

Submission AGR 00749-19: Recommendation to refuse an Aquaculture & Foreshore Licence T01/082A

TO: Minister
STATUS: Completed
PURPOSE: For Decision

AUTHOR: Kelleher, Sheila
OWNER: Kelleher, Sheila
REVIEWERS: OShea, Nicole
OCallaghan, Grace
Quinlan, John
Beamish, Cecil
Smith, Ann

DIVISION: Coastal Zone Management
DECISION BY:

Final comment

Minister determines that the Aquaculture and Foreshore Licences not be granted for the reasons outlined.

Action required

Ministerial Determination on Aquaculture/Foreshore Licensing Application T01/082A

Executive summary

The Minister's determination is requested in relation to an application of an Aquaculture Licence from Emerald Mussels Limited, Greencastle Road, Merville, Co. Donegal. The application is for the bottom culture of mussels on Site T01/082A totalling 33.2443 hectares on the foreshore in Carlingford Lough, Co. Louth.

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 the Aquaculture and Foreshore Licences **not be granted** to Emerald Mussels Limited, for the reasons outlined in the 'Detailed Information' section below.

Detailed information

Detailed Information

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

DECISION SOUGHT

The Minister's determination is requested in relation to an application for an Aquaculture Licence from Emerald Mussels Limited, Greencastle Road, Merville, Co. Donegal. The application is for the bottom culture of mussels on Site T01/082A totalling 33.2443 hectares on the foreshore in Carlingford Lough, Co. Louth.

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 the Aquaculture and Foreshore Licences be granted for the reasons outlined in the 'Detailed Information' section below.

BACKGROUND

Marine aquaculture operations require separate Aquaculture and Foreshore Licences and Ministerial approval is requested in respect of this submission (Aquaculture Submission) and the 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

An application (**TAB A**) 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 culture of mussels on Site T01/082A totalling 33.2443 hectare site on the foreshore in Carlingford Lough, Co. Louth.

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 (TAB B)

Marine Engineering Division: This is a new application for a site initially 48.35 hectares but later amended to 33.244 hectares. The site is close to the navigation channel on its north side and close to the sewage outfall from Omeath village on the south side. It is important there should be a suitable separation distance allowed for between the mussel site and the dredged channel side slope in order to minimise impact of dredging and navigation usage on mussel culture activity and vice versa. A minimum distance of 100m is recommended which would result in the section of this site running in and close to the navigation channel should not be licensed for shellfish culture. In relation to proximity to the Omeath outfall pipe, in order to reduce risk of microbiological or viral contaminants of shellfish growing waters close to the outfall pipe a 400m separation distance is recommended as a precautionary measure. It allows for a zone of initial dilution and mixing of effluent within which the shellfish would not be grown; as it is relatively shallow a significant area would be required for the dilution. When recommended clear zones for navigation and wastewater assimilation are excluded from the application site, there is no area within site 82A that would be appropriate for licensing as a result. Should the licence be granted a condition of the licence **is recommended for furnishing specific records relating to site usage to the minister on an annual basis should the license be granted. These records should include quantity and size and source of mussel seed imported to the site; quantity of mussels re-laid within the site; and quantity and size of mussels exported from the site. These records should be submitted for each calendar year by end of March of the following year.** However **it is recommended due to the proximity of the proposed site to the Omeath sewage outfall and navigation channel that this application be refused.**

Marine Survey Office: As this site is located within Warrenpoint Harbour Limits it may be advisable to contact Warrenpoint Harbour Authority regarding this application. MSO advice when the application was initially made was that this site uses the Southern boundary of the channel to Warrenpoint as its Northern limit. In previous applications the harbour master at Warrenpoint has requested that such applications be rejected as the use of a mussel dredge would collapse the bank of the channel at worst and cause more frequent dredging to be carried out at best. Insofar as the strip bordering the channel is so narrow **it would be the opinion of the MSO not to allow this development to proceed in its current layout for the above reason.** (Note: The portion of the strip bordering the channel has not changed since the initial application.)

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: In relation to application T01/082A **the SFPA is of the opinion that due to discharge of wastewater into the area there is a risk to human health.** Furthermore the intention to extend the existing outfall pipe as part of an upgrade to the WWTP by 50 metres will result in the placing of the diffuser head in the area of the site application number T01/082A. The planned upgrades to the wastewater treatment plant in Omeath may result in the plant having the ability to handle a greater capacity, potentially creating a greater risk to human health. The area is currently not a classified live bi-valve production. Upon completion of the upgrade to the WWTP a time series of sampling would be required to ascertain the associated risks to human health.

Statutory Consultation (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:

Bord Iascaigh Mhara: No comments received.

Marine Institute: Site T01/082A is partly located within the Carlingford designated Shellfish Growing Waters Area. Under Annex II of EU Regulation 854/20047 mussels in the 'Carlingford Inner' area of Carlingford Lough currently have a "B" Classification. 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 consideration 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.

This site is not located within a Natura 2000 site but is adjacent to the Carlingford Lough SPA (Site Code 004078) and the Carlingford Shore SAC (Site Code 002306). It is recommended that DAFM take full account of the conclusions and recommendations of the Appropriate Assessment report and the proposed mitigation measures set out in the Department's Draft Natura Conclusion Statement.

The site overlaps with / is adjacent to the outfall from the Omeath Waste Water Treatment Plant and is in the same location as site T01/074A the licence application for which was previously refused. **Considering the proximity of the proposed production site to the outfall the MI is of the view that a licence should not be granted.**

Department of Culture, Heritage and the Gaeltacht: No comments received.

Louth County Council: No comments received.

Fáilte Ireland: No comments received.

Commissioner for Irish Lights (CIL): Based on information provided there appears to be no objection to the development. The nature of bottom culture suggests there is no navigational hazard however it is important that no navigable inter-tidal channels or the nearby slip/pier are impeded by the development. If the licence is granted we request the following terms be included in the licence: no obstructions of any kind above the seabed; no moorings or marker buoys to be placed on the site; and the observations made by the Nautical Surveyor regarding anchoring and the rules for surface navigation should be clearly noted. Local fishing and leisure interests should be consulted prior to decision being made. If licence is granted the UK Hydrographic Office at Taunton must be informed of the developments geographical position.

Inland Fisheries Ireland: No comments received.

An Taisce: No comments received.

Department of Housing, Planning and Local Government: The Department's Water Service Advisor is of the opinion that there is likely no impingement to the foreshore from a technical perspective however DAFM would need to be satisfied that the relevant applicants are operating within the terms of their existing Aquaculture licence in terms of species and site location. This is without prejudice to any views that the NPWS (within Dept of Culture Heritage and the Gaeltacht) may have from a nature conservation/ecological perspective.

Irish Water: No comments received.

Loughs Agency: No comments received.

Public Consultation

The application was publicly advertised using a composite public notice covering both aquaculture and foreshore elements, in the "Dundalk Democrat" on the 11th of June 2019. The application and supporting documentation were available for inspection at Carlingford Garda Station (restricted hours) and Dundalk Garda Station (24 hours) for a period of 4 weeks from the date of publication of the notice in the newspaper.

There were no submissions or observations received on foot of public notice procedures.

A copy of all the observations/submissions received at the Public/Statutory consultation stage was forwarded to the applicant.

Emerald Mussels Ltd did not submit a response to the comments.

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 must 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

Scientific and technical advice is to the effect that the waters are not suitable for the cultivation of mussels;

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 not located within a Natura 2000 site but is located adjacent to the Carlingford Shore SAC (Site Code: 002306) and Carlingford Lough SPA (Site Code: 004078). An Article 6 Appropriate Assessment has been carried out in relation to aquaculture activities in this SAC and/or SPA. This Assessment and its findings were examined by the Department and its scientific/technical advisors. This led to the Licensing Authority (i.e. the Minister) producing a Conclusion Statement (**TAB D**) outlining how it is proposed to licence and manage aquaculture activities in the above Natura sites in compliance with the EU Habitats and Birds Directives.*

(ii) Shellfish Waters

The site is partly located within Carlingford Lough Shellfish Designated Waters.

d) the likely effects on the economy of the area

Aquaculture has the potential to provide a range of benefits to the local community, such as attraction of investment capital, development of support services, etc.

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 in the Article 6 Appropriate Assessment for Carlingford Shore SAC and Carlingford Lough SPA and in the Licensing Authority's Conclusion Statement.

The Department of Department of Culture, Heritage and the Gaeltacht had no objection on nature conservation grounds.

f) the effect on the environment generally

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

g) the effect or likely effect on the man-made environment of heritage value in the vicinity of the place or waters

No comments were received from the Department of Culture Heritage and the Gaeltacht regarding the development from an underwater archaeological perspective.

RECOMMENDATION

It is recommended that the Minister:

refuses the granting of an Aquaculture Licence Emerald Mussels Limited, Greencastle Road, Moville, Co. Donegal for a site in Carlingford Lough, Co. Louth having regard to the decision in relation to the Aquaculture Licence application. The reasons for the decision are:

It is recommended that this licence application be refused due to the proximity to the Omeath outfall pipe and navigation channel.

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 –T01/082A

Emerald Mussels Limited has applied for authorisation to cultivate mussels using bottom culture on the sub-tidal foreshore on a 33.2443 hectare site (T01/082A) in Carlingford Lough, Co. Louth.

The Minister for Agriculture, Food and the Marine has determined that it is not in the public interest to grant the licences sought. 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. In particular, the Minister had regard to the Marine Engineering Report regarding the unsuitability of the site for the cultivation of mussels using bottom culture. The following are the reasons and considerations for the Minister's determination to refuse the licences sought:

Proximity of the proposed site to -

- 1. The Omeath Sewage Outfall*
- 2. The Navigation Channel"*

Recommendation to refuse a Foreshore Licence application (T01/082A)

DECISION SOUGHT

The Minister's determination is requested please in relation to the application for a Foreshore Licence from Emerald Mussels Limited, Greencastle Road, Moville, Co. Donegal for a site in Carlingford Lough, Co. Louth, in which it is proposed to conduct aquaculture.

BACKGROUND

Marine aquaculture operations require separate Aquaculture and Foreshore Licences and Ministerial approval is requested in respect of this submission (Foreshore Submission) and the 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 (**TAB A**) for a Foreshore Licence has been received from the applicant referred to above (in conjunction with an Aquaculture Licence application), relating to the occupation of the foreshore associated with the Aquaculture Licence application which covers a 33.2443 hectare site (numbered **T01/082A**).

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: These were the comments received from a water quality or foreshore perspective. The Department's Water Service Advisor is of the opinion that there is likely no impingement to the foreshore from a technical perspective however DAFM would need to be satisfied that the relevant applicants are operating within the terms of their existing Aquaculture licence in terms of species and site location. This is without prejudice to any views that the NPWS (within Dept of Culture Heritage and the Gaeltacht) may have from a nature conservation/ecological perspective.

Technical Consultation (TAB B)

Marine Engineering Division: This is a new application for a site initially 48.35 hectares but later amended to 33.244 hectares. The site

is close to the navigation channel on its north side and close to the sewage outfall from Omeath village on the south side. It is important there should be a suitable separation distance allowed for between the mussel site and the dredged channel side slope in order to minimise impact of dredging and navigation usage on mussel culture activity and vice versa. A minimum distance of 100m is recommended which would result in the section of this site running in and close to the navigation channel should not be licensed for shellfish culture. In relation to proximity to the Omeath outfall pipe, in order to reduce risk of microbiological or viral contaminants of shellfish growing waters close to the outfall pipe a 400m separation distance is recommended as a precautionary measure. It allows for a zone of initial dilution and mixing of effluent within which the shellfish would not be grown; as it is relatively shallow a significant area would be required for the dilution. When recommended clear zones for navigation and wastewater assimilation are excluded from the application site, there is no area within site 82A that would be appropriate for licensing as a result. Should the licence be granted a condition of the licence **is recommended for furnishing specific records relating to site usage to the minister on an annual basis should the licence be granted. These records should include quantity and size and source of mussel seed imported to the site; quantity of mussels re-laid within the site; and quantity and size of mussels exported from the site. These records should be submitted for each calendar year by end of March of the following year.** However **it is recommended due to the proximity of the proposed site to the Omeath sewage outfall and navigation channel that this application be refused.**

Marine Survey Office: As this site is located within Warrenpoint Harbour Limits it may be advisable to contact Warrenpoint Harbour Authority regarding this application. MSO advice when the application was initially made was that this site uses the Southern boundary of the channel to Warrenpoint as its Northern limit. In previous applications the harbour master at Warrenpoint has requested that such applications be rejected as the use of a mussel dredge would collapse the bank of the channel at worst and cause more frequent dredging to be carried out at best. Insofar as the strip bordering the channel is so narrow **it would be the opinion of the MSO not to allow this development to proceed in its current layout for the above reason.** (Note: The portion of the strip bordering the channel has not changed since the initial application.)

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: In relation to application T01/082A **the SFPA is of the opinion that due to discharge of wastewater into the area there is a risk to human health.** Furthermore the intention to extend the existing outfall pipe as part of an upgrade to the WWTP by 50 metres will result in the placing of the diffuser head in the area of the site application number T01/082A. The planned upgrades to the wastewater treatment plant in Omeath may result in the plant having the ability to handle a greater capacity, potentially creating a greater risk to human health. The area is currently not a classified live bi-valve production. Upon completion of the upgrade to the WWTP a time series of sampling would be required to ascertain the associated risks to human health.

Public Consultation

The application was publicly advertised using a composite public notice covering both aquaculture and foreshore elements, in the "Dundalk Democrat" on the 11th of June 2019. The application and supporting documentation were available for inspection at Carlingford Garda Station (restricted hours) and Dundalk Garda Station (24 hours) for a period of 4 weeks from the date of publication of the notice in the newspaper.

There were no submissions or observations received on foot of public notice procedures.

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 on 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:

refuses the granting of a Foreshore Licence to Emerald Mussels Limited, Greencastle Road, Moville, Co. Donegal for a site in Carlingford Lough, Co. Louth having regard to the decision in relation to the Aquaculture Licence application. The reasons for the decision are:

It is recommended that this licence application be refused due to the proximity of the site to the Omeath outfall pipe and

the navigation channel.

Related submissions

There are no related submissions.

Comments

OShea, Nicole - 26/11/2019 10:05

It is recommended to refuse this new licence application.

OCallaghan, Grace - 26/11/2019 15:29

I have reviewed the detailed Information set out in this submission and agree with the recommendation made that the Minister refuses the granting of an Aquaculture Licence application (T01/082A) to Emerald Mussels for the reasons outlined in the submission below and in accordance with applicable legislation. GOC

Quinlan, John - 02/12/2019 10:20

Refusal is recommended in this case.

Beamish, Cecil - 05/12/2019 11:48

Recommended that the Minister determines that the Aquaculture and Foreshore Licences not be granted , for the reasons outlined in the submission.

Smith, Ann - 05/12/2019 11:50

Approved for submission to Minister. AS 05/12/2019

Lennox, Graham - 06/12/2019 17:27

Minister determines that the Aquaculture and Foreshore Licences not be granted for the reasons outlined.

User details

INVOLVED: Kelleher, Sheila

OShea, Nicole

OCallaghan, Grace

Quinlan, John

Beamish, Cecil

Sub Sec Gens Office

eSub Sec Gen

eSub Ministers Office

eSub Minister

READ RECEIPT: Kelleher, Sheila

OShea, Nicole

OCallaghan, Grace

Quinlan, John

Beamish, Cecil

Smith, Ann

Lennox, Graham

Action log

ACTION	USER	DATE	DESCRIPTION
Create	Kelleher, Sheila	18/11/2019 09:23	Submission AGR 00749-19 to Minister created.
Submit for review	Kelleher, Sheila	25/11/2019 10:27	Submission sent for review to OShea, Nicole.
Submit for review	OShea, Nicole	26/11/2019 10:05	Submission sent for review to OCallaghan, Grace.
Submit for review	OCallaghan, Grace	29/11/2019 12:19	Submission sent for review to Quinlan, John.
Submit for review	Quinlan, John	02/12/2019 10:21	Submission sent for review to Beamish, Cecil.
Submit for review	Beamish, Cecil	05/12/2019 11:48	Submission sent for review to Secretary General.
Submit for review	Smith, Ann	05/12/2019 11:50	Submission sent for review to Minister.

Complete

Lennox, Graham

06/12/2019 17:27

Submission completed by Lennox, Graham.

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

NB: The 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 Parts 3 and 4 and any other information supplied will not be released except as may be required by law, including the Freedom of Information Act 1997 as amended.

USE BLOCK CAPITALS IN BLACK INK PLEASE

For Office Use
Application Ref. No. <u>T01/82</u>
Date of Receipt (Dept. Stamp):



Type of Applicant (tick one)	
Sole Trader	<input type="checkbox"/>
Partnership	<input type="checkbox"/>
Company	<input checked="" type="checkbox"/>
Co-Operative	<input type="checkbox"/>
Other	Please specify- <input type="checkbox"/>

PART 1: PRELIMINARY DETAILS

<u>Applicant's Name(s)</u>	<u>Emerald Mussels Ltd.</u>
1.	
Address: Carrowholly, Westport, Co. Mayo.	
2.	
Address: Greencastle Road, Moville, Co. Donegal.	
3.	
Address:	
4.	
Address:	

Contact in case of enquiries (if different from above)	
Contact Name	
Organisation Name (if applicable)	
Address	

PART 1: PRELIMINARY DETAILS

TYPE OF APPLICATION – please indicate relevant type of application
This Application Form is valid for each type of application- *See Guidance Note 3.1*

(i) Aquaculture Licence	<input checked="" type="checkbox"/>
(ii) Trial Licence	<input type="checkbox"/>
(iii) Foreshore Licence, if Marine Based	<input checked="" type="checkbox"/>
(iv) Review of Aquaculture Licence	<input type="checkbox"/>
(v) Renewal of Aquaculture Licence	<input type="checkbox"/>

TYPE OF AQUACULTURE *See Guidance Note 3.2*

Indicate the relevant type of application with a tick.

(i) MARINE-BASED

- | | | |
|--|-------------------------------------|--------------------------|
| Finfish | <input type="checkbox"/> | Go to Parts 2.1 and 2.1A |
| Shellfish <i>Subtidal</i> | <input checked="" type="checkbox"/> | Go to Parts 2.2 and 2.2A |
| <i>Intertidal</i> | <input type="checkbox"/> | Go to Parts 2.2 and 2.2A |
| Seaweed/Aquatic Plants/Aquatic Fish Food | <input type="checkbox"/> | Go to Parts 2.3 and 2.3A |

(ii) LAND-BASED

- | | | | | |
|----------------|--------------------------|-------------------|--------------------------|--------------------------|
| Finfish | <input type="checkbox"/> | Shellfish | <input type="checkbox"/> | Go to Parts 2.4 and 2.4A |
| Aquatic Plants | <input type="checkbox"/> | Aquatic Fish Food | <input type="checkbox"/> | Go to Parts 2.4 and 2.4A |

- (iii) TRIAL LICENCE** Go to appropriate Parts as above and to Part 2.5.

2.2 MARINE-BASED SHELLFISH AQUACULTURE

When filling out this section refer also to 2.2A and Guidance Note 3.3 for information on Conditions and Documents required with this application type

Proposed Site Location

- (i) Bay: Carlingford Lough.
- (ii) County: Louth.
- (iii) OS Map No: See attached map.
- (iv) Co-ordinates of Site: (please specify coordinate reference system used e.g. Irish Grid (IG) or Irish Transverse Mercator (ITM) or Latitude/Longitude [in which case specify whether ETRS89 or WG84 etc.]

Irish Grid:					
0	313998	317801	4	314756	316474
1	314049	317859	5	314630	316629
2	315100	316944	6	314734	316735
3	315100	316806	7	314527	316964
			8	314699	317100
- (v) Size of Site (hectares): 33.22

(vi) Species (common and scientific name) and whether native or non-native species: (see Guidance Notes 3.3.1)

Organic Blue Mussels. *Mytilus Edulis*.

(vii) Whether production will be sub-tidal or inter-tidal?
 Sub-tidal

(viii) Please supply details of (a) source of seed e.g. wild hatchery and location and (b) means of collection and introduction to culture.

We will not need any extra seed for this site. This site will be used solely for the last phase of our mussel production. This is where the mussel seed becomes beautiful top quality organic food. The half grown mussels will be relayed from our existing adjacent sites T01/074 and T01/066.

NB Importation of seed into the State or movement of seed within the State requires notification to the Marine Institute as per the Fish Health Authorisation Regulations – See Guidance Notes Section 6

(ix) Method of culture (rope, trestles – intensive; bottom – extensive; other)
 bottom culture – extensive

(x) Proposed number of lines/ropes/trestles as per site layout drawing
 N/A

(xi) Proposed Production Tonnage:

Year 1	200	Year 2	300	Year 3	400	Year 4	500	Year 5	600
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(xii) (a) Please outline the reasons for site selection:

From our experience in growing quality organic food in Carlingford Lough we feel that the site offers us a great opportunity to expand the size of our production area. We feel that the site offers us a great chance to further increase the quality of our already super organic food product. The site is perfectly positioned alongside our existing farm and is a perfect fit for our needs. The sites close proximity to a transportation hub also offers us a chance to cut our fuel costs thus further reducing our carbon footprint.

(b) If using trestles please outline the physical characteristics of the site which make it suitable for using trestles

N/A

(xiii) Is it intended that the product is for direct human consumption or half grown? Please specify

After depuration the Organic food we will produce will be sold live for direct human consumption.

(xiv) How will the visual impact issues of the floatation devices for the proposed application be addressed?

N/A We have no floatation devices as we cultivate bottom culture organic mussels.

(xv) Is the site located in Designated Shellfish Waters Area? (Refer to Guidance Note 3.3.2)

Yes No

If yes give details.

The site is with the Carlingford Lough Designated Shellfish Waters Area

If no outline the reasons why you believe the site suitable for the proposed aquaculture, notwithstanding its location outside Designated Shellfish Waters Area?

(xvi) Has the area been classified under Food Safety Legislation?(For Bivalve Molluscs) What is the current classification of the area for the proposed species applied for?

Yes the classification is a B area.

(xvii) Is the site located in/adjacent to a sensitive area e.g. SPA (Special Protection Area) or SAC (Special Area of Conservation) i.e. a Natura 2000 site? (Refer to Guidance Note 3.3.1- Natura 2000 sites)

Yes the site partially overlaps the Carlingford Shore SAC, Site Code 002306

(xviii) Are there known sources of pollution in the vicinity e.g. sewage outfall? Yes / No
If yes please give full details.

Yes. The Omeath Outfall. The Omeath treatment scheme is in the development phase so this risk will be addressed in the short term.

(xix) Methods used to harvest the shellfish and details of any subsequent processing of shellfish:
We will use our own Mussel boats (emerald Gratia WT23 1A and Rona SO977A). There is no processing, we wash the Organic Food and its then depurated before going into the market.

(xx) Describe any proposed purification facilities to be used:
We sell our Organic food product to companies that depurate the product before its packed for human consumption.

(xxi) What are the main predators of the species to be cultivated?

Green Crab and Starfish.

(xxii) Describe the method(s) which will be used to control them

Because of the shape of Carlingford Lough starfish predation isn't an issue for us although if it became an issue we would mop the stars like we do on our other farms.

There are Green Crab farmers already working the Lough keeping the predation to a minimum.

See Part 2.2A for details of documentation to be included with this application type

2.2 DOCUMENTATION REQUIRED FOR MARINE-BASED SHELLFISH AQUACULTURE

**(to be included separately with a Licence Application for a new site or for a
renewal or review of an existing Licence)**

1. **An appropriate Ordnance Survey Map (recommendation is a map to the Scale of 1:10,000/1:10,560, i.e. equivalent to a six inch map).** Note: The proposed access route to the site from the public road across tidal foreshore must also be shown on the map.
2. **Scale drawing of the structures to be used and the layout of the farm.**
The proposed site drawings must illustrate all site structures above and below the water including mooring blocks. (recommended scales normally 1:100 for structures and 1:200 for layout) (See Guidance Note 3.3.2)
3. **The prescribed application fee (See Guidance Note Section 4)**
4. **If the applicant is a limited Company within the meaning of the Companies Act 1963, as amended, the Certificate of Incorporation and Memorandum and Articles of Association**
5. **If the applicant is a Co-operative, the Certificate of Incorporation and Rules of the Co-operative Society**
6. **Environmental Impact Statement (if required) in certain cases- See Guidance Notes Section 3.3.1**
7. **Alien Species dossier (where required) – See Guidance Notes Section 3.3.1**

NOW COMPLETE PARTS 2.6, 3, 4 AND 5 PLEASE

**2.6 Employment, Qualifications, Experience, etc
TO BE FILLED IN BY ALL AQUACULTURE APPLICANTS**

(i) Please provide details of experience/qualifications of the applicant and any key personnel which are relevant to the aquaculture now proposed:

Emerald Mussels Ltd has been operating successfully since 2001. We have a proven track record of producing a top quality food, fresh from the sea. In 2006 we launched our flagship vessel the Emerald Gratia and became part of the IQM (Irish mussels Quality Standard). Since then I have developed the standard and in April 2012 we became the only bottom mussel company to achieve the organic standard. Since then we have developed this standard to cover a wide variety of areas including safety, hygiene, recycling and something that is very close to our ideals is trying to become as carbon efficient as is possible. We also purchased the Rona in June 2012 and have continued to expand our operation. In Carlingford we are proud to say that we compete with the best quality mussels in the world and by granting us this new licence I feel we could go on to surpass this and actually be producing the best Blue Mussels in the world. Our product is highly sought after and to be part of a company that produces such a quality Organic sea fresh food is a beautiful thing.

- (ii) If a new application please provide details of projected employment creation during first four years of the proposed aquaculture project:
- (iii) In the case of a renewal please provide current and future details:

At present we run our vessels with one crew on each. I'm hoping by the extra expansion that we could actually manage to bring about a situation that we can run each vessel with a double crew. This would be great for the current staff because they would get more paid time off and it would create an extra seven fulltime jobs. That would then give us a total workforce of sixteen.

FULLTIME JOBS

Year 1:	9	Year 2:	12	Year 3:	16	Year 4:	16
---------	---	---------	----	---------	----	---------	----

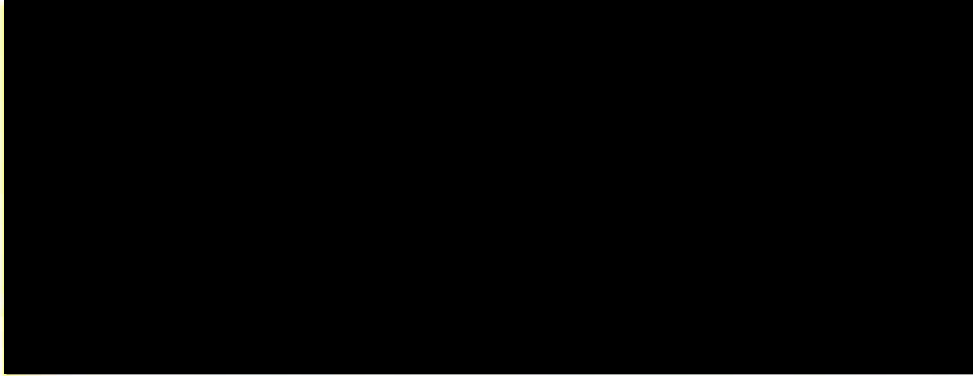
PART TIME JOBS

Year 1:	3	Year 2:	4	Year 3:	0	Year 4:	0
---------	---	---------	---	---------	---	---------	---

PART 3 D. LIMITED COMPANY

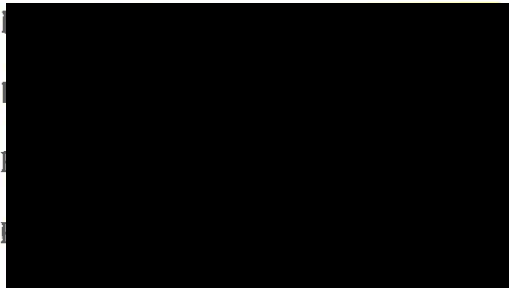
Company Name: Emerald Mussels Ltd

Address: Greencastle Road, Moville, Co. Donegal.
Carrowholly, Westport, Co. Mayo.



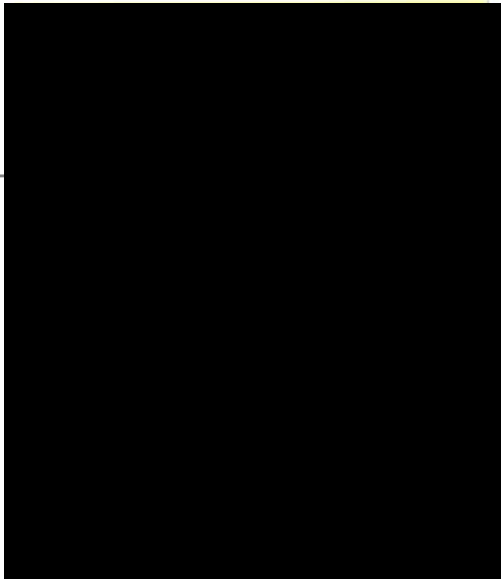
Please list below the names and Personal Public Service No's of the Directors of the Company

Name: [Redacted]
Name: [Redacted]
Name: [Redacted]
Name: [Redacted]



Please list below the names and Personal Public Service No.'s of the Shareholders in the Company and the percentage shareholding held in each case

Name: [Redacted]
% Sha [Redacted]



Name: [Redacted]
% S [Redacted]

Name: [Redacted]
% Shar [Redacted]

Name: [Redacted]
% Sha [Redacted]

PART 5: APPLICATION DOCUMENTATION

The following documents are enclosed with this application:

NB: Refer to Guidance Note Section 3.3 – Guidance on Application Documentation

No.	DOCUMENTATION	YES	NO	N/A
1a	An appropriate Ordnance Survey Map (recommendation is a map to the scale of 1:10,000/10:10,560, i.e., equivalent to a six inch map)	✓		
1b	The proposed access route to the site from the public road across tidal foreshore must also be shown			
2a	Scale drawing of the structures to be used (recommended scale normally 1:100 for structures).	✓		
2b	Scale drawing of farm layout (recommended scale normally 1:200 for layout)			
3	The prescribed application fee			✓
4	Environmental Impact Statement (EIS), if required			✓
4a	Natura Impact Statement (NIS), if required			✓
5	Water Quality Analysis Report, if appropriate			✓
6	Decision of Planning Authority under the Planning Acts, if required			✓
7	Copy of Licence under Section 4 of the Local Government (Water Pollution) Act, 1977 – Effluent Discharge, if required			✓
8	If the applicant is a limited Company within the meaning of the Companies Act 1963, as amended, a copy of the Certificate of Incorporation and Memorandum and Articles of Association.			
9	If the applicant is a Co-operative, a copy of the Certificate of Incorporation and Rules of the Co-operative Society			✓
10	Integrated Pest Management Plan, if required			✓
11	Alien Species documentation, if required.			✓


PART 5: DECLARATION AND SIGNING

NB: Refer to Guidance Note Section 3.5 and Section 4 - Guidance on Declaration and Signing and Annual Aquaculture and Foreshore Licence Fees

If this is a renewal/review have you met all licence conditions of the existing aquaculture licence? If applicable, explain why you have not complied with all conditions:

I/We hereby declare the information provided in Parts 1, 2, 3 and 4 above to be true to the best of my/our knowledge and that I am over 18 years of age. I/We enclose an application fee* of € _____ with this application.

Signature(s) of Applicant(s):
(Please state capacity of persons signing on behalf of a Company/Co-op)



COMPANY MANAGER

Date: 12-3-19

NB All persons named on this licence application must sign and date this application form. Only the existing licence holder(s) can apply for the renewal/review of an Aquaculture Licence.

*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.

Refer to Guidance Note Section 4 - Guidance on Aquaculture and Foreshore Licence Fees

The application 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
P85 TX47**

1 NO. SITE AT CARLINGFORD LOUGH CO.LOUTH

Co-ordinates & Area

Site T01/082A (33.2443 Ha)

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

313998, 317801 to Irish National Grid Reference point
314049, 317859 to Irish National Grid Reference point
315100, 316944 to Irish National Grid Reference point
315100, 316806 to Irish National Grid Reference point
314756, 316474 to Irish National Grid Reference point
314630, 316629 to Irish National Grid Reference point
314734, 316735 to Irish National Grid Reference point
314527, 316964 to Irish National Grid Reference point
314699, 317100 to the first mentioned point.

314000

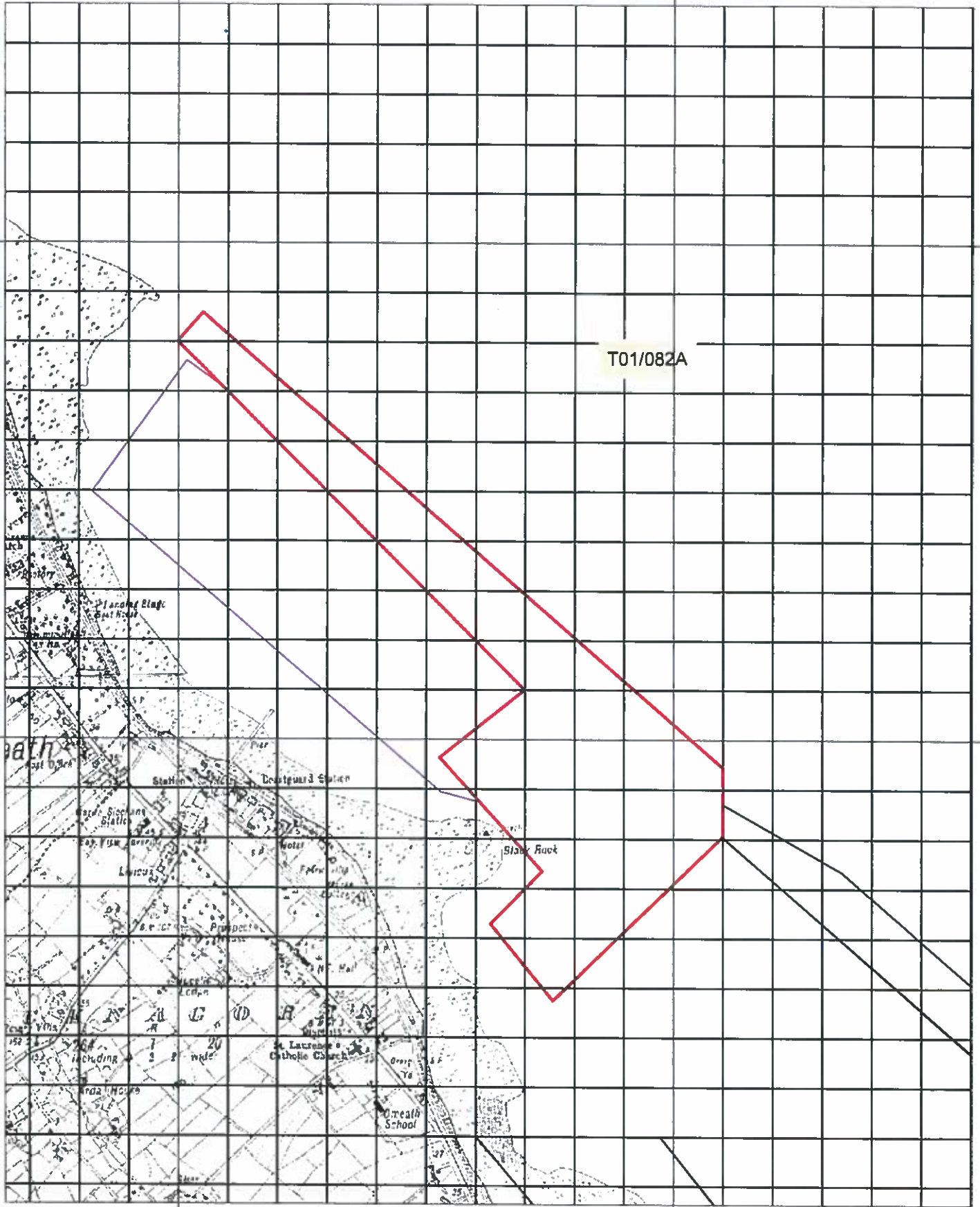
315000

318000

318000

317000

317000












314000

315000

Aqua Culture Sites
<all other values>

Site_Status

-  Under Appeal
-  Application
-  Lapsed
-  Licensed
-  Refused
-  Revoked
-  Surrendered
-  Withdrawn
-  100 Meter Reference Grid

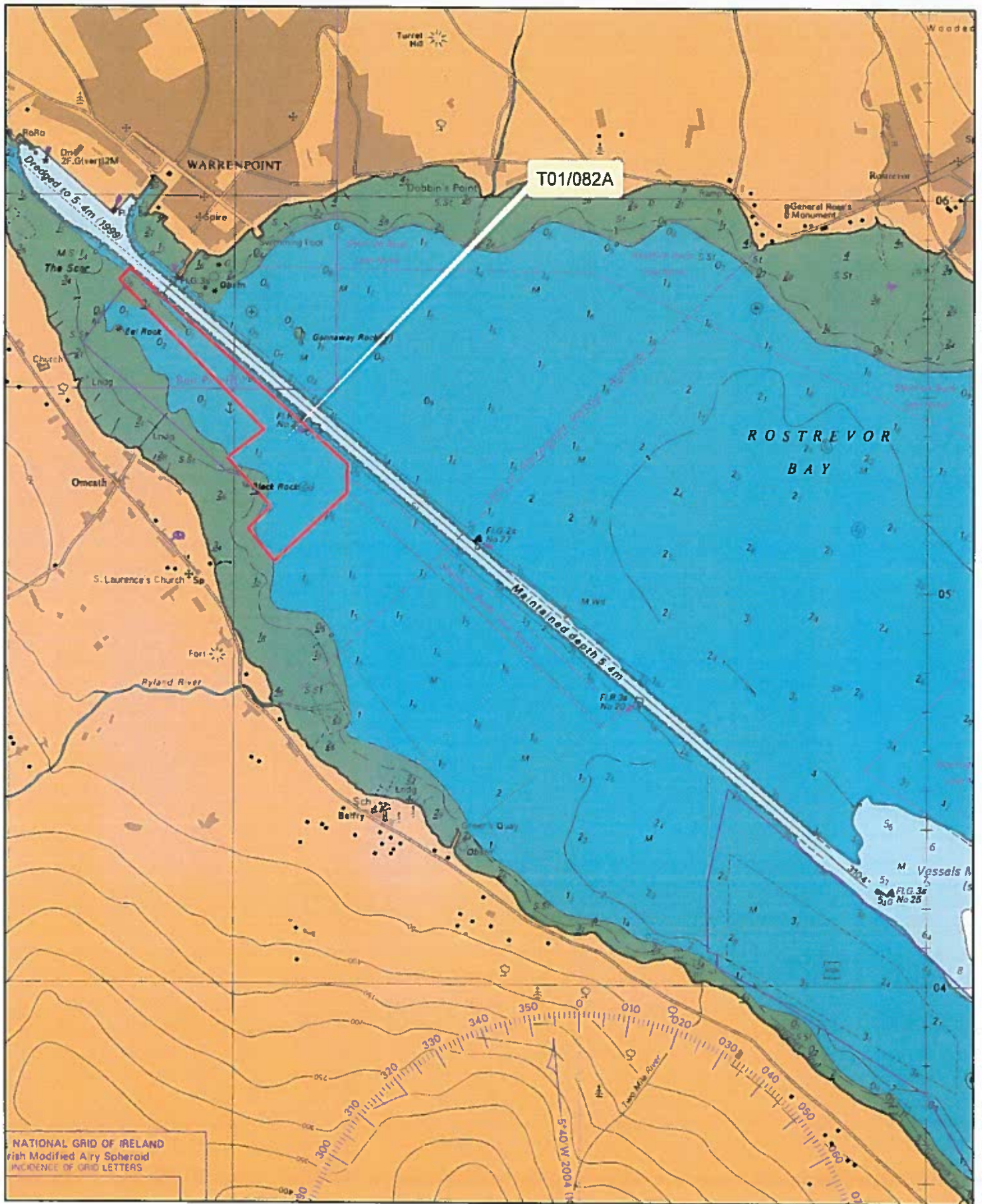
1:10,560

Sites highlighted in red denotes Application

Ordnance Survey Ireland Licence No. EN 0076419
© Ordnance Survey Ireland/Government of Ireland



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



Aqua Culture Sites
 <all other values>

Site_Status

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

1:24,000

Sites highlighted in red denotes Application

Part of Admiralty Chart No =2800-0
 Not to be used for Navigation



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



Mr John Campbell, Divisional Engineer

bjc 19/3/19



Ms. Sheila Kelleher, AFMD

Application for an Aquaculture licence for bottom mussel culture on a site at Carlingford Lough by Emerald Mussels Ltd.

File ref: T01/082

Site ref: T01/082A

I initially comment on the 48.35 ha site 82A as mapped on GIS and as outlined by broken red line (highlighted) on map overleaf.

Site 82A on its north side is close to/in the navigation channel to Warrenpoint Port and on its south side is close to the sewage outfall from Omeath village.

Further to Mr P.J. Shaw's report of 16/6/04 on this application T01/82 and my report of 4/12/18 on application T01/90 (nearby site) which refer to these issues of water quality and navigation channel proximity I wish to offer the following additional recommendations regarding the licensable portion of site 82A.

Dredged channel proximity

There should be a suitable separation distance allowed for between the mussel site and the dredged channel side slope edge in order to minimise impact of dredging and navigation usage on mussel culture activity and vice versa. I suggest a minimum distance of 100m be kept clear. The result of applying such a keep clear margin of 100m to the edge of the dredge navigation channel is that the section of site 82A running in and close to the navigation channel should not be licensed for shellfish culture.

Omeath sewage outfall proximity

The position of the Omeath sewage outfall (as proposed following lengthening by 50m) is shown on map overleaf. The outfall point is positioned on the boundary of site 82A.

To reduce risk of microbiological or viral contamination of shellfish growing waters in close proximity to the outfall (unless the treated effluent were also to be UV treated(which is not proposed)) I suggest that a separation distance of 400m minimum between the outfall and any licensed shellfish culture might be appropriate as a precautionary measure. It allows for a zone of initial dilution and mixing of effluent within which shellfish would not be grown

Note that the waters are relatively shallow here and significant mixing zone area required for dilution. The 400m radius would be consistent with the similar separation distance recommended for site 90A nearby (refer to my report dated 4/12/19 on that application).

Sch
An Pointe



AQUACULTURE
OMEATH AREA

0 200 m

EQUIDISTANT LINE
(from HW marks)

Possible residual
site for application
T01/082A
shown hatched in red

74A

70A

61A

DREDGE
CHANNEL
MARGIN

90A

Black
Rock

OUTFALL
ZONE

82A

Graveyard

Pier



Omeath
O'Meith

agoran

50

Burford Dis...

The implications of a 400m radius exclusion zone are shown on the map overleaf. Much of the central part of site 82A would not be licensable on water quality grounds.

The views of SFPA in regard to what a safe distance (if any) might be appropriate in this case would be important.

Residual site area for consideration

Allowing for the proximity to dredged navigation channel and to Omeath sewage scheme outfall most of site 82A would not be suitable for licensing for shellfish aquaculture.

After removing these exclusion zones for navigation and wastewater assimilation from the application site the remainder or residual area that I suggest could be considered further for licensing is the small area at the extreme south end of the site shown hatched in red on the previous page map. It is 7.28 hectares in area and defined by the following corner coordinates:

314558	316373
315000	316373
315000	316200
314600	316200

Some of this site area is intertidal and the subtidal portion is shallow. It would be sub optimal for bottom mussel culture. If offered the applicant may consider this reduced site not that suited to mussel culture due to high elevation or that site size is not economic.

Preliminary recommendation re: 48.3 ha site area (as per GIS map)

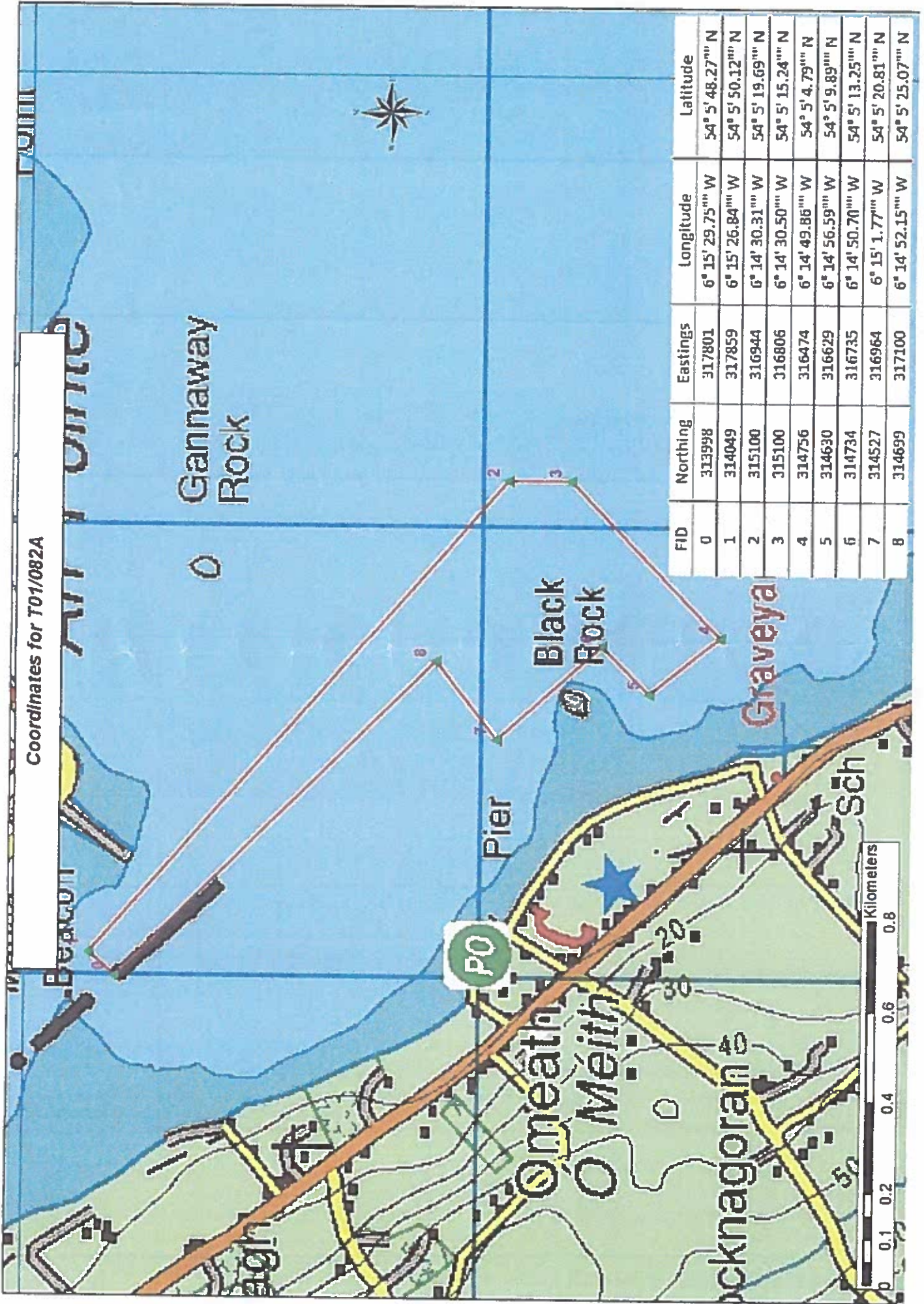
Subject to outcome of appropriate assessment and consultation stage feedback I suggest that consideration might be given by AFMD to licensing only a 7.82 hectare section of the 48.3 hectare application site area.

Updated application

In the recently received updated application for T01 /082 dated 12/3/19, the application site is a smaller 33.244 hectare site (see map extract overleaf) which is identical on north side to the version discussed earlier in this report - but does not extend as close inshore on south side.

The site applied for in this updated application seems to be the same as that originally applied for in 2004 and DAFM may need to review the file history to understand why the site area was expanded later. It could be a mapping issue due to overlapping sites. It may be appropriate to revise the GIS mapped version to this 33.2 hectare version on the basis of the updated March 2019 application.

Area 33.24425



The same considerations of proximity to the Omeath wastewater outfall near Black Rock and navigation channel on its northern boundary apply to the updated version of the application site. As before an exclusions zones of 100m from edge of navigation channel side slope and 400m from outfall point should apply in my opinion.

When such recommended clear zones for navigation and wastewater assimilation are excluded from the application site (as updated) it can be seen from the aquaculture map overleaf "Aquaculture Omeath Area" that the entire site falls either north of the dredge channel margin or within the outfall exclusion zone . There is no area within site 82A that would be appropriate for licensing as a result.

Further recommendation re: 33.2 ha site area (as per updated application March 2019)

The site area would require appropriate assessment and there may be other issues that would arise at consultation stages. Should any part of site be licensed I recommend that the aquaculture licence include a requirement for furnishing specific records relating to site usage to the minister on an annual basis. The records to include quantity and size and source of mussel seed imported to the site, quantity of mussel re-laid within site, quantity and size of mussel exported from the site. These records should be submitted for each calendar year by end March of following year.

Notwithstanding the above considerations I recommend that application to culture mussels on site 82A (version as updated by application dated 12/3/19) be refused in full because of proximity of proposed site to Omeath sewage outfall and navigation channel.

Paul O'Sullivan

Paul O'Sullivan

15/3/19

Sch
An Pointe
P

AQUACULTURE
OMEATH AREA

0 200 m

EQUIDISTANT LINE
(from HW marks)

82A
(update)

74A

70A

61A

DREDGE
CHANNEL
MARGIN

90A

Black
Rock

OUTFALL
ZONE

Graveyard

Pier

PO

Omeath
O'Meith
agoran

Dund
Dir

50

Kelleher, Sheila

From: OSullivan, Paul
Sent: 22 March 2019 10:01
To: Kelleher, Sheila
Subject: RE: Access route maps

Sheila
Access map with legend Ok as you say
Regards
Paul O'Sullivan

From: Kelleher, Sheila
Sent: 21 March 2019 13:17
To: OSullivan, Paul
Subject: RE: Access route maps

Hi Paul

I checked them and there is a legend indicating that information on the left side of the map. Will this suffice?

Have been in touch with both [REDACTED]

Will revert when they forward the applications in.

Many thanks
Sheila

From: OSullivan, Paul
Sent: 21 March 2019 11:00
To: Kelleher, Sheila
Subject: RE: Access route maps

Hi Sheila

[REDACTED] on the map for ease of understanding – either on the line itself or in map key.

I made this comment yesterday on the access maps of 66A and 74A that we received earlier from Emerald Mussels . Note regarding [REDACTED] there is a query about which dividing line to use on the former site [REDACTED] so that access map (site boundary) may yet need adjusting in that case

Regards
Paul O'Sullivan

From: Kelleher, Sheila
Sent: 21 March 2019 10:23
To: OSullivan, Paul
Subject: FW: Access route maps

Hi Paul

Joanne Gaffney forwarded maps for various sites in Carlingford Lough

For your comments

kind regards
Sheila

From: Gaffney, Joanne [mailto:Joanne.Gaffney@bim.ie]

Sent: 21 March 2019 10:21

To: Kelleher, Sheila

Cc: Bryan Hyland; 'cloughmoreshellfishltd@gmail.com'; [REDACTED]

Subject: FW: Access route maps

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Sheila

Please find attached amended maps as requested

Regards

Joanne

From: Chopin, Nicolas

Sent: Wednesday 20 March 2019 17:39

To: Gaffney, Joanne <Joanne.Gaffney@bim.ie>

Subject: Access route maps

Joanne,

See amended access route maps for the following licences : [REDACTED] T01/066A,
T01/074A, T01/082A and [REDACTED]

All the best

Nicolas Chopin

Inshore Survey Officer

BIM

T +353 91 539 362

M +353 87 61 27 641

E: nicolas.chopin@bim.ie

Bord Iascaigh Mhara,
Crofton Road, Dún Laoghaire,
Co. Dublin, A96 E5A0

Ireland's Seafood Development Agency
bim.ie

Access Route to Licence T01/082A

Warrenpoint
An Pointe

Marina
Beacon

Gannaway
Rock

Drummullagh

PO

Pier

T01/082A

Black
Rock

Omeath
O Méith

Legend

— Access_route

1:10,000

0 0.125 0.25 0.5 0.75 1 Kilometers



Graveyard



Kelleher, Sheila

From: KILBANE Lawrence [LawrenceKILBANE@dtas.gov.ie]
Sent: 15 October 2019 14:43
To: OCallaghan, Grace; OShea, Nicole; Kelleher, Sheila
Cc: O'CALLAGHAN Tom; Gaffney, Joanne
Subject: Aquaculture License Applications
Attachments: Application T01 082A.docx

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Ref: Aquaculture License Applications **T01/082A**

Good afternoon all,

As this site is located within Warrenpoint Harbour Limits it may be advisable to contact Warrenpoint Harbour Authority regarding this application.
See attached for details.

Rgds

Capt. Lawrence Kilbane
Nautical Surveyor

An Roinn Iompair, Turasóireachta agus Spóirt
Department of Transport, Tourism and Sport

Lána Liosain, Baile Átha Cliath, D02 TR60
Leeson Lane, Dublin, D02 TR60

T + (0) 1 604 1563 M +(0) 85 870 9456
Lawrencekilbane@dtas.gov.ie www.dttas.gov.ie

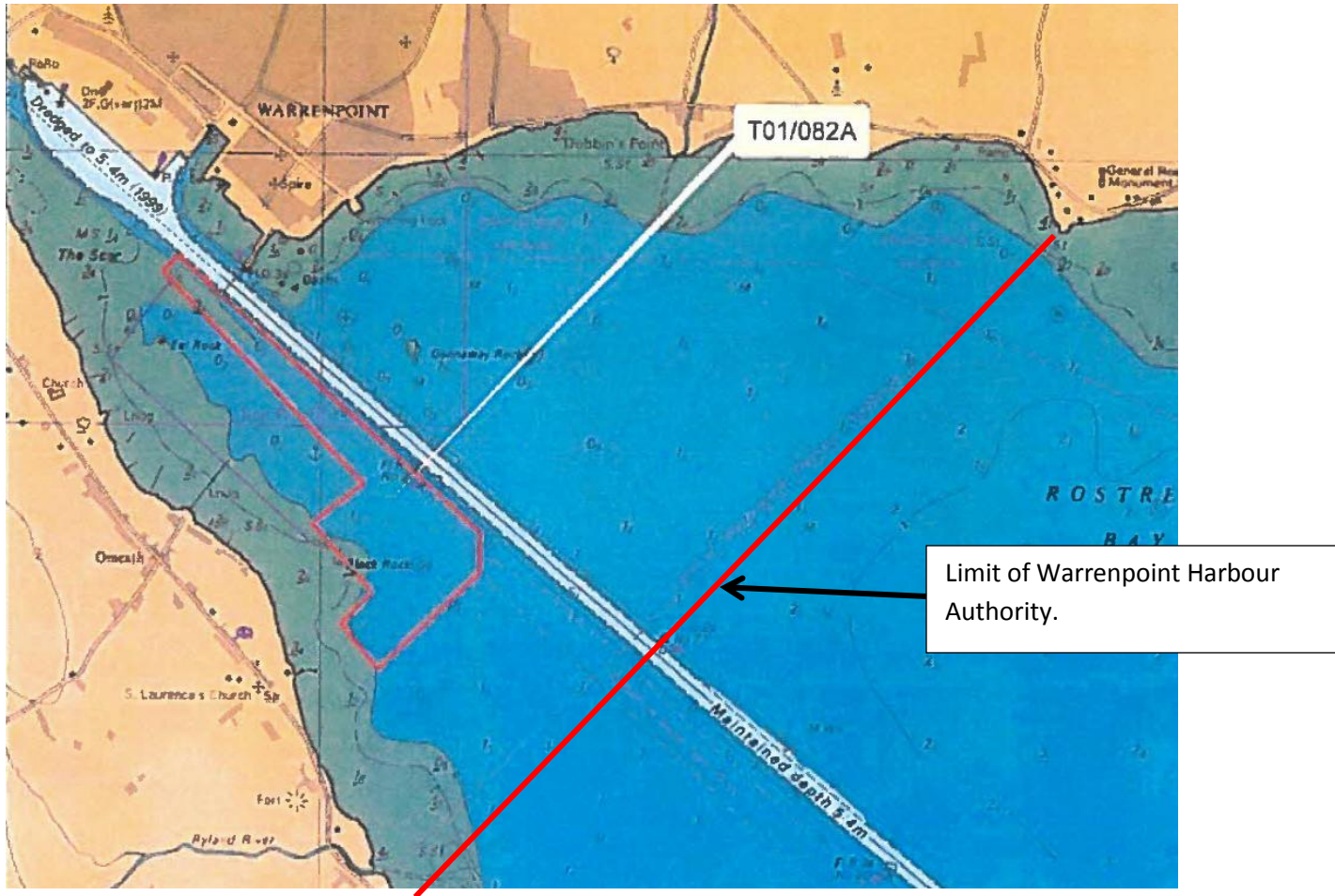


Tá eolas sa teachtaireacht leictreonach seo a d'fhéadfadh bheith príobháideach nó faoi rún agus b'fhéidir go mbeadh ábhar rúnda nó pribhléideach ann. Is le h-aghaidh an duine/na ndaoine nó le h-aghaidh an aonáin atá ainmnithe thuas agus le haghaidh an duine/na ndaoine sin amháin atá an t-eolas. Tá cosc ar rochtain don teachtaireacht leictreonach seo do aon duine eile. Murab ionann tusa agus an té a bhfuil an teachtaireacht ceaptha dó bíodh a fhios agat nach gceadaítear nochtadh, cóipeáil, scaipeadh nó úsáid an eolais agus/nó an chomhaid seo agus b'fhéidir d'fhéadfadh bheith mídhleathach.

Tá ár Ráiteas Príobháideachta le fáil ar www.dttas.gov.ie

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Application T01/082A.

As this site is located within the Warrenpoint Harbour Limits it may be advisable to contact Warrenpoint Harbour Authority regarding this application.

Denise Hyland

From: Neil Forde
Sent: 18 July 2005 15:57
To: Denise Hyland
Subject: T1 82A carlingford .doc

Denise Hyland
CZMD
Monday, 18 July 2005

Ref: T1/82A Carlingford

This site uses the Southern boundary of the channel to Warrenpoint as its Northern limit.

In previous applications the harbour master at Warrenpoint has requested that such applications be rejected as the use of a mussel dredge would collapse the bank of the channel at worst and cause more frequent dredging to be carried out at best.

Insofar as the strip bordering the channel is so narrow it would be the opinion of this office not to allow this development to proceed in its current layout for the above reason.

Capt.Neil Forde
Nautical Surveyor

Kelleher, Sheila

From: Foley, Tina
Sent: 28 August 2019 10:17
To: Kelleher, Sheila
Cc: DAFM Queries
Subject: Aquaculture Applications: T1 082A Emerald Mussels and [REDACTED]

Hi Sheila,

Please see below response received from Howth Port in respect of the above applications as requested.

Kind regards
Tina

Tina Foley
Clerical Officer
Food & Fisheries Support Unit

T +353 238859313
E tina.foley@sfpa.ie



AN t-ÚDARÁS UM
CHOSAINT
IASCAIGH MHARA

SEA-FISHERIES
PROTECTION
AUTHORITY

An t-Údarás um Chosaint Iascaigh Mhara, Clogheen, Cloich na Coillte, Co. Chorcaí
Head Office, National Seafood Centre, Park Road, Clogheen, Clonakilty, Co. Cork
Eircode: P85TX47
www.sfpa.ie

From: McGabhann, Declan
Sent: 27 August 2019 12:39
To: Foley, Tina
Subject: Emerald Mussels and [REDACTED] application

Hello Tina,

In relation to applications T1 082A & [REDACTED] the SFPA is of the opinion that due to discharge of wastewater into the area there is a risk to human health. Furthermore the intention to extend the existing outfall pipe as part of an upgrade to the WWTP by 50 metres will result in the placing of the diffuser head in the area of the site application number T01/082A. The planned upgrades to the wastewater treatment plant in Omeath may result in the plant having the ability to handle a greater capacity, potentially creating a greater risk to human health. The area is currently not a classified live bi-valve production.

Upon completion of the upgrade to the WWTP a time series of sampling would be required to ascertain the associated risks to human health.

Kind regards

Declan McGabhann
Sea Fisheries Protection Officer
SFPA Howth



Commissioners of
IRISH LIGHTS | Navigation
and Maritime
Services

Commissioners of Irish Lights
Harbour Road, Dun Laoghaire
Co. Dublin, Ireland

T +353.1.271.5400

F +353.1.271.5566

E info@irishlights.ie

W www.irishlights.ie

Ms. Sheila Kelleher
Aquaculture and Foreshore Management Division
Dept. of Agriculture Food & the Marine
National Seafood Centre
Clonakilty
Co. Cork

Your Reference: T01/082A

Our Reference: LA0165.0262

Date: 30/05/2019

LL: LA0165.0262

Applicant: Emerald Mussels Ltd

Site: Carlingford Lough, Co. Louth

Dear Ms. Kelleher

Thank you for your letter advising us of this application. Based on the information supplied, there appears to be no objection to the development. The nature of bottom cultivation would generally indicate that there is no navigational hazard, it is important to ensure that no navigable inter-tidal channels or the nearby slip/pier are impeded by the development.

If a licence is granted we would request that you include the following terms in the licence.

- That there are no obstructions of any kind above the seabed.
- That there are 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.

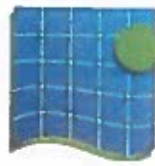
It is recommended that local fishing and leisure interests be consulted prior to a decision being made.

Furthermore, if a licence is granted the UK Hydrographic Office at Taunton: sdr@ukho.gov.uk must be informed of the development's geographical position in order to update nautical charts and other nautical publications.

Yours sincerely,

Neil Askew
for Director of eNavigation and Maritime Services

cc Capt. T. O'Callaghan, Dept. of Transport Tourism & Sport, Marine Survey Office



Marine Institute
Foras na Mara

Rinville,
Oranmore,
Co. Galway
Tel: 091 387200

Date: 01 July 2019

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

Advice on Aquaculture Licence Application

Applicant	Emerald Mussels Ltd
Application type	New
Site Reference No	T01/082A
Species	Mussels- bottom culture
Site Status	Not located within a Natura 2000 site Partly located within the Carlingford designated Shellfish Growing Waters Area.

Dear Sheila

This is an application for an aquaculture licence for the cultivation of mussels (*Mytilus edulis*) on the seabed at Site T01/082A on the foreshore at Carlingford Lough, Co. Louth. The area of foreshore at Site T01/082A is 33.24Ha

Site T01/082A is partly located within the Carlingford designated Shellfish Growing Waters Area.

Under Annex II of EU Regulation 854/2004 mussels in the "Carlingford Inner" area of Carlingford Lough currently have Seasonal "B" Classification.

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.

Site T01/082A is not located within a Natura 2000 site but is adjacent to the Carlingford Lough SPA (Site Code 004078) and the Carlingford Shore SAC (Site Code 002306). We note the findings of the Appropriate Assessment reports^{1,2} and the Department's draft Natura conclusion statement³ in regard to the impacts on the Conservation Objectives within the Carlingford Lough SPA and the Carlingford Shore SAC.

1

<https://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/appropriateassessments/louth/CarlingfordShoreSpecialAreaofConservationSAC21052019.pdf>

2

<https://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/appropriateassessments/louth/CarlingfordLoughSpecialProtectionAreaSPA21052019.pdf>

3

<https://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/appropriateassessmentconclusionstatement/DraftConclusionStatementCarlingfordLough210519.pdf>

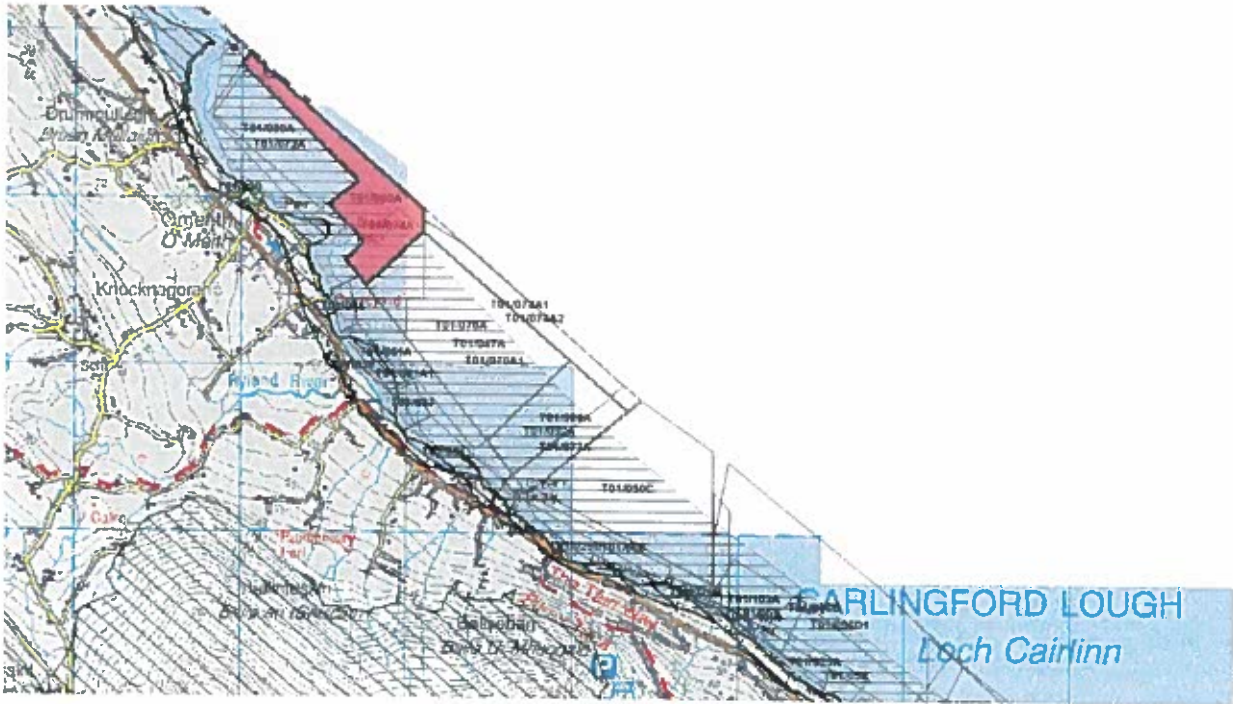
In making the final determination with respect to this application it is recommended that DAFM take full account of the conclusions and recommendations of the Appropriate Assessment report and the proposed mitigation measures set out in the Department's Draft Natura Conclusion Statement.

The site overlaps with / is adjacent to the outfall from the Omeath Waste Water Treatment Plant and is in the same location as Site T01/074A the licence application for which was previously refused. Considering the proximity of the proposed production site to the outfall the Marine Institute is of the view that a licence should not be granted.

Kind regards,

A handwritten signature in black ink, appearing to read 'Terry McMahon', written over a horizontal line.

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



Shellfish Waters Directive Area



Aquaculture Site



Special Area of Conservation



Special Protection Areas



Kelleher, Sheila

From: Terry McMahon [Terry.McMahon@Marine.ie]
Sent: 23 July 2019 11:02
To: Kelleher, Sheila
Subject: RE: Source of seed T01/066, T01/074 & T01/082

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Thanks Sheila

That's fine and I have no problems with the intended sources of seed

Terry

From: Kelleher, Sheila [mailto:Sheila.Kelleher@agriculture.gov.ie]
Sent: 22 July 2019 16:48
To: Terry McMahon
Subject: Source of seed T01/066, T01/074 & T01/082

Hi Terry

Just following up on confirming the source of seed from the various operators in Carlingford Lough which I will forward on to you on receipt.

With regard to T01/066, T01/074 & T01/082 (Emerald Mussels Ltd) the following was forwarded:

'We will source the seed from the normal seed fishing in the Irish Sea and from rope culture.'

Should you require anything further please let me know – if I don't receive a reply I will assume this is sufficient.

Kind regards
Sheila

Sheila Kelleher
Aquaculture and Foreshore Management Division
Department of Food Agriculture and the Marine
National Seafood Centre
Clonakilty
Co Cork

Tel: 023 8859427
Email: sheila.kelleher@agriculture.gov.ie

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Department of Agriculture, Food and the Marine

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Kelleher, Sheila

From: Liz M OBrien [LizM.OBrien@housing.gov.ie]
Sent: 18 June 2019 11:40
To: Kelleher, Sheila
Subject: Aquaculture licence applications and renewal in Carlingford Lough 25 Sites

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi Sheila,

Re

[REDACTED],082A,[REDACTED]

Aquaculture Licence and accompanying foreshore licence applications (renewal and new) for various sites within Carlingford Lough Co Louth.

-DAFM'S communications to Foreshore Section dated 28/5/2019 refers-

The Department's Water Service Adviser is of the opinion that there is likely to be no impingement to the foreshore from a technical perspective. He has no objection on technical grounds to the new Applications. In relation to the renewal applications DAFM would need to be satisfied that the relevant applicants are operating within the terms of their existing Aquaculture Licence in terms of species and site location.

This is however without prejudice to any views that the NPWS (within Dept. of Culture, Heritage & the Gaeltacht) may have from a nature conservation/ecological perspective.

Regards

Liz O'Brien,
Marine Environment and Foreshore

— —
An Roinn Tithíochta, Pleanála agus Rialtais Áitiúil
Department of Housing, Planning and Local Government

— —
Bóthair an Bhaile Nua, Loch Garman, Y35 AP90
Newtown Road, Wexford, Y35 AP90

— —
T +353 (0)53 911 7465
www.tithiocht.gov.ie
www.housing.gov.ie



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Is faoi rún agus chun úsáide an té nó an aonán atá luaite leis, a sheoltar an ríomhphost seo agus aon comhad atá nasctha leis. Má bhfuair tú an ríomhphost seo trí earráid, déan teagmháil le bhainisteoir an chórais.

From: Francis X O Beirn <Francis.XOBeirn@Marine.ie>
Sent: 21 October 2019 16:22
To: OShea, Nicole
Cc: Kelleher, Sheila; Terry McMahon
Subject: RE: Carlingford Lough
Attachments: Carlingford - MI Response to DCHG SC submissions Oct 2019.pdf

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Hi Nicole,

Please see the observations from the MI on the submissions received in relation to Carlingford Lough aquaculture licence submissions.

DCHG – see attached

SFPA – no observations

Louth Co. Co. – no observations

DHPLG - no observations

BIM – We note the BIM comments and accept the premise proposed as regards the area of some sites likely to be used when calculating carrying capacity. This constraint was noted in the modelling report cited.

An Taisce – We note the subject field in the An Taisce communications which appear to be a reference to Scoping under the EIA Directive (2011/92/EU) – we suggest this may be a typographical error.

The reference to Carrying capacity and how it is dealt with in terms of licencing is a matter for DAFM to consider. In this regard, the MI note the comments of BIM. The MI suggest that BIM might be consulted to determine if advice can be provided on estimating ecological carrying capacity in Carlingford Lough with greater resolution.

Mussel dredging – the impacts of mussel dredging are noted. It is the view of the MI that information from published literature should be presented completely and not selectively. In Dolmer and Frandsen (2002) the reference to epifauna changing in communities following dredging in the Limfjorden may have been also attributed to the fact the area is considered eutrophic and subject to annual oxygen depletion, i.e., stressed and not just mussel dredging. An Taisce did not appear to consider this alternative observation in the submission.

Please do not hesitate to contact me if you have any other queries.

All the best,
Francis

Francis O'Beirn PhD
Team Leader Benthos Ecology
Marine Institute
Rinville, Oranmore
Galway, Ireland

H91R673

Landline: + 353 91 387250

Mobile: +353 87 9683094

Please note, from Thursday 17th October, the Marine Institute & Irish Maritime Development Office's new Dublin location is Three Park Place, Upper Hatch Street, Dublin 2, D02 FX65

From: OShea, Nicole [<mailto:Nicole.OShea@agriculture.gov.ie>]

Sent: Wednesday 9 October 2019 17:23

To: Francis X O Beirn <Francis.XOBeirn@Marine.ie>; Terry McMahon <Terry.McMahon@Marine.ie>

Subject: Carlingford Lough

Hi Francis & Terry,

Please see attached comments received as part of the Statutory Consultation for licence applications in Carlingford Lough. Can you please let us have any observations in relation to nature conservation and water quality in light of these comments in advance of finalising the conclusion statement. I have attached the draft conclusion statement also for reference. (Also please note any comments that are redacted in the above attachments were not accepted and cannot be considered as they were received outside of the statutory consultation period.)

Regards,

Nicole O'Shea

Higher Executive Officer, Aquaculture & Foreshore Management Division,

An Roinn Talmhaíochta, Bia agus Mara

Department of Agriculture, Food and the Marine

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An Roinn Talmhaíochta, Bia agus Mara

Tá an t-eolais san ríomhphost seo, agus in aon ceangláin leis, faoi phribhléid agus faoi rún agus le h-aghaidh an seolaí amháin. D'fhéadfadh ábhar an seoladh seo bheith faoi phribhléid profisiúnta nó dlíthiúil. Mura tusa an seolaí a bhí beartaithe leis an ríomhphost seo a fháil, tá cosc air, nó aon chuid de, a úsáid, a chóipeál, nó a scaoileadh. Má tháinig sé chugat de bharr dearmad, téigh i dteagmháil leis an seoltóir agus scríos an t-ábhar ó do ríomhaire le do thoil.

Date: 17/10/2019

To: Nicole O'Shea, AFMD-DAFM

From: Francis O'Beirn, Marine Institute

CC: Sheila Kelleher – DAFM; Terry McMahon, Marine Institute

Re: DCHG Statutory consultation on Carlingford Lough aquaculture applications/renewals

Two communications from DCHG to DAFM as part of statutory consultation process for Carlingford Aquaculture licencing were forwarded to the Marine Institute by DAFM on October 9th, 2019. The submissions are dated July 30, 2019 and September 16th 2019. We will respond to the submissions in the order in which they are dated.

DCHG communication July 30th, 2019

The advice from DCHG is consistent with the advice in the AA report.

We note the offer from DCHG to input into the design of the monitoring programme. This is to be welcomed; however, receiving this communication at this time (October 2019) means that the MI are not in a position to take DCHG up on the offer, as the tender to carry out the monitoring work was advertised in July/August and a contract since offered. We note in the DCHG communication that a previous communication providing the same information was dated 10th July 2019. A summary of the monitoring programme is outlined below.

1. This programme will focus on systematic monitoring of Light-bellied brent Geese distribution in Carlingford Lough SPA.
2. The programme will monitor numbers and spatial distribution of Light-bellied brent geese in Carlingford Lough SPA. As part of this the use of trestles (i.e., structures used in aquaculture production) for foraging should be investigated; looking at frequency of use; numbers feeding; timing during the tidal cycle and seasonality. The objective will be to provide a quantitative understanding of the degree that trestles provide foraging opportunities for Light-bellied brent geese and to what degree this can compensate for habitat loss.
3. In addition, incidents of disturbance will also be recorded. This should consider issues such as response to tractors using the access lanes and response to workers. When workers are on site how close do geese forage on trestles. This would help to inform the decision on new applications and the degree to which infilling and extension towards the shore might negatively impact upon geese.
4. Monitoring will also consider patterns of use of eelgrass within the lough. There is an ongoing programme of colour ringing Light-bellied brent geese which would allow for the identification of individual birds. This can also assist with looking for patterns of turnover of individuals early in the season, which will in turn give a greater understanding of the numbers of birds using Carlingford Lough during autumn migration; over-winter and during spring migration.
5. Monitoring to encompass one 'winter' seasons 2019/2020 with final reporting due in May 2020.
6. The report will present a summary of site-use by the shorebird species while also providing a commentary on the likely interactions with aquaculture activities and any other prominent features on the shore, specifically as it relates to species distribution within the site.

Further comments from DCHG relate to use of habitats within the SPA. This monitoring programme is designed to capture this information. However, it is important to point out that habitats outside of the Carlingford Shore SPA are as important as they may be found within other SPAs (in Northern Ireland or Dundalk Bay) and are thus worthy of consideration.

In relation to access routes crossing the *Zostera* beds, it has been proposed to minimise the extent of routes actually crossing *Zostera* beds in order to protect the habitat. The revised routes have been agreed in conjunction with the operators, BIM, AFMD and MED

The reference to licence conditions which cover, among other things, any further actions that might be required in the event of deterioration of conservation status of habitats/species at site level that is directly attributable to shellfish culture operations is a matter for DAFM to consider.

DCHG communication September 16th, 2019

DCHG highlight that, in the applications considered in this communication, it is proposed to utilise an alternative culture methodology.

It is important to note that the profile provided to the MI and the text in the application forms (Section: 2.2-ix) clearly states that trestle and bag culture method will be utilised. Notwithstanding, it would appear that a diagram in some latter/revised applications included a floating bag system which is a variation on the bag and trestle method. If this system were to be used, it is the view of the MI that this would not result in any appreciable disturbance to the seabed beneath the trestles. This system would allow for good water flow beneath the trestles, thus avoiding build-up of fine sediment. Studies in Canada¹ comparing floating systems (all be they somewhat different than those proposed in Carlingford) demonstrated no appreciable difference in sediment biogeochemistry beneath the system and control locations. Furthermore, the purpose of the system is to ensure that oysters in the bags are turned using hydrodynamic forces rather than by operators. This would result in less handling necessary on the shore and thus less activity and potential to disturb bird species at the sites.

¹ Mallet, A.L. C.E. Carver, T. Landry. 2006. Impact of suspended and off-bottom Eastern oyster culture on the benthic environment in eastern Canada. *Aquaculture* 255 (2006) 362–373

From: OSullivan, Paul
Sent: 25 October 2019 12:34
To: OShea, Nicole
Subject: RE: Carlingford Lough

Hi Nicole

The only comment I have to make is regarding the suggestion in BIM submission that [REDACTED] must be considered "realigned" in some way based on some submission in 2007. This is patently ridiculous. The sites are where they are mapped in the previous licences and again in the renewal application forms, maps and coordinates advertised and also as shown in AA.

Aquaculture development on unlicensed areas inshore of these sites or elsewhere in the Lough was to my knowledge never consented to by the Department and remains unauthorised to this day. In my opinion it is an obstacle to licensing 16 applications by various operators that are currently under consideration and I have raised this issue of unauthorised oyster farming development on these application sites in my reports - the following application sites in Carlingford Lough are relevant [REDACTED]

[REDACTED] Development in advance of a licensing decision has also taken place more recently on application sites [REDACTED]

Regards

Paul O'Sullivan

From: OShea, Nicole
Sent: 24 October 2019 15:16
To: OSullivan, Paul
Subject: FW: Carlingford Lough
Importance: High

Hi Paul,

Apologies, but I omitted to include you when I forwarded observations received during the Statutory Consultation phase for Carlingford Lough. Can you please let me know as soon as possible if you have any MED comments to make on these observations. We are currently trying to finalise the Conclusion Statement and therefore would greatly appreciate a quick response on this.

Regards,

Nicole

From: OShea, Nicole
Sent: 09 October 2019 17:23
To: (Francis.XOBeirn@Marine.ie); 'Terry.McMahon@marine.ie'
Subject: Carlingford Lough

Hi Francis & Terry,

Please see attached comments received as part of the Statutory Consultation for licence applications in Carlingford Lough. Can you please let us have any observations in relation to nature conservation and water quality in light of these comments in advance of finalising the conclusion statement. I have

attached the draft conclusion statement also for reference. (Also please note any comments that are redacted in the above attachments were not accepted and cannot be considered as they were received outside of the statutory consultation period.)

Regards,

Nicole O'Shea

Higher Executive Officer, Aquaculture & Foreshore Management Division,

An Roinn Talmhaíochta, Bia agus Mara

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DEPARTMENT OF AGRICULTURE, FOOD AND THE MARINE

Appropriate Assessment –Conclusion Statement

Carlingford Lough

Carlingford Shore SAC (Site Code: 002306) & Carlingford Lough SPA (Site Code: 004078)

October 2019

Department of Agriculture, Food and the Marine

Appropriate Assessment Conclusion Statement by Licensing Authority in support of the Appropriate Assessment of Aquaculture in Carlingford Shore Special Area of Conservation (Site Code: 002306) & Carlingford Lough Special Protection Area (Site Code: 004078)

October 2019

This Conclusion Statement outlines how it is proposed to licence and manage aquaculture activities in the above Special Area of Conservation (SAC) and Special Protection Area (SPA) – Natura 2000 sites - in compliance with the EU Birds and Habitats Directives. Aquaculture in these Natura Sites will be licensed in accordance with the standard terms and conditions as set out in the aquaculture licence templates. These are available for inspection on the Department's website at:

<http://www.agriculture.gov.ie/seafood/aquacultureforeshoremanagement/aquaculturelicensing/>

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

An Appropriate Assessment report relating to aquaculture in the Carlingford Shore SAC and Carlingford Lough SPA has been prepared by the Marine Institute in relation to marine habitats and Atkins Ecology/Marine Institute in relation to bird species on behalf of the Department of Agriculture, Food and the Marine (available on the Department's website). The Appropriate Assessment process considered the potential ecological impacts of aquaculture activities on Natura features in the SAC and SPA.

In addition to the Carlingford Shore SAC and Carlingford Lough SPA, there are a number of other SACs and SPAs proximate to the proposed aquaculture activities and a screening was carried out on their likely interaction with aquaculture.

The information upon which the Appropriate Assessment process is based is the definitive list of existing licences and applications for aquaculture available at the time of assessment.

The Appropriate Assessment Process

The function of an Appropriate Assessment is to determine if the ongoing and proposed aquaculture activities are consistent with the Conservation Objectives for the Natura 2000 sites, i.e. will aquaculture activities lead to deterioration in the attributes of the habitats and species over time and in relation to the scale, frequency and intensity of the activities. The National Parks and Wildlife Service (NPWS) provide guidance on interpretation of the Conservation Objectives which are, in effect, management targets for habitats and species in Natura 2000 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. Some activities are deemed to be wholly inconsistent with long term maintenance of certain sensitive habitats while other habitats can tolerate a range of activities. For the practical purpose of management of sedimentary habitats a 15% threshold of overlap between disturbing activity and a habitat is given in the NPWS guidance. Below the threshold disturbance is deemed to be non-significant. Disturbance is defined as that which leads to a change in the characterizing species of the habitat (which may also indicate change in structure and function). Such disturbance may be temporary or persistent in the sense that change in characterizing species may recover to pre-disturbed state or may persist and accumulate over time.

The Appropriate Assessment process is divided into a number of stages consisting of a preliminary risk identification and subsequent assessment (allied with recommended mitigation measures, if necessary). The first stage of the process is an initial screening wherein activities are identified which are deemed not to have any impact on the conservation features because they do not spatially overlap with a given habitat or have a clear pathway for interaction. These activities are excluded from further consideration. The next phase is the preparation of a Natura Impact Statement (NIS) where interactions with conservation features are identified. Further to this, an assessment on the significance of the likely interactions between activities and conservation features is conducted. Mitigation measures (if necessary or possible) will be introduced in situations where the risk of significant disturbance is identified. In situations where there is no obvious mitigation to reduce the risk of significant impact, it is advised that caution should be applied in licensing decisions. Overall, the Appropriate Assessment is both the process and the assessment undertaken by the Competent Authority to effectively validate the Appropriate Assessment reports and/or the NIS. It is important to note that the screening process is considered conservative in that activities which may overlap with habitats but which may have very benign effects are retained for full assessment.

Special Area of Conservation (SAC)

Aquaculture Activities in the SAC

Aquaculture activities within and adjacent to the Carlingford Shore SAC focus on the subtidal culture (bottom culture) of the blue mussel, *Mytilus edulis*, and the intertidal (bags and trestle) cultivation of the Pacific oyster, *Crassostrea gigas*.

Aquaculture and Habitats/Species

In Carlingford Lough (ROI waters) there are 12 existing mussel licences for which an application for renewal has been received. There are a further 7 sites for which new mussel licence applications have been received (3 of which are already covered by an existing licence). There are 17 fully licensed oyster production sites, and an additional 5 sites licensed for oysters and clams, for which applications for renewal of licences have been received. There are 24 new oyster licence applications and 2 new licence applications for oysters and mussels. Of the currently licensed mussel sites, there is approximately a 1% overlap the Carlingford Shore SAC and 3.06% of the new mussel application sites overlap. Of the currently licensed oyster sites, 35.27% overlap the Carlingford Shore SAC and 77.6% of the new oyster applications overlap. The likely interaction between aquaculture activity and conservation features (habitats and species) of the site was considered.

An initial screening exercise resulted in all habitat features being excluded from further consideration. None of the aquaculture activities (existing and/or proposed) overlap or likely interact with the following features or species, and therefore the following habitats were excluded from further consideration in the assessment:

- Annual vegetation of drift lines [1210]
- Perennial vegetation of stony banks [1220]

Despite seals not being qualifying interests of the Carlingford Shore SAC, the likely interactions between the proposed aquaculture activities and seals were assessed as there are a number of haul out sites in Carlingford Lough.

Negative interactions with seals cannot be discounted at the haul out location entitled 'Seal Rock' on the southern shore of the Lough. Licensing at the relevant sites was considered and measures proposed to reduce the potential disturbance to seals to negligible levels, e.g. introduce a sufficient buffer around the seal site in order to avoid disturbance.

The other haul out locations within the bay are considered not to be at risk from aquaculture practices.

Other Considerations

Fishing activities in the Lough do not overlap annexed habitats for which the SAC is designated and as a result it is considered that fishing both along and in combination with aquaculture activities is not disturbing to the qualifying interests of the SAC.

On the basis of overlap of access routes with eel grass beds in the SAC, alternative access routes were identified that specifically avoid eel grass beds and provide some buffer against accidental intrusion.

The ecological carrying capacity in Carlingford Lough seems to be exceeded in all but two aquaculture sectors and therefore additional licensing is not recommended in these areas.

Special Protection Area (SPA)

Carlingford Lough SPA [004028] comprises two portions of the Lough extending from Carlingford Harbour to Ballagan Point, with Greenore in between. The predominant habitats within the SPA are intertidal sand and mud flats.

Currently there are 34 aquaculture sites operating off the southern shore of Carlingford Lough. The inner bay is used to produce mussels, while the outer bay is used to produce oysters and mussels. Oyster production is carried out within and throughout the majority of the SPA. No fisheries are currently operational within the Lough. There is a Fisheries Natura Declaration (under Regulation 9 of the European Union (Birds and Natural Habitats) (Sea-fisheries) Regulations 2013) in place overlapping with the SPA, prohibiting the production of mussels or harvest of seed stock from this area.

Status of species in Carlingford Lough SPA

Light-bellied brent Geese

In the *Conservation Objective Supporting Document*, NPWS indicate a long-term population trend (up to 25 years) of -1% or Intermediate (Unfavourable) status for Light-bellied brent geese in Carlingford Lough SPA; due to incomplete IWeBS data this is based on the UK Wetland Bird Survey 'Alerts System' which considers the entire lough. However, in contrast,

more recent targeted Light-bellied brent geese counts are significantly higher; they show a large increase in numbers of Light bellied brent geese in Carlingford Lough from the baseline population of 253 (1995/96-1999/00). The maximum recorded was 687 birds in December 2010 (a count of international importance). This is more in line with the observed national trend for Light-bellied brent geese which is positive.

Mussels

The area of current mussel aquaculture licences is 591.6 ha; while there are applications for a further 322.96ha. This gives a total of 914.56ha of current applications. Subtidal mussel cultivation is located entirely outside of Carlingford Lough SPA. Subtidal waters deeper than 0.5m are beyond the feeding range for Light-bellied brent geese and would not be used by geese for foraging. As noted, while birds may occasionally roost on such waters during daylight hours, Light-bellied brent geese using Carlingford Lough roost overnight in Dundalk Bay. Patterns of boat activity should not therefore negatively impact on brent geese use of the SPA.

Mussels are laid on the seabed; there are no physical structures on the shoreline or subtidally. Geese will continue to have access to the shore to feed on intertidal algae. Negative impacts on Light-bellied brent geese are not anticipated from the licensing of existing and new applications.

In conclusion, it is not anticipated that Light-bellied brent geese would be negatively impacted by the licensing of mussel cultivation in Carlingford Lough. This includes renewal of existing licences and new applications.

Oysters

With respect to oyster cultivation there are 112.7ha previously licensed and 117.47ha of new applications (230.13ha). These are largely located within the SPA. Carlingford Lough SPA is comprised of 304ha of subtidal habitat; 285ha of intertidal habitat and 9ha of supratidal habitat (NPWS, 2013a) (i.e. 598ha). In total the Lough is ca. 51km² in area (5,100ha). However, based on admiralty charts and NPWS mapping the amount of available intertidal/shallow subtidal waters (across the tidal range) can extend to as much as 475ha within the SPA (ca. 80% of available habitat, within the SPA). With respect to oyster cultivation the applications could result in trestle coverage of ca. 23.7% of available habitat for existing licences and ca. 24.7% for new applications; or 48.4% of available habitat within the SPA; this figure will increase on neap tides, but could decrease somewhat on spring tides.

As outlined in the *Methods* section of the Appropriate Assessment report the approach taken in the past has been to look at the relationship between the area proposed for aquaculture and areas of suitable habitat within the SPA/bay. However, in the case of Carlingford Lough only a small portion of the bay is designated as a SPA, while Light bellied brent geese are known to use extensive areas outside the SPA; along the north shore in Northern Ireland and within the SPA in UK waters. Therefore, to take the above percentages as representative of the level of displacement within Carlingford Lough as a whole would be misleading as there are extensive areas of shoreline and intertidal habitat used by Light-bellied brent geese throughout the Lough. Use of the wider Lough was therefore also considered. Also the loss of foraging habitat due to placement of trestles may also be offset in part by these structures acting as stable sites upon which green algae growth can grow; though it should be noted that maintenance of oyster bags will seek to remove excess algae growth to prevent negative impacts on oysters being cultivated.

Martin (2011) recorded peak counts of 438 birds in Zone 1 (Ballagan to Greenore; March 2011) and 412 in Zone 2 (Greenore to Carlingford; Dec 2010); both sites clearly can support large numbers of brent geese even with present levels of aquaculture. It is, therefore, not anticipated that Light-bellied brent geese would be negatively impacted by the renewal of existing licensing for oyster cultivation in Carlingford Lough.

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

Terns

Terns are a species for which Carlingford Lough SPA (UK9020161) has been designated. There is no spatial overlap between the proposed aquaculture sites and the nesting sites on islands at the mouth of Carlingford Lough. Access by boat and tractor will not result in disturbance of birds nesting on these islands. It is not anticipated that licensing of the

current proposals of mussel and oyster cultivation licences would negatively impact upon tern species for which Carlingford Lough SPA has been designated.

Recommendations

With respect to licensing of new oyster culture applications, there are a number of areas of uncertainty. For example, the potential for increased levels of activity and infilling to negatively impact on early season use of eelgrass beds north of Greenore is unclear. In particular the risk of increased usage of access tracks could result in displacement of birds and loss of foraging time. The importance of eelgrass to birds early in the season and potential use by birds using Carlingford Lough as a stopover before continuing to migrate to site further south is of note. Furthermore, as previously noted, the risk that infilling with trestles towards the shoreline might impact on foraging more generally cannot be fully discounted.

A programme of monitoring of numbers and spatial distribution of Light-bellied brent geese will be implemented in Carlingford Lough to consider the potential impact of new applications. As part of this the use of trestles for foraging will be investigated; looking at frequency of use; numbers feeding; timing during the tidal cycle and seasonality. The objective would be to provide a more quantitative understanding of the degree that trestles provide foraging opportunities for Light-bellied brent geese and to what degree this can compensate for any potential habitat loss.

Incidents of disturbance will also be recorded. This will consider issues such as response to tractors using the access lands and response to workers, as it was noted that geese at Carlingford seem to have acclimated to such activities. When workers are on site it will be assessed how close to trestles brent geese tend to forage. This would help to inform the decision on new applications and the degree to which infilling an extension towards the shore might negatively impact the geese.

ISSUES RAISED DURING THE AQUACULTURE LICENSING PROCESS FOR SITES IN CARLINGFORD SHORE (SITE CODE 002306) and CARLINGFORD LOUGH SPA (SITE CODE 004078)

A number of issues relevant to the Appropriate Assessment were raised during the aquaculture licensing consultation process. These issues have been considered by the Department and its scientific advisors and are addressed below:

1. Breach of Carrying Capacity

Comment: *'The impact of licensing should be seriously considered in terms of its potential to breach the carrying capacity'.*

Response: The carrying capacity of Carlingford Lough was addressed in the Appropriate Assessment. Aquaculture sites to be licensed will be brought within ecological carrying capacity thresholds and not result in a net increase in the carrying capacity.

2. Dredging of Mussels

Comment: *'The main concern is the use of dredging as a mean to harvest the mussels'.*

Response: The concerns of the impact of mussel dredging are noted along with reference to a publication on the topic by Dolmer and Frandsen (2002). However, an alternative observation to the impact of mussel dredging in the Limfjorden was also included in this publication but not referenced in the submission. Reference to changes in epifauna changing in communities following dredging in Limfjorden may also have been attributed to the fact the area is considered eutrophic and subject to annual oxygen depletion, that is stressed (therefore not just impacted by mussel dredging). Furthermore, it should be noted there is no other viable method to harvest bottom-grown mussels.

3. Calculation of Carrying Capacity

Comment: *'We are concerned that unused sites are preventing aquaculture expansion elsewhere in Carlingford Lough by adversely affecting the theoretical ecosystem carrying capacity which is referenced in the Appropriate Assessment'.*

Response: The Department accepts the premise proposed as regards the area of some sites likely to be unused when calculating carrying capacity. This constraint was noted in the modelling report cited.

4. Seal Haul out areas

Comment: *'Some modification is required to protect the seal haul out area at Perch/Black Rock'.*

Response: Aquaculture sites to be licensed will be redrawn to maintain a buffer of approximately 200 metres radius from the Seal Rock haul out site.

5. Light bellied Brent geese

Comment: *'A significant negative impact on the Light-bellied Brent geese within Carlingford Lough SPA by proposed new oyster cultivation cannot be ruled out. It is recommended that prior to the granting of licenses, the proposed monitoring programme as outlined in the Draft Conclusion Statement be carried out'.*

Response: The tender to carry out the monitoring work was advertised in July/August 2019 and a contract since offered. A summary of the monitoring programme is outlined below;

- This programme will focus on systematic monitoring of Light-bellied brent Geese distribution in Carlingford Lough SPA.
- The programme will monitor numbers and spatial distribution of Light-bellied brent geese in Carlingford Lough SPA. As part of this the use of trestles (i.e., structures used in aquaculture production) for foraging should be investigated; looking at frequency of use; numbers feeding; timing during the tidal cycle and seasonality. The objective will be to provide a quantitative understanding of the degree that trestles provide foraging opportunities for Light-bellied brent geese and to what degree this can compensate for habitat loss.
- In addition, incidents of disturbance will also be recorded. This should consider issues such as response to tractors using the access lanes and response to workers. When workers are on site how close do geese forage on trestles. This would help to inform the decision on new applications and the degree to which infilling and extension towards the shore might negatively impact upon geese.
- Monitoring to encompass one 'winter' seasons 2019/2020 with final reporting due in May 2020.
- The report will present a summary of site-use by the shorebird species while also providing a commentary on the likely interactions with aquaculture activities and any other prominent features on the shore, specifically as it relates to species distribution within the site.

6. Suitable habitat outside the SPA

Comment: *When assessing the potential impacts of aquaculture activities on the availability of suitable habitat for Light-bellied Brent Geese (an SCI for the SPA), the*

Appropriate Assessment for Carlingford Lough SPA considers the availability of suitable habitat outside the SPA. The assessment needs to take into account the availability of suitable habitat within the SPA, not outside it.'

Response: This monitoring programme is designed to capture this information. However, it is important to point out that habitats outside of the Carlingford Lough SPA are as important as they may be found within other SPAs (in Northern Ireland or Dundalk Bay) and are thus worthy of consideration.

7. Mitigation Measures and Management Actions

Comment: *'The buffer zone around the keystone community – Zostera be a minimum of 30m as agreed with DAFM in Cotbber 2013 should also be included'*

Response: In relation to access routes crossing the *Zostera* beds, it has been proposed to minimise the extent of routes actually crossing *Zostera* beds in order to protect the habitat. The revised routes have been agreed in conjunction with the operators, BIM, AFMD and MED.

8. New methodology culture of oysters

Comment: *'A new method is being employed for culture of oysters within the site. While scientific assurance has been provided on the impact of the traditional intertidal bag and trestle method, no such assurance has been provide for this new methodology'*

Response: The Department notes alternative culture methodology is proposed within the site but it is considered that the use of such technology would not result in any appreciable disturbance to the seabed beneath the trestles. This system would allow for good water flow beneath the trestles, thus avoiding build-up of fine sediment. Studies in Canada comparing floating systems (all be they somewhat different than those proposed in Carlingford) demonstrated no appreciable difference in sediment biogeochemistry beneath the system and control locations. Furthermore, the purpose of the system is to ensure that oysters in the bags are turned via hydrodynamic forcing rather than by operators. This would result in less handling necessary on the shore and thus less activity and potential to disturb bird species at the sites.

SUMMARY OF MITIGATION MEASURES AND MANAGEMENT ACTIONS THAT ARE BEING IMPLEMENTED AS A CONSEQUENCE OF THE FINDINGS IN THE APPROPRIATE ASSESSMENT REPORT

Taking account of the recommendations of the Appropriate Assessment, as well as additional technical/scientific observations, the following measures are being taken in relation to licensing aquaculture in this SAC and SPA:

- Sites to be licensed will be redrawn to maintain a buffer of approximately 200 metres radius from the Seal Rock haul out site.
- Where necessary, proposed access routes will be amended and a Licence condition will be inserted requiring strict adherence to the approved access routes over intertidal habitat in order to minimise species/habitat disturbances.
- Aquaculture sites will be brought within Ecological Carrying Capacity thresholds.
- A programme of monitoring numbers and spatial distribution of light-bellied brent geese will be implemented to consider the potential impact of new applications. An Adaptive Management Plan will be applied based on the results of this targeted monitoring programme of light-bellied brent geese. In the event of increased or significant levels of displacement of light-bellied brent geese being observed, specific management actions (with a view to reducing disturbance effects) will be implemented. These will be operationalised in licence conditions.
- All aquaculture licences are subject to standard licence conditions which cover, among other things, any further actions that might be required in the event of deterioration of conservation status of habitats/species at site level that is directly attributable to shellfish culture operations.
- A Licence condition will be inserted requiring full implementation of the measures set out in the draft Marine Aquaculture Code of Practice prepared by Invasive Species Ireland (e.g. <http://invasivespeciesireland.com/cops/aquaculture>).
- The movement of stock in and out of Carlingford Shore SAC and Carlingford Lough SPA should adhere to relevant fish health legislation.
- 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.

Conclusion

The Licensing Authority is satisfied that subject to adaptation of the above-listed mitigation measures, aquaculture licensing is not likely to significantly and adversely affect the integrity of the Carlingford Shore Special Area of Conservation and Carlingford Lough Special Protection Area.

October 2019