference point
304177, 124388 to Irish National Grid Reference point
304177, 123985 to Irish National Grid Reference point
304012, 123985 to the first mentioned point.

Aquaculture & Foreshore Management Division
15 JUL 2019
Dept. of Agriculture, Food & the Marine



100 Meter Reference Grid

Modified Sites

Site_Statu

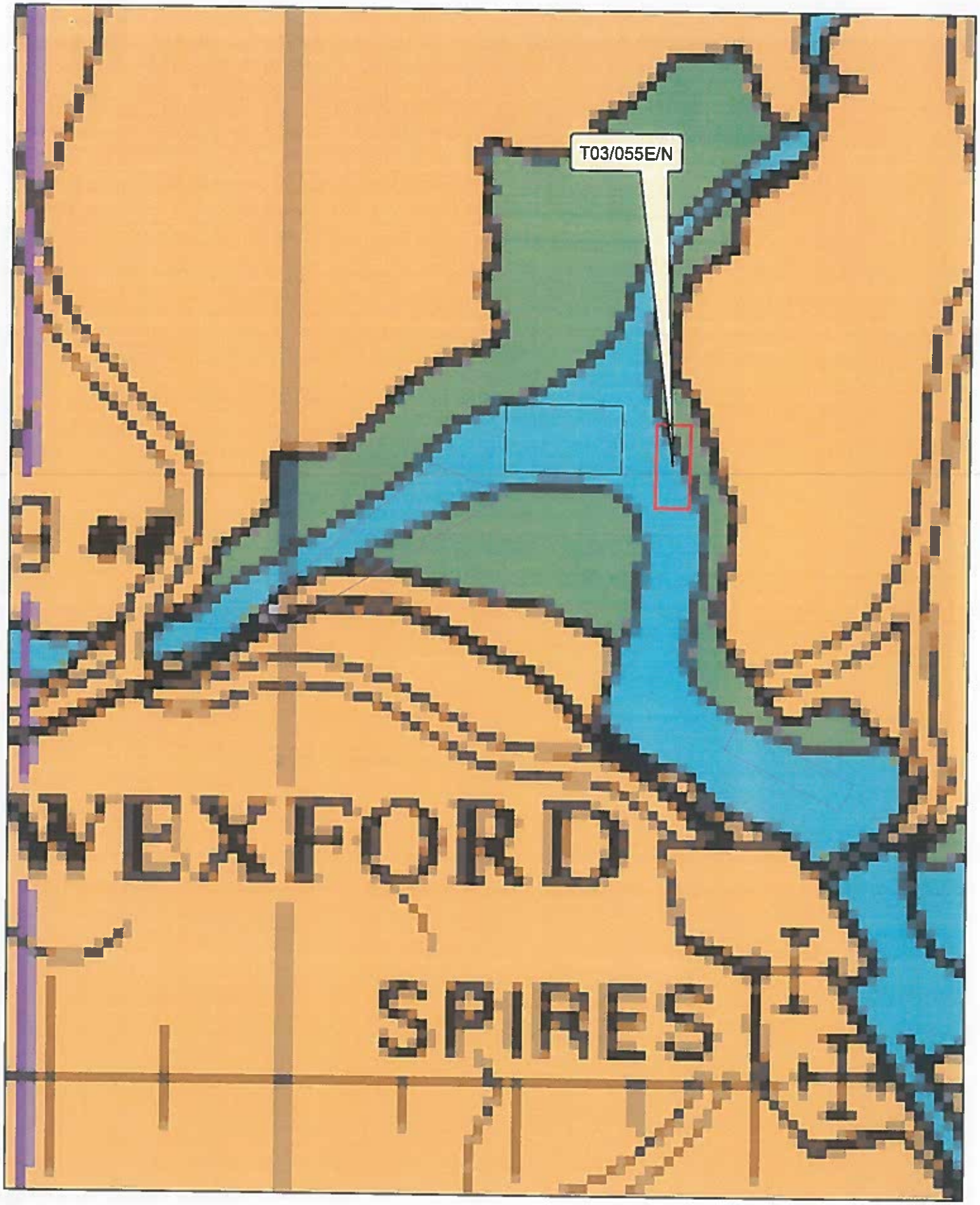
Application

Licensed

1:10,560

Sites highlighted in red denotes Application

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



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Modified Sites
Site_Statu
Application
Licensed

Sites highlighted in red denotes Application

Part of Admiralty Chart No =1410-0
Not to be used for Navigation

An Roinn Talmhaíochta,
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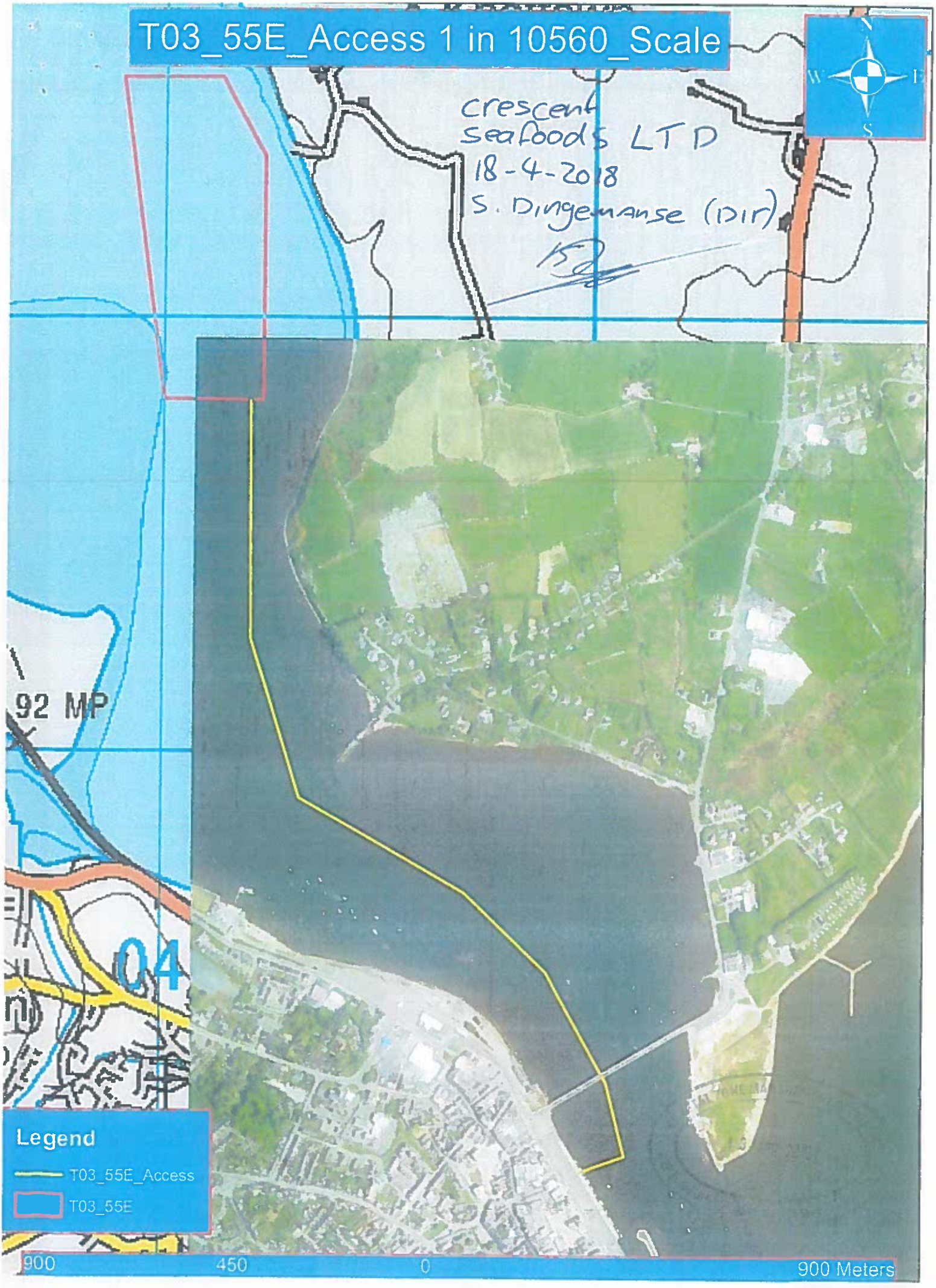
Department of Agriculture,
Food and the Marine


T03_55E_Access 1 in 10560_Scale
Crescent
Seafoods LTD
18-4-2018
S. Dingemanse (DIR)
92 MP
04
Legend
T03_55E_Access
T03_55E
900
450
0
900 Meters

SCHEDULE 2

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

    1. Bottom Culture (no structures) – therefore, not applicable.

SCHEDULE 3

Navigation and safety conditions

- No obstructions of any kind above the seabed.
- No moorings or marker buoys to be placed on the site.
- The observations made by the Nautical Surveyor regarding anchoring and the rules for surface navigation should be clearly noted.
- The granting of a licence for bottom culture does not grant any form of ownership or special rights in respect of surface navigation within the boundaries of the site. **The International Regulations for Preventing Collision at Sea are required to be complied with at all times.**

SCHEDULE 4

Schedule 4 contains:

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

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

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

- The access route over the intertidal habitat must be strictly adhered to, in order to minimise habitat disturbance.

- This licence is issued subject to a prohibition on night time dredging.

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

T03/055E

FORESHORE LICENCE

Crescent Seafoods Ltd.,

Mytilus,Ballaghablake

Curracloe

Co. Wexford

TABLE OF CONTENTS

TERMS AND CONDITIONS APPLICABLE TO FORESHORE LICENCE

SEAL OF OFFICE AND SIGNATURES

SCHEDULE 1

T03/055E

FORESHORE LICENCE IN RESPECT OF A SITE (NUMBERED T03/055E) AT Wexford Harbour, Co. Wexford

AGREEMENT made on the XX XXXXXXX 2019, between the Minister for Agriculture, Food and the Marine (hereinafter referred to as the "Minister" which expression shall include his Successors or Assigns where the contract so requires or admits), of the one part, and

Crescent Seafoods Ltd.
Mytilus
Ballaghablake
Curracloe
Co. Wexford

(hereinafter referred to as the "Licensee") of the other part, whereby the Minister, in exercise of the powers conferred on him by Section 3 of the Foreshore Act, 1933 (No.12 of 1933) hereby grants to the Licensee licence to use and occupy that part of the foreshore at Wexford Harbour, Co. Wexford (numbered T03/055E) detailed in the attached schedule and more particularly delineated on the map annexed hereto and thereon coloured red for the purpose of the cultivation set out in Aquaculture Licence Number XXX on the terms and conditions set out in the attached pages.

This Foreshore Licence shall remain in force for a maximum period of ten (10) years commencing on XX XXXXXXXXX 2019, provided for so long as the Aquaculture Licence Number XXX granted on XX XXXXXXX 2019 under the Fisheries (Amendment) Act 1997 (No. 23 of 1997) in respect of the same site for the purpose referred to is in force.

TERMS AND CONDITIONS APPLICABLE TO FORESHORE LICENCE

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

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

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

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

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

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

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

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

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

AND IT IS HEREBY CERTIFIED THAT:

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

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

SEAL OF OFFICE AND SIGNATURES

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

_____

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

WITNESS: _____

ADDRESS: _____

_____

OCCUPATION: CIVIL SERVANT

SIGNED on behalf of Licensee _____

in the presence of:

WITNESS: _____

ADDRESS: _____

_____

OCCUPATION: _____

SCHEDULE 1

Schedule 1 contains:

- **the co-ordinates of the site based on the Irish National Grid Co-ordinate System and the area of the site**
- **site map(s)**
- **a chart showing the location of the site in relation to the surrounding area.**

1 NO. SITE AT WEXFORD HARBOUR CO.WEXFORD

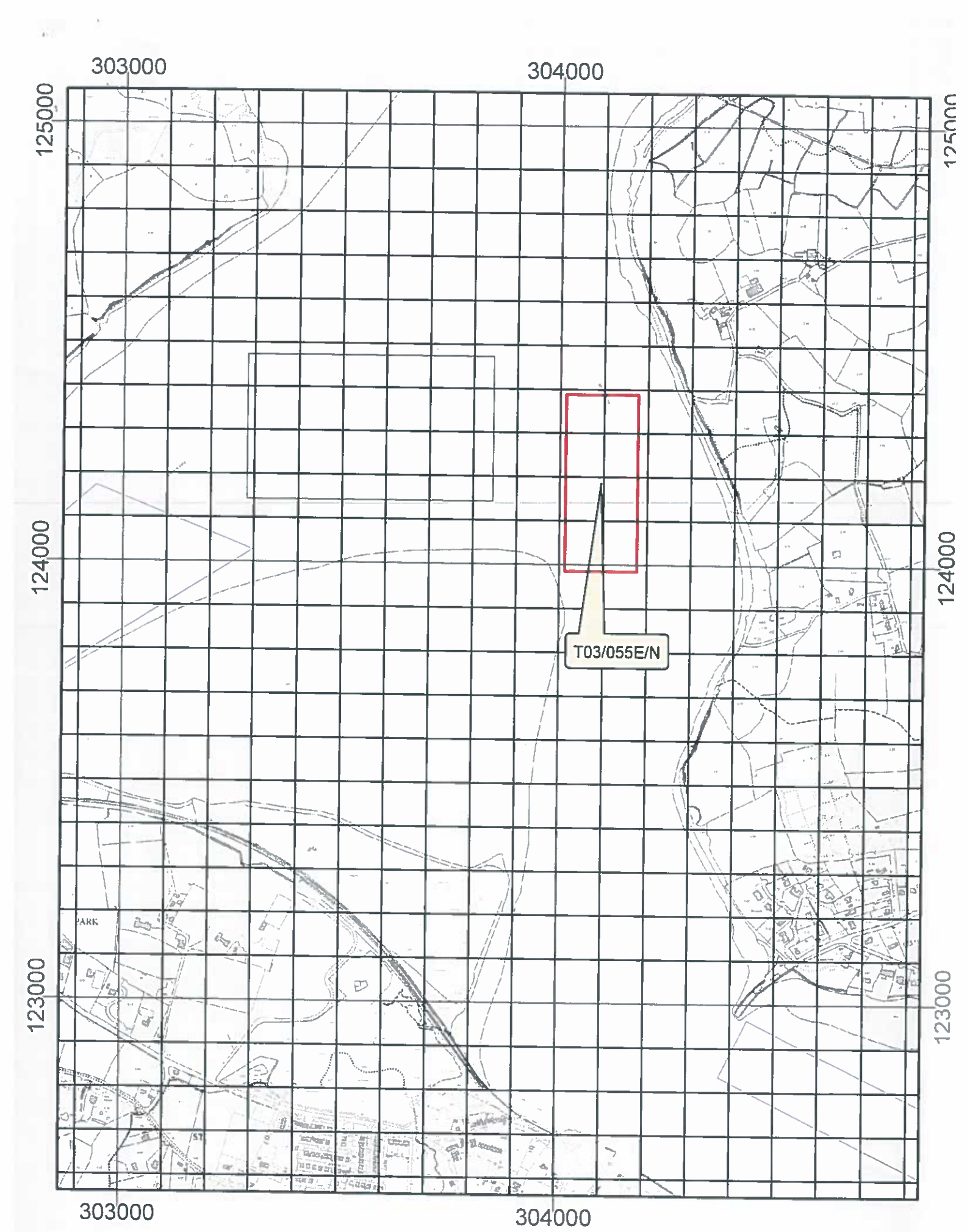
Co-ordinates & Area

Site T03/055E/N (6.6495 Ha)

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

304012, 124388 to Irish National Grid Reference point
304177, 124388 to Irish National Grid Reference point
304177, 123985 to Irish National Grid Reference point
304012, 123985 to the first mentioned point.

Aquaculture & Foreshore Management Division
15 JUL 2019
Dept. of Agriculture, Food & the Marine



100 Meter Reference Grid

Modified Sites

Site_Statu

Application

Licensed

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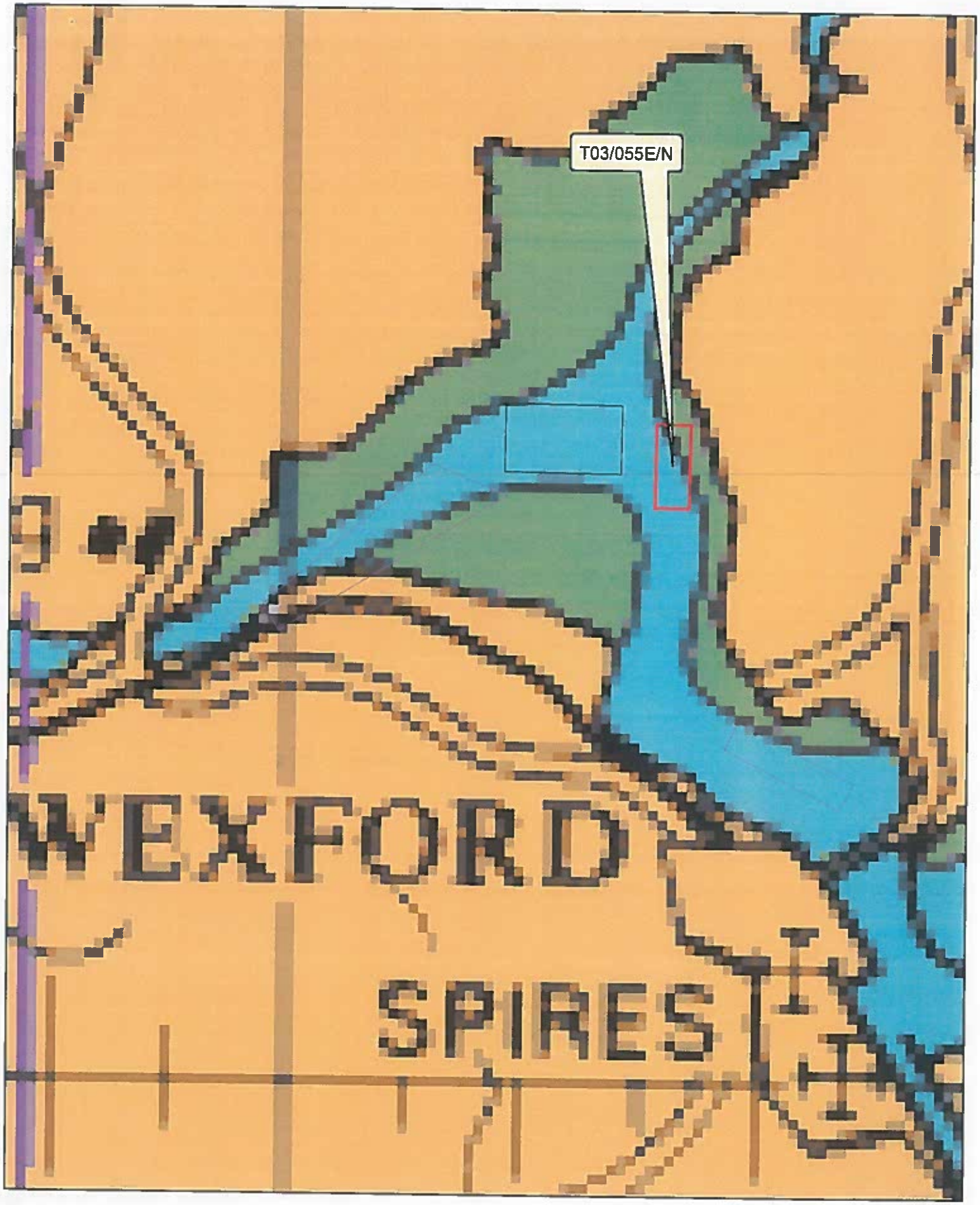
Sites highlighted in red denotes Application

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



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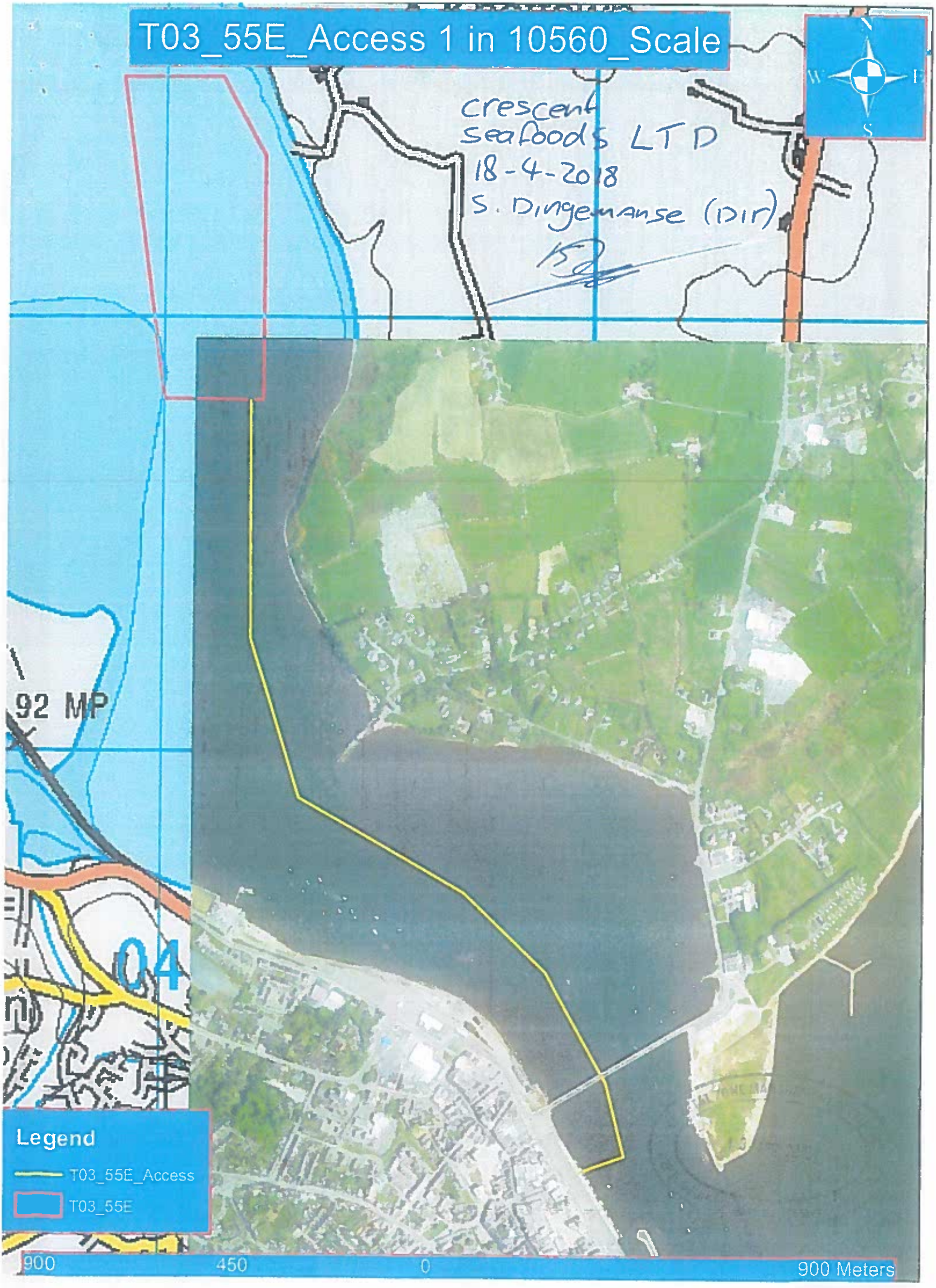
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S. Dingemanse (DIR)
92 MP
04
Legend
T03_55E_Access
T03_55E
900
450
0
900 Meters

Title

Recommendation to Grant (a variation) Aquaculture and Foreshore Licence(s) for 1 site (T03/055E)

Action Required

Ministerial Determination on Aquaculture / Foreshore Licensing application (T03/055E)

Executive Summary

The Minister's determination is requested in relation to an application of an Aquaculture Licence from Crescent Seafoods Ltd., Mytilus, Ballaghablake, Curracloe, Co. Wexford. The renewal application is for the bottom cultivation of mussels on one site T03/055E totalling 19.9 ha on the foreshore in Wexford Harbour, Co. Wexford.

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

It is recommended that the Minister determines that a **variation** of the Aquaculture and Foreshore Licences sought be granted to Crescent Seafoods Ltd. for the reasons outlined in the submission below.

Licences sought be granted to T.L. Mussels Ltd. for the reasons outlined in the submission below.

The site applied for is located within a qualifying feature, 'Estuaries' (1130). Licensing of aquaculture activities identified through the Appropriate Assessment which may cause significant disturbance of a qualifying feature (estuary) is not permitted to exceed an area of 15% as per conservation guidelines outlined by NPWS. The Appropriate Assessment has determined that the overlap of Aquaculture activities in the Wexford estuarine is in the order of 52%. Following detailed review of all aspects of the application it is considered that either the area applied for in this licence application should be reduced or the application refused. In normal circumstances and in ease of the applicant it is considered that a reduced licensed area is the most appropriate way to proceed and accordingly a variation to the area applied for is recommended.

Following the recommendation to reconfigure the sites, Marine Engineering Division provided revised co-ordinates, maps and charts for site T03/055E to reflect the reconfigured area. This has resulted in a reduced site area of 6.6495 hectares being proposed.

Detailed information

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

DECISION SOUGHT

Recommendation to Grant the renewal of an Aquaculture Licence application (variation) for site (T03/055E)

The Minister's determination is requested please in relation to an application for the renewal of an Aquaculture Licence from Crescent Seafoods Ltd., Mytilus, Ballaghablake, Curracloe, Co. Wexford.

A submission in respect of the accompanying Foreshore Licence is also set out below, for the Minister's consideration.

BACKGROUND

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

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

APPLICATION FOR AN AQUACULTURE LICENCE

A renewal application for an Aquaculture Licence has been received from the applicant referred to above (in conjunction with an application for a Foreshore Licence), for the bottom cultivation of mussels in relation to a 19.9 hectare site on the foreshore in Wexford Harbour, Co. Wexford. As stated above it is now proposed that the site be reduced to 6.6495 hectares (numbered T03/055E– see **Tab A**).

LICENCE FEES

There are no outstanding Section 19 A. (4) fees associated with this licence.

LEGISLATION

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

Article 6 (3) of the Habitats Directive provides that *"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon ... shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives ... the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned ..."*

CONSULTATION AND PUBLIC COMMENT

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

Technical Consultation (See **Tab B**)

Marine Engineering Division (MED): Marine Engineering Division had initially no objection to the licensing of this site. However, as the site is located within the qualifying feature Estuaries (1130) substantial cuts were required to bring the feature in question below the 15% disturbance threshold and MED provided revised co-ordinates, maps and charts for the site to reflect this.

Marine Survey Office: Had no objection to this application for bottom culture mussels in Wexford Harbour.

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

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

Sea Fisheries Protection Authority: Do not envisage any direct implications to seafood safety or commercial fishing operations.

Statutory Consultation (See **Tab C**)

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

Comments were received from the following statutory bodies:

Dept. of Culture, Heritage & the Gaeltacht (DCH&G): Provided some general comments on the Appropriate Assessment report on aquaculture in relation to Natura sites in and adjacent to Wexford Harbour and also in the associated Conclusion Statement (See **Tab B)**.

Their comments referenced the fact that, for the Slaney River Valley SAC, the 15% disturbance threshold will be exceeded by 52% in the case of "Estuaries" [Annex 1 habitat – 1130] and by 59% in the case of "Mudflats and sandflats not covered by seawater at low tide" [Annex 1 habitat – 1140] – the qualifying feature which refers to site T03/030F. Accordingly, DCH&G recommend that an increasingly cautious approach to aquaculture licensing in Wexford Harbour is taken and where proposed mitigation measures are not supported by clear evidence the precautionary principle should be applied.

*The MI acknowledges that the extent of licence(s) held is linked to seed allocation and this is likely a contributing factor in the large number and large spatial extent of licence applications. In relation to spatial overlap of aquaculture areas on Habitat 1140, revised maps have been produced which have removed all bottom mussel cultivation on inter-tidal areas in many parts of the harbour which the MI believes removes the risk to the feature. *For the habitat Estuaries (1130), the spatial overlap of existing aquaculture is acknowledged as high. The MI advises, within this feature, to remap (remove) the overlap of aquaculture licence areas with clearly defined inter-tidal communities such that the overall site area may be reduced. This action is unlikely to reduce the level of overlap to below 15%. However, given the movement of sediment in areas throughout the harbour, there are clearly areas where culture is more suitable than others from one year (or production cycle) to the next and therefore, the extent of coverage will likely be lower than calculated. A reduction in the size of these sites is not advised so as to allow for fluctuations in water depth (and hence available area for culture) as a consequence of shifting sediments. However, an overview of the site use might allow for some rationalisation of the site boundaries.*

The MI reiterates in its comments that the precautionary principle is front and centre in consideration of likely risks at all stages in the process.

**AFMD comment: After careful consideration aquaculture sites within the estuarine habitat were reconfigured to bring the overall estuarine habitat overlap below the 15% disturbance threshold as outlined by NPWS.*

They noted that the Conclusion Statement asserts that the culture of mussels may have a positive effect on the water quality within the harbour. The DCH&G contend that it is unclear to them why this stated (positive) effect and the large area of impact of the dredging activity associated with the bottom culture of mussels are being combined. They also note that there is no clear schedule for the relaying and harvesting of mussels within the bay.

In relation to the role of mussels in the system, published literature has clearly demonstrated a measurable effect of filtration by standing stock of mussels as a mechanism of controlling eutrophication. The MI further contends that the presence of mussels in the inner harbour is an important consideration in terms of structure and a potential contributor to biodiversity in the system as well as providing likely habitats for prey items for some bird species (e.g. Red Breasted Merganser).

A number of intertidal sandbanks in the outer part of Wexford Harbour, and lying off the mainland at Raven Point, represent haul-out sites of regional and national significance for Grey seal, which are used all year round. Although this species is not a qualifying feature of the designated SAC site it is nevertheless protected under the Wildlife Acts 1976 to 2017.

The identification of additional haul out location information gathered by DCH&G and provided to the MI is acknowledged. The MI contends that given that the primary activity in the SAC is bottom mussel culture and activities at the sites are heavily influenced by tidal state, it is concluded that culture activities will occur at times when disturbance to seals is less likely i.e. a number of hours around high tide.

Underwater Archaeology – Underwater Archaeology Unit (UAU) in its comments states that Wexford Harbour has a high potential to retain underwater cultural heritage. There is a possibility that the dredging associated with the applications could impact on known or unknown underwater archaeology. UAU requests that an Underwater Archaeological Impact Assessment (UAIA) be carried out in advance.

An Underwater Archaeological Assessment is currently being carried out by contractors appointed by BIM.

Marine Institute: Noted that the site is located within a designated Shellfish Growing Waters Area. Following considerations implicit to Sections 61 (e and f) of the Fisheries (Amendment) Act 1997, the Marine Institute is of the view that there will be no significant impacts on the marine environment and that the quality status of the area will not be adversely impacted.

In making a final determination on this application the MI recommends that DAFM take full account of the conclusions and recommendations set out in the AA reports.

The MI also recommends that, prior to the commencements of operations at the site, the applicant be required to draw up a contingency plan, for the approval of DAFM, which will identify, *inter alia*, methods for the removal from the environment of any invasive non-native species introduced as a result of operations at this site.

Commissioner of Irish Lights: Stated no objection to this licence application from a navigational viewpoint. However, general conditions were suggested and these are included in Schedule 3 of the draft Aquaculture Licence.

An Taisce: Stated their support for the sustainable development of aquaculture, developed in a manner not degrading to site or water quality. An Taisce submit that to permit all the aquaculture development to go ahead in the harbour without the level of detail and necessary research, which is highlighted as a requirement (in the AA), would represent a post consent condition. Also as stated "...if the necessary research is to be carried out adequate lead-in time should be allowed to trial methodologies..."

The MI confirms that 100% coverage of bottom mussel sites is assumed even when this is not likely, on the basis of unsuitable habitat and/or reduced seed availability.

An Taisce state that the precautionary principle must be applied and that that licensing should not proceed until all the necessary studies are complete and the relevant authority can conclude beyond reasonable doubt that the proposed aquaculture will not have an adverse effect on the integrity of the Species Conservation Interests (SCIs) in the SPA.

The MI states that, from a scientific perspective, it can assure An Taisce that the precautionary principle underpins their analysis at all times. For example, it was assumed (in the compilation of the AA report) that seed will be available for all sites in all production cycles. Furthermore, the extent of disturbance was estimated to extend throughout the entire area occupied by any licence even when it is clear that this is impossible due to location (inter-tidal or shallow sub-tidal) and that levels of disturbance (i.e. activity) would reflect full occupancy.

The “assumption of a positive influence” of the bottom cultivation of mussels is predicated on the assertion that these mussels will reduce eutrophication within the harbour and are a historical part of the system is refuted by An Taisce.

The MI highlight that published literature has clearly demonstrated a measurable effect of filtration by standing stock of mussels as a mechanism of controlling eutrophication and there is a clear distinction between the trophic status of the Lower Slaney and Wexford Harbour. Furthermore, the MI believe that the historical presence of mussels in the inner harbour are an important consideration in terms of structure and potential contributors to biodiversity in the system as well as providing likely habitats for prey items for some bird species (e.g. Red Breasted Merganser).

“... An Taisce welcome the mitigation measures outlined in the Appropriate Assessment Conclusion Statement which forbid night time dredging, and the removal of seed from intertidal areas...”

The prohibition of night time dredging has been included as a general condition in Schedule 4 of the draft Aquaculture Licence. In relation to the removal of seed from intertidal areas, it should be noted that this particular mitigation measure is not applicable to T03/055E.

They state that while they would welcome the removal of bottom mussel culture from inter-tidal areas, they highlight that under Article 6(3) of the Habitats Directive no reasonable doubt must remain as to the impact on the Natura 2000 site / species.

An Taisce contends that, as it stands, there are multiple failings in the Appropriate Assessment, and licensing should not go ahead until these are adequately addressed.

While broadly agreeing with their premise, the MI notes that if any aquaculture licensed site does not incorporate intertidal habitat as represented in the Conservation Objectives, then, assuming compliance is monitored, the licensing authority can be certain beyond all reasonable doubt that the risk to Natura features can be alleviated.

Wexford County Council: Stated that the area of the harbour in the vicinity of Wexford town, extending from Crescent Quay to Trinity Wharf, between the training walls is an area of high amenity value and of major importance for the spatial and economic development of Wexford town, harbour and quays area. Wexford County Council is seeking that consideration be given to exempting from the licence, areas adjoining the training walls, to allow for the maintenance, repair and upgrading of these walls. The Council is seeking that an area with a minimum width of 30m, is exempted from any licence on both sides of the north and south training walls.

Marine Engineering Division (MED) has confirmed that when the sites were reconfigured to bring the overall estuarine habitat overlap below the 15% disturbance threshold consideration was also given to the proximity of the training wall and MED has verified that there is now a minimum 30m buffer zone between this aquaculture site and the south training wall.

The Council's Environment Section also made the following general observations:

"... With regard to the above aquaculture licences, this is for a considerable expansion of area under shellfish cultivation in Wexford Harbour / Irish Sea / Carnsore Point, a large number in areas outside the designated area for shellfish waters. None of the applications have made any reference to the benthos within which, or above which these proposed developments occur. The Marine Institute supporting report to the AA report makes findings for further info and it is considered that due to the large increase in area, beyond those areas designated, Wexford County Council makes a request for further information for the following additional information.

1. Biosecurity details on how the applicants will ensure the imported shellfish seed is not contaminated with marine invasive species.
2. Biosecurity details on how the applicants will ensure the shellfish under cultivation will not become an invasive species.
3. Comprehensive predevelopment benthos survey of each of the areas beneath these developments so as to provide a baseline on which to compare post development impacts.
4. Carry out a predevelopment physiochemical water quality analysis survey of the waters of each of the sites so as to provide a baseline on which to compare post development impacts."

<u>Marine Institute response</u>*: In the submission above the reference to designated area for shellfish waters is a matter for DAFM to address*. While there may not be specific reference to benthos within the application forms there is, within the AA Report, considerable reference to how the current and proposed activities will interact with benthic habitats and species.*

Specifically addressing the bullet points above:

1. *The issues of biosecurity can be addressed under licence conditions.*
2. *It is unclear to what species Wexford County Council are referring? The Blue Mussel Mytilus edulis is a native species and by definition cannot be an invasive species. The risk assessment would have considered the likelihood of the Pacific oyster, Crassostrea gigas, naturalising in the bay and concluded it was unlikely due to a number of factors, including the scale of proposed culture activity and the short residence time in the harbour (@17 days).*

3. *Given that many of the sites under consideration have been subject to culture of mussels for many decades the value of pre- and post- benthic monitoring is questionable. Furthermore, previous advice from the MI to DAFM have concluded that site-specific monitoring of shellfish culture activities is impractical due to the large variation in sizes of sites as well as the difficulty selecting suitable monitoring indicators. It should be noted that the bay-wide monitoring of a range of parameters occurs in Wexford Harbour under the Water Framework Directive. This monitoring programme is suitable to assess the likely impact of activities on benthos (and water quality) in the harbour.*
4. *See note 3 above.*

**DAFM comment: It should be noted that while there are waters in Wexford Harbour designated under the EU Shellfish Waters Directive 2006/113/EC, and licensed aquaculture contained within, this does not preclude the licensing of aquaculture in other parts of the harbour.*

Inland Fisheries Ireland (IFI): Provided a comprehensive response to the statutory consultation request. They state that estuaries and inshore waters provide significant nursery habitat for the larval and juvenile forms of (transitional and marine) fish species. Intertidal areas host high densities of benthic fauna, in particular worms and molluscs. Wexford Harbour represents the most important sea bass nursery in Ireland. The majority of fish in estuaries feed primarily on the benthos.

The MI is aware of the relevance of Wexford Harbour for eel and bass, but note that no data or reference in support of the claim as to the status of Wexford Harbour as "the most important sea bass nursery in Ireland" has been provided.

Inland Fisheries Ireland (IFI) also considers that the proposed aquaculture licence application(s) will include actions / practices which will alter the protected habitat features in the harbour. IFI have serious concerns regarding the cumulative impacts of the existing bottom culture licences for mussels within Wexford Harbour and the proposed expansion, which it believes are in breach of the conservation objectives of the Slaney River Valley SAC. They do not believe that the potential negative impacts upon the estuarine habitat and the nationally important fish nursery habitat of Wexford Harbour have been addressed.

The MI contends that this claim is not borne out by any data. These habitats are resilient and the level of disturbance likely encountered is such that if the pressure is removed the habitat will revert relatively quickly. Complete removal/destruction of habitat is not considered likely in this instance. If it were demonstrated, it would not be tolerated.

In addition, IFI questions the assertion that that the addition of more mussels will be beneficial to the ecological function of Wexford Harbour in terms of habitat provision and a reduction in eutrophication through the filtering of water by mussels.

The MI contends that there is sufficient scientific information cited in the report to support the assertion as it relates to mitigating eutrophication effects.

Statutory Consultation requests were also issued to the Department of Housing, Planning and Local Government, Bord Iascaigh Mhara, Údarás na Gaeltachta, Irish Water and Failte Ireland. However, no response was received from these agencies.

Public Consultation

The application was publicly advertised using a composite public notice covering both aquaculture and foreshore elements, in the 'Wexford People' on 26th June, 2018. The application and supporting documentation were available for inspection at Wexford Garda Station for a period of 4 weeks from the date of publication of the notice in the newspaper.

There were **no objections** received during the public consultation process.

Response to Statutory/Public Consultation

In accordance with the applicable legislation copies of the observations/objections received by AFMD during the statutory and public consultation process were forwarded to the applicant for comment. Crescent Seafoods Ltd.'s response to the **statutory comments** can be summarised as follows:

".... In conclusion we have addressed the observations and objections made on our sites and have full confidence that our business which has been historically part of Wexford for nearly the last X years does not negatively impact on the environment or the species located in it. In fact without our business and other mussel businesses being present in the harbour we feel that the environment and its marine life would be in serious jeopardy and we don't say that lightly given the increasing scientific evidence regarding the positive role shellfish play in the ecosystem. It's a costly process to remove nitrogen and phosphorus from the environment but it is even more costly to remediate an ecosystem that has collapsed due to severe eutrophic anoxia. The Department of Marine have a role

not only in supporting aquaculture but in avoiding the serious ecosystem consequences that could occur if the IFI reasoning was to win out."

CRITERIA IN MAKING LICENSING DECISIONS

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

a) the suitability of the place or waters

The application area is located in sheltered waters within Wexford Harbour. Aquaculture activity at this location has been in existence for many years which indicates that the hydrodynamic regime is suitable for this type of aquaculture. Based on the mapping provided by the Marine Institute and the Appropriate Assessment findings, it is established that the site is located within the qualifying feature Estuaries (1130). Accordingly, an adjustment to the site area is required.

b) other beneficial uses of the waters concerned

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

c) the particular statutory status of the waters

(i) Natura 2000

The site is located within the Wexford Harbour and Slobs SPA, the Raven SPA and the Slaney River Valley SAC. An Article 6 Appropriate Assessment has been carried out in relation to aquaculture activities in this SAC and SPAs. This Assessment and its findings were examined by the Department and its scientific / technical advisors and a Conclusion Statement has been produced outlining how it is proposed to licence aquaculture in compliance with Habitats requirements.

(ii) Shellfish Waters

The site is located in Wexford Harbour Shellfish Designated Waters. Mussels in the outer Wexford Harbour area currently have a "B" classification (under Annex II of EU Regulation 854/2004).

d) the likely effects on the economy of the area

Aquaculture has the potential to provide a range of benefits to the local community.

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

No significant issues arose regarding wild fisheries. The potential ecological impacts of aquaculture activities on natural habitats, flora and fauna are addressed at (c) (i) above.

f) the effect on the environment generally

There is no issue regarding visual impact as the site area applied for is to be utilised for bottom culture only. No chemicals or hazardous substances will be used during the production process. The Minister is obliged pursuant to Regulation 5 (2) of Licence Application Regulations to consider on a case by case basis whether the proposed aquaculture is likely to have a significant effect on the environment.

g) *DCH&G have requested that an underwater archaeological study be carried out.*

RECOMMENDATION

It is recommended that the Minister:

approves the granting of the renewal of an Aquaculture Licence **(*Tab D*)** to Crescent Seafoods Ltd., Mytilus, Ballaghablake, Curracloe, Co. Wexford, with a **variation**, reducing the footprint of the site from 19.9 ha to 6.6495 ha, for a period of ten (10) years for the bottom cultivation of mussels, in accordance with the terms and conditions of the attached draft Aquaculture Licence.

The reason for the recommendation to reduce the footprint of site T03/055E is on the basis of the Appropriate Assessment report findings, where it was established that the site is located within the qualifying feature 'Estuaries' (1130). A substantial cut to the sites in these waters (Estuaries) was required to bring the feature in question below the 15% disturbance threshold. Accordingly, this has resulted in cuts being made to all sites (application areas) in estuarine waters. Following the recommendation to reconfigure the sites, Marine Engineering Division provided revised co-ordinates, maps and charts for site T03/055E to reflect the reconfigured area.

REASONS FOR DECISION

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

"Determination of Aquaculture/ Foreshore Licensing application – T03/055E

Crescent Seafoods Ltd., Mytilus, Ballaghablake, Curracloe, Co. Wexford, has applied for authorisation for the bottom cultivation of mussels on the foreshore on an 19.9 ha site (*T03/055E*) in Wexford Harbour, Co. Wexford.

The Minister for Agriculture, Food and the Marine has determined that it is in public interest to grant **a variation** of the licences sought i.e. reducing the footprint of the site from 19.9 ha to 6.6495 ha. In making his determination the Minister considered those matters which by virtue of the Fisheries (Amendment) Act 1997, and other relevant legislation, he was required to have regard. Such matters include any submissions and observations received in accordance with the statutory provisions. The following are the reasons and considerations for the Minister's determination to grant a variation of the licence sought: -

a. *Scientific advice is to the effect that the waters are suitable. The site is located in Wexford Harbour Shellfish Designated Waters. Mussels in these waters currently have a "B" classification;*

b. *This is a renewal application for existing aquaculture activity in Wexford Harbour and public access to recreational and other activities is already accommodated by this project*;

c. *The proposed development should have a positive effect on the economy of the local area;*

d. *All issues raised during Public and Statutory consultation phase;*

e. *There are no effects anticipated on the man-made environment heritage of value in the area;*

f. *Shellfish have a positive role in the ecosystem function in terms of nutrient and phytoplankton mediation;*

g. *There are no issues regarding visual impact as the site to be utilised is for bottom culture;*

h. *No significant effects arise regarding wild fisheries;*

i. *The site is located within the Slaney River Valley SAC (Site Code: 00781), The Raven Point Nature Reserve SAC (Sited Code: 00710), Wexford Harbour and Slobs SPA (Site Code: 4076) and the Raven SPA (Site Code: 4019). An Article 6 Assessment has been carried out in relation to aquaculture activities in the SAC's/SPA's. The Licensing Authority's Conclusion Statement (available on the Department's website) outlines how aquaculture activities in these*

SAC's/SPA's, including this reconfigured site, are being licensed and managed so as not to significantly and adversely affect the integrity of the Slaney River Valley SAC , The Raven Point Nature Reserve SAC , Wexford Harbour and Slobs SPA and the Raven SPA.

j. *Taking account of the recommendations of the Appropriate Assessment the aquaculture activity proposed at this (reconfigured) site is consistent with the Conservation Objectives for the SAC's/SPA's;*

k. *A licence condition requiring full implementation of the measures set out in the draft Marine Aquaculture Code of Practice prepared by Invasive Species Ireland;*

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

Recommendation to grant a Foreshore Licence application (T03/055E)

DECISION SOUGHT

The Minister's determination is requested please in relation to the application for a Foreshore Licence from Crescent Seafoods Ltd., Mytilus, Ballaghablake, Curracloe, Co. Wexford, for a site in Wexford Harbour, Co. Wexford, in which it is proposed to conduct aquaculture.

BACKGROUND

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

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

APPLICATION FOR A FORESHORE LICENCE

An application for a Foreshore Licence has been received from the applicant referred to above (in conjunction with an Aquaculture Licence application), for the bottom cultivation of mussels in

relation to a 19.9 hectare site on the foreshore in Wexford Harbour, Co. Wexford, now proposed to be reduced to a 6.6495 hectare site (numbered T03/055E– see **Tab A**).

LEGISLATION

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

CONSULTATION AND PUBLIC COMMENT

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

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

Department of Housing, Planning and Local Government: There were no comments received from a water quality or foreshore perspective.

Technical Consultation (See **Tab B**)

Marine Engineering Division (MED): Marine Engineering Division had initially no objection to the licensing of this site. However, as the site is located within the qualifying feature Estuaries (1130) substantial cuts were required to bring the feature in question below the 15% disturbance threshold and MED provided revised co-ordinates, maps and charts for the site to reflect this.

Marine Survey Office: Had no objection to this application for bottom culture mussels in Wexford Harbour.

Sea Fisheries Protection Authority: Do not envisage any direct implications to seafood safety or commercial fishing operations.

Public Consultation

The application was publicly advertised using a composite public notice covering both the aquaculture and foreshore elements, in "The Wexford People" on 26th June, 2018. The application and supporting documentation were available for inspection at Wexford Garda Station for a period of 4 weeks from the date of publication of the notice in the newspaper.

There were **no objections** received from the public consultation process

CRITERIA IN MAKING LICENSING DECISIONS

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

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

RECOMMENDATION

It is recommended that the Minister:

approves the granting of a Foreshore Licence (**Tab E**) to Crescent Seafoods Ltd., Mytilus, Ballaghablake, Curracloe, Co. Wexford, with a **variation**, reducing the footprint of the site from 19.9 ha to 6.6495 ha, for a period of ten (10) years to occupy the site for the carrying out of aquaculture activities as defined in the Aquaculture Licence, and in accordance with the terms and conditions of the attached draft Foreshore Licence.

The reason for the recommendation to reduce the footprint of site T03/055E is on the basis of the Appropriate Assessment report findings, where it was established that the site is located within the qualifying feature 'Estuaries' (1130). A substantial cut to the sites in these waters (Estuaries) was required to bring the feature in question below the 15% disturbance threshold. Accordingly, this has resulted in cuts being made to all sites (application areas) in estuarine waters. Following the

recommendation to reconfigure the sites, Marine Engineering Division provided revised co-ordinates, maps and charts for site T03/055E to reflect the reconfigured area.

Submitted for approval, please.

Ann Mc Carthy

Aquaculture and Foreshore Management Division

SPECIAL NOTICES

FISHERIES (AMENDMENT) ACT, 1997 (NO. 23) FORESHORE ACT, 1933 (NO. 12) NOTICE OF DECISION TO GRANT AQUACULTURE AND FORESHORE LICENCES.

The Minister for Agriculture, Food and the Marine has decided to grant Aquaculture and Foreshore Licences (with variations) to WEXFORD MUSSELS LTD, ROCKFIELD, COOLCOTS, WEXFORD, CO. WEXFORD. REFS: T03/035A, T03/035B1, T03/35B2, T03/035C, T03/035F&G1, T03/035F&G2, T03/035F&G3, T03/072B, T03/090A for the bottom cultivation of mussels on sites on the foreshore in WEXFORD HARBOUR, Co. Wexford.

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

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

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

www.agriculture.gov.ie
@agriculture_ie

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

FISHERIES (AMENDMENT) ACT, 1997 (NO. 23) FORESHORE ACT, 1933 (NO. 12) NOTICE OF REFUSAL TO GRANT AQUACULTURE AND FORESHORE LICENCES.

The Minister for Agriculture, Food and the Marine has refused to grant Aquaculture and Foreshore Licences to, WEXFORD MUSSELS LTD., ROCKFIELD, COOLCOTS, CO. WEXFORD, SITE REF: T03/072A for the bottom cultivation of mussels on a site on the foreshore in WEXFORD HARBOUR, CO. WEXFORD. The reasons for this decision are elaborated on the Department's website at www.agriculture.gov.ie/seafood/aquaculturelicensing

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

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

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

FISHERIES (AMENDMENT) ACT, 1997 (NO. 23) FORESHORE ACT, 1933 (NO. 12) NOTICE OF REFUSAL TO GRANT AQUACULTURE AND FORESHORE LICENCES.

The Minister for Agriculture, Food and the Marine has refused to grant Aquaculture and Foreshore Licences to, T.L. Mussels Ltd., Clonard Business Park, Whitemill Industrial Estate, Wexford, SITE REF: T03/030C for the bottom cultivation of mussels on a site on the foreshore in Wexford Harbour, Co. Wexford. The reasons for this decision are elaborated on the Department's website at www.agriculture.gov.ie/seafood/aquaculturelicensing

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

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

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

FISHERIES (AMENDMENT) ACT, 1997 (NO. 23) FORESHORE ACT, 1933 (NO. 12) NOTICE OF DECISION TO GRANT/ REFUSE AQUACULTURE AND FORESHORE LICENCES.

The Minister for Agriculture, Food and the Marine has decided to grant (with variations) or refuse to grant Aquaculture and Foreshore Licence applications to the following in the table below in Wexford Harbour, Co. Wexford:

Reference Number	Name	Species	Decision
T03/047 (3 sites A, B & C) T03/083A T03/085A	Loch Garman Harbour Mussels Ltd. 24 Northumberland Road, Ballsbridge, Dublin 4	Mussels (Bottom culture)	Grant Licences (with variations)
T03/048A T03/091A	Noel Scallan, 29 William Street, Wexford Town and Sheila Scallan, Crosswinds, Avondale Drive, Wexford Town	Mussels (Bottom culture)	Grant Licences (with variations)
T03/049 (5 sites A, B, C, D &C1) T03/077A	Riverbank Mussels Ltd. c/o Pricewaterhouse Coopers,Commarket, Wexford	Mussels (Bottom culture)	Grant Licences (with variations)
T03/052 (2 sites A & B)	W. D. Shellfish Ltd. c/o Pricewaterhouse Coopers, Commarket, Wexford	Mussels (Bottom culture)	Grant Licences (with variations)
T03/055 (2 sites E, F&C)	Crescent Seafoods Ltd. Mytilus, Ballaghablake, Curracloe, Co. Wexford	Mussels (Bottom culture)	Grant Licences (with variations)
T03/074 (2 sites A & B)	Patrick Swords, Crory Lane, Crossabeg, Co. Wexford and Florence Sweeney, Ballyhoe, Lower Screen, Co. Wexford	Mussels (Bottom culture)	Grant Licences (with variations)
T03/080A	Billy & Daniel Gaynor, 19 Hillcrest, Mulgannon, Co. Wexford	Mussels (Bottom culture)	Grant Licences (with variations)
T03/078A	Crescent Seafoods Ltd. Mytilus, Ballaghablake, Curracloe, Co. Wexford	Mussels (Bottom culture)	Refuse Licence
T03/080B	Billy & Daniel Gaynor, 19 Hillcrest, Mulgannon, Co. Wexford	Mussels (Bottom culture)	Refuse Licence
T03/093 (2 sites A & B)	Mr Eugene Duggan, 141 Belvedere Grove, Coolcotts, Wexford Town and Mr Jason Duggan, 10 Antelope Road, Maudlintown, Wexford Town	Mussels (Bottom culture)	Refuse Licence

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

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

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

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

McCarthy, Ann

From: McCarthy, Ann
Sent: 16 September 2019 16:36
To: Alab, Info
Cc: OCallaghan, Grace; Foley, Gerry
Subject: Ministerial decisions on aquaculture and foreshore licences in Wexford Harbour
Attachments: Scan_1631411.pdf

Importance: High

Tracking:

Recipient	Delivery	Read
Alab, Info	Delivered: 16/09/2019 16:36	
OCallaghan, Grace	Delivered: 16/09/2019 16:36	Read: 09/10/2019 10:46
Foley, Gerry	Delivered: 16/09/2019 16:36	Read: 16/09/2019 16:54

Please see details of Ministerial decisions on aquaculture and foreshore licences in Wexford Harbour.

Regards,

Ann McCarthy
Aquaculture and Foreshore Management Division
Department of Agriculture Food and the Marine
National Seafood Centre
Clonakilty
Co Cork
P85 TX47

Email:ann.mccarthy@agriculture .gov.ie

Phone No; (023)8859537

Fax (023)8821782

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

To ALAB

File Ref: T03/055
Site Refs: T03/055E, T03/055F&C

NOTIFICATION OF MINISTER'S DECISION TO GRANT (WITH VARIATIONS) AQUACULTURE LICENCES AND FORESHORE LICENCES.

Dear Ms O'Hara,

I enclose a copy of the Notice of the Minister's Decision to grant an Aquaculture Licence (with variations) to: **Crescent Seafoods Ltd.,Mytilus, Ballaghablake, Curracloe, Co. Wexford** which will be advertised in the Wexford People on **17th September 2019.**

Yours sincerely,

Ann Mc Carthy
Aquaculture and Foreshore Management Division
Department of Agriculture Food and the Marine
National Seafood Centre
Clonakilty, Co Cork
Email: ann.mccarthy@agriculture.gov.ie
Tel No: 0238859537
16th September 2019

sent by registered post

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

COPY

Ref: T03/055

Crescent Seafoods Ltd.
Mytilus, Ballaghablake
Curracloe
Co. Wexford

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

Dear Secretary,

I would like to inform you that the Minister for Agriculture, Food and the Marine has approved the granting (with variations) to you of (two) 10-year Aquaculture Licences (one licence per site) and accompanying Foreshore Licences, for the bottom cultivation of mussels on sites no. T03/055E, T03/055F&C (see attached information note.) I enclose a copy of the public notice of the decision which **the Department** has arranged to have published in "Wexford People".

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

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

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

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

Yours sincerely

Ann Mc Carthy

Ann Mc Carthy
Aquaculture and Foreshore Management Division
16th September 2019

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

REFERENCE NO:	**T03/55**
APPLICANT:	**Crescent Seafoods Ltd.** **Mytilus, Ballaghablake** **Curracloe** **Co. Wexford**
AQUACULTURE TO WHICH DECISION RELATES:	Bottom cultivation of mussels on sites T03/055E and T03/055F&C on the foreshore in Wexford Harbour, Co Wexford.
NATURE OF DECISION:	Grant of Aquaculture Licences (with variations).
DATE OF DECISION:	**12th September 2019**
CONDITIONS OF LICENCE:	See attached.
DURATION OF LICENCE:	10 years
ISSUE OF LICENCE:	The licence will be dated and issued as soon as practicable after the end of the period of one month from the date of publication of a notice in a newspaper circulating in the vicinity of the aquaculture, if no appeal is made to the Aquaculture Licences Appeals Board within that period, under Section 40 and 41 if the Fisheries (Amendment) Act, 1997.

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

Crescent Seafoods LTD

Mytilus Ballaghablake Curracloe Co. Wexford
Tel. +353539137729 Mob. +872933616
email. crescentseafoodsltd@gmail.com

26 October 2018

Ann Mc Carthy

Dept. of Agriculture Food and the Marine

Aquaculture & Foreshore Management Division

National Seafood Centre

Clonakilty

Co. Cork

Re: Observations/ objections on renewal of T03/55 E and F&C and application T03/78

Dear Ann,

Following on from your letter dated 12th October 2018 we are responding to the observations and objections that you sent to us regarding our applications in Wexford Harbour.

We will address them in the order in which we received them as follows:

Response to the Marine Institute (MI) observations:

Regarding T03/55E and F&C, the MI correctly point out that we are located within the inner and outer Shellfish Growing Areas of Wexford Harbour respectively and also the SFPA inner and outer classified production areas of Wexford Harbour respectively. The outer production area is currently classified as B whereas the inner production area which is currently dormant but is under testing for reclassification. The main reason for the Wexford Harbour inner area becoming dormant (declassified) has been due to the lack of mussel seed available to us and other producers who have sites in this production area. From a classified production area perspective the area upstream of Wexford Bridge has recently been undergoing routine sampling and testing for microbial standards by the SFPA to reclassify the production area and that process is nearing completion. Currently the results suggest that the area is 'A' class and will certainly achieve 'B' classification. The sampling

period required to reopen the production area will end on Dec 2018 so reopening is imminent. Thus there will be no implications if this site is licensed.

We note that the MI are of the view that these sites will not cause significant impacts on the marine environment and that the quality and the status of the area will not be adversely impacted.

We will engage with the BIM Environmental Officer on drafting up a contingency plan that will identify *inter alia* methods for the removal from the environment of any invasive non-native species introduced as a result of operations at this site. However we stress that we use *Mytilus edulis* seed from the east coast of Ireland which is native to here. Mussels have been farmed on these sites in the Harbour since the 1970's (see Aquaculture Profile prepared by BIM and submitted to the MI for the Appropriate Assessment) and in more recent decades by our company. We have to date never brought an invasive species into the harbour.

We operate under a Fish Health Authorisation currently and will continue to do this according to the protocol for all licenced sites.

We stress that none of sites T03/55 and T03/78 are intertidal.

Response to the Inland Fisheries Ireland (IFI) observations/objections:

This response covers T03/55 E, F&C and T03/78

IFI are incorrect when they say our sites are all in transitional waters. Site T03/ 55 E is within transitional waters whereas the others are within coastal waters as defined by the EPA.

We note that IFI acknowledge in the first sentence in paragraph 2 that *'estuaries and inshore waters.... provide shelter and food for many young and adult fish, crustaceans and shellfish'.* They go on to point out that these marine creatures (including shellfish) provide food resources for other levels of the trophic chain including shore birds, waterfowl, larger fish and marine mammals. We have always known that the mussels located on our beds support life within the habitat structure and indeed act as a food source directly and indirectly to the higher trophic levels such as larger fish. High numbers of crabs are supported by mussel farming in Wexford Harbour. Although IFI do not provide any scientific data to support their comment ' ***Wexford Harbour represents the most important seabass nursery in Ireland'***, taken at face value it would have to be taken logically that mussel farming which has been going on in the harbour since the 1900's (See Aquaculture Profile produced by BIM) and on a larger scale since 1970 has not been detrimental to the sea bass nursery here in the harbour. If it was then the sea bass nursery would not exist given the history of mussel farming. Indeed it could be argued that the increase in biodiversity afforded by mussel bed structure for crustaceans and crabs, the filtering out of suspended solids from the water column, the increase light penetration and the controlling effect on algal blooms and thus eutrophication by virtue of algal consumption by mussels and increased denitrification through benthic-pelagic coupling beneath mussel beds has been an important part of the success of the sea bass in this harbour. We note also that sea bass are not mentioned in the Conservation Objectives for the SAC.

The IFI go on to state that *' the waters of the Slaney Estuary in close proximity to this site represent the most important sea bass nursery waters in Ireland.'* Firstly where are they talking about and secondly mussels only improve water quality not deteriorate it? So again there is no issue here. Without mussels in the harbour the deterioration in water quality due to anthropogenic sources would be potentially destabilizing for the ecosystem and could collapse it thus destroying the sea bass nursery and many more important species also. This is alluded to in the Appropriate assessment also which was carried out by the MI. Mussels (shellfish) are the only protection against eutrophication and anoxic crashes as anthropogenic discharges are not going away but rather are increasing. Benthic kills due to anoxia after algal blooms can lead to widespread dead zones that can last from months to years and can involve expensive remediation efforts by the state, and negatively affect tourism, other bay uses, birdlife and recreational use of the area. The Water Framework Directive data generated by the EPA shows that Wexford Harbour has been eutrophic/potentially eutrophic for a long time now. A quick check on the EPA website shows that not only the transitional waterbody but the coastal waterbody of the Slaney Estuary/Wexford Harbour are both potentially eutrophic. If IFI were to apply any science to this problem they would be calling for more mussel licences in the harbour not less.

The MI Appropriate Assessment screened out lampreys, shads and salmon so we don't understand why IFI are mentioning them again. Indeed mussels have been shown to reduce levels of salmon sea lice *(Molloy et al, 2001 Ingestion of Lepeophtheirus salmonis by the blue mussel Mytilus Edulis. Aquaculture 311:61-64).* We note that the sea trout and eel mentioned by IFI are not qualifying interests in the conservation objectives for the SAC.

Again in relation to intertidal habitats our sites do not have any intertidal areas and nor would we farm intertidal areas if they were to somehow appear on our sites due to changes in bathymetry. T03/55E and F&C do not lie within the Raven SAC although T03/78 has a small overlap with it. We do not remove seed from intertidal locations either. It would appear that IFI are writing a generic response to the combined applications within the harbour rather than specific to our sites.

We agree with IFI that the MI Appropriate Assessment does state that 'bottom mussel culture does have an overall positive role in the ecosystem' but disagree with them in their assertion that there is no scientific information used to back up the MI claim. We note that the MI Appropriate Assessment does use some scientific references and indeed we can provide more at the end of this response in our Bibliography.

We wish to stress strongly that no part of sites T03/55E, F&C and T03/78 are intertidal: they are always subtidal.

Again IFI are concerned with oxygen levels in paragraph 4 page 2 of their objection whilst completely not grasping the major threat to oxygen levels at the bay scale which comes from eutrophication caused by algal blooms. Our mussels when relayed form patches on the seabed and thus do not form a 'monoculture layer' on the seabed. Nor does it cause anoxia underneath the mussel patches. But there is scientific research to suggest that increased denitrification can occur underneath shellfish and thus again this drives the ecosystem away from eutrophication. The mussel patches increase the habitat structure and provide a haven for small crustaceans and moulting crab which in turn are food for larger marine creatures. With the exclusion of T03/78 mussel farming has been

ongoing on our sites for almost X years now and still we have no detrimental impact on the benthic community.

The IFI then attempt to equate bottom mussel dredging with trawling: the two activities are very distinct. Bottom mussel dredging has one very important objective which is to harvest the mussels as gently as possible so that they can survive the trip to market, the relaying in Holland or France and the subsequent sale on shelves in supermarkets and or in restaurants. Furthermore when an area of a site is dredged for mussels during harvest subsequent dredging of the same ground will yield further loads for market again and again until all of the stock has been removed from the bed. This clearly demonstrates the gentle nature of harvesting in that mussels not harvested in the first load are still perfectly viable for future loads despite having been dredged over. The dredge is designed to skim just under the mussel layer and does not dig into the seabed as the IFI would try to make out by equating with bottom trawling. The greatest threat to Good Environmental Status (GES) as set out in the Marine Strategy Framework Directive (MSFD) is the threat posed by eutrophication in the transitional and coastal waterbodies of the Slaney Estuary/Wexford Harbour. The only counter to this threat currently is mussel farming. Nutrients feeding algal growth are still entering the waters from diffuse agricultural sources, non-functioning Domestic Waste Water Treatment Systems, Storm water overflows, Section 4 discharges and outfalls from Municipal Wastewater Treatment plants. These sources are not diminishing. If mussel dredging was as bad as IFI attempt to make out (through trying to equate it with trawling) then by their reasoning combined with how long mussel farming has been ongoing in the bay there would be no important sea bass nursey (Ireland's most important according to IFI). It stands to logic that our activities are not deleterious to the habitat.

The IFI go on to state how small scale features and relief are important to juvenile fish and we have no doubt that our mussel patches which by and large remain intact from relaying to harvest are beneficial to juvenile fish. Through the process of relaying seed each year and harvesting mature stock we are always maintaining a mussel presence in the harbour for other marine life to avail of.

We note that in reference to the eels which IFI raise, there is no mention of eels as a qualifying interest in the Conservation Objectives. Again like sea bass the IFI state that eels are present in important numbers in Wexford Harbour which again would logically suggest that mussel farming which have been ongoing for nearly 50 years has not negatively impacted on eel numbers. We never get eels in our dredges. When we harvest the contents of the hold are run up a conveyor belt and two pairs of hands pick out any by-catch and return to water. The by-catch is always low. They state that our applications do not take account of eels in the harbour despite our activities having been subjected to a thorough Appropriate Assessment which involved the submission of a comprehensive Aquaculture Profile for the Harbour and the answering of numerous questions as part of the process. The competent authority in the state, the MI have not found any negative impacts on eels and indeed the Conservation Objectives drawn up by National Parks and Wildlife (NPWS) the state competent authority do not make any reference to eels. So it is very surprising that IFI bring this up as an issue.

IFI question the ' sustainability of bottom trawling of large areas of Wexford Harbour to harvest mussels' which again we point out is incorrect as bottom trawling does not take place to harvest mussels. We use specially constructed dredges to lift mussels off the seabed during harvest in the

gentlest manner possible so as to preserve viability of the harvest. We have already submitted information on our dredge gear during application and also during the Appropriate Assessment process. Although mussel dredgers may appear large to IFI our dredging activity is sensitive and targeted to our stock and is **not** trawling.

Response to the Development Applications Unit (Department of Heritage and the Gaeltacht:

As far as we are aware BIM will assist with an archaeological survey on the applications that the Development applications Unit are interested in. We would however point out that before the first round of licencing of mussel sites in Wexford Harbour in 2002 the Department of Marine examined in great detail the inventory of marine wrecks for Wexford Harbour prior to licence determinations. Thus for our sites there would not have been any conflict with any known wrecks (T03/ 55E, F&C). In regard to T03/ 78 we will gladly avail of any help that BIM has to offer regarding the survey. Furthermore our dredging activity as stated above only skims off the mussels from the bed and does not disturb sediment any further below this. Given the historical activity on our renewal sites pre and post licensing over the last 50 years we would be certain that there are no historical wrecks or artefacts that are dredges could interfere with.

Response to the Observations made by the Senior Marine Officer at Wexford County Council:

We note that the Wexford County Council Senior Marine Officer has 'no comment' on our applications T03/55E, F&C and T03/78.

Response to the Observations made by the Senior Executive Scientist at Wexford County Council:

Wexford County Councils Senior Executive Scientist comments on our applications along with others as 'considerable expansion'. Firstly our T03/55 E and F&C sites are renewal sites and are thus not expansion. Thus we cannot undertake pre-development benthic sampling as these sites as they are already in use. In regard to T03/78 we have no problem with some limited pre and post development sampling for benthos provided it is not at a great cost financially. The issue of benthos that is referred to by the Senior Executive Scientist is dealt with in the Appropriate Assessment process. In response to his request for further information we have the following:

1. Our stock movements into the harbour from the Irish Sea are regulated by the Department of Marine and the Marine Institute and invasive species are covered by that. Furthermore as mentioned earlier in response to the MI comments we will be drafting a contingency plan with the BIM environmental Officer for invasive species. One must remember that our dredger is operating in near shore water only and with a native species and as such the risk presented is low.
2. Mytilus edulis are a native species
3. Our sites with the exception of T03/78 have been used for many years so a predevelopment baseline benthic sample is not applicable.
4. Again in relation to water quality the SFPA have been testing shellfish in the production area for many years now and it is classified as B. Testing is ongoing in the inner production area

where T03/55E is located. Our sites with the exception of T03/78 are not new sites so a predevelopment water quality survey is not applicable. Furthermore it would seem incredulous that the Senior Executive Scientist would think that mussels will negatively affect the physiochemical quality of the water when mussels only improve water quality unlike Section 4 discharges which the Senior Executive Scientist is responsible for licensing. The EPA undertake comprehensive Water Quality testing as part of the Water Framework Directive for the Slaney Estuary and Wexford Harbour. We find it strange that the Senior Executive Scientist is asking us to replicate this work. However for site T03/78 we would have no issue with pre and post development water testing again within acceptable financial limits.

In conclusion we have addressed the observations and objections made on our sites and have full confidence that our business which has been historically part of Wexford for nearly the last X years does not negatively impact on the environment or the species located in it. In fact without our business and other mussel businesses being present in the harbour we feel that the environment and its marine life would be in serious jeopardy and we don't say that lightly given the increasing scientific evidence regarding the positive role shellfish play in the ecosystem. It's a costly process to remove nitrogen and phosphorus from the environment but it is even more costly to remediate an ecosystem that has collapsed due to severe eutrophic anoxia. The Department of Marine have a role not only in supporting aquaculture but in avoiding the serious ecosystem consequences that could occur if the IFI reasoning was to win out.

Yours Sincerely,

Simon Dingemanse
Director Crescent Seafoods LTD

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1 NO. SITE AT WEXFORD HARBOUR CO.WEXFORD

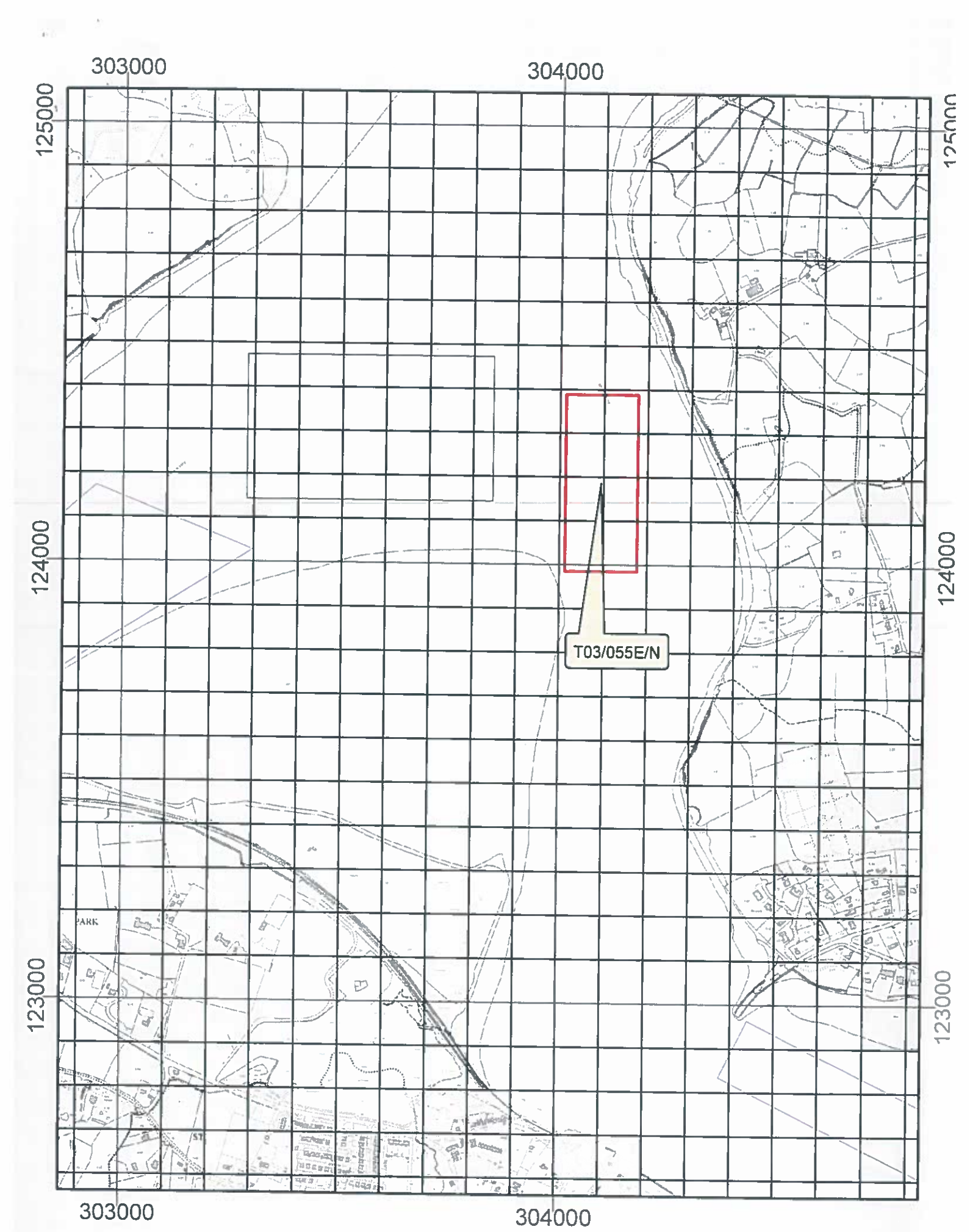
Co-ordinates & Area

Site T03/055E/N (6.6495 Ha)

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

304012, 124388 to Irish National Grid Reference point
304177, 124388 to Irish National Grid Reference point
304177, 123985 to Irish National Grid Reference point
304012, 123985 to the first mentioned point.

Aquaculture & Foreshore Management Division
15 JUL 2019
Dept. of Agriculture, Food & the Marine



100 Meter Reference Grid

Modified Sites

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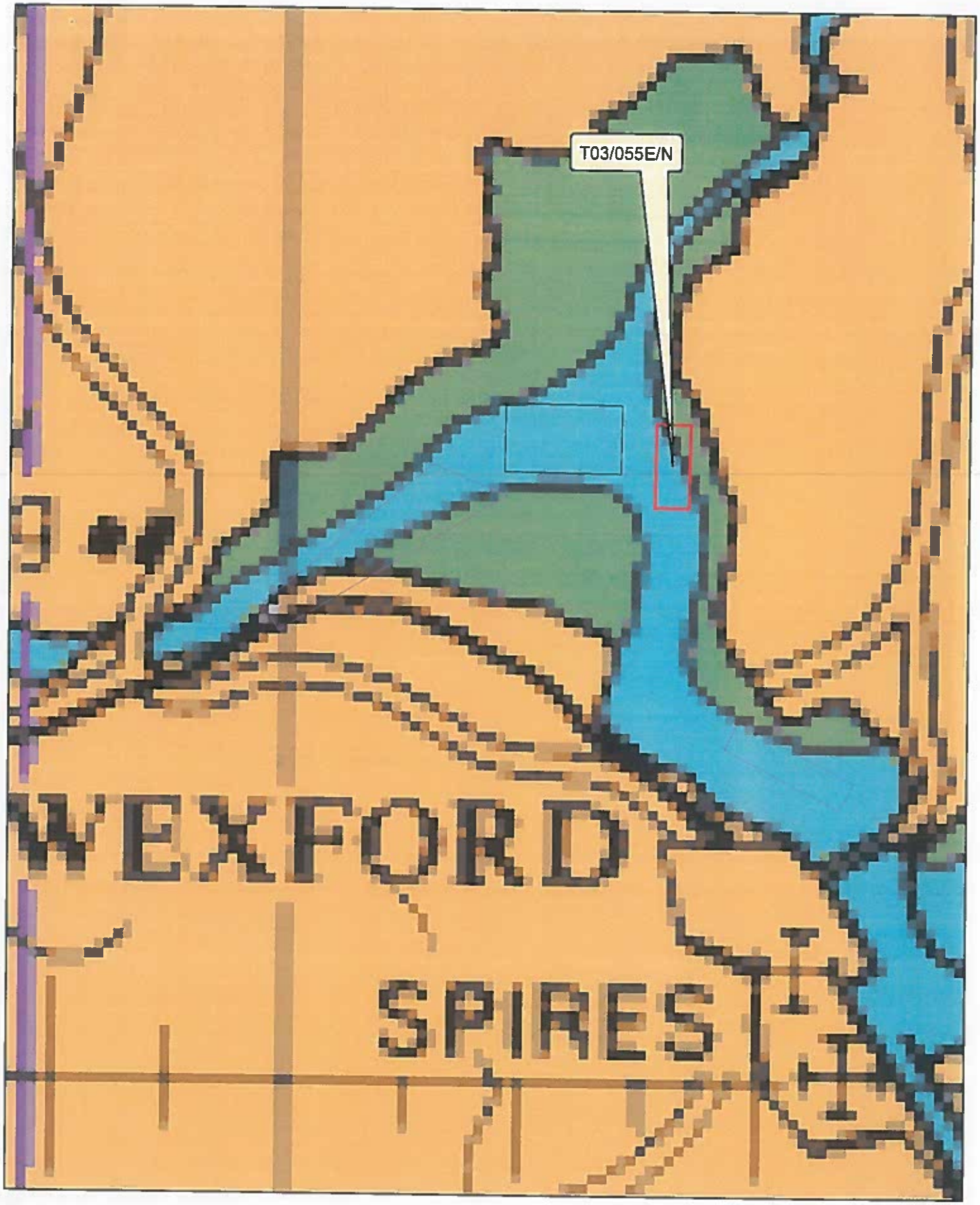
Sites highlighted in red denotes Application

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



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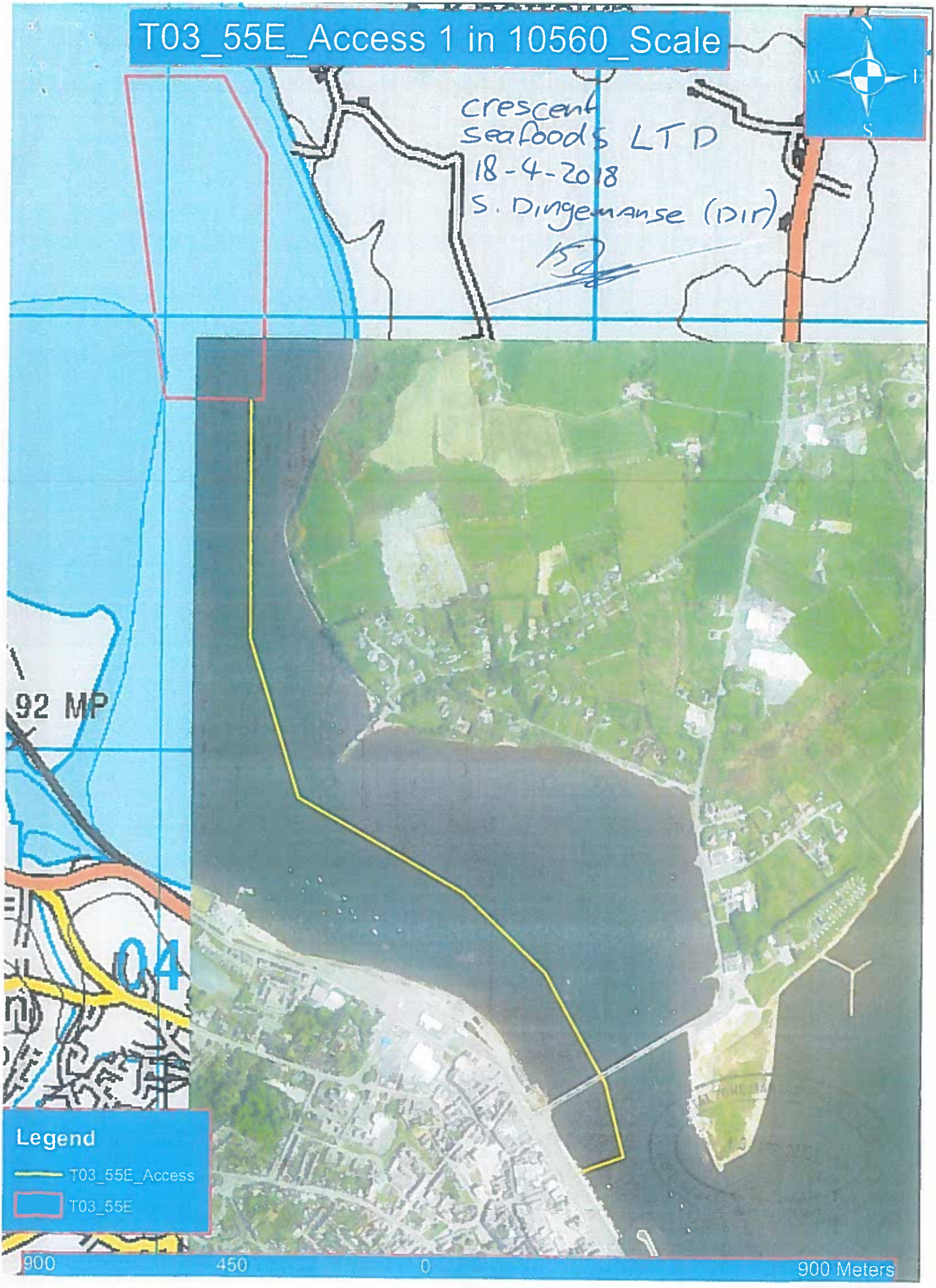
Department of Agriculture,
Food and the Marine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Marine Institute
Foras na Mara

Rinville,
Oranmore,
Co. Galway
Tel: 091 387200

Date: 25 July 2018

Ann McCarthy
Aquaculture and Foreshore Management Division
Department of Agriculture, Food and the Marine
Clogheen,
Clonakilty
Co. Cork.

Advice on Aquaculture Licence Application

Applicant	**Crescent Seafood**
Application type	**Renewal**
Site Reference No	**T03/055E and F&C**
Species	**Mussels (*Mytilus edulis*) – on the seabed ,**
Site Status	**Located within the Wexford Harbour and Slobs SPA (Site Code 004076) and the Slaney River Valley SAC (Site Code 000781)** **Located within a designated Shellfish Growing Waters Area**

Dear Ann

This is an application for the renewal of an aquaculture licence for the production of mussels (*Mytilus edulis*) on the seabed at SitesT03/055E and F&C on the foreshore in Wexford Harbour. The area of foreshore at Site T03/055E is 19.88Ha while the area of foreshore at Site T03/055F&C is 92.60Ha

Site T03/055E is located within the Wexford Harbour Inner Shellfish Growing Water Area while Site T03/055F&C is located within the Wexford Harbour Outer Shellfish Growing Water Area.

Under Annex II of EU Regulation 854/2004 mussels in the outer Wexford Harbour area currently have a "B" Classification. Mussels in the inner Wexford Harbour area (north of Wexford Bridge) currently have a "C" Classification. It is noted on the SFPA Web site that the fishery in inner Wexford Harbour area has been dormant for at least 12 months, and limited monitoring data is available. Sites that remain dormant are in danger of their Classification becoming lapsed due to lack of monitoring data. Producers should contact their local SFPA office if Re-activating in order that monthly classification monitoring sampling may resume.

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

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

The sites are located within the Wexford Harbour and Slobs SPA (Site Code 004076), and the Slaney River Valley SAC (Site Code 000781). A full assessment of the current and proposed aquaculture activities on the Conservation Features of these Natura 2000 sites was carried out by the Marine Institute (reports available at DAFM)

In making a final determination on this application the MI recommends that DAFM take full account of the conclusions and recommendations set out in the AA reports.

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

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

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

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

Kind regards,

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

Marine Institute

Date: **April 18th, 2019**

To: **Gerry Foley- AFMD**

From: **Francis O'Beirn, Marine Institute**

CC: **Terry McMahon, Jeff Fisher-MI: Kevin Hodnett AFDM-DAFM**

Re: **An Taisce comments on aquaculture licence applications in Wexford Harbour and surrounds.**

The Marine Institute have been asked to comment on the submission from An Taisce to the Department of Agriculture Food and the Marine (DAFM) in relation to a number of aquaculture licence applications in Wexford Harbour as well as the Appropriate Assessment reports for Aquaculture in the relevant Natura sites. The text below represent the relevant An Taisce comments with the MI response following. In their submission, An Taisce cite a number of outputs of case law. This is beyond the remit of the MI. ADFM may wish to seek their own legal advice in relations to the legal interpretations provided by An Taisce.

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

An Taisce Observations: **Bird Disturbance and bottom mussel cultivation -Post Consent conditions**

Management responses for the SPAs and their corresponding Species Conservation Interest (SCIs) are outlined section 9.12 of the Annex II report (Annex II Marine Institute Bird Studies Wexford Harbour, the Raven and Rosslare Bay: Appropriate Assessment of Aquaculture). Management Responses / Measures 1, 3, 4, 6 and 7 all refer to further information gathering. Namely the need for comprehensive information on all bottom mussel-related boat activity; further Red-breasted Merganser disturbance studies; research into the ecology of Red-breasted Merganser in Wexford Harbour; surveys of high-tide wader and tern roosts; and Little Tern research. An Taisce submit that to permit this aquaculture development to go ahead without this level of detail and necessary research, which is highlighted as a requirement, would represent a post consent condition. The time which will be required for this is clearly outlined in the management responses in the Annex II report:

"It should be noted that a lot of the above bird survey requirements will be logistically challenging (e.g., surveying sandbank areas in the middle of the harbour). Therefore, if the research is to be carried out, adequate lead-in time should be allowed to trial methodologies, etc ."

Therefore, to push ahead and licence this prior to a 'lead-in time' to allow further elucidation of the required details outlined above is, in our considered opinion, a post consent condition. This is impermissible and could not be considered 'point of detail' conditions provided for under S.34(5) of the Planning and Development Act 2000 (as amended). In the case People Over Wind v An Bord Pleanala (2015) it was argued that, in regard to post consent conditions,

'... in respect of which there would be no public consultation or participation, there would be no possibility for the examination, analysis and evaluation under Article 6(3). It would not be possible to establish, in advance of the consent to the development whether such mitigation measures would protect the integrity of the River Barrow and River Nore SAC ' (Para. 202).

The sole mitigation measure suggested to overcome this in the AA conclusion statement is that an adaptive management plan must be put in place for Little Tern. The use of a post consent, and as yet undrafted, adaptive management plan as a means to mitigate for any such disturbance prevents a full and rigorous assessment of the efficacy of this approach. It is envisaged that this plan would specify the buffer zones required to protect the colonies/flocks from disturbance, additional measures (such as prohibiting dogs from accompanying workers in the seed collection site), and monitoring requirements. An Taisce submit that there is no reason the management plan could not be submitted for appraisal prior to licensing, and to fail to do so again falls under post consent conditions outlined above. In addition, given that this site is protected under the Birds Directive, the licensing body is obliged to ensure there will be no impact on all the Special Conservation Interests (SCIs), which extend beyond just the Little Tern, with potential impacts on Red Breasted Merganser, Greenland White Fronted Geese, other Tern species and diving birds in general. There is a clear failing to address these within the mitigation measures suggested. For example, it is clearly outlined in the conclusions of the Annex II report that,

"Disturbance from bottom mussel-related boat activity may cause significant displacement impacts to Red-breasted Merganser. The mean area potentially disturbed could amount to around 19-27% of the total area of available habitat. High levels of impact could occur on around 80% of days in the October-December period, for periods of up to 55-66% of daylight hours"

We would highlight that to mitigate this with further research to determine the impact of this activity, after a licence has been given and the work has begun would be entirely inappropriate under requirements of the Habitats Directive. Thus, we submit that many of the management responses outlined in the Annex II report could be classified as post consent conditions. Mitigation measures for other SCIs are entirely omitted in the AA conclusion statement, after the Annex II report clearly outlined many of the SCIs will potentially be disturbed by the proposed aquaculture. This is not acceptable, and is clearly in contravention of the Habitats Directive.

MI Response: Addressing case law is beyond the remit of the MI, however, from a scientific perspective the MI can assure An Taisce that the precautionary principle underpins the analysis at all times. For example, we assumed 100% cover of bottom mussel sites even when this is not likely on the basis of unsuitable habitat and/or reduced seed availability. This would further be represented in the levels of activity within the Harbour which would have resulted in the very conservative estimates of likely disturbance cited by An Taisce.

The adaptive management strategy for tern is presented in the SPA AA report as a proposal only. The feasibility of employing this strategy as it relates to aquaculture use at the site being dictated by annual site use of the island by terns has yet to be fully determined and may be difficult to implement. The movement of structures from (or around) a site might be problematic. Therefore, we submit that the implementation of this proposal has yet to be fully considered from the MI perspective. It is important to note that recommendations highlighted in the reports are typically proposed as options to mitigate identified risks. However, such recommendations may not fully mitigate the risk and as highlighted above, may also be difficult to put into practice.

The issues surrounding the disturbance response to Red Breasted Merganser are highlighted in the AA report and a subsequent peer-reviewed publication[1]. In summary, a disturbance response has been demonstrated to vessel traffic in the harbour. More specifically, a greater proportion of disturbance appears to result from smaller vessels. Furthermore, the continuing presence of the bird species in the inner harbour suggests an attractant to this area and as identified in the AA report, the mozaic of habitats created by cultured mussels on the seabed will likely result in increase of food items for piscivorous species of fish. It must be noted that there is unlikely to be any great increase in levels of aquaculture vessel activity as there are no new licences proposed for the inner harbour where the majority of observation were made. No other significant disturbance was described for other species of waterfowl.

An Taisce Observations: Precautionary Principle

In relation to the SPA, and following on from the previous section, it is specified that there is a need for further information for the following reasons: "Allow prediction of impacts from any expansion of the activity. As noted this information would further inform the assessment of impacts on Greenland Whitefronted geese, Red-breasted Merganser and other diving species." "further Red-breasted Merganser disturbance studies are required to determine if there is any seasonal, spatial, or other, variation in the nature of the response, and to refine the prediction of the scale of the displacement impact." "research is required to allow assessment of the population-level consequences of the displacement of mergansers by boat activity." "Surveys of high-tide wader and tern roosts. This research is required to allow assessment of the potential disturbance impact from bottom mussel-related boat activity."

All of these reasons are clearly highlighting lacunae in the data. An Taisce would highlight the ECJ ruling for C-404/092 [Commission v Spain] which held that " [a]n assessment made under Article 6(3) of the Habitats Directive cannot be regarded as appropriate if it contains gaps and lacks complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the SPA concerned ." [An Taisce emphasis]

Similarly, the court held in the case of the Commission v Italy that " assessment must be organised in such a manner that the competent national authorities can be certain that a plan or project will not have adverse effects on the integrity of the site concerned, given that, where doubt remains as to the absence of such effects, the competent authority will have to refuse permission ." (C304/053. Para 58) [An Taisce emphasis added] In this instance, it is our considered opinion that the precautionary principle must be applied, and that licensing should not proceed until all of the necessary studies are complete, and the relevant authority can conclude beyond reasonable doubt that the proposed aquaculture will have no adverse effects on the integrity of the SCIs in the SPA. In our considered opinion, given the data supplied, the licensing authority are not currently in a position conclude this. Licensing, with such a paucity of relevant data, would contravene Article 6 (3) of the Habitats Directive.

Marine Institute Response: In their submission, An Taisce provide a number of general comments as they relate to the application of the precautionary principle. We would like to reiterate (as has been communicated in the AA report) that in the absence of detailed use of sites, the precautionary principle is front and centre in considerations of likely risk at all stages in the process. For example,

[1] Gittings, T and P O'Donoghue. 2016. Disturbance response of Red-breasted Mergansers *Mergus serrator* to boat traffic in Wexford Harbour Irish Birds 10: 329–334

and as highlighted above, it was assumed that seed will be available for all sites in all production cycles. Furthermore, the extent of disturbance was estimated to extend throughout the entire area occupied by any licence even when it is clear that this is impossible due to location – (i.e. intertidal or shallow subtidal) and that levels of disturbance (i.e., activity) at the sites would reflect full occupancy. We also acknowledge that the extent of licence held is linked to seed allocation and this is likely a contributory factor in the large number and large spatial extent of licence applications. The MI has advised that this criterion for seed allocation be revisited in future and that this requirement be decoupled from the quantity of wild seed allocated. It should be noted that there is unlikely to be an expansion of activity on foot of the process. No new applications have been applied for in the vicinity of the areas identified as significant for bird species in the Estuarine component of the Harbour. The limitations and concerns regarding licencing at Tern Island have already been noted.

As above, the MI is not in a position to comment on case law.

An Taisce Observations: Estuaries (1130) and Bottom Mussel Cultivation

Estuary (1130), an Annex I habitat, is a Qualifying Interest (QI) of the Slaney River Valley SAC. According to the NPWS 2011a, the conservation targets for the community distribution within this habitat type are: " The following community types should be maintained in, or restored to, a natural condition: Mixed sediment community complex; Estuarine muds dominated by polychaetes and crustaceans community complex; and Sand dominated by polychaetes community complex". In order to achieve this we refer the reader to guidance from the NPWS, which outlines that significant continuous or ongoing disturbance should not exceed 15% of area. However, in the Annex I report (Report supporting Appropriate Assessment of Aquaculture in Slaney River Valley SAC (Site Code: 000781) and Raven Point Nature Reserve SAC (Site Code: 000710)), it is outlined that the proposed bottom mussels will overlap 52% of the estuarine habitat (section 5.1 Annex I report), and from Table 15 of the same report, it is outlined that there will be a 43, 99.9 and 92.6 % overlap with the Annex 1 Estuary (1130) communities: Estuarine muds dominated by polychaetes and crustaceans community complex, Sand dominated by polychaetes community complex and Mixed Sediment community complex, respectively. In the AA conclusion statement mitigation measures 1 and 2, it is outlined that despite this overlap being more than 15%, they consider the benefits of mussels to the system to be a significant consideration in allowing exceedance of the 15% threshold. This assumption of 'positive' influence is predicated on the assertion that these mussels will reduce eutrophication within the bay, and are a historical part of the system.

An Taisce would like to refute both of these assertions in regard to their subsequent interpretation. Firstly, we would have serious concerns regarding the validity of the 'historical presence' argument. The applicant outlines in Chapter 11 of the Annex I report: "How much of the mussels currently in the harbour might be considered 'natural' or as a consequence of aquaculture practices is unknown. The inclusion of mussels as a component in the community type Mixed Sediment Community is appropriate; whether the quantity of mussels would be retained within the system without the aquaculture intervention is unclear as the level and extent of natural recruitment is unknown "

Given that over 2000 hectares of seabed is to be laid with bottom culture mussels, there can be no doubt that this quantity of mussels would not be retained in the absence of aquaculture. In addition, An Taisce would highlight that in chapter 11 of the Annex I report, it is asserted that:

"mussels are considered a component of the Mixed Sediment Community Complex found in the habitat feature Estuaries (1130)" but at no point in either the NPWS documents relating to this SAC, nor in the reports submitted in support of this application, are the constituent species of this Mixed Sediment Community Complex outlined, nor is a relevant reference given for where this data was obtained. Thus, we can find no scientific evidence to support this statement. If we work on the assumption that it is accurate, it must still be noted that mussels are just a component/fraction of the Mixed Sediment Community type, which will be overlapped 92.6% by a monoculture of cultivated bottom cultured mussels. In regard to the other estuary QI community type Sand dominated by polychaetes community complex, mussels are not mentioned at all as a natural feature, yet this community type will be overlapped by 100% should all the bottom mussel renewals and new licence applications go ahead.

Secondly, in regard to the positive impact of mussels on the system, we would highlight that, while this may be true insofar as water quality is concerned, this does not addressed nor mitigate the potential impact on the QI community types present within these habitat types, which far exceed the 15% threshold, up to 100% for one community type. Water quality is not the main threat in this case, although it may well play a role. Physical disturbance and community composition change is. This is clearly outlined in section 8.3 of the Annex I report:

" Bottom mussel culture may result in chronic and longterm changes in infaunal community composition as a result of high density of culture organisms being laid on the sea and dredging for mussel will result in physical disturbance to infaunal communities ." [An Taisce emphasis]

Research has shown that mussel cultivation can be detrimental to polycheats, with Dolmer et al. (2002) finding that polychaetes associated with mussel beds had a reduced density after dredging, and had a reduced density or were not observed at all 4 months after an area had been dredged (P. Dolmer, unpublished). Thus, An Taisce would highlight, and agree with, conclusion 2 in the Annex I report which outlines:

"By virtue of extensive spatial cover the levels of existing and proposed culture of bottom mussel culture activities are considered disturbing to habitat feature Estuaries (1130) and Mudflats and Sandflats not Covered by Seawater at Low Tide (1140) in the Slaney River Valley SAC."

In our considered opinion, there has been no sufficient mitigation measures provided to offset this disturbance, and we submit that the logic in mitigation points 1 and 2 in the AA conclusion statement, which propose to allow the licensing to proceed, contrary to their own conclusions regarding disturbance effects, is both scientifically unfounded, and irrelevant in regard to the specific threat to the QI community itself. Thus, An Taisce submit that it would be impossible to achieve the NPWS conservation objective of maintaining these community types in a natural condition, should this scale of renewal and new licensing be allowed to proceed.

In light of the above argument, the licensing authority must have regard for the binding legal requirements set out by the Habitats Directive. Article 6 (3) of the Habitats Directive outlines that:

" Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to

the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned . " [An Taisce emphasis].

An Taisce submit that, given the applicants own conclusion that the extensive bottom mussel culture would disturb the QI habitats, and the clear threat posed by this activity on these communities outlined in the scientific literature, in addition to the licenses almost completely overlapping two of the three constituent community types of the protected Estuary habitat (1130), and the lack of clear or relevant mitigation measures, the licensing of bottom cultured mussels, both proposed and existing, should not proceed. To do so will be in serious breach of the Habitats Directive. We consider that licencing of any bottom mussel cultivation, either renewal or new licences, which cover more than 15% of the QI community should not be permitted.

Marine Institute Response: First, the MI must clarify one point raised by An Taisce in relation to *Mytilus edulis* as a constituent species of designated Marine Community Types. The Marine Institute derived this information from the Conservation Objectives Supporting document (available on the NPWS website)[2]. In this report, it clearly states that *Mytilus edulis* may be found in the following community types:

Sand dominated by polychaetes community complex

Mixed sediment community complex

Second, the Marine Institute or DAFM are not the applicants as indicated above. These reports are prepared as part of the AA process. The purpose of the AA is to identify potential impacts on the Conservation Features within the SAC which in turn lead to the development of appropriate management actions, including refusal of licences.

An Taisce have summarised a number of outputs and conclusions of the AA Report. In relation to the habitat Estuaries (1130) and constituent community types, the spatial overlap of existing aquaculture is acknowledged as high. Our advice, within the feature Estuaries, will to remap (remove) the overlap of aquaculture licence areas with clearly defined intertidal communities such that the overall site area will be reduced; it is unlikely that this action will reduce the level of overlap below the 15% threshold. However, in other areas and in particular in the inner harbour east of the bridge, given the movement of sediment throughout the entire harbour area, there are clearly areas where culture is more suitable than others from one year (or production cycle) to the next and therefore, the extent of coverage will likely be lower than calculated. This variation may be experienced throughout the inner harbour and therefore, a reduction in the size of these sites is not advised so as to allow for fluctuations in water depth (and hence available area for culture) as a consequence of shifting sediments. As a consequence, mapping has been given particular leniency (i.e. sites not reduced in size) to the majority of sites in the inner harbour. However, an overview of the site use (based upon production) might allow for some rationalisation of the site boundaries? Allowing for this would however, not allow for a full calculation of likely impacted areas.

In relation to the role of mussels in the system and as communicated in the AA report, published literature has clearly demonstrated a measurable effect of filtration by standing stock of mussels as (an intended and unintended) mechanism of controlling eutrophication. While this has not been empirically demonstrated in Wexford there is a clear distinction between trophic status between

[2] NPWS. 2011b. Slaney River Valley SAC (000781): Conservation Objectives supporting document – marine habitats and species. Department Arts, Heritage and the Gaeltacht. Version 1 (August 2011)17pp.

the Lower Slaney and Wexford Harbour. While flushing rates might be a contributory factor, the role of mussel in culture as grazers cannot be ignored. Furthermore, the historical presence of mussels in the inner harbour, we believe, are an important consideration in terms of structure and potential contributors to biodiversity in the system[3] as well as providing likely habitat for prey items for some bird species (e.g. Red Breasted Merganser). It is important to note that this aspect was presented in order to potentially communicate that the presence of mussels in the system contribute to some ecosystem services.

An Taisce Observations: Other mitigation measures

An Taisce welcome the mitigation measures outlined in the Appropriate Assessment Conclusion Statement which forbid nighttime dredging, and the removal of seed from intertidal areas. However, we would highlight that " Use of updated Aquaculture licences containing terms and conditions which reflect the environmental protection required under EU and National law ." is not a mitigation measure, it is a legal obligation under both EU and Irish environmental law. It is an approach to be used by the licensing authority for all aquaculture projects, not a mitigation measure for this specific proposal, and should be fully implemented through the Appropriate Assessment approach.

Marine Institute Response: This comment is beyond the remit of the MI.

An Taisce Observations: Mudflats and Sandflats not covered by sea water at low tide.

In the Slaney River Valley SAC the level of spatial overlap between aquaculture (licenced and applications) activities and Mudflats and Sandflats not covered by sea water at low tide is 608ha, which represent 59.2% of this Annex I habitat feature within the SAC; between aquaculture (licenced and applications) activities and Estuaries is, approximately, 990ha which is equivalent to 52% of the feature. (section 5.1 SAC report) In the AA conclusion statement mitigation measures, it is outlined that *"Mussel culture mainly occurs within deeper subtidal areas of the SAC. It is **anticipated** that no culture will occur in intertidal and shallow subtidal areas"* [An Taisce emphasis]

And to address this they propose to *"Redraw boundaries of sites which will take bottom mussel culture out of intertidal areas. this will result in minimal or no coverage of the feature Mudflats and Sandflats not covered by water at low tide."*

While An Taisce would welcome the removal of bottom mussel culture from intertidal areas, we would highlight that under Article 6 (3) of the Habitats Directive, no reasonable doubt must remain as to the impact on the Natura 2000 site/species. The words 'it is anticipated' are a not a clear determination of absence of damage to the integrity of the site, and An Taisce would highlight that under the Habitats Directive, *"the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned. "*.

We submit that licensing of these sites should not proceed unless it can be proven beyond reasonable scientific doubt that the proposed activity will not impact on the integrity of the site. Without having the redrawn maps to refer to, we are unable to reasonable assess the risks ourselves, but would

[3] Craeymeersch and Jansen, 2019. Bivalve Assemblages as Hotspots for Biodiversity. In A. C. Smaal et al. (eds.), Goods and Services of Marine Bivalves, https://doi.org/10.1007/978-3-319-96776-9_14

recommend that if licensing is to proceed that the licensing authority pay close attention to this mapping detail to ensure its accuracy and efficacy for mitigating habitat impacts, with a view to our obligations under the Habitats Directive.

In conclusion, given the manifold issues highlighted above, and multiple instances where An Taisce feel the licensing of the proposed bottom mussel projects would be in contravention of Article 6 (3) of the Directive, in addition to the use of Post Consent conditions, we submit that to bottom culture mussels should only be licensed if they do not exceed the 15% threshold of overlap with the SAC habitats and communities, and that in those areas there must be clear mitigation measures to prevent any adverse impact on the SCI species of the SPA. As it stands, in our considered opinion, there are multiple failings in the Appropriate Assessment, and licensing should not go ahead until these are adequately addressed.

Marine Institute Response: While this comment from An Taisce is directed towards the Conclusion Statement, we broadly agree with their premise. The MI notes that if any aquaculture licenced site do not incorporate intertidal habitat as represented in the Conservation Objectives, then, assuming compliance is monitored, the licencing authority can be certain beyond all reasonable doubt that the risk to Natura features can be alleviated.

An Taisce Observations: Suspended Mussel Cultivation and SCI species

Although there is currently no suspended mussel aquaculture in the bay, there are 10 sites (covering a total area of 128 Ha) with applications for suspended mussel cultivation in the Raven SPA. There are also another six sites (covering a total area of 68 Ha) in Rosslare Bay.

The individual sites range in size from 7-15 Ha, with a mean size of 12 Ha. The proposed sites in Rosslare Bay, while outside the Wexford Harbour & Slobs and the Raven SPAs, were assessed as they occur in an area that is likely to be used by some Special Conservation Interests (SCI) populations from the neighbouring SPAs.

Red Throated Diver is a wintering species listed on Annex I of the E.U. Birds Directive. Annex 1 species are particularly threatened, vulnerable to changes in their environment, and in danger of extinction. Under the Birds Directive it is a legal obligation that member States designate Special Protection Areas (SPAs) for their survival. The site is also of national importance for the Common Scoter, representing over 17% of the Irish total. The conservation objectives for Common Scoter and Red Throated Diver are to maintain their "favourable conservation condition" (NPWS, 2012), that is there should be ' no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation'. The current conservation status of both species is intermediate/unfavourable.

Common Scoter feed mainly on bivalves, and section 8.3 of the Annex II SPA report outlines that although suspended mussel culture could have positive impacts on the availability of mussels as prey resources for the Scoters, it could also potentially have negative effects on food resources for Common Scoter if their prey resources are impacted by aquaculture induced sedimentation and/or eutrophication. Common Scoter are considered to be highly sensitive to disturbance from marine traffic. Section 8.4.6 outlines that:

'We do not have any site-specific data on the response of Common Scoter to marine traffic in the Wexford Harbour area. However, this species is generally considered to be highly sensitive to such disturbance. '

And research has shown it demonstrates "strong escape behaviour, at a large response distance." Their calculations, in Section 8.4.8, indicate that the average daily flush rate would represent 45% of the population, equating to, on average, each bird being flushed once every 2.2 days. They summarise, in section 8.3 of the SPA report that ' detailed assessment of potential habitat and disturbance impacts is required for this species .'

In addition, for Red-Breasted Diver, section 8.29 outlines that detailed assessment of potential disturbance impacts is also required for these species: ' Sufficient data is not available on the disturbance response of Red-throated Divers to quantify the potential energetic impacts of disturbance by boat trips to the suspended mussel sites. '

Overall, the SPA report concludes that: ' the reliability of this assessment for Common Scoter and Red-throated Diver is only moderate due to the high potential sensitivity of these species to disturbance impacts, and the limited quantitative data available on the nature of their disturbance responses. Site-specific data on the disturbance responses of Common Scoter and Red-throated Diver in the Raven and Rosslare Bay would improve the reliability of this assessment.' [An Taisce emphasis added]

There are no mitigation measures outlined in the Appropriate Assessment Summary Report, nor in the Appropriate Assessment Conclusion Statement, or mention of further studies to fill these lacunae in the data. The recommendations on the need for further site-specific data are overlooked. It is our considered opinion that the assessment of disturbance impacts on Common Scoter and Red-Breasted Diver are cannot robustly prove that the aquaculture activities will not have a negative impact on these species. If uncertainty exists regarding the potential impact of any proposed development full account should be taken of the precautionary principle, and the proposed development should be resisted. Due to gaps in data, the extent of the risks could not be quantified and identified through Appropriate Assessment, and therefore the precautionary principle should apply. An Taisce submit that in order to be compliant with Article 6 (3) of the Habitats Directive, the recommendations laid out in the submitted reports authored by the Marine institute, should be heeded, and further site specific data be requested prior to licensing.

Marine Institute Response: Comments in relation to suspended mussel culture appear to be moot, as it is the understanding of the Marine Institute that these sites have been refused licences. Notwithstanding, the comments from An Taisce on suspended mussel cultivation reflect the acknowledgement in our report of the limitations of the assessment. While discussion of impacts such as displacement of common scoter and red-throated diver are presented the assessment is hampered by having only a snapshot of how these birds are spatially distributed as well as how they actually respond to boat disturbance in this area. One could argue that this has resulted in an overly conservative assessment of impacts, but in the absence of more data it is difficult to expand beyond the statements in the AA. However, as a specific response to An Taisce comments it can be clarified that the sites will be subject to short levels of activity during spring summer months and will be unused and not accessed during autumn and winter thereby reducing the likely interactions (and disturbance risk) with Common Scoter.

Marine Institute
Foras na Mara

Date: 18/4/2019

To: Gerry Foley – AFMD DAFM

From: Francis O'Beirn, Marine Institute

CC: Terry McMahon, Jeff Fisher - MI; Kevin Hodnett, Ann McCarthy DAFM

Re: IFI Submission for Wexford Harbour aquaculture activities

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The Marine Institute have been asked to comment on the submission from the Inland Fisheries Ireland (IFI) to the Department of Agriculture Food and the Marine (DAFM) in relation to a number of aquaculture licence applications in Wexford Harbour as well as the Risk Assessment reports for Aquaculture in the relevant Natura sites. The highlighted text below represent the relevant IFI comments with the MI response following.

The submission from IFI is repetitive and many of the claims are unsubstantiated with no citations or references provided. While we acknowledge the nature of the observations and the concerns highlighted by IFI, the MI is of the view that the risk identified by IFI are not as extreme as proposed. The detailed profile in the AA report has identified that the aquaculture activities likely to result in disturbance to fish species are spatially confined and temporally sporadic and not continuous. Furthermore, the mitigation proposed in the AA report and subsequent management actions (as outlined in the AA Conclusion Statement) serve to reduce the level of risk to habitats and species in the Harbour. This is clearly the goal of the AA process and therefore, the MI does not see any need to revise the outputs or conclusions in the AA reports underpinning the assessment process. However, it will be important to ensure that all management actions/licence conditions are communicated in the DAFM final Conclusion Statement or report accompanying the Ministerial decision.

IFI Submission:

Inland Fisheries note that the site of this proposed licence is within the transitional waters (as defined under the Water Framework Direcitve) of the Slaney River Estuary/Wexford Harbour. This proposed licence and numerous others are located within the Slaney River Valley SAC (000781), in the habitat types, 1130: Estuaries and 1140: Mudflats and sandflats not covered by sea water at low tide.

Estuaries and inshore waters provide significant nursery habitat for the larval and juvenile forms of (transitional and marine) fish species, in addition to providing shelter and food for many young and adult fish, crustaceans and shellfish. These in turn provide food resources for other levels of the trophic chain including shore birds, waterfowl, larger fish and marine mammals. Intertidal areas host high densities of benthic fauna in particular worms and molluscs. This in turn can make them important habitats for juvenile fish such as bass & flounder, and juvenile crustaceans such as crabs which may inhabit such habitats in high numbers. Wexford Harbour represents the most important sea bass nursery in Ireland. The majority of fish in estuaries, feed primarily on the benthos and thus live a demersal existence. Estuarine fish can generally be divided into a number of groups:

- Estuarine dependant (opportunists) species typically enter estuaries from the sea for a period each year but do not stay permanently. The majority of these species drift into estuaries as larvae and when as young fish they become demersal, they take advantage of

the rich benthic food sources available in sublittoral and intertidal estuarine habitats. Estuaries contain large numbers of '0 group' fish that use them as nursery grounds before migrating to the sea as recruits to adult populations. The waters of the Slaney estuary in close proximity to this site represent the most important sea bass nursery waters in Ireland.

- Marine stragglers enter estuaries irregularly and are often restricted to the seaward end (usually low in numbers of individuals)
- Riverine species come from the freshwater end of the system and are mainly found in low salinity waters.
- Truly estuarine species (residents) comprise only a small number of species although they may form a high overall biomass. The gobies are most typical of this group as they are found in estuaries around the year.
- Migratory species use the estuary and inshore waters as a route from rivers to the open sea or vice versa. Most of these species are anadromous (breed in freshwater) e.g. the lampreys, the shads and the salmon (*Salmo salar*) / sea trout (Salmo trutta). Eels (*Anguilla anguilla*) are catadromous and breed in the sea.

Marine Institute Response: The Marine Institute is aware of the relevance of Wexford Harbour for eel and bass, but note that no data or reference in support of the claim as to the status of Wexford Harbour as "the most important sea bass nursery in Ireland" has been provided.

For eel the harbour acts both a migratory route for eel using the South Sloblands and the Slaney Catchment. Juvenile glass eel migrate into the harbour between October and April and a proportion of them migrate on upstream into freshwaters from April through to August. Maturing silver eels migrate downstream through Wexford Harbour each year between August and November typically.

A component of the eel stock will remain in saline waters in the harbour for much longer periods of time, or even for their whole yellow eel growth part of the lifecycle, before maturing and migrating back out to sea.

The glass eel arrive in from the ocean between October and March and wait in the sediments for the spring temperature to start to rise before moving on upstream. The initial movement inshore and up through the estuary is by a series of vertical movements assisted inshore and upstream by the incoming tides, before hiding in the substrate on the outgoing tide. While they may be vulnerable during this period to changes in bottom substrate and/or the physical disturbances caused by bottom dredging activity of the mussel dredgers, the presence of bottom mussel reefs are also likely to provided habitat and refuge.

During the yellow eel growth phase eels are known to inhabit these tidal, non-drying harbours and are tolerant to quite a large range of salinities. Surveys have shown considerable stocks of yellow eel up to lengths of 50cm or more. It is likely that these eels can complete their entire continental growth phase (which could take up to 20+ years) in the tidal waters of these harbours. We know there are substantial stocks of yellow eels in tidal waters such as Waterford Harbour and the estuaries of the Barrow, Nore and Suir and Wexford Harbour and the estuary of the Slaney. These habitats are an important component of the productive habitat for eel. Wexford Harbour and the estuary of the Slaney supported a commercial eel fishery in the past.

Anecdotally, glass eel have been observed in native oyster dredges (toothed) in Clew Bay in October/November (Russel Poole, MI personal communication) none have been reported in mussel dredges which skim along the surface and do not dig into sediment.

The conservation objectives for the Slaney River Valley SAC, protected habitat type 1130: Estuaries requires that Ireland maintain the favourable conservation conditions of estuaries in the Slaney River Valley SAC including the following attributes and targets: that mixed sediment complex; Estuarine muds dominated by polychaetes and crustaceans community complex; and sands dominated by polychaetes community complex should be maintained in, or restored to, a natural condition. With regard to protected habitat type 1140: Mudflats and sandflats not covered by seawater at low tide the Conservation objectives of the Slaney River Valley SAC require that Ireland maintain the following community types in a natural condition: Estuarine muds dominated by polychaetes and crustaceans community complex; and Sand dominated by polychaetes community complex.

IFI consider that this proposed aquaculture licence application will include actions/practices which will completely alter and/or damage the protected habitats referred to above.

Marine Institute Response: This is claim is not borne out by any data. These habitats are resilient and the level of disturbance likely encountered is such that if the pressure is removed the habitat will revert relatively quickly. Complete removal/destruction of habitat is not considered likely in this instance. If it were demonstrated, it would not be tolerated[1].

Of serious concern to IFI is the conclusion that the levels of existing and proposed culture of bottom mussel culture activities are considered disturbing to habitat feature Estuaries (1130) and Mudflats and Sandflats not covered by Seawater at Low Tide (1140) in the Slaney River Valley SAC as well as a number of constituent marine community types. Also of serious concern to IFI is the conclusion that the levels of existing and proposed culture of bottom mussel culture activities are considered disturbing to the community type – Estuarine muds dominated by polychaetes and crustaceans community complex within the habitat feature mudflats and sandflats not covered by Seawater at Low Tide (1140) in the Raven Point Nature Reserve SAC. Another serious concern is the conclusion that "removal of seed resources from intertidal habitat will also result in disturbance to 1140 habitat features by destabilising the reef structure formed by mussels and reducing habitat complexity and associated biodiversity.

Marine Institute Response: IFI appear to be repeating the conclusions of the AA report. The purpose of the AA is to identify potential impacts on the Conservation Features within the SAC which in turn lead to the development of appropriate management actions, including refusal of licences.

The Appropriate Assessment Conclusion statement states "In summary, the view is that bottom culture mussel culture, at current levels, does have an overall positive role in ecosystem". IFI question how the applicant could have come to such a conclusion and request that the applicant back this statement up with scientific data. IFI also question the assertion that the addition of more mussels to the will be beneficial to the ecological function of Wexford Harbour in terms of habitat provision and

[1] NPWS. 2011. Slaney River Valley SAC (000781): Conservation Objectives supporting document – marine habitats and species. Department Arts, Heritage and the Gaeltacht. Version 1 (August 2011)17pp.

a reduction in eutrophication through the filtering of water by mussels. IFI would again question this assertion and request scientific data to back this up.

Marine Institute Response: IFI are selective in their use of this quotation, there is sufficient scientific information cited in the report to support the assertion as it relates to mitigating eutrophication effects, to which this quotation referred. The AA report has fully highlighted the risk posed to marine habitats from bottom mussel culture.

The Appropriate Assessment accompanying this license application does not consider the potential that the development of new mussel beds on important estuarine/intertidal habitats is likely to have upon estuarine muds and sands and the significant biomass living within and upon these habitats types. Our concern is the potential for loss of the important species at the bottom of the food chain if oxygen levels are reduced in habitats beneath the mussel beds and the loss of biodiversity and biomass as the available food within the estuary is intercepted by a monoculture of mussels, which limits the carrying capacity of Wexford harbour for other species.

Marine Institute response: The basis that bottom mussel culture is considered disturbing is those cited above. It is acknowledged that should there be any changes in the sediments, i.e., de-oxygenation, and mechanical disruption during harvesting, these may have detrimental impacts on the survival of the eel impacting on the stocks in the harbour and also the stocks upstream in the rivers. However, the nature of these disturbances are very sporadic and localised with very quick resettlement of sediment to the seabed likely. Notwithstanding this risk, which has been clearly highlighted in the AA report, the benefit of structure provided to seafloor habitats in terms of biodiversity and seems to contradict the argument made by IFI[2].

IFI do not believe that the Appropriate Assessment adequately address the potential for a number of anadramous species listed in the Habitats Directive including River Lamprey and Twaite Shad, we believe that Wexford harbour represents an important nursery for these protected species and we request that the applicant addresses these concerns.

Marine Institute: The AA report and process considers the interactions of activities and proposed activities on all conservation features. It should be important to note that the heterogenous structure provided by bottom mussel culture on sedimentary habitats will facilitate greater diversity of benthic and motile species and presumably greater food supply for fish species[2]. We are of the view that these concerns are speculative at this stage – in that there appears to be no evidence that species diversity at the bottom of the food chain will reduce to the point that larger fish species will be affected – these areas are large and the suggestion is that there would be no room for mussel aquaculture as distinct from there being adequate space and other resources for both. It would be useful if IFI provided evidence to the effect that there will be a knock-on effect on these larger highly mobile fish Species.

The Department of Agriculture, Food and the Marine document, "Consultation Paper on Minister's review of Trawling Activity inside the 6 Nautical Mile Zone", states "*The Marine Strategy Framework*

[2] Craeymeersch and Jansen, 2019. Bivalve Assemblages as Hotspots for Biodiversity. In A. C. Smaal et al. (eds.), Goods and Services of Marine Bivalves, https://doi.org/10.1007/978-3-319-96776-9_14

Directive (MSFD) requires that biodiversity and seafloor habitats are at good environmental status (GES), meaning that the diversity, structure and function of marine life on the seafloor is maintained. The Habitats and Birds Directives have more specific requirements for species and habitats coming under their remit and generally require that species and habitats are maintained at Favourable Conservation Status (FCS)". IFI are concerned that the cumulative impact of the numerous Aquaculture Licences for bottom shellfish culture within Wexford Harbour and the significant disturbance/damage to the habitat and juvenile fish populations of this estuary are contrary to the Marine Strategy Framework Directive and the Habitats Directive.

Marine Institute Response: The Marine Institute agrees with the premise of this statement and it is on this basis that the risks posed by the activities has been highlighted. It would be useful if IFI were in a position to provide supporting information as it relates to the likely impacts on diadromous species referenced.

The DAFM document goes on to state that "The MI advises that bottom trawling has significant impacts on seafloor habitats", "Effects on epifauna (animals living on the seafloor) may be more pronounced and related to the frequency of disturbance of such areas. Reducing the area of seabed swept by bottom towed gears, reducing the weight and depth of disturbance caused by towed gears and managing the frequency of fishing to enable recovery between fishing events are possible ways to mitigate the effects on seafloor habitats".

As stated above Wexford Harbour represents the most important sea bass nursery in Ireland, Wexford harbour also represent excellent and nationally important nursery habitat for numerous species of pelagic and demersal fish including flatfish, rays, herring and whitefish. Damage to these habitats can have disproportionate effects on certain fish stocks by impacting on spawning and juvenile fish, not only damaging inshore stocks but also affecting recruitment to offshore populations.

Marine Institute Response: There is no evidence provided of such damage – it is based on speculation regarding the level of activity involved with the dredging operations both spatially and temporally and ignores the MI suggestions as to possible mitigation to prevent excessive damage. Furthermore, it is not acknowledged in the IFI submission that the importance of the area for sea bass is coincident with the fact that bottom culture of mussels has been ongoing within the Estuarine habitat in Wexford for many decades at the current scales.

Again, IFI has not provided any evidence to support the assertion that Wexford Harbour represents "the most important sea bass nursery in Ireland" or that "Wexford harbour also represent excellent and nationally important nursery habitat for numerous species of pelagic and demersal fish"

Another important point to consider is that small scale features and relief are important in a habitat relative to the size of juvenile fish, and fish move to a more uniform habitat as they increase in size. Spatial conservation of sea bottom habitats, by reducing fishing pressure, could therefore benefit demersal fish stocks in coastal waters by restoring habitat structure. This issue was raised in the conclusions of the Appropriate Assessment.

Marine Institute Response: This speaks to the earlier point regarding habitat heterogeneity above.

The National Report for Ireland on Eel Stock Recovery Plans published by the Department of Communications, Energy and Natural Resources in December 2008 states that "The latest scientific

advice from the International Council for the Exploration of the Sea (ICES) concerning European Eel is that the stock is outside safe biological limits and that current fisheries are not sustainable. This is still the current advice (ICES 2017). A significant proportion of the European eel stock remains in transitional waters and Wexford harbour represents an important population of this species. This aquaculture application does not take into account the potential negative impacts of these operation upon the populations of this endangered species within Wexford Harbour.

Marine Institute Response: It is acknowledged that migrating glass eel may inhabit the benthic zone of the harbour and estuary from October through to at least March. A proportion of these may remain in the Harbour for the whole growth period as yellow eel, especially in the inner harbour areas.

IFI question the sustainability of bottom trawling of large areas of Wexford Harbour to harvest mussels. We request clarification on the exact nature of the trawl methods used to harvest these mussels and information relating to by-catch/mortality of juvenile fish/crustaceans in these trawls. Our knowledge of the mussel harvesting industry in Wexford Harbour is that that the trawlers utilised are very large, suggesting that the trawls are large and heavy with potential for significant disturbance of the nursery habitat of Wexford Harbour and the mortality of large numbers of a variety of species of juvenile fish and crustaceans.

Marine institute Response: Harvesting of culture stocks is carried out sporadically (after 12-24 month growth cycle) the details of which are provided fully in the AA report. The risk posed by this fishing activity forms the basis of the AA report.

Inland Fisheries Ireland have serious concerns regarding the cumulative impacts of the existing bottom culture licences for mussels within Wexford Harbour and its proposed expansion, which we believe are in breach of the conservation objectives of the Slaney River Valley SAC. We do not believe that the potential negative impacts upon the estuarine habitat and the nationally important fish nursery habitat of Wexford harbour have been addressed.

In light of these significant concerns, the sensitivity and importance of the protected habitats where this aquaculture licence is proposed and the significant deficiencies in the appropriate assessment supplied IFI objects to this proposed aquaculture licence.

We request that the applicant supply information which fully addresses these significant concerns.

Marine Institute Response: These comments repeat earlier statements.

Marine Institute
Fiosrú na Mara

Date: **April 18th, 2019**

To: **Gerry Foley - AFMD**

From: **Francis O'Beirn, Marine Institute**

CC: **Terry McMahon, Jeff Fisher - MI: Kevin Hodnett – AFDM/DAFM**

Re: **DCHG Comments on aquaculture licence applications in Wexford Harbour and surrounds.**

The Marine Institute have been asked to comment on the submission from the National Parks and Wildlife Service (NPWS) in the Department of Culture, Heritage and the Gaeltacht (DCHG) to the Department of Agriculture Food and the Marine (DAFM) in relation to a number of aquaculture licence applications in Wexford Harbour as well as the Risk Assessment reports for Aquaculture in the relevant Natura sites. The highlighted text below represent the relevant DCHG comments with the MI response following. It should be pointed out that some of the comments relate to areas expertise that would be considered beyond the remit of the Marine Institute (e.g. underwater archaeology).

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

DCHG Observations: The Department of Culture, Heritage and the Gaeltacht welcomes the opportunity to provide observations concerning licence applications for aquaculture activities [redacted] in Wexford.

This is the first time this Department has issued comments on the appropriate assessment report and draft conclusion statement for the Slaney River Valley SAC (Site Code: 00781), The Raven Point Nature Reserve SAC (Sited Code: 00710), Wexford Harbour and Slobs SPA (Site Code: 4076) and the Raven SPA (Site Code: 4019). The conclusion statement acknowledges that for Slaney River Valley SAC (Site Code: 00781), the 15% disturbance threshold will be exceeded by 52% in the case of Estuaries and 59% in the case of Mudflats and sandflats not covered by seawater at low tide , should all applications be licensed. This Department's conservation objectives supporting document for marine habitats (NPWS, 2011) states "this Department takes the view that licensing of activities likely to cause continuous disturbance of each community type should not exceed an approximate area of 15%. Thereafter, an increasingly cautious approach is advocated. Prior to any further licensing of this category of activities, an inter-Departmental management review (considering inter alia robustness of available scientific knowledge, future site requirements, etc.) of the site is recommended." The Department would like to re-iterate this recommendation.

The guidance from the Commission has been very clear that the precautionary principle must be applied in all cases where support data is lacking. Therefore, where the proposed mitigation measures are not support by clear unequivocal evidence the precautionary principle must be applied.

The Conclusion Statement asserts that the culture of mussels may have positive effect on the water quality within the harbour. Given the large area of impact of the dredging activity associated with this bottom culture of mussels it is unclear to this department why these two elements are being combined.

The Conclusion Statement states that mussel culture will mainly occur in the deep subtidal areas of the SAC, however no area is given for the deep subtidal to which dredging will be confined. There is also no clear schedule for the relaying and harvesting of mussels within the bay. It is not clear if this will be a coordinated effort, if it will be staggered or if operators will act independently.

While the variability of seed mussel in any given year may fluctuate the precautionary principle must be applied and it must be assumed that there will be sufficient supply of seed mussel each year.

Marine Institute response: **In the DCHG submission, there are a number of general comments provided as they relate to the application of the precautionary principle. We would like to reiterate (as has been communicated in the AA report) that in the absence of detailed use of sites, the precautionary principle is front and centre in considerations of likely risk at all stages in the process. For example, it was assumed that seed will be available for all sites in all production cycles. Furthermore, the extent of disturbance was estimated to extend throughout the entire area occupied by any licence even when it is clear that this is impossible due to location – (i.e. intertidal or shallow subtidal). We acknowledge that the extent of licence held is linked to seed allocation and this is likely a contributory factor in the large number and large spatial extent of licence applications. The MI has advised that this criterion for seed allocation be revisited in future and that this requirement be decoupled from the quantity of wild seed allocated.**

In relation to the coverage of aquaculture activities on Intertidal mudflat and sandflats (1140), the Marine Engineering Division have been asked to address this in relation to spatial overlap of aquaculture areas on Habitat 1140. Revised maps have been produced which have removed all bottom mussel cultivation on intertidal areas in the many parts of the harbour and thus, we believe, removing the risk to this feature. However, we have advised the GSI mapping of intertidal areas in Wexford be used as the baseline for these maps (as per our memo to DAFM and DCHG on 14/3/2018).

In relation to the habitat Estuaries (1130), the spatial overlap of existing aquaculture is acknowledged as high. Our advice, within the feature Estuaries, will to remap (remove) the overlap of aquaculture licence areas with clearly defined intertidal communities such that the overall site area will be reduced; it is unlikely that this action will reduce the level of overlap below the 15% threshold. However, in other areas and in particular in the inner harbour east of the bridge, given the movement of sediment throughout the entire harbour area, there are clearly areas where culture is more suitable than others from one year (or production cycle) to the next and therefore, the extent of coverage will likely be lower than calculated. This variation may be experienced throughout the inner harbour and therefore, a reduction in the size of these sites is not advised so as to allow for fluctuations in water depth (and hence available area for culture) as a consequence of shifting sediments. As a consequence, mapping has been given particular leniency (i.e. sites not reduced in size) to the majority of sites in the inner harbour. However, an overview of the site use (based upon production) might allow for some rationalisation of the site boundaries? Allowing for this would however, not allow for a full calculation of likely impacted areas.

In relation to the role of mussels in the system and as communicated in the AA report, published literature has clearly demonstrated a measurable effect of filtration by standing stock of mussels as (an intended and unintended) mechanism of controlling eutrophication. While this has not been empirically demonstrated in Wexford there is a clear distinction between trophic status between the Lower Slaney and Wexford Harbour. While flushing rates might be a contributory factor, the role of mussel in culture as grazers cannot be ignored. Furthermore, the historical presence of mussels in the inner harbour, we believe, are an important consideration in terms of structure and potential contributors to biodiversity in the system as well as providing likely habitat for prey items for some bird species (e.g. Red Breasted Merganser).

DCHG Observations: It should also be noted that a number of intertidal sandbanks in the outer part of Wexford Harbour, and lying off the mainland at Raven Point, represent haul-out sites of regional and national significance for Grey seal (*Halichoerus grypus*) that are used all year round. Although this species is not a qualifying feature of the designated SAC site it is nevertheless protected under the Wildlife Acts 1976 to 2017 and appropriate efforts must be made to protect its resting sites from disturbance or interference. In this regard it is advised that vessel-based and human activity/works in the central, northern and southern parts of the outer harbour are confined to: Mid-tide to High-tide periods only (i.e. 3.5 hours either side of High Water, when seals are less likely to be hauling out ashore at the intertidal sites and thereby vulnerable to human disturbance).

The importance of this area for grey seals requires consideration when the buffer zones around seal haul-out areas as proposed in the Conclusion Statement, are being considered. The mitigation/management action must also be supported by scientific evidence regarding proposed distances that will reduce potential disturbance of seals to negligible levels.

Substantially more Harbour seal haul-out location information for the Wexford Harbour area has been gathered by this department since the conservation objectives were published in 2011. This more recent unpublished information is of critical relevance to several licences/applications. It will be sent on to the Marine Institute/DAFM and it is recommended that it be incorporated in the assessment and licence/application, particularly for the southern part of Wexford Harbour.

MI Response: **In relation to seals, information in relation to additional seal sites provided to DAFM/MI have identified an additional haul out location in the harbour. The comments from DCHG are noted. Given that the primary activity in the SAC is bottom mussel culture and activities at the sites are heavily influenced by tidal state; we conclude, that culture activities will occur at times when disturbance to seals is less likely, i.e., a number of hours around high tide as proposed in the submission. The proximity of haul out locations to navigational channels is another matter for consideration and beyond the remit of this exercise.**

DCHG Comments: The Appropriate Assessment summary report includes a list of nine management responses/measures relating to the SPAs and states "..the following management measures, research and information compilation is required to complete this assessment". This Department considers that this information is required before an adequate assessment can be undertaken for certain activities. For example, without further low tide data for the species Golden Plover, Grey Plover, Knot, Sanderling and Bar-tailed Godwit as stated in the Appropriate Assessment Summary Report, the assessment for the licensing of intertidal trestles at this SPA is not complete.

MI Response: DCHG appear to be selective in their use of statements from the AA report as the statement preceeding the one cited is, "...presents a number of scenarios in relation to data and habitats and broadly concludes that it is probable that the displacement impacts for all the intertidal and shallow subtidal SCI species will be substantially less than 5%". While we acknowledge there is uncertainty around this conclusion (and it was on this basis the requirement for additional survey work was mooted), we are firmly of the view that given the relatively minor level of proposed intertidal shellfish culture and the fact that all proposed mussel culture will be removed from intertidal areas, the likely risks to the SCI shorebird species will be low.

It must be appreciated that the preparation of the reports is only one step in the AA process and the subsequent publication of the AA conclusion statement and subsequent management actions (including licencing decisions) completes the AA process. Furthermore, there is considerably more detail provided in the full AA reports as opposed to Summary Report and Conclusion Statement.

DCHG Comments: The adaptive management strategy on the issues of anthropogenic disturbance and the significant likelihood of an increase predator species at tern sites, as outlined in the Summary Report and the Conclusion Statement, does not provide sufficient information to this department to support such a strategy.

MI Response: The adaptive management strategy proposed for tern is presented in the SPA AA report. The feasibility of employing this strategy as it relates to aquaculture use at the site being dictated by annual site use by terns has yet to be fully determined and may be difficult to implement. The movement of structures from (or around) a site on an annual basis might be problematic.

The issue of predators and Little Tern is discussed in the context of site [redacted] in pg. 7.59 – 7.62 of the SPA AA report. This highlights the potential for disturbance and attraction of predatory species, e.g. hooded crow, to intertidal trestles that might result in an increase in predation at the adjoining tern colony (i.e. the Bird Island colony). This specific risk cannot be entirely ruled out based on the information available to the AA. However, a management action can effectively mitigate the risk. The crow are likely to be attracted to fouling on the oyster bags and in particular to the build-up of mussels, the insertion of a condition in the licences that bio-fouling be kept to a minimum on bags should alleviate the risk.

DCHG Comments: The screening out of the fish eating species, such as Red-breasted Merganser, on the basis that intertidal oyster cultivation in Wexford Harbour will not affect the habitat quality of species that only use the subtidal habitat is inconsistent with the later statement that trestle structures act as refugia for fish and other species. This Department is of the opinion that such structures could theoretically pose an impediment to the foraging behaviour of piscivorous birds such as Red-breasted merganser.

MI Response: The screening out of fish eating species in the assessment of intertidal oyster cultivation was based on scientific literature (cited in the SPA AA report), indicating that oyster trestles are likely to have neutral or positive impacts on fish, crabs, etc. Similar screening has been carried out in other AA reports that we have prepared (e.g., Dungarvan, Bannow, etc.). The potential for trestles to "pose an impediment to the foraging behaviour of piscivorous birds" seems rather tenuous – given that reef based systems which it is mimicking are also very

heterogeneous and can act as barriers. We are not aware of any relevant studies on the effects of artificial underwater structures on the foraging success of the relevant species.

DCHG Comments: Given the identified weaknesses of the assessment of the effects of suspended mussel cultivation on Common Scoter and Red-throated Diver this Department would expect that suitable monitoring of the impacts of such activities in the Rosslare area on the scoters and other species would need to be undertaken to enable an adequate assessment to be carried out. Further data on the Common Scoter and diver usage associated with the Raven SPA and further details on the existing dredge fisheries related impacts on this SPA (including direct disturbance, competition for common prey resources and benthic habitat modification) would also allow a more robust assessment to be undertaken.

MI Response: The comments on suspended mussel cultivation reflect the acknowledgement in our report of the limitations of our assessment. While discussion of impacts such as displacement of common scoter and red-throated diver are presented we are hampered by having only a snapshot of how these birds are spatially distributed as well as how they actually respond to boat disturbance in this area. One could argue that this has resulted in an overly conservative assessment of impacts, but in the absence of more data it is difficult to expand beyond the statements in the AA. However, in response to NPWS comments it can be clarified that the presence of the structures would result in the exclusion of existing shellfisheries in the area, thus no in-combination effects will be likely. It was proposed that the sites will be subject to short levels of activity during spring summer months and will be unused and not accessed during autumn and winter thereby reducing the likely interactions (and disturbance risk) with Common Scoter.

DCHG Comments: While the adaptive management strategy as outlined in the Appropriate Assessment Conclusion Statement proposes a solution to avoid significant disturbance impacts to the Little Tern breeding population, no potential solution, outside of a prohibition on night-time dredging, is proposed to avoid disturbance related impacts to Red-breasted Merganser and other waterfowl. This Department considers that the appropriate assessment process is incomplete in this regard.

MI Response: The issues surrounding the disturbance response to Red Breasted Merganser are highlighted in the AA report and a subsequent peer-reviewed publication[1]. In summary, a disturbance response has been demonstrated to vessel traffic in the harbour. More specifically, a greater proportion of disturbance appears to result from smaller vessels. Furthermore, the continuing presence of the bird species in the inner harbour suggests an attractant to this area and as identified in the AA report, the mozaic of habitats created by cultured mussels on the seabed will likely result in increase of food items for piscivorous species of fish. It must be noted that there is unlikely to be any great increase in levels of dredger activity as there are no new licences proposed for the inner harbour where the majority of observation were made. No other significant disturbance was described for other species of waterfowl.

[1] Gittings, T and P O'Donoghue. 2016. Disturbance response of Red-breasted Mergansers *Mergus serrator* to boat traffic in Wexford Harbour Irish Birds 10: 329–334

Marine Institute
Foras na Mara

Date: **May 27th, 2019**

To: **Gerry Foley - AFMD**

From: **Francis O'Beirn, Marine Institute**

CC: **Terry McMahon, Jeff Fisher - MI**

Re: **Wexford Co Co Comments on aquaculture licence applications in Wexford Harbour and surrounds.**

The Marine Institute have been asked to comment on the submission from Wexford County Council to the Department of Agriculture Food and the Marine (DAFM) in relation to a number of aquaculture licence applications in Wexford Harbour as well as the Risk Assessment reports for Aquaculture in the relevant Natura sites. The highlighted text below represent the relevant Wexford Co Co comments with the MI response following.

While we acknowledge the nature of the observations from Wexford Co Co, the MI does not see any need to revise the outputs or conclusions in the AA reports underpinning the assessment process. However, we reiterate that it is important that specific management actions/licence conditions are communicated in the DAFM final Conclusion Statement or report accompanying the Ministerial decision.

Wexford County Council Observations: With regard to the above aquaculture licences, this is for a considerable expansion of area under shellfish cultivation in Wexford Harbour/Irish Sea/Carnsore Point, a large number in areas outside the designated area for shellfish waters. None of the applications have made any reference to the benthos within which, or above which these proposed developments occur. The Marine Institute supporting report to the AA report makes findings for further info and it is considered that due to the large increase in area, beyond those areas designated, Wexford Co Co makes a request for further information for the following additional information,

1. Biosecurity details on how the applicants will ensure the imported shellfish seed is not contaminated with marine invasive species,
2. Biosecurity details on how the applicants will ensure the shellfish under cultivation will not become an invasive species,
3. Comprehensive predevelopment benthos survey of each of the areas beneath these developments so as to provide a baseline on which to compare post development impacts.
4. Carryout a predevelopment physiochemical water quality analysis survey of the waters of each of the sites so as to provide a baseline on which to compare post development impacts.

Marine Institute response: **In the submission above the reference to designated area for shellfish waters is a matter for DAFM to address. While there may not be specific reference to benthos within the application forms there is, within the AA Report, considerable reference to how the current and proposed activities will interact with benthic habitats and species.**

Specifically addressing the bullet points above:

1. **The issues of biosecurity can be addressed under licence conditions.**

An Taisce
The National Trust for Ireland

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

[27/07/2018]

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

To Whom It May Concern:

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

An Taisce has reviewed the applications [redacted] as listed on the website (Tabs number 4-29) and would like to make the following submission in relation to this application.

The proposed aquaculture project lies within or adjacent to, the Slaney River Valley SAC (Site Code: 000781), Raven Point Nature Reserve SAC (Site Code: 000710), Wexford Harbour and Slobs SPA (site code 004076) and Raven SPA (site code 004019).

Slaney River Valley and Raven Point Nature Reserve SACs are designated as Special Areas of Conservation (SAC) under the Habitats Directive. The marine areas are designated for Estuaries [1130] and for Intertidal mud and sand flats not covered by seawater at low tide [1140]. The area supports a variety of sub-tidal and intertidal sedimentary community types including those that are sensitive to aquaculture related pressures (e.g. dredging in bottom shellfish culture).

The Raven SPA site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Red-throated Diver, Cormorant, Greenland White-fronted Goose, Common Scoter, Grey Plover and Sanderling. The Special Conservation Interests of the Wexford Harbour and Slobs SPA are non-breeding populations of: Bewick's Swan, Whooper Swan, Greenland White-fronted Goose, Lightbellied Brent Goose, Shelduck, Wigeon, Teal, Mallard, Pintail, Scaup, Goldeneye, Red-breasted Merganser, Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Coot, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Black-headed Gull and Lesser Black-backed Gull;

An Taisce supports the sustainable development of aquaculture, and believe that the granting of licenses must be in keeping with other objectives for the area, and developed in a balanced manner which is not degrading site, nor the water quality. Thus, ensuring the local habitats,

flora and fauna are not adversely impacted. With regard to this, we would like to raise the following issues.

Bird Disturbance and bottom mussel cultivation

Post Consent conditions

Management responses for the SPAs and their corresponding Species Conservation Interest (SCIs) are outlined section 9.12 of the Annex II report[1] (Annex II Marine Institute Bird Studies Wexford Harbour, the Raven and Rosslare Bay: Appropriate Assessment of Aquaculture). Management Responses / Measures 1, 3, 4, 6 and 7 all refer to further information gathering. Namely the need for comprehensive information on all bottom mussel-related boat activity; further Red-breasted Merganser disturbance studies; research into the ecology of Red-breasted Merganser in Wexford Harbour; surveys of high-tide wader and tern roosts; and Little Tern research. An Taisce submit that to permit this aquaculture development to go ahead without this level of detail and necessary research, which is highlighted as a requirement, would represent a post consent condition. The time which will be required for this is clearly outlined in the management responses in the Annex II report:

"It should be noted that a lot of the above bird survey requirements will be logistically challenging (e.g., surveying sandbank areas in the middle of the harbour). Therefore, if the research is to be carried out, adequate lead-in time should be allowed to trial methodologies, etc."

Therefore, to push ahead and licence this prior to a 'lead-in time' to allow further elucidation of the required details outlined above is, in our considered opinion, a post consent condition. This is impermissible and could not be considered 'point of detail' conditions provided for under S.34(5) of the Planning and Development Act 2000 (as amended). In the case People Over Wind v An Bord Pleanala (2015) it was argued that, in regard to post consent conditions, *'...in respect of which there would be no public consultation or participation, there would be no possibility for the examination, analysis and evaluation under Article 6(3). It would not be possible to establish, in advance of the consent to the development whether such mitigation measures would protect the integrity of the River Barrow and River Nore SAC'* (Para. 202).

The sole mitigation measure suggested to overcome this in the AA conclusion statement is that an adaptive management plan must be put in place for Little Tern. The use of a post consent, and as yet undrafted, adaptive management plan as a means to mitigate for any such disturbance prevents a full and rigorous assessment of the efficacy of this approach. It is envisaged that this plan would specify the buffer zones required to protect the colonies/flocks from disturbance, additional measures (such as prohibiting dogs from accompanying workers in the seed collection site), and monitoring requirements. An Taisce submit that there is no

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1 https://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/appropriateassessments/AnnexIIWexfordSPAsAA270318.pdf

reason the management plan could not be submitted for appraisal prior to licensing, and to fail to do so again falls under post consent conditions outlined above. In addition, given that this site is protected under the Birds Directive, the licensing body is obliged to ensure there will be no impact on all the Special Conservation Interests (SCIs), which extend beyond just the Little Tern, with potential impacts on Red Breasted Merganser, Greenland White Fronted Geese, other Tern species and diving birds in general. There is a clear failing to address these within the mitigation measures suggested. For example, it is clearly outlined in the conclusions of the Annex II report that

"Disturbance from bottom mussel-related boat activity may cause significant displacement impacts to Red-breasted Merganser. The mean area potentially disturbed could amount to around 19-27% of the total area of available habitat. High levels of impact could occur on around 80% of days in the October-December period, for periods of up to 55-66% of daylight hours"

We would highlight that to mitigate this with further research to determine the impact of this activity, after a licence has been given and the work has begun would be entirely inappropriate under requirements of the Habitats Directive. Thus, we submit that many of the management responses outlined in the Annex II report could be classified as post consent conditions. Mitigation measures for other SCIs are entirely omitted in the AA conclusion statement, after the Annex II report clearly outlined many of the SCIs will potentially be disturbed by the proposed aquaculture. This is not acceptable, and is clearly in contravention of the Habitats Directive.

Precautionary Principle

In relation to the SPA, and following on from the previous section, it is specified that there is a need for further information for the following reasons:

"Allow prediction of impacts from any expansion of the activity. As noted this information would further inform the assessment of impacts on Greenland Whitefronted geese, Red-breasted Merganser and other diving species."

"further Red-breasted Merganser disturbance studies are required to determine if there is any seasonal, spatial, or other, variation in the nature of the response, and to refine the prediction of the scale of the displacement impact."

"research is required to allow assessment of the population-level consequences of the displacement of mergansers by boat activity."

"Surveys of high-tide wader and tern roosts. This research is required to allow assessment of the potential disturbance impact from bottom mussel-related boat activity."

All of these reasons are clearly highlighting lacunae in the data. An Taisce would highlight the ECJ ruling for C-404/09[2] [Commission v Spain] which held that "*[a]n assessment made under Article 6(3) of the Habitats Directive cannot be regarded as appropriate if it contains gaps and lacks complete, precise and definitive findings and conclusions* ***capable of removing all reasonable scientific doubt*** *as to the effects of the works proposed on the SPA concerned.*" [An Taisce emphasis]

Similarly, the court held in the case of the Commission v Italy that "*assessment must be organised in such a manner that the competent national authorities can be certain that a plan or project will not have adverse effects on the integrity of the site concerned, given that,* ***where doubt remains as to the absence of such effects, the competent authority will have to refuse permission***." (C304/05[3]. Para 58) [An Taisce emphasis added]

In this instance, it is our considered opinion that the precautionary principle must be applied, and that licensing should not proceed until all of the necessary studies are complete, and the relevant authority can conclude beyond reasonable doubt that the proposed aquaculture will have no adverse effects on the integrity of the SCIs in the SPA. In our considered opinion, given the data supplied, the licensing authority are not currently in a position conclude this. Licensing, with such a paucity of relevant data, would contravene Article 6 (3) of the Habitats Directive.

Estuaries (1130) and Bottom Mussel Cultivation

Estuary (1130), an Annex I habitat, is a Qualifying Interest (QI) of the Slaney River Valley SAC. According to the NPWS 2011a, the conservation targets for the community distribution within this habitat type are: "*The following community types should be maintained in, or restored to, a natural condition: Mixed sediment community complex: Estuarine muds dominated by polychaetes and crustaceans community complex; and Sand dominated by polychaetes community complex*[4]". In order to achieve this we refer the reader to guidance from the NPWS, which outlines that significant continuous or ongoing disturbance should not exceed 15% of area. However, in the Annex I report[5] (Report supporting Appropriate Assessment of Aquaculture in Slaney River Valley SAC (Site Code: 000781) and Raven Point Nature Reserve SAC (Site Code: 000710)), it is outlined that the proposed bottom mussels will overlap 52% of the estuarine habitat (section 5.1 Annex I report), and from Table 15 of the same report, it is outlined that there will be a 43, 99.9 and 92.6 % overlap with the Annex I Estuary (1130) communities: Estuarine muds dominated by polychaetes and crustaceans community complex, Sand dominated by polychaetes community complex.

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[2] http://curia.europa.eu/juris/liste.jsf?language=en&num=C-404/09

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

[4] https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000781.pdf

[5] https://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/appropriateassessments/AnnexIWexfordHarbourSACsAA270318.pdf

and Mixed Sediment community complex, respectively. In the AA conclusion statement mitigation measures 1 and 2, it is outlined that despite this overlap being more than 15%, they consider the benefits of mussels to the system to be a significant consideration in allowing exceedance of the 15% threshold. This assumption of 'positive' influence is predicated on the assertion that these mussels will reduce eutrophication within the bay, and are a historical part of the system.

An Taisce would like to refute both of these assertions in regard to their subsequent interpretation. Firstly, we would have serious concerns regarding the validity of the 'historical presence' argument. The applicant outlines in Chapter 11 of the Annex I report:

"How much of the mussels currently in the harbour might be considered 'natural' or as a consequence of aquaculture practices is unknown. The inclusion of mussels as a component in the community type Mixed Sediment Community is appropriate; whether the quantity of mussels would be retained within the system without the aquaculture intervention is unclear as the level and extent of natural recruitment is unknown"

Given that over 2000 hectares of seabed is to be laid with bottom culture mussels, there can be no doubt that this quantity of mussels would not be retained in the absence of aquaculture. In addition, An Taisce would highlight that in chapter 11 of the Annex I report, it is asserted that:
"mussels are considered a component of the Mixed Sediment Community Complex found in the habitat feature Estuaries (1130)"
but at no point in either the NPWS documents relating to this SAC, nor in the reports submitted in support of this application, are the constituent species of this Mixed Sediment Community Complex outlined, nor is a relevant reference given for where this data was obtained. Thus, we can find no scientific evidence to support this statement. If we work on the assumption that it is accurate, it must still be noted that mussels are just a component/fraction of the Mixed Sediment Community type, which will be overlapped 92.6% by a monoculture of cultivated bottom cultured mussels. In regard to the other estuary QI community type Sand dominated by polychaetes community complex, mussels are not mentioned at all as a natural feature, yet this community type will be overlapped by 100% should all the bottom mussel renewals and new licence applications go ahead.

Secondly, in regard to the positive impact of mussels on the system, we would highlight that, while this may be true insofar as water quality is concerned, this does not addressed nor mitigate the potential impact on the QI community types present within these habitat types, which far exceed the 15% threshold, up to 100% for one community type. Water quality is not the main threat in this case, although it may well play a role. Physical disturbance and community composition change is. This is clearly outlined in section 8.3 of the Annex I report:
"*Bottom mussel culture may result in chronic and longterm changes in infaunal community composition as a result of high density of culture organisms being laid on the sea and*

dredging for mussel will result in ***physical disturbance to infaunal communities.***" [An Taisce emphasis]

Research has shown that mussel cultivation can be detrimental to polycheats, with Dolmer et al. (2002)[6] finding that polychaetes associated with mussel beds had a reduced density after dredging, and had a reduced density or were not observed at all 4 months after an area had been dredged (P. Dolmer, unpublished). Thus, An Taisce would highlight, and agree with, conclusion 2 in the Annex I report which outlines:
"*By virtue of extensive spatial cover the levels of existing and proposed culture of bottom mussel culture activities are considered disturbing to habitat feature Estuaries (1130) and Mudflats and Sandflats not Covered by Seawater at Low Tide (1140) in the Slaney River Valley SAC.*"

In our considered opinion, there has been no sufficient mitigation measures provided to offset this disturbance, and we submit that the logic in mitigation points 1 and 2 in the AA conclusion statement, which propose to allow the licensing to proceed, contrary to their own conclusions regarding disturbance effects, is both scientifically unfounded, and irrelevant in regard to the specific threat to the QI community itself. Thus, An Taisce submit that it would be impossible to achieve the NPWS conservation objective of maintaining these community types in a natural condition, should this scale of renewal and new licensing be allowed to proceed.

In light of the above argument, the licensing authority must have regard for the binding legal requirements set out by the Habitats Directive. Article 6 (3) of the Habitats Directive outlines that:
"*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4,* ***the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned.***" [An Taisce emphasis].

An Taisce submit that, given the applicants own conclusion that the extensive bottom mussel culture would disturb the QI habitats, and the clear threat posed by this activity on these communities outlined in the scientific literature, in addition to the licenses almost completely overlapping two of the three constituent community types of the protected Estuary habitat (1130), and the lack of clear or relevant mitigation measures, the licensing of bottom cultured mussels, both proposed and existing, should not proceed. To do so will be in serious breach of the Habitats Directive. We consider that licencing of any bottom mussel cultivation, either

[6] Dolmer P, Kristensen T, Christiansen ML, Petersen MF, Kristensen; PS, Hoffmann E (2002) Short-term impact of blue mussel dredging (Mytilus edulis L) on a benthic community. Hydrobiologia

renewal or new licences, which cover more than 15% of the QI community should not be permitted.

Other mitigation measures

An Taisce welcome the mitigation measures outlined in the Appropriate Assessment Conclusion Statement which forbid nighttime dredging, and the removal of seed from intertidal areas. However, we would highlight that "*Use of updated Aquaculture licences containing terms and conditions which reflect the environmental protection required under EU and National law.*" is not a mitigation measure, it is a legal obligation under both EU and Irish environmental law. It is an approach to be used by the licensing authority for all aquaculture projects, not a mitigation measure for this specific proposal, and should be fully implemented through the Appropriate Assessment approach.

Mudflats and Sandflats not covered by sea water at low tide.

In the Slaney River Valley SAC the level of spatial overlap between aquaculture (licenced and applications) activities and Mudflats and Sandflats not covered by sea water at low tide is 608ha, which represent 59.2% of this Annex I habitat feature within the SAC; between aquaculture (licenced and applications) activities and Estuaries is, approximately, 990ha which is equivalent to 52% of the feature. (section 5.1 SAC report)

In the AA conclusion statement mitigation measures, it is outlined that

"Mussel culture mainly occurs within deeper subtidal areas of the SAC. It is ***anticipated*** *that no culture will occur in intertidal and shallow subtidal areas"* [An Taisce emphasis]

And to address this they propose to

"Redraw boundaries of sites which will take bottom mussel culture out of intertidal areas. this will result in minimal or no coverage of the feature Mudflats and Sandflats not covered by water at low tide."

While An Taisce would welcome the removal of bottom mussel culture from intertidal areas, we would highlight that under Article 6 (3) of the Habitats Directive, no reasonable doubt must remain as to the impact on the Natura 2000 site/species. The words 'it is anticipated' are a not a clear determination of absence of damage to the integrity of the site, and An Taisce would highlight that under the Habitats Directive, *"the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned.*".

We submit that licensing of these sites should not proceed unless it can be proven beyond reasonable scientific doubt that the proposed activity will not impact on the integrity of the site. Without having the redrawn maps to refer to, we are unable to reasonable assess the risks ourselves, but would recommend that if licensing is to proceed that the licensing authority pay close attention to this mapping detail to ensure its accuracy and efficacy for mitigating habitat impacts, with a view to our obligations under the Habitats Directive.

In conclusion, given the manifold issues highlighted above, and multiple instances where An Taisce feel the licensing of the proposed bottom mussel projects would be in contravention of Article 6 (3) of the Directive, in addition to the use of Post Consent conditions, we submit that to bottom culture mussels should only be licensed if they do not exceed the 15% threshold of overlap with the SAC habitats and communities, and that in those areas there must be clear mitigation measures to prevent any adverse impact on the SCI species of the SPA. As it stands, in our considered opinion, there are multiple failings in the Appropriate Assessment, and licensing should not go ahead until these are adequately addressed.

Suspended Mussel Cultivation and SCI species

Although there is currently no suspended mussel aquaculture in the bay, there are 10 sites (covering a total area of 128 Ha) with applications for suspended mussel cultivation in the Raven SPA. There are also another six sites (covering a total area of 68 Ha) in Rosslare Bay. The individual sites range in size from 7-15 Ha, with a mean size of 12 Ha. The proposed sites in Rosslare Bay, while outside the Wexford Harbour & Slobs and the Raven SPAs, were assessed as they occur in an area that is likely to be used by some Special Conservation Interests (SCI) populations from the neighbouring SPAs.

Red Throated Diver is a wintering species listed on Annex I of the E.U. Birds Directive. Annex I species are particularly threatened, vulnerable to changes in their environment, and in danger of extinction. Under the Birds Directive it is a legal obligation that member States designate Special Protection Areas (SPAs) for their survival. The site is also of national importance for the Common Scoter, representing over 17% of the Irish total. The conservation objectives for Common Scoter and Red Throated Diver are to maintain their "favourable conservation condition" (NPWS, 2012), that is there should be '*no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation*'. The current conservation status of both species is intermediate/unfavourable.

Common Scoter feed mainly on bivalves, and section 8.3 of the Annex II SPA report outlines that although suspended mussel culture could have positive impacts on the availability of mussels as prey resources for the Scoters, it could also potentially have negative effects on food resources for Common Scoter if their prey resources are impacted by aquaculture induced sedimentation and/or eutrophication. Common Scoter are considered to be highly sensitive to disturbance from marine traffic. Section 8.4.6 outlines that:

'We do not have any site-specific data on the response of Common Scoter to marine traffic in the Wexford Harbour area. However, this species is generally considered to be highly sensitive to such disturbance.'

And research has shown it demonstrates "strong escape behaviour, at a large response distance." Their calculations, in Section 8.4.8, indicate that the average daily flush rate would represent 45% of the population, equating to, on average, each bird being flushed once every 2.2 days. They summarise, in section 8.3 of the SPA report that *'detailed assessment of potential habitat and disturbance impacts is required for this species.'*

In addition, for Red-Breasted Diver, section 8.29 outlines that detailed assessment of potential disturbance impacts is also required for these species: *'Sufficient data is not available on the disturbance response of Red-throated Divers to quantify the potential energetic impacts of disturbance by boat trips to the suspended mussel sites.'*

Overall, the SPA report concludes that:

*'**the reliability of this assessment for Common Scoter and Red-throated Diver is only moderate** due to the high potential sensitivity of these species to disturbance impacts, and the **limited quantitative data available** on the nature of their disturbance responses. Site-specific data on the disturbance responses of Common Scoter and Red-throated Diver in the Raven and Rosslare Bay would improve the reliability of this assessment.'* [An Taisce emphasis added]

There are no mitigation measures outlined in the Appropriate Assessment Summary Report, nor in the Appropriate Assessment Conclusion Statement, or mention of further studies to fill these lacunae in the data. The recommendations on the need for further site-specific data are overlooked. It is our considered opinion that the assessment of disturbance impacts on Common Scoter and Red-Breasted Diver are cannot robustly prove that the aquaculture activities will not have a negative impact on these species. If uncertainty exists regarding the potential impact of any proposed development full account should be taken of the precautionary principle, and the proposed development should be resisted. Due to gaps in data, the extent of the risks could not be quantified and identified through Appropriate Assessment, and therefore the precautionary principle should apply. An Taisce submit that in order to be compliant with Article 6 (3) of the Habitats Directive, the recommendations laid out in the submitted reports authored by the Marine institute, should be heeded, and further site specific data be requested prior to licensing.

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

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

Is mise le meas,

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

McCarthy, Ann

From: Foreshore EPA Marine [fem.dau@chg.gov.ie]
Sent: 06 June 2018 09:08
To: Aquaculturelicensing
Subject: Aquaculture Licences [redacted]
Attachments: ATT00001.txt; ATT00002.htm

RE: Aquaculture Licence [redacted] by Patrick Sword for rope mussels at Wexford Harbour, Wexford.

A chara,

Attached please find the nature conservation and underwater archaeology recommendations of the Department of Culture, Heritage, and the Gaeltacht for the above mentioned planning application.

Nature Conservation

The Department of Culture, Heritage and the Gaeltacht welcomes the opportunity to provide observations concerning licence application for aquaculture activities [redacted] in Wexford.
This is the first time this Department has issued comments on the appropriate assessment report and draft conclusion statement for the Slaney River Valley SAC (Site Code: 00781), The Raven Point Nature Reserve SAC (Sited Code: 00710), Wexford Harbour and Slobs SPA (Site Code: 4076) and the Raven SPA (Site Code: 4019). The conclusion statement acknowledges that for Slaney River Valley SAC (Site Code: 00781), the 15% disturbance threshold will be exceeded by 52% in the case of Estuaries and 59% in the case of Mudflats and sandflats not covered by seawater at low tide , should all applications be licensed. This Department's conservation objectives supporting document for marine habitats (NPWS, 2011) states "this Department takes the view that licensing of activities likely to cause continuous disturbance of each community type should not exceed an approximate area of 15%. Thereafter, an increasingly cautious approach is advocated. Prior to any further licensing of this category of activities, an inter-Departmental management review (considering *inter alia* robustness of available scientific knowledge, future site requirements, etc.) of the site is recommended." The Department would like to re-iterate this recommendation.
The guidance from the Commission has been very clear that the precautionary principle must be applied in all cases where support data is lacking. Therefore where the proposed mitigation measures are not support by clear unequivocal evidence the precautionary principle must be applied.
The Conclusion Statement asserts that the culture of mussels may have positive effect on the water quality within the harbour. Given the large area of impact of the dredging activity associated with this bottom culture of mussels it is unclear to this department why these two elements are being combined.
The Conclusion Statement states that mussel culture will mainly occur in the deep subtidal areas of the SAC, however no area is given for the deep subtidal to which dredging will be confined. There is also no clear schedule for the relaying and harvesting of mussels within the bay. It is not clear if this will be a coordinated effort, if it will be staggered or if operators will act independently.
While the variability of seed mussel in any given year may fluctuate the precautionary principle must be applied and it must be assumed that there will be sufficient supply of seed mussel each year.
It should also be noted that a number of intertidal sandbanks in the outer part of Wexford Harbour, and lying off the mainland at Raven Point, represent haul-out sites of regional and national significance for Grey seal (*Halichoerus grypus*) that are used all year round. Although this species is not a qualifying feature of the designated SAC site it is nevertheless protected under the Wildlife Acts 1976 to 2017 and appropriate efforts must be made to protect its resting sites from disturbance or interference. In this regard it is advised that vessel-based and human activity/works in the central, northern and southern parts of the outer harbour are confined to: Mid-tide to High-tide periods only (i.e. 3.5 hours either side of High Water, when seals are less likely to be hauling out ashore at the intertidal sites and thereby vulnerable to human disturbance).

The importance of this area for grey seals requires consideration when the buffer zones around seal haul-out areas as proposed in the Conclusion Statement, are being considered. The mitigation/management action must also be

supported by scientific evidence regarding proposed distances that will reduce potential disturbance of seals to negligible levels.

Substantially more Harbour seal haul-out location information for the Wexford Harbour area has been gathered by this department since the conservation objectives were published in 2011. This more recent unpublished information is of critical relevance to several licences/applications. It will be sent on to the Marine Institute/DAFM and it is recommended that it be incorporated in the assessment and licence/application, particularly for the southern part of Wexford Harbour.

The Appropriate Assessment summary report[1] includes a list of nine management responses/measures relating to the SPAs and states "*.....the following management measures, research and information compilation is required to complete this assessment*". This Department considers that this information is required before an adequate assessment can be undertaken for certain activities. For example, without further low tide data for the species Golden Plover, Grey Plover, Knot, Sanderling and Bar-tailed Godwit as stated in the Appropriate Assessment Summary Report, the assessment for the licensing of intertidal trestles at this SPA is not complete.

The adaptive management strategy on the issues of anthropogenic disturbance and the significant likelihood of an increase predator species at tern sites, as outlined in the Summary Report and the Conclusion Statement[2], does not provide sufficient information to this department to support such a strategy.

The screening out of the fish eating species, such as Red-breasted Merganser, on the basis that intertidal oyster cultivation in Wexford Harbour will not affect the habitat quality of species that only use the subtidal habitat is inconsistent with the later statement that trestle structures act as refugia for fish and other species. This Department is of the opinion that such structures could theoretically pose an impediment to the foraging behaviour of piscivorous birds such as Red-breasted merganser.

Given the identified weaknesses of the assessment of the effects of suspended mussel cultivation on Common Scoter and Red-throated Diver this Department would expect that suitable monitoring of the impacts of such activities in the Rosslare area on the scoters and other species would need to be undertaken to enable an adequate assessment to be carried out. Further data on the Common Scoter and diver usage associated with the Raven SPA and further details on the existing dredge fisheries related impacts on this SPA (including direct disturbance, competition for common prey resources and benthic habitat modification) would also allow a more robust assessment to be undertaken.

While the adaptive management strategy as outlined in the Appropriate Assessment Conclusion Statement proposes a solution to avoid significant disturbance impacts to the Little Tern breeding population, no potential solution, outside of a prohibition on night-time dredging, is proposed to avoid disturbance related impacts to Red-breasted Merganser and other waterfowl. This Department considers that the appropriate assessment process is incomplete in this regard.

Underwater Archaeology

The area covered by the proposed aquaculture is large in scale. The waters around Wexford retain the remains of a multitude of shipwrecks and associated artefacts. The records of the Wreck Inventory of Ireland Database (WIID) and as can be viewed on the Wreck Viewer (www.archaeology.ie), list several wrecks recorded at or within proximity to the proposed locations of the aquaculture. There is thus a potential that underwater cultural heritage could be negatively impacted by the proposed aquaculture activity. The Department therefore requires that an Underwater Archaeological Impact Assessment (UAIA) be carried out in advance.

UAIA:

- The services of a suitably qualified underwater archaeologist with proven experience in carrying out UAIA shall be engaged.
- The UAIA shall be licensed by the Minister for Culture, Heritage and the Gaeltacht and the application shall be accompanied by a detailed Method Statement.
- The UAIA shall draw on all available sources as part of the desktop study and shall look to assessing the underwater archaeological potential for all areas where it is proposed to place the aquaculture.
- The UAIA Report, which shall be forwarded to this Department for consideration and further comment, shall include an impact statement and make recommendations for further archaeological mitigation, if thought necessary.

Mise le meas,

Connor Rooney
Development Applications Unit
Department of Culture, Heritage, and the Gaeltacht.
Newtown Road
Wexford

tel: 0539117464

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

[1] Appropriate Assessment Summary Report of Aquaculture in the: Slaney River Valley SAC (Site Code: 000781), Raven Point Nature Reserve SAC (Site Code: 000710), Wexford Harbour and Slobs SPA (site code 004076) and Raven SPA (site code 004019) August 2016

[2] Appropriate Assessment Conclusion Statement by Licensing Authority for aquaculture activities in: Slaney River Valley SAC (Site Code: 00781), The Raven Point Nature Reserve SAC (Sited Code: 00710)[2], Wexford Harbour and Slobs SPA (Site Code: 4076) and the Raven SPA (Site Code: 4019)

McCarthy, Ann

From: Foreshore EPA Marine [fem.dau@chg.gov.ie]
Sent: 30 July 2018 08:15
To: Aquaculturelicensing
Subject: Aquaculture Licences [redacted]

RE: Aquaculture Licences [redacted] at Wexford Harbour, Wexford [redacted]

A chara,

Please find the underwater archaeology recommendations of the Department of Culture, Heritage, and the Gaeltacht for the above mentioned application.

Wexford Harbour has a high potential to retain underwater cultural heritage, including being the focus of maritime activity throughout the millennia. The Wreck Inventory of Ireland Database, held by the National Monuments Service, contains extensive information on ships lost specific to Wexford and the Harbour. There is therefore a potential that the dredging associated with the applications could impact known or previously unknown underwater archaeology.

The Underwater Archaeology Unit of the National Monuments Service therefore requests that an Underwater Archaeological Impact Assessment (UAIA) be submitted as Further Information to allow us make a fully-informed response to 14 applications.

The UAIA shall be carried out by a suitably qualified and suitably experienced underwater archaeologist and shall comprise desktop study, wade survey accompanied by hand held metal detection survey. If it is not possible to carry out wade survey safely (i.e. if depth exceeds 0.75m), then geophysical survey carried out to the specifications to detect UCH, with archaeological interpretation of the results or underwater archaeological diver survey should be undertaken.

The UAIA shall be licensed by the Department of Culture, Heritage and the Gaeltacht and a detailed method statement should accompany the applications.

Mise le meas,

Connor Rooney
Clerical Officer

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

Aonad na nIarratas ar Fhorbairt
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cCarthy, Ann

From: Foreshore EPA Marine [fem.dau@chg.gov.ie]
Sent: 18 July 2018 14:07
To: Aquaculturelicensing
Subject: Aquaculture Licences [redacted]

RE: Aquaculture Licences [redacted] at Wexford Harbour, Wexford.

A chara,

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

The Department of Culture, Heritage and the Gaeltacht welcomes the opportunity to provide observations concerning the proposed licensing of aquaculture activities in the Slaney River Valley SAC (Site Code: 000781), The Raven Point Nature Reserve SAC (Site Code: 000710), Wexford Harbour and Slobs SPA (Site Code: 004076) and the Raven SPA (Site Code: 004019) as outlined in the communication by the Department of Agriculture, Food and the Marine of the 15th of June, 2018.

This Department has provided comments on aquaculture activities at these Natura 2000 sites on the 1st of June 2018. These remain the Department's position on aquaculture licensing at these sites.
In relation to the licence application [redacted] for the culture of mussels (*Mytilus edulis*) using longlines south of Carnsore Point, which is adjacent to two Natura 2000 sites, namely Saltee Islands SAC (site code: 000707) and Carnsore Point SAC (site code: 002269). It also falls within the 15km zone of impact of a plan or project on a Natura site for a number of other Natura 2000 sites, i.e. Lady's Island SAC & SPA (site code: 000704, 004092, respectively), Tacumshin Lake SAC & SPA (site codes: 000709, 004009, respectively) and Saltee Islands SPA (site code: 004002). This Department feels it would be prudent if an NIS was produced for this proposed aquaculture development.

Mise le meas,

Connor Rooney
Clerical Officer

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

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McCarthy, Ann

From: Mary Larkin [Mary.Larkin@fisheriesireland.ie]
Sent: 13 July 2018 18:02
To: McCarthy, Ann
Subject: Ref: T3/55 Submission

Ann McCarthy
Aquaculture & Foreshore Management Division
National Seafood Centre
Clonakilty
Co. Cork

Application for Aquaculture Licence for the bottom culture of mussels by Crescent Seafoods Limited in Wexford Harbour
Ref: T3/55

Dear Ms. McCarthy,

Inland Fisheries note that the site of this proposed licence is within the transitional waters of the Slaney River Estuary/Wexford Harbour. This proposed licence and numerous others are located with the Slaney River Valley SAC (000781), in the habitat types, 1130: Estuaries and 1140: Mudflats and sandflats not covered by sea water at low tide.

Estuaries and inshore waters provide significant nursery habitat for the larval and juvenile forms of (transitional and marine) fish species, in addition to providing shelter and food for many young and adult fish, crustaceans and shellfish. These in turn provide food resources for other levels of the trophic chain including shore birds, waterfowl, larger fish and marine mammals. Intertidal areas host high densities of benthic fauna in particular worms and molluscs. This in turn can make them important habitats for juvenile fish such as bass & flounder, and juvenile crustaceans such as crabs which may inhabit such habitats in high numbers. **Wexford Harbour represents the most important sea bass nursery in Ireland.** The majority of fish in estuaries, feed primarily on the benthos and thus live a demersal existence. Estuarine fish can generally be divided into a number of groups:

- Estuarine dependant (opportunists) species typically enter estuaries from the sea for a period each year but do not stay permanently. The majority of these species drift into estuaries as larvae and when as young fish they become demersal, they take advantage of the rich benthic food sources available in sublittoral and intertidal estuarine habitats. Estuaries contain large numbers of '0 group' fish that use them as nursery grounds before migrating to the sea as recruits to adult populations. The waters of the Slaney estuary in close proximity to this site represent the most important sea bass nursery waters in Ireland.
- Marine stragglers enter estuaries irregularly and are often restricted to the seaward end (usually low in numbers of individuals)
- Riverine species come from the freshwater end of the system and are mainly found in low salinity waters.
- Truly estuarine species (residents) comprise only a small number of species although they may form a high overall biomass. The gobies are most typical of this group as they are found in estuaries around the year.
- Migratory species use the estuary and inshore waters as a route from rivers to the open sea or vice versa. Most of these species are anadromous (breed in freshwater) e.g. the lampreys, the shads and the salmon (*Salmo salar*) / sea trout (Salmo trutta). Eels (*Anguilla anguilla*) are catadromous and breed in the sea.

The conservation objectives for the Slaney River Valley SAC, protected habitat type 1130: Estuaries requires that Ireland maintain the favourable conservation conditions of estuaries in the Slaney River Valley SAC including the following attributes and targets: that mixed sediment complex; Estuarine muds dominated by polychaetes and crustaceans community complex; and sands dominated by polychaetes community complex should be maintained in, or restored to, a natural condition. With regard to protected habitat type 1140: Mudflats and sandflats not

covered by seawater at low tide the Conservation objectives of the Slaney River Valley SAC require that Ireland maintain the following community types in a natural condition: Estuarine muds dominated by polychaetes and crustaceans community complex; and Sand dominated by polychaetes community complex.
IFI consider that this proposed aquaculture licence application will include actions/practices which will completely alter and/or damage the protected habitats referred to above.

Of serious concern to IFI is the conclusion that the levels of existing and proposed culture of bottom mussel culture activities are considered disturbing to habitat feature Estuaries (1130) and Mudflats and Sandflats not covered by Seawater at Low Tide (1140) in the Slaney River Valley SAC as well as a number of constituent marine community types. Also of serious concern to IFI is the conclusion that the levels of existing and proposed culture of bottom mussel culture activities are considered disturbing to the community type – Estuarine muds dominated by polychaetes and crustaceans community complex within the habitat feature mudflats and sandflats not covered by Seawater at Low Tide (1140) in the Raven Point Nature Reserve SAC. Another serious concern is the conclusion that "removal of seed resources from intertidal habitat will also result in disturbance to 1140 habitat features by destabilising the reef structure formed by mussels and reducing habitat complexity and associated biodiversity.

The Appropriate Assessment Conclusion statement states "In summary, the view is that bottom culture mussel culture, at current levels, does have an overall positive role in ecosystem". IFI question how the applicant could have come to such a conclusion and request that the applicant back this statement up with scientific data. IFI also question the assertion that the addition of more mussels to the will be beneficial to the ecological function of Wexford Harbour in terms of habitat provision and a reduction in eutrophication through the filtering of water by mussels. IFI would again question this assertion and request scientific data to back this up.

The Appropriate Assessment accompanying this license application does not consider the potential that the development of new mussel beds on important estuarine/intertidal habitats is likely to have upon estuarine muds and sands and the significant biomass living within and upon these habitats types. Our concern is the potential for loss of the important species at the bottom of the food chain if oxygen levels are reduced in habitats beneath the mussel beds and the loss of biodiversity and biomass as the available food within the estuary is intercepted by a monoculture of mussels, which limits the carrying capacity of Wexford harbour for other species.
IFI do not believe that the Appropriate Assessment adequately address the potential for a number of anadramous species listed in the Habitats Directive including River Lamprey and Twaite Shad, we believe that Wexford harbour represents an important nursery for these protected species and we request that the applicant addresses these concerns.

The Department of Agriculture, Food and the Marine document, "Consultation Paper on Minister's review of Trawling Activity inside the 6 Nautical Mile Zone", states "*The Marine Strategy Framework Directive (MSFD) requires that biodiversity and seafloor habitats are at good environmental status (GES), meaning that the diversity, structure and function of marine life on the seafloor is maintained. The Habitats and Birds Directives have more specific requirements for species and habitats coming under their remit and generally require that species and habitats are maintained at Favourable Conservation Status (FCS)*". IFI are concerned that the cumulative impact of the numerous Aquaculture Licences for bottom shellfish culture within Wexford Harbour and the significant disturbance/damage to the habitat and juvenile fish populations of this estuary are contrary to the Marine Strategy Framework Directive and the Habitats Directive.

The DAFM document goes on to state that "The MI advises that bottom trawling has significant impacts on seafloor habitats", "Effects on epifauna (animals living on the seafloor) may be more pronounced and related to the frequency of disturbance of such areas. Reducing the area of seabed swept by bottom towed gears, reducing the weight and depth of disturbance caused by towed gears and managing the frequency of fishing to enable recovery between fishing events are possible ways to mitigate the effects on seafloor habitats".
As stated above Wexford Harbour represents the most important sea bass nursery in Ireland, Wexford harbour also represent excellent and nationally important nursery habitat for numerous species of pelagic and demersal fish including flatfish, rays, herring and whitefish. Damage to these habitats can have disproportionate effects on certain fish stocks by impacting on spawning and juvenile fish, not only damaging inshore stocks but also affecting recruitment to offshore populations.
Another important point to consider is that small scale features and relief are important in a habitat relative to the size of juvenile fish, and fish move to a more uniform habitat as they increase in size. Spatial conservation of sea

bottom habitats, by reducing fishing pressure, could therefore benefit demersal fish stocks in coastal waters by restoring habitat structure. This issue was raised in the conclusions of the Appropriate Assessment.

The National Report for Ireland on Eel Stock Recovery Plans published by the Department of Communications, Energy and Natural Resources in December 2008 states that "The latest scientific advice from the International Council for the Exploration of the Sea (ICES) concerning European Eel is that the stock is outside safe biological limits and that current fisheries are not sustainable. A significant proportion of the European eel stock remains in transitional waters and Wexford harbour represents an important population of this species. This aquaculture application does not take into account the potential negative impacts of these operation upon the populations of this endangered species within Wexford Harbour.

IFI question the sustainability of bottom trawling of large areas of Wexford Harbour to harvest mussels. We request clarification on the exact nature of the trawl methods used to harvest these mussels and information relating to by-catch/mortality of juvenile fish/crustaceans in these trawls. Our knowledge of the mussel harvesting industry in Wexford Harbour is that that the trawlers utilised are very large, suggesting that the trawls are large and heavy with potential for significant disturbance of the nursery habitat of Wexford Harbour and the mortality of large numbers of a variety of species of juvenile fish and crustaceans.

Inland Fisheries Ireland have serious concerns regarding the cumulative impacts of the existing bottom culture licences for mussels within Wexford Harbour and its proposed expansion, which we believe are in breach of the conservation objectives of the Slaney River Valley SAC. We do not believe that the potential negative impacts upon the estuarine habitat and the nationally important fish nursery habitat of Wexford harbour have been addressed.
In light of these significant concerns, the sensitivity and importance of the protected habitats where this aquaculture licence is proposed and the significant deficiencies in the appropriate assessment supplied IFI objects to this proposed aquaculture licence.

We request that the applicant supply information which fully addresses these significant concerns.

Kind regards
Mary Larkin
On behalf of
Greg Forde
Head of Operations

Please note that any further correspondence regarding this matter should be addressed to Mr. Donnachadh Byrne, Senior Fisheries Environmental Officer, Inland Fisheries Ireland, 3044 Lake Drive, Citywest Business Campus, Dublin 24

Mary Larkin
PA to Head of Operations

Inland Fisheries Ireland - Galway

Iascach Intíre Éireann
Inland Fisheries Ireland

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Email mary.larkin@fisheriesireland.ie
Web www.fisheriesireland.ie

Teac Breac, Earl's Island, Galway, IRELAND.

Comhairle Contae
Loch Garman

Wexford County Council

Wexford Harbour, Ballast Office,
Crescent Quay, Wexford Y35 E6TR

00353(0) 53 9122300
harbourmaster@wexfordcoco.ie

Ann McCarthy
Aquaculture and Foreshore Management Division
Department of Agriculture Food and the Marine
National Seafood Centre Clonakilty Co Cork
P85 TX47

13th July 2018

Dear Ms McCarthy,

Further to the aquaculture licence applications in Wexford Harbour;

1. [redacted]
   ), (c) ,(e), (f) - No comments
   2) - See Wexford County Council submission 28th June 2018 as attached.
   lo comments
   No comments
   e Wexford County Council submission 28th June 2018 as attached.
2. [redacted]
   td;
   comments
   comments
   comments
3. [redacted]
   Ltd;
   & (b) – No comments
   - See Wexford County Council submission 28th June 2018 as attached.
4. [redacted]
   ur Mussels Ltd;
   - See Wexford County Council submission 28th June 2018 as attached.
   & (c) No comments
   comments
   comments
5. [redacted]
   ments
   ments
6. [redacted]
   ments
   ments
   ments
7. [redacted]
   ments
8. Crescent Seafoods Ltd;
   a. T03/55 - No comments
   [redacted]

[redacted]

nce Sweeney;
nments

should be marked with special marks with a focal height of at least 2meters above
l marks should be spaced at the extremities of each area and spaced not more than
length. They should also carry a St Andrews Cross topmark and a flashing light,
racter to be determined by Commissioners of Irish Lights. The distance between
o less than 250m, so as to give access to other vessels to safely cross the scheme.
kept well clear of the Black Rock Navigation light so as not to cause confusion to

area should be marked with special mark poles, at each corner and with a
e of 200m between poles along its length, such poles should have a focal height of
e HWS. They should also carry a St Andrews Cross topmark and a flashing light,
character to be determined by Commissioners of Irish Lights. Ideally such lights
nised.

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e of 200m between poles along its length, such poles should have a focal height of
e HWS. They should also carry a St Andrews Cross topmark and a flashing light,
character to be determined by Commissioners of Irish Lights. Ideally such lights
nised.

[redacted]

;
omments

Ltd;
omments

n Duggan;
ee Wexford County Council submission 28th June 2018 as attached.
lo comments

Yours sincerely,

Capt Phil Murphy
Senior Marine Officer
Wexford County Council

The Environment Section
Extension: 6326
Direct Dial: (053) 9196326
e-mail: brendan.cooney@wexfordcoco.ie
web: www.wexford.ie

env/bc

Further to the aquaculture licence applications in Wexford Harbour;

[redacted]ussels Ltd;

[redacted]

8. Crescent Seafoods Ltd;
   a. T03/55

[redacted]

[redacted] & Florence Sweeney;

[redacted] aynor;

[redacted] Irfish Ltd;

[redacted] / Jason Duggan;

With regard to the above aquaculture licences, this is for a considerable expansion of area under shellfish cultivation in Wexford Harbour/Irish Sea/Carnsore Point, a large number in areas outside the designated area for shellfish waters. None of the applications have made any reference to the benthos within which, or above which these proposed developments occur. The Marine Institute supporting report to the AA report makes findings for further info and it is considered that due to the large increase in area, beyond those areas designated, Wexford Co Co makes a request for further information for the following additional information,

1. Biosecurity details on how the applicants will ensure the imported shellfish seed is not contaminated with marine invasive species,
2. Biosecurity details on how the applicants will ensure the shellfish under cultivation will not become an invasive species,
3. Comprehensive predevelopment benthos survey of each of the areas beneath these developments so as to provide a baseline on which to compare post development impacts.
4. Carryout a predevelopment physiochemical water quality analysis survey of the waters of each of the sites so as to provide a baseline on which to compare post development impacts.

Regards,

Brendan Cooney,
Senior Executive Scientist,
Environment Section.

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

Marine Engineering Division

Report on Aquaculture Licence Application

Application Reference No: T03/055E and F&C

Report Prepared By:	**Enda Cusack**
Date:	27 June 2018
Applicant	Crescent Seafoods Ltd., 1 Redwood Park, Murrintown, Wexford
Location	Wexford Harbour Outer, County Wexford
Applicant Type	Aquaculture/Foreshore Licence

Sites	T03/055E	T03/055F&C	Total
Site Area (Ha)	19.9	92.6	112.5

Species	Mussels (mytilus edulis)
Cultivation Method	Extensive
Intertidal/Non-Intertidal	Non-Intertidal
Source of Seed / Spat	Unknown
Annual Production Estimates	800 tonnes per annum
Shellfish Waters Designation Reference:	Yes ☒ No ☐ S.I.55 of 2009 Map 33 Wexford Harbour Outer
Environmental Designation Reference:	Yes ☒ No ☐ Wexford Harbour and Slobs SPA (Site Code: 004076), Slaney River Valley SAC (Site Code: 000781)
Development Plans Reference:	Yes ☒ No ☐ Wexford County Development Plan 2013-2019, Section 6.4.7
Pre-Consultation Meeting Date:	Yes ☐ No ☒ N/A

Drawing Validation Sheet

OSI Maps **Yes** ☒ **No** ☐
Comment: 6" scale maps prepared by GIS Mapping Section attached.

BA Chart **Yes** ☒ **No** ☐
Comment: BA Charts prepared by GIS Mapping Section attached.

Farm Layout Drawing **Yes** ☐ **No** ☒

Directional Arrow	Yes ☐	No ☐
Scale	Yes ☐	No ☐
Title Block	Yes ☐	No ☐
Date	Yes ☐	No ☐

Comment: N/A Bottom Culture – no structures

Drawings of structures **Yes** ☐ **No** ☒
Comment: N/A Bottom Culture – no structures

Details of Proposed Navigation Marking **Yes** ☐ **No** ☒
Comment: N/A Bottom Culture – no structures

Site Access Indicated **Yes** ☒ **No** ☐
Comment:

Site Co-Ordinates Indicated **Yes** ☒ **No** ☐
Comment: Co-ordinates prepared by GIS Mapping Section attached.

Site Overlap **Yes** ☐ **No** ☒
Comment: N/A

Oyster Fishery Order Overlap **Yes** ☐ **No** ☒
Comment: N/A

☒ **The application is submitted with each of the requirements listed and is therefore deemed to be a valid application.**

☐ **AFMD should be aware that insufficient details have been submitted as per above.**

Site Suitability Assessment

Site Location
The sites of this application are located within Wexford Harbour, Co. Wexford. The sites are all located in sheltered waters. The aquaculture at this location has been in existence for many years, which indicates that the hydrodynamic regime is suitable for this type of aquaculture.

Sites T03/055E and F&C are located in shellfish designated waters and there is a local authority sewage treatment outfall pipe located close to these sites.

Site Management
This application is for the renewal of existing aquaculture activity in Wexford Harbour, Co. Wexford. There are no structures associated with this development and there has been no previous issues regarding the management of these sites. The existing aquaculture licence for these sites has expired, however Section 19A of the Fisheries (Amendment) Act 1997 allows the operator to continue activities following the expiration of previous aquaculture licence where renewal applications have been received.

Proposed Site Layout and Structures
The applicant proposes cultivating mussels extensively on the seabed. Farm site layout and structural drawings are not required as there are no structures associated with this application.

Land Based Facilities / Site Access
Wexford Harbour Quay is used by mussel farmers on a daily basis to access the existing sites and carry out operations associated with the aquaculture industry. The quay is suitable as an access point for these sites.

Navigation
A navigational marking scheme is in place for Wexford Harbour. The scheme provides safe system of navigation for all marine users but does not include any new aquaculture sites within Wexford Harbour.

Landscape and Visual Assessment
There are no visual impacts associated with this application as there are no structures on-site and mussel dredging will be carried out for short periods during the year.

Impact / Cumulative Impact
These sites are part of the overall existing mussel aquaculture industry within Wexford Harbour. There is fishing and marine leisure in the area. The group marking scheme reduces the impact of the aquaculture on navigation in the area. There will be no impact on any of the important water quality features for tourism or recreation due to the proposed aquaculture activity.

The proposed sites are located within the Slaney River Valley SAC [Site Code: 000781]. This Natura site has been designated internationally important as the area provides suitable habitat for a range of species and birds that use the area throughout the year. The 2016 Appropriate Assessment (AA) concluded that both the existing and proposed applications for the cultivation of bottom culture mussels in Slaney River Valley SAC would impact on the Annexed habitat 'Mudflats and Sandflats not covered by seawater at low tide' [1140]. The aquaculture sites in this application do not cause any impact to this habitat as they are outside the intertidal zone of the Slaney River Valley SAC.

The potential interactions between aquaculture operations and the Harbour Seal were assessed during the AA process which determined that current levels of aquaculture production were non-disturbing to the conservation objectives of the Harbour Seal. The primary issue in relation to current aquaculture sites and the Harbour Seals is that if production were take place over or close to the seal haul-out areas, then that would potentially result in disturbance to the seals. The aquaculture sites in this application have been in existence previously for a considerable period of time and it has been acknowledged during the AA process of the beneficial impact current aquaculture has been on the Harbour Seals within Wexford Harbour. Any periodic impacts on the seals can be addressed by way of a licence condition for the site.

The AA also determined that a range of mitigation measures were necessary to maintain the favourable conservation status of Wexford Harbour and Slobs Special Protection Area (SPA) [Site Code: 004076], and the Raven SPA [Site Code: 004019]. These sites have been designated internationally important for a number of bird species that use the area throughout the year for feeding, nesting and breeding. The AA Conclusion Statement for Aquaculture Activities in Wexford Harbour specifies these management and mitigation measures, and any license issued shall comply with these conditions.

Wexford County Development Plan 2013-2019 outlines that Wexford Quay is planned for development works such as increasing the number of moorings, dredging and development of a small marina. Plans and specifications submitted to the Department by Wexford County Council confirm that the sites in this application will not cause any impact to the future development of Wexford Quay.

The South East Regional Planning Guidelines (SERPGs) seek to promote the South East as the 'Marine Centre of Ireland' by identifying and facilitating the development of marine tourism clusters along the coastline. This would facilitate the development of marine leisure and recreation facilities to incorporate sailing, cruising, angling, water sports facilities, nature tourism, island ferries and support facilities. The proposed aquaculture sites will have not have any impact on the future development of marine leisure and recreational activities outside Wexford Harbour.

Marine Engineering Division has no objections to the licencing of these sites.

AN t-ÚDARÁS UM CHOSAINT IASCAIGH MHARA | SEA-FISHERIES PROTECTION AUTHORITY

19th July 2018

RE: Wexford Harbour, Aquaculture & Foreshore Applications : [redacted]

T03/55E, T03/55F C, [redacted]

To whom it may concern,

I have been carrying out shellfish sampling and fisheries control on the Rosslare and Wexford harbour area since 2017.

After reviewing the Aquaculture & Foreshore Applications which consists of bottom cultivation of Blue Mussels (*Mytilius edulis*) inside Wexford Harbour, I can't envisage any direct implications to seafood safety.

With regard to Wild Fisheries and commercial fishing operations, there are a number of Bottom Dredgers working inside Wexford Harbour dredging bottom Mussels. Other than that most of the commercial fishing takes place outside Curracloe and Rosslare Strand, and use Wexford Harbour as a landing port. I can't envisage any direct impact on commercial fishing operations, provided that the sites outlined on the application are not over lapping bottom mussel beds set by producers in the area.

Brian Mc Dermott

Brian McDermott
Sea Fisheries Protection Officer

T +353 51 383135
M +353 85 877 2675

From: O'CALLAGHAN Tom [mailto:TomOCallaghan@dttas.gov.ie]
Sent: 15 April 2019 13:41
To: OFlynn, Deirdre
Cc: Capt Phil Murphy (Phil.Murphy@wexfordcoco.ie); neil.askew@irishlights.ie; 'oloan@bim.ie'
Subject: RE: Aquaculture Licence applications in Wexford Harbour relating to bottom cultivation of mussels

Dear Ms O'Flynn,

This office has no objections to these applications and renewal applications for bottom culture mussels in Wexford Harbour as per your email and the list at present on your website.

It should be noted that the granting of a licence does not confer any special rights in relation to surface navigation to the licence holder.

Wexford Harbour Master has been copied in on this email as he may wish to comment further on these applications.

Kind regards

Tom O'Callaghan (Capt.)
Nautical Surveyor
Marine Survey Office

An Roinn Iompair, Turasóireachta agus Spóirt
Department of Transport, Tourism and Sport

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