



Department of
**Agriculture,
Food and the Marine**

An Roinn
**Talmhaíochta,
Bia agus Mara**

T12/37

Site T12/37 B4

AQUACULTURE LICENCE

AQUACULTURE MARINE SHELLFISH
INTER/SUB-TIDAL
(Structures e.g. trestles)

**Lough Swilly Shellfish Growers Co-Operative
Society Limited**

Station House, Malin Road

Carndonagh

Co. Donegal

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AQUACULTURE LICENCE NO. XXXX

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

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

Lough Swilly Shellfish Growers Co-Operative Society Limited

Station House

Malin Road

Carndonagh

Co. Donegal

(hereinafter referred to as the "Licensee") for the cultivation of oysters on a site in Lough Swilly, Co. Donegal as specified in Schedule 1 attached (numbered T12/37 B4) and indicated by a red line on the attached map in accordance with the plans and drawing(s) in Schedule 2 attached as approved of by the Minister, subject to the Act and Regulations made under the Act and to the terms and conditions set out in the attached pages.

This Aquaculture Licence shall remain in force for a maximum period of ten (10) years commencing on XX XXXXXXXXXXXX 20XX, provided for so long as the Foreshore Licence granted on XX XXXXXXXXXXXX 20XX, under Section 3(1) of the Foreshore Act 1933 (No.12 of 1933) in respect of the same site for the purpose referred to is in force.

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

TERMS AND CONDITIONS APPLYING TO THIS AQUACULTURE LICENCE

1. Licensed Area

- 1.1 The area specified in *Schedule 1* attached (0.77 hectares) (labelled T12/37B4) and outlined in red on the map(s) in *Schedule 1*.
- 1.2 The co-ordinates for the site are based on the Irish National Grid Co-ordinate System.

2. Species, Cultivation and Method Licensed

- 2.1. Species to be farmed: pacific oysters
- 2.2. Method: Bag and Trestle Single-layer/Bag and Trestles Stacked/Bouchot Poles/BST System subject to the stocking and/or deployment limits as may be specified in *Schedule 4* attached.
- 2.3. The introduction of seed to the site shall comply with the legislation relating to fish health.

3. Infrastructure and Site Management

Indemnity

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

Design, Arrangement and Maintenance of Structures

- 3.3. The Licensee shall ensure that the equipment (including all flotation, mooring and anchoring devices) is placed within the licensed area only. Storage or placement of equipment or stock on the foreshore or seashore outside the licensed area is not permitted under any circumstances.
- 3.4. The Minister may direct as to the deployment of apparatus and flotation devices and their colour, within the site.
- 3.5. The Licensee shall obtain the prior approval of the Minister to any proposed material change to the plan/drawings or equipment as approved being used during the licensing period as specified in *Schedule 2* attached.

- 3.6. The Licensee shall at all times for the duration of the licence keep all equipment used for the purposes of the licensed operations in a good and proper state of repair and condition to the satisfaction of the Minister or other competent State authority.
- 3.7. The Licensee shall ensure that each trestle grouping/pole and all flotation and mooring devices in the licensed area legibly bear the Aquaculture Licence Number in an indelible weatherproof format.

Operational Conduct

- 3.8. The Licensee shall conduct its operations in a safe manner and with regard for other persons in the area and the environment and shall ensure that the operations are not injurious to adjacent lands or the public interest (including the environment) and do not interfere with navigation or other lawful activity in the vicinity of the licensed area, and shall comply with any lawful directions issued by the Minister and any other competent State authority in that regard.
- 3.9. The Licensee shall ensure that any aquaculture or other activity conducted under this licence does not adversely affect the integrity of the Natura 2000 network (if applicable) through the deterioration of natural habitats and the habitats of species and/or through disturbance of the species for which the area has been designated in so far as such a disturbance may be significant in relation to the stated conservation objectives of the site concerned.
- 3.10. The Licensee shall ensure that tractors (or other vehicles) accessing and leaving the site adhere strictly to approved access and egress routes as specified in Schedule 1 attached. Full compliance is required in order to minimise disturbance to the foreshore and nation. All drivers shall be made fully aware of the specific route approved.
- 3.11. The Licensee shall ensure that journeys back and forth on the approved access and egress routes are kept to the minimum necessary.
- 3.12. The Licensee shall ensure that all tractors/towing vehicles to be used for aquaculture purposes on the foreshore are fitted with efficient exhaust/silencers/mufflers and that vibration noise from tractors and machinery is kept to a minimum.
- 3.13. The Licensee shall ensure that all vehicles are properly maintained so as to prevent leakages of oils, fuels, grease etc.
- 3.14. The Licensee shall ensure that all vehicles move slowly at all times on the foreshore, that engine revolution is kept to a minimum and that engines are turned off when not in use.
- 3.15. The Licensee shall ensure that if more than one vehicle is needed on the shore that all vehicles, where possible, arrive and depart together.
- 3.16. The Licensee shall so organise its operations in consultation with other licensed operators to ensure that the total number of vehicles and harvesting machines on the foreshore on any one day is kept to the minimum necessary.

- 3.17. The Licensee shall ensure that when carrying out aquaculture work on the foreshore, dogs owned or under the control of the Licensee shall not be present, in order to minimise disturbance to the birdlife in the area.
- 3.18. The Licensee shall ensure that best practice is employed to keep structures and netting clean at all times and any biofouling by alien invasive species shall be removed and disposed of in a responsible manner. In particular, in 'Natura 2000' sites care must be taken to ensure that any biofouling by alien invasive species will not pose a risk to the conservation features of the site. Measures to be undertaken are set out in the draft Marine Code of Practice prepared by Invasive Species Ireland and can be found on the web site at: <http://invasivespeciesireland.com/>.

Waste Management

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

Inspection

- 3.20. The licensed area and any equipment, structure, thing, or premises wherever situated used in connection with operations carried out in the licensed area shall be open for inspection at any time by an authorised person (within the meaning of Section 292 of the Fisheries (Consolidation) Act 1959) (No. 14 of 1959) (as amended by Fisheries Act 1980) (No. 1 of 1980), a Sea Fisheries Protection Officer (within the meaning of Sea Fisheries and Maritime Jurisdiction Act 2006) (No. 8 of 2006) or any other person appointed in that regard by the Minister or other competent State authority.
- 3.21. The Licensee shall give all reasonable assistance to an authorised officer or a Sea Fisheries Protection Officer or any person duly appointed by any competent State authority to enable the person or officer enter, inspect, examine, measure and test the licensed area and any equipment, structure, thing or premises used in connection with the operations carried out in the licensed area and to take whatever samples may be deemed appropriate by that person or officer.
- 3.22. The Licensee shall keep and maintain in the State for inspection on demand by the Minister or a competent State authority, at all times, records of all operations including compliance monitoring and any required follow up action. These records shall be produced by the Licensee on demand by the Minister or other competent State authority and in any event not later than 24 hours from the making of that demand.
- 3.23. The Licensee shall furnish to the Minister or other competent State authority in the form and at the intervals determined by the Minister or other competent State

authority, such information relating to the licensed area as may be required to determine compliance by the Licensee with the terms of this licence and applicable legislation.

4. Navigation and Safety

4.1. The Licensee shall ensure that Statutory Sanction from the Commissioners of Irish Lights is in place prior to the commencement of operations, regarding all aids to navigation. Statutory Sanction forms are available at <http://www.cil.ie/safety-navigation/statutory-sanction.aspx>.

4.2. The Licensee shall ensure that the site is marked in accordance with the requirements of both the Marine Survey Office and the Commissioners of Irish Lights as specified in *Schedule 3*.

The navigation marking detail is as illustrated in *Schedule 3*.

4.3. The Licensee shall comply with any specification requirement relating to navigational aids, flotation and mooring devices, supporting marking posts/poles, as required by the Minister or any other competent State authority.

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

5. Monitoring

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

6. Fish Health / Mortality Management / Movement of Fish

Fish Health Regulation

6.1. Before the site is stocked the Licensee shall ensure that a Fish Health Authorisation under statutory provisions giving effect to Council Directive No. 2006/88/EC, as amended, or any other legislative act that replaces that Directive on animal health requirements for aquaculture animals and their products, and on the prevention and control of certain diseases in aquatic animals, is in place.

Disposal of Mortalities

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

Movement of Fish

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

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

Duration, Cessation

7.1. This Licence shall remain in force until XX XXXXXXXXXX, 20XX and as long as the accompanying Foreshore Licence remains in force.

Review

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

Revocation, Amendment

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

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

Assignment

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

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

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

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

8. **Fees**

8.1. The Licensee shall pay to the Minister an annual aquaculture licence fee in accordance with the Aquaculture (Licence Application and Licence Fees) Regulations 1998(S.I. No. 270/1998) as amended by the Aquaculture (Licence

Fees) Regulations 2000 (S.I. No. 282 of 2000) or an amount payable under Regulations made under section 64 of the Act.

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

9. **General Terms and Conditions**

- 9.1. The Licensee shall at all times comply with all laws applicable to aquaculture operations.
- 9.2. Any reference to a statute or an act of an institution of the European Union (whether specifically named or not) includes any amendments or re-enactments in force and all statutory instruments, orders, notices, regulations, directions, bye-laws, certificates, permissions and plans made, issued or given effect under such legislation shall remain valid.
- 9.3. If any condition or part of a condition in this licence is held to be illegal or unenforceable in whole or in part, such condition shall be deemed not to form part of this licence but the enforceability of the remainder of this licence is not affected.
- 9.4. The Licensee shall at all times hold all necessary licences, consents, permissions, permits or authorisations associated with any activities of the Licensee in connection with the licensed activity.

Notification

- 9.5. Without prejudice to any other remedy under the licence or in law, if the Minister is of the view that the licensee is in breach of any obligation under this licence, the Minister may, by notice in writing, require that the Licensee rectifies such breach, within such time as is specified by the Minister. The Licensee shall comply with any direction of the Minister within the time specified in the notice.
- 9.6. Any notice to be given to the Minister may be transmitted through the Post Office addressed to the licensee at the last known address of the Licensee.
- 9.7. The Licensee shall notify the Minister within 7 days of any change in the Licensee's address, telephone, e-mail or facsimile number.

Tax Clearance Certificate

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

Companies and Co-operatives

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

- 9.10. In the event of a licence being granted to a company that has been incorporated outside this State, the licensee company shall register with the Companies Registration Office within one month of the establishment of a place of business in the State or alternatively, within one month of the establishment of a branch of the said company in the State and the licensee company shall submit proof to the Department within 14 days of the end of that month that it has been so registered.
- 9.11. Where the licensee is a company within the meaning of the Companies Acts, the licensee company shall ensure that it does not become dissolved within the meaning of the Companies Acts for so long as this licence shall remain in force.
- 9.12. In the event of the licence being granted to a society (within the meaning of section 2 of the Industrial and Provident Societies (Amendment) Act 1978 (No.23 of 1978) the following conditions shall apply:-
- 9.12.1. The rules relating to membership of the society shall enable any resident of the State to become a member of it where the resident fulfils all the conditions laid down by the society for membership of it and the rules shall not lay down different conditions for different classes of people;
- 9.12.2. The rules relating to the society shall be submitted to the Minister before the grant of this licence shall not be amended subsequently other than with the written permission of the Minister; and
- 9.12.3. The Minister may, if he considers it necessary in the interests of good management of the licensed area, direct that an amendment may be made to the rules of the society, and the Licensee shall amend the rules in accordance with that direction.

Clearance of Site

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

SCHEDULE 1

Schedule 1 contains:

- **the co-ordinates of the site based on the Irish National Grid Co-ordinate System and the area of the site**
- **site map(s) which also shows the access/egress route to and from the site**
- **a chart showing the location of the site in relation to the surrounding area.**

DRAFT

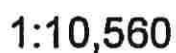
1 NO. SITE AT LOUGH SWILLY CO.DONEGAL

Co-ordinates & Area

Site T12/037B4 (0.77 Ha)

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

233135, 422600 to Irish National Grid Reference point
233213, 422608 to Irish National Grid Reference point
233280, 422630 to Irish National Grid Reference point
233318, 422640 to Irish National Grid Reference point
233332, 422599 to Irish National Grid Reference point
233148, 422555 to the first mentioned point.

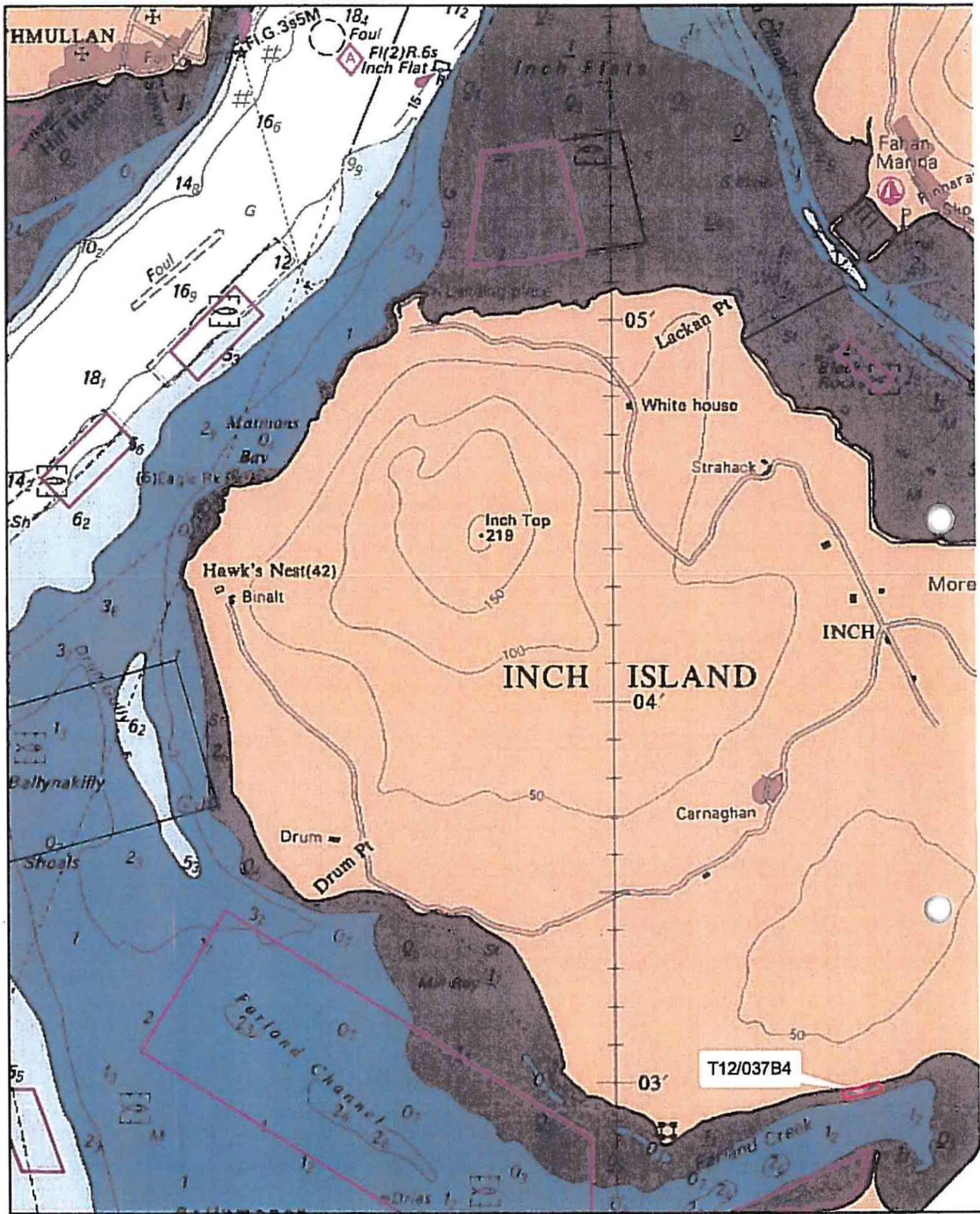


Application
0076413
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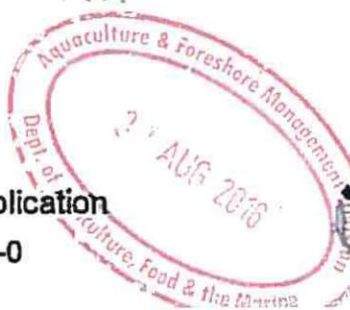
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Sites highlighted in red denotes Application

Part of Admiralty Chart No =2697-0

Not to be used for Navigation

Aqua Culture Sites
Site Status
Application
Licensed
Refused
Revoked
Notified
Suspended
Withdrawn



Department of
Agriculture,
Food and the Marine
A. J. Huran
Talmhaíochta,
Bia agus Mara

SCHEDULE 2

Schedule 2 contains:

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

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Site Layout Plan

Lough Swilly Donegal

Scale 1: 1000

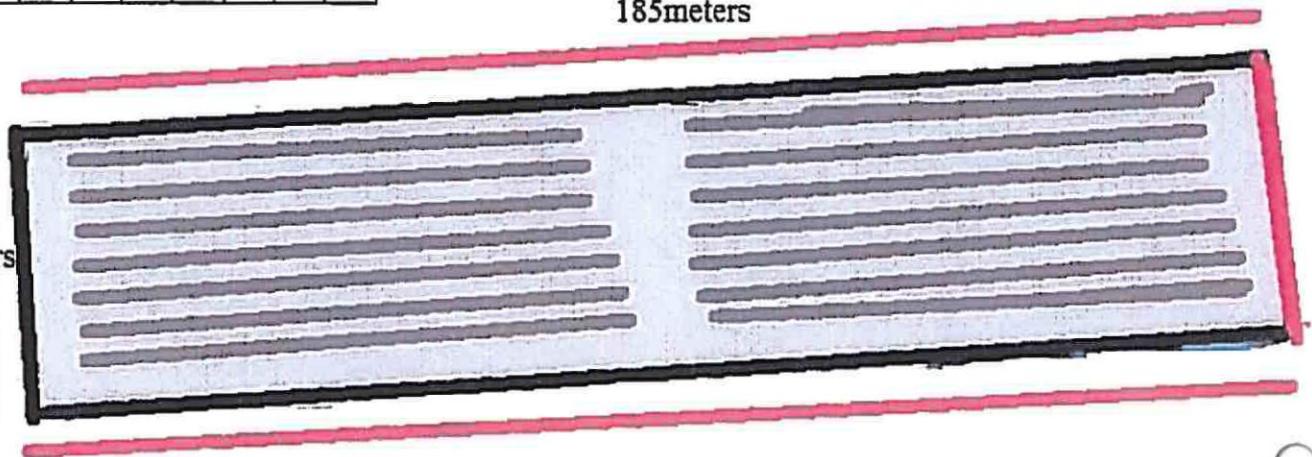
T12/037B4

0 15 30 60 Meters

Area: 0.77 HA

185meters

42 meters



25 trestles/ Row

Trestles arranged in twin rows

Access lanes of 5 meters wide between twin rows

Corridor 15 meters wide between 2 blocks.

350 Trestles/ Block

2 blocks trestles
= 700 trestles

6 bag trestles is $6 \times 700 = 4200$ bags

SCHEDULE 3

- **Requirements of CIL**

- That the applicant secures Statutory Sanction from the Commissioner of Irish Lights for the aids to navigation that are required and approved by the Marine Survey Office. These aids should be in place before the development on the site commences.

- **requirements of the MSO / the navigation marking detail.**

- Site to be marked in with a yellow spar with a yellow Saint Andrews Cross as topmark to be located at the south east and south west corner of the site. Topmarks to be visible at all stages of the tide at a height of two metres above the water.

DRAFT

SCHEDULE 4

Schedule 4 contains:

- **Triploid Seed to be used as standard**

DRAFT

1 NO. SITE AT LOUGH SWILLY CO.DONEGAL

Co-ordinates & Area

Site T12/037B4 (0.77 Ha)

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

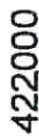
233135, 422600 to Irish National Grid Reference point
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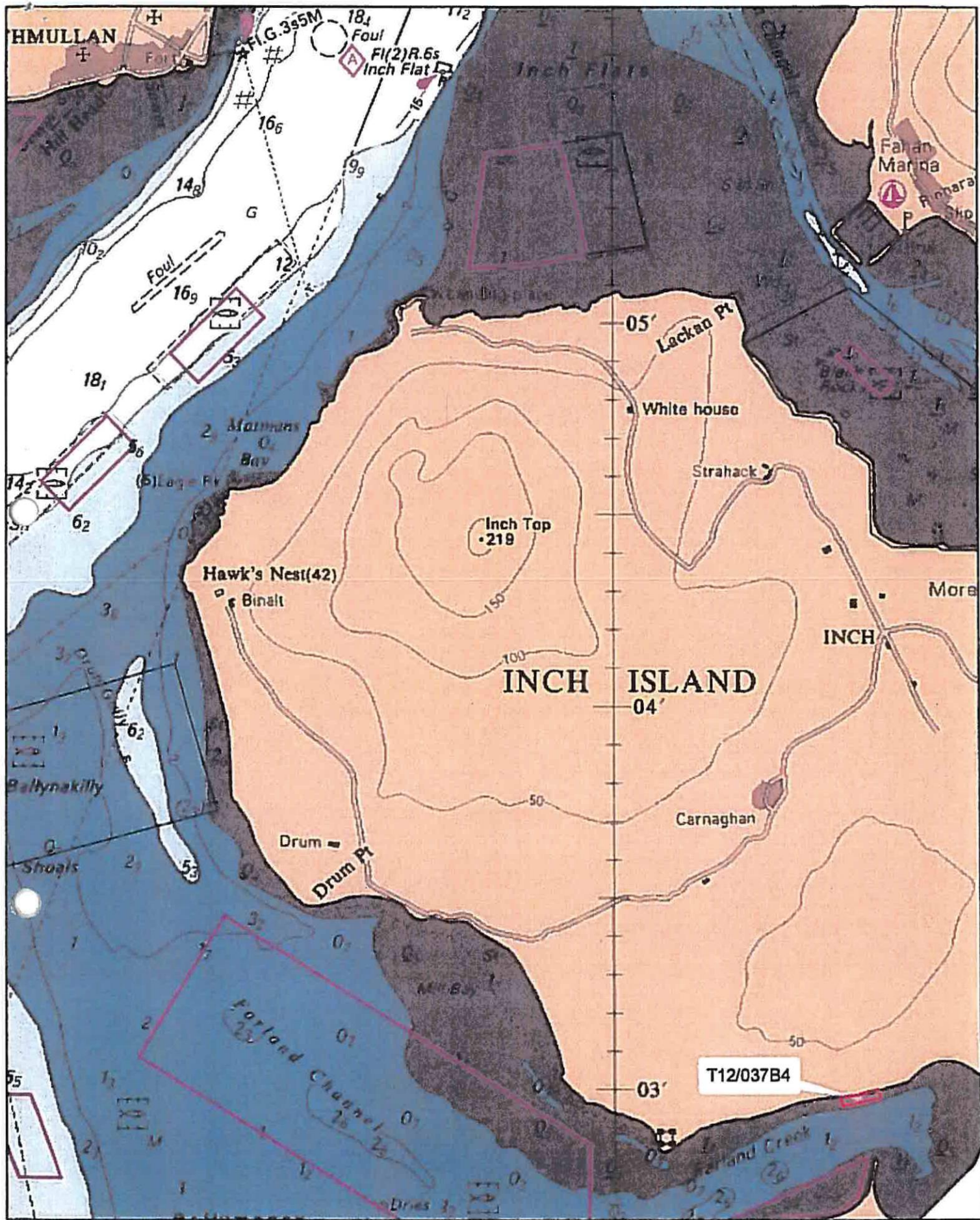
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Sites highlighted in red denotes Application
Ordnance Survey Ireland Licence No. EN 0076413
© Ordnance Survey Ireland/Government of Ireland

Application
0076413
Island

Departments of
**Agriculture,
Food and the Marine**
4-ry Shuen
**Talmhaíochta,
Bia agus Mara**





1:24,000

Sites highlighted in red denotes Application

Part of Admiralty Chart No =2697-0

Not to be used for Navigation

Agri Culture Sites
Site Status

Application
Lapsed
Withdrawn
Refused
Revoked
Surrounded
Withdrawn



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Department of
**Agriculture,
Food and the Marine**

An Roinn
**Talmhaíochta,
Bia agus Mara**

T12/37

Site T12/37C

AQUACULTURE LICENCE

AQUACULTURE MARINE SHELLFISH
SEA-BED CULTURE/BOTTOM CULTURE

**Lough Swilly Shellfish Growers Co-Operative
Society Limited**

Station House, Malin Road

Carndonagh

Co. Donegal

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SCHEDULE 2
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SCHEDULE 4

T12/37

AQUACULTURE LICENCE NO. XXXX

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

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

Lough Swilly Shellfish Co-Operative Society Limited
Station House
Malin Road
Carndonagh
Co. Donegal

(hereinafter referred to as the "Licensee") for the cultivation of mussels and oysters on a site in Lough Swilly, Co. Donegal as specified in Schedule 1 attached (numbered T12/37 C) and indicated on a plan on the attached map, as approved of by the Minister subject to the Act and Regulations made under the Act and to the terms and conditions set out in the attached pages.

This Aquaculture Licence shall remain in force for a maximum period of ten (10) years commencing on **XX XXXXXXXXXXXX 20XX**, provided for so long as the Foreshore Licence granted on **XX XXXXXXXXXXXX 20XX**, under Section 3 (1) of the Foreshore Act 1933 (No.12 of 1933) in respect of the same site for the purpose referred to is in force.

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

TERMS AND CONDITIONS APPLYING TO THIS AQUACULTURE LICENCE

1. Licensed Area

- 1.1. The area specified in *Schedule 1* attached (17.13 hectares) (labelled T12/37C) and outlined in red on the map(s) in *Schedule 1*.
- 1.2. The co-ordinates for the site are based on the Irish National Grid Co-ordinate System.

2. Species, Cultivation and Method Licensed

- 2.1. Species to be farmed: **Mussels and Oysters**
- 2.2. Method: **Bottom Culture** subject to the stocking and/or deployment limits as may be specified in *Schedule 4* attached.
- 2.3. The introduction of seed to the site shall comply with the legislation relating to fish health.

3. Infrastructure and Site Management

Indemnity

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

Design, Arrangement and Maintenance of Structures

- 3.3. The Licensee shall ensure that any equipment is placed within the licensed area only. Storage or placement of equipment or stock on the foreshore or seashore outside the licensed area is not permitted under any circumstances.
- 3.4. The Licensee shall obtain the prior approval of the Minister to any proposed material change to the plans/drawings or equipment as approved being used during the licensing period as maybe specified in *Schedule 2* attached.
- 3.5. The Licensee shall at all times for the duration of the licence keep all equipment used for the purposes of the licensed operations in a good and proper state of repair and condition to the satisfaction of the Minister or other competent State authority.
- 3.6. The Licensee shall ensure that the ends of each fence in the licensed area legibly bear the Aquaculture Licence Number in an indelible weatherproof format.

Operational Conduct

- 3.7. The Licensee shall conduct its operations in a safe manner and with regard for other persons in the area and the environment and shall ensure that the operations are not injurious to adjacent lands or the public interest (including the environment) and do not interfere with navigation or other lawful activity in the vicinity of the licensed area, and shall comply with any lawful directions issued by the Minister and any other competent State authority in that regard.
- 3.8. The Licensee shall ensure that any aquaculture or other activity conducted under this licence does not adversely affect the integrity of the Natura 2000 network (if applicable) through the deterioration of natural habitats and the habitats of species and/or through disturbance of the species for which the area have been designated in so far as such a disturbance may be significant in relation to the stated conservation objectives of the site concerned.
- 3.9. If the shellfish are to be harvested using dredges, the Licensee shall ensure that only mussel dredges are used for harvesting the shellfish.
- 3.10. The Licensee shall ensure that all vessels, components thereof and all equipment used in connection with the licensed area are kept properly maintained.
- 3.11. The Licensee shall as soon as possible after the commencement of this licence advise the Department of the quantity of seed placed in the licensed area, the approximate date(s) of the placement and the source(s) of the seed placed and likewise thereafter as and when further seed is so placed.
- 3.12. The Licensee shall advise the Department on the 31st day of January 20XX and on each succeeding 31st day of January for each year during which this licence continues in force of the quantity of stock harvested in that year and the approximate date(s) of harvesting.

Waste Management

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

Inspection

- 3.14. The licensed area and any equipment, structure, thing, or premises wherever situated used in connection with operations carried out in the licensed area shall be open for inspection at any time by an authorised person (within the meaning of Section 292 of the Fisheries (Consolidation) Act, 1959 (No. 14 1959) (as amended by Fisheries Act 1980) (No.1 of 1980), a Sea Fisheries Protection Officer (within the meaning of Sea Fisheries and Maritime Jurisdiction Act 2006) (No. 8 of 2006) or any other person appointed in that regard by the Minister or other competent State authority.

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

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

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

4. **Navigation and Safety**

4.1. The Licensee shall ensure that no hazard is caused to the safety of navigation across or near the licensed area in the use of any vessel or sea borne craft. The navigation and safety conditions are specified in *Schedule 2*.

4.2. Prior to commencement of operation the Licensee shall inform the UK Hydrographic Office at Taunton, of the location and nature of the site in order that charts and nautical publications can be updated. Tel: 00 44 1823337900 Fax: 00 44 1823 184077 Email sdrc@ukhvo.gov.uk and the Licensee shall submit proof to the Department within 14 days of the date of this licence that the UK Hydrographic Office has been so informed.

5. **Monitoring**

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

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

Fish Health Regulations

6.1. Before the site is stocked the Licensee shall ensure that a Fish Health Authorisation under statutory provisions giving effect to Council Directive No. 2006/88/EC, as amended, or any other legislative act that replaces that Directive on animal health requirements for aquaculture animals and their products and on the prevention and control of certain diseases in aquatic animals, is in place.

Disposal of Mortalities

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

Movement of Fish

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

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

Duration, Cessation

7.1. This Licence shall remain in force until XX XXXXXXXX, 20XX and as long as the accompanying Foreshore Licence remains in force.

Review

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

Revocation, Amendment

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

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

Assignment

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

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

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

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

8. **Fees**

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

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

9. **General Terms and Conditions**

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

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

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

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

Notification

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

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

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

Tax Clearance Certificate

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

Companies and Co-operatives

- 9.9. In the event of the licence being granted to a company (within the meaning of the Companies Acts), control of the licensee company shall not change in any respect from the control of the company as existed on the date that the licence was granted so long as this licence shall remain in force save with the prior written permission of the Minister.
- 9.10. In the event of a licence being granted to a company that has been incorporated outside this State, the licensee company shall register with the Companies Registration Office within one month of the establishment of a place of business in the State or alternatively, within one month of the establishment of a branch of the said company in the State and the licensee company shall submit proof to the Department within 14 days of the end of that month that it has been so registered.
- 9.11. Where the Licensee is a Company within the meaning of the Companies Acts, the licensee company shall ensure that it does not become dissolved within the meaning of the Companies Acts for so long as this licence shall remain in force.
- 9.12. In the event of the licence being granted to a society (within the meaning of section 2 of the Industrial and Provident Societies (Amendment) Act 1978 (No.23 of 1978) the following conditions shall apply:-
- 9.12.1 The rules relating to membership of the society shall enable any resident of the State to become a member of it where the resident fulfils all the conditions laid down by the society for membership of it and the rules shall not lay down different conditions for different classes of people;
- 9.12.2 The rules relating to the society as submitted to the Minister before the grant of this licence shall not be amended subsequently other than with the written permission of the Minister; and
- 9.12.3 The Minister may, if he considers it necessary in the interests of good management of the licensed area, direct that an amendment may be made to the rules of the society and the Licensee shall amend the rules in accordance with that direction.

Clearance of Site

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

SCHEDULE 1

Schedule 1 contains:

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

DRAFT

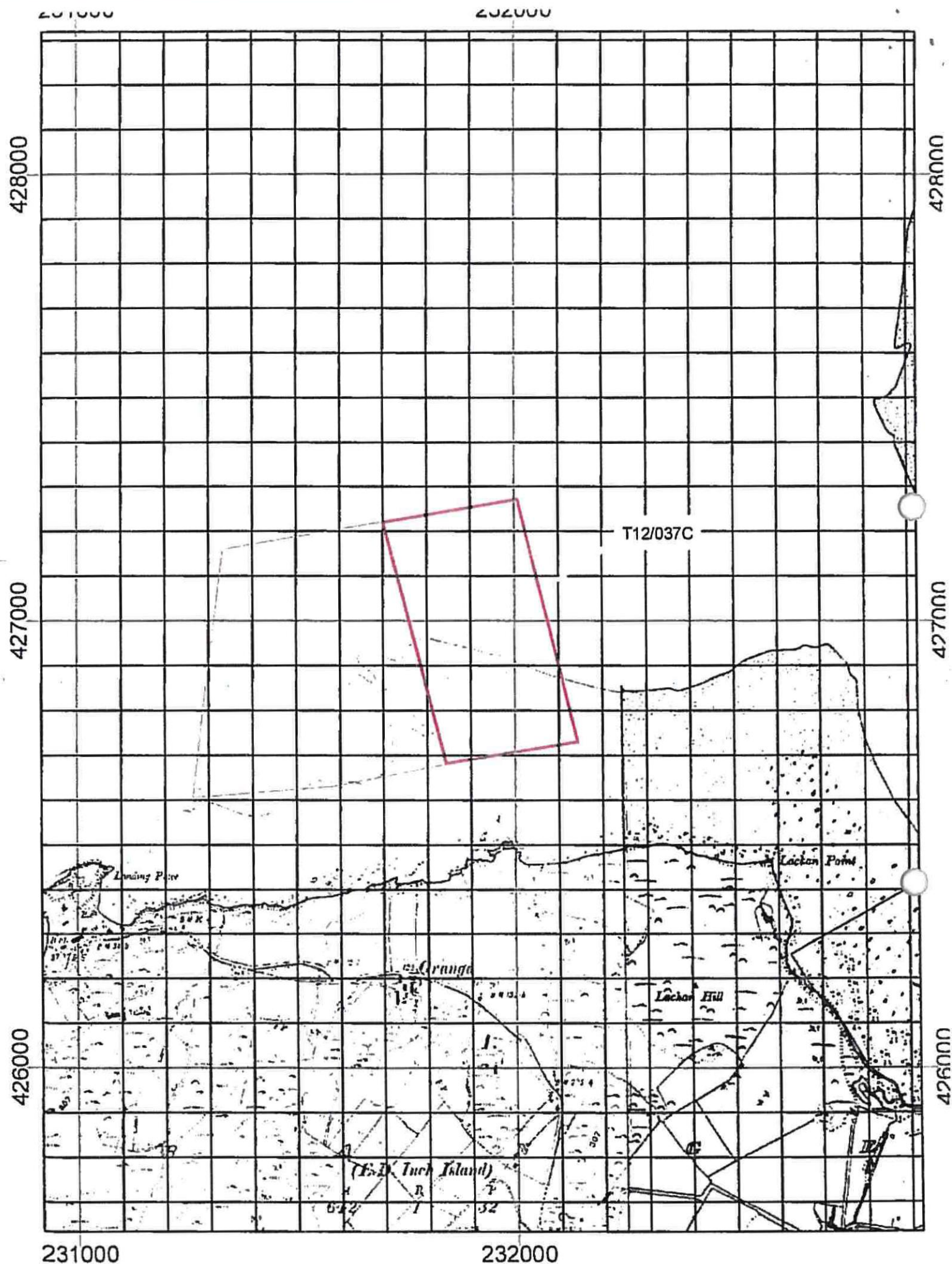
1 NO. SITE AT LOUGH SWILLY CO.DONEGAL

Co-ordinates & Area

Site T12/037C (17.13 Ha)

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

231700, 427221 to Irish National Grid Reference point
232007, 427273 to Irish National Grid Reference point
232142, 426731 to Irish National Grid Reference point
231842, 426681 to the first mentioned point.



Aqua Clarity Sites

See 3.1.1.1

Application

Control

License

Map

Map

Sites highlighted in red denotes Application
 Ordnance Survey Ireland Licence No. EN 0076413
 © Ordnance Survey Ireland/Government of Ireland

SCHEDULE 2

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

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

DRAFT

SCHEDULE 3

- **Requirements of CIL**

- That the applicant secures Statutory Sanction from the Commissioner of Irish Lights for the aids to navigation that are required and approved by the Marine Survey Office. These aids should be in place before the development on the site commences.

- **requirements of the MSO / the navigation marking detail.**

- Site to be marked in with a yellow spar with a yellow Saint Andrews Cross as topmark to be located at the north east and south east corner of the site. Topmarks to be visible at all stages of the tide at a height of two metres above the water.

DRAFT

SCHEDULE 4

- the stocking and/or equipment deployment conditions (if applicable).

DRAFT

1 NO. SITE AT LOUGH SWILLY CO.DONEGAL

Co-ordinates & Area

Site T12/037C (17.13 Ha)

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

231700, 427221 to Irish National Grid Reference point
232007, 427273 to Irish National Grid Reference point
232142, 426731 to Irish National Grid Reference point
231842, 426681 to the first mentioned point.

231000

232000

428000

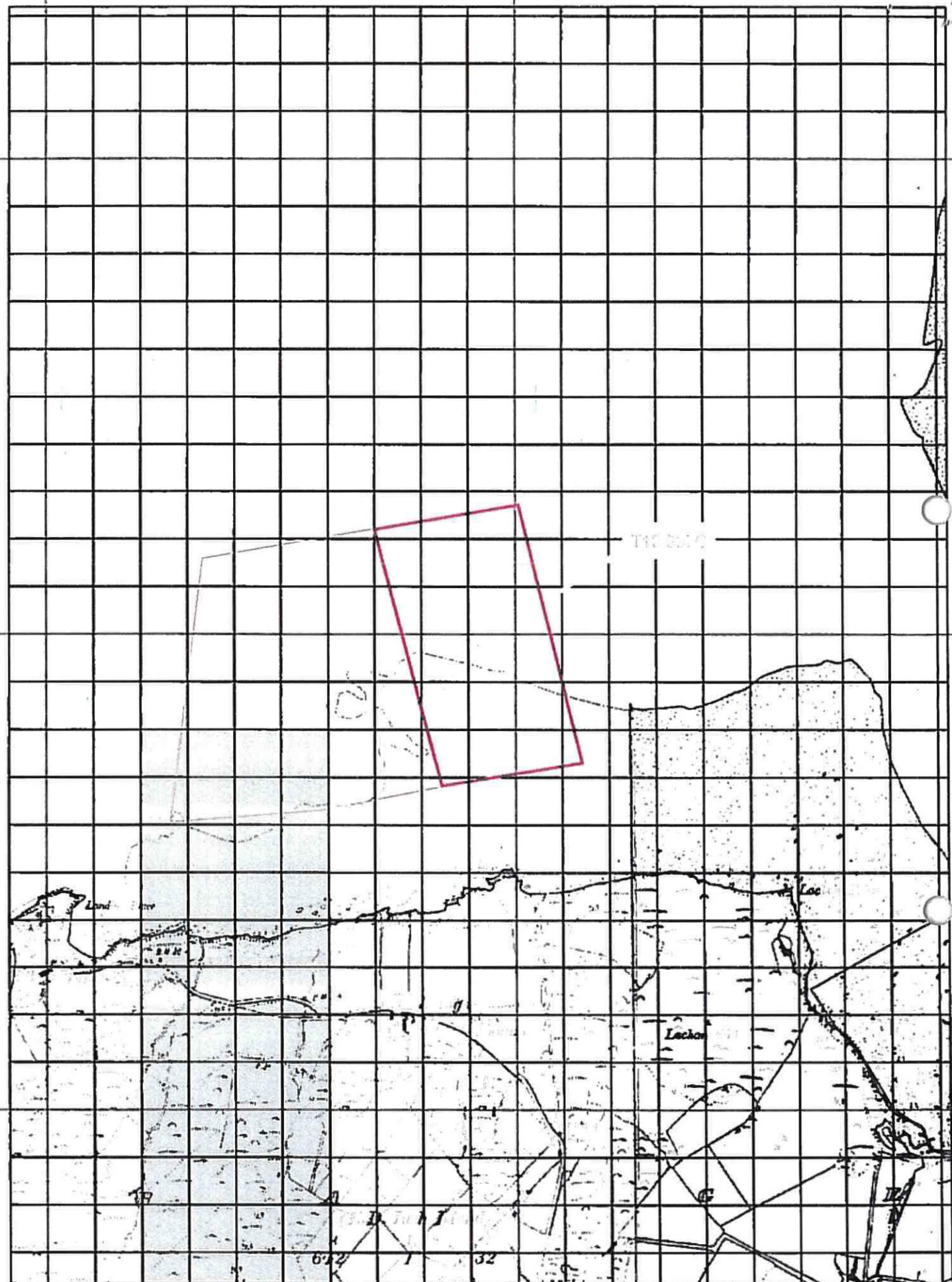
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Aqua C

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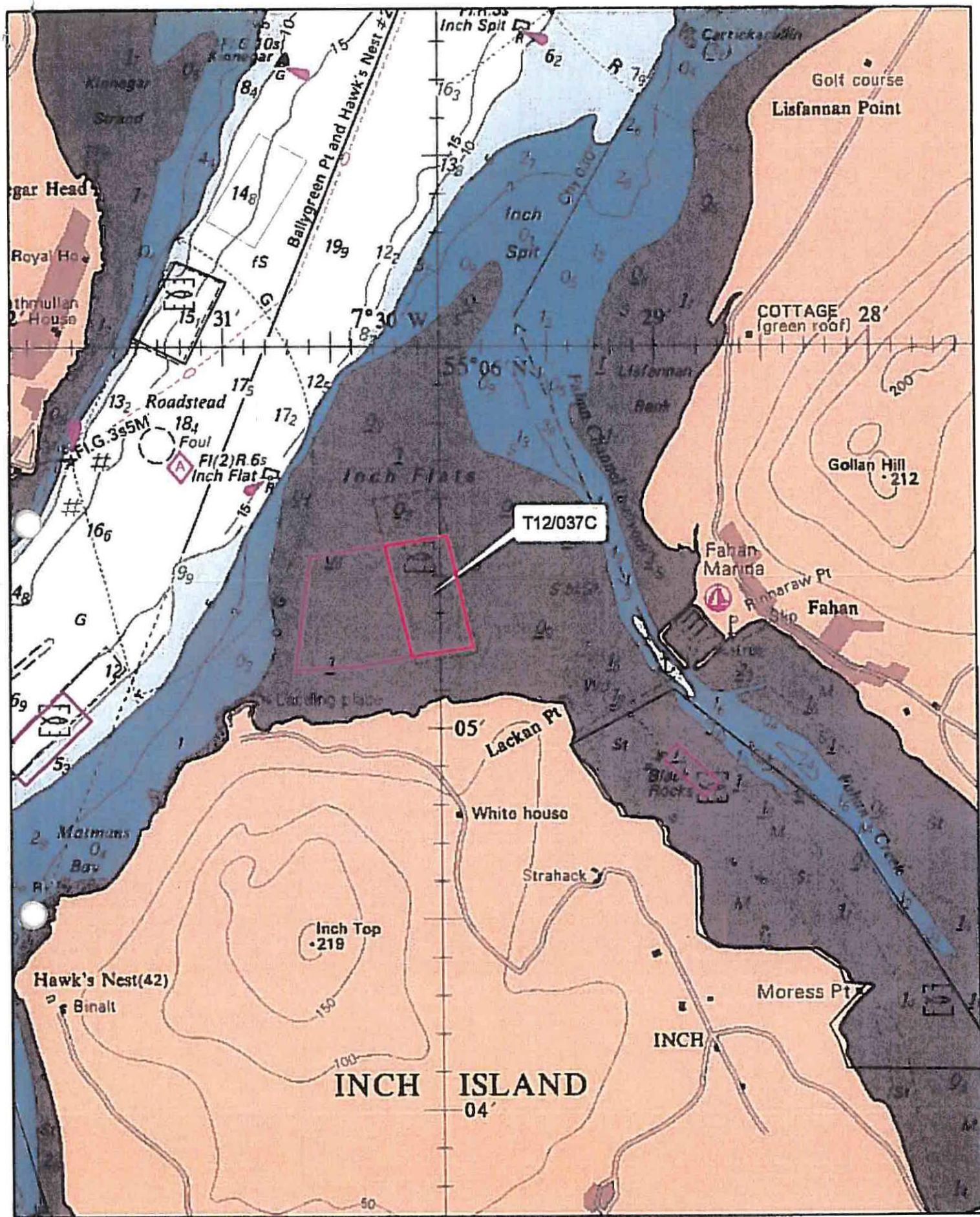
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Ch-4 Water and Land Use Application
 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000



1:24,000

Sites highlighted in red denotes Application

Part of Admiralty Chart No =2697-0

Not to be used for Navigation

Aqua Culture Sites
 Site Status
 Application
 Licensed
 Refused
 Revoked
 Suspended
 Withdrawn
 Withdrawn



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

05/12/2017

To ALAB

File Ref: See Attached Table

**NOTIFICATION OF MINISTER'S DECISION TO GRANT AND TO REFUSE
TO GRANT AN AQUACULTURE LICENCE AND A FORESHORE
LICENCE.**

Dear Ms O'Hara,

I enclose a copy of the Notice of the Minister's Decision to grant and to refuse to grant an Aquaculture Licence to: see **attached table** which will be advertised in the "Donegal Democrat" on **Thursday the 07th of December 2017.**

Yours sincerely,



Eileen Maher
Aquaculture and Foreshore Management Division
Department of Agriculture Food and the Marine
National Seafood Centre
Clonakilty, Co Cork
EileenM.Maher@agriculture.gov.ie
Tel No:0238859505

Reference Number	Name	Species	Decision
T12/37 A 1	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Mussels	Grant Licence
T12/37 A 2	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Pacific Oysters	Grant Licence
T12/37 B 1	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Mussels	Grant Licence
T12/37 B 2	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Mussels	Grant Licence
T12/37 B 3	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Pacific Oysters	Grant Licence
T12/37 B 4	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Pacific Oysters	Grant Licence
T12/37 C	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Pacific Oysters & Mussels	Grant Licence
T12/297	Patrick Shovelin, Clondallon, Rathmullan, Co. Donegal	Pacific Oysters	Refuse Licence
T12/311	Hannigan Fish Trading Ltd, Fintra Road, Killybegs, Co. Donegal	Pacific Oysters	Refuse Licence
T12/343	Alan O'Sullivan, 103 Ballymacool Wood, Letterkenny, Co. Donegal	Pacific Oysters	Grant Licence

Call 074 97 40160

Classifieds

Public Notices

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

The Minister for Agriculture, Food and the Marine has decided to grant/refuse Aquaculture and Foreshore Licences to the following in the table below in Lough Swilly, Co. Donegal:

T12/37 A 1	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Mussels	Grant Licence
T12/37 A 2	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Pacific Oysters	Grant Licence
T12/37 B 1	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Mussels	Grant Licence
T12/37 B 2	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Mussels	Grant Licence
T12/37 B 3	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Pacific Oysters	Grant Licence
T12/37 B 4	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Pacific Oysters	Grant Licence
T12/37 C	Lough Swilly Shellfish Growers Co-Operative Society Limited, Station House, Malin Road, Carndonagh, Co. Donegal.	Pacific Oysters & Mussels	Grant Licence
T12/297	Patrick Shovelin, Clondallon, Rathmullan, Co. Donegal.	Pacific Oysters	Refuse Licence
T12/311	Hannigan Fish Trading Ltd, Fintra Road, Killybegs, Co. Donegal.	Pacific Oysters	Refuse Licence
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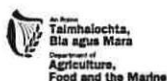
The reasons for this decision are elaborated on the Department's website at:

<http://www.agriculture.gov.ie/seafood/aquaculture/foreshoremanagement/aquaculturelicensing/aquaculturelicencedecisions/donagall/>

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

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

www.agriculture.gov.ie
@agriculture_ie



Situations Vacant

Rúnaí bunscoile

Rúnaí bunscoile páirtaimsire (3 lá, 12 n-uair in aghaidh na seachtaine) de dhíth i nGaelscoil Éirne, Fearann an Bhaile, Béal Átha Seanaidh, Co Dhún na nGall ag tosnú ar 15/1/2018.

Ní mó don té a cheapfar a bheith líofa sa Ghaeilge. Bheadh taithí a bheith ag obair mar rúnaí bunscoile ina chabhair don té a cheapfar. Beidh an rúnaí ag obair faoi stiúir an phríomhoide. Tá ard scileanna bainistíochta oifige, ard scileanna cumarsáide, ard scileanna eagrúcháin de dhíth don phost. Ní mó don té a cheapfar a bheith ábalta obair go neamhspleách as a stuaim féin agus mar chuid de fhoireann. Tá eolas agus taithí in úsáid na teicneolaíochta rianachánach don phost. Tá eolas ar buiseadú de dhíth chomh maith. Bheadh tuiscint ag an té a cheapfar ar an tábhacht a bhaineann le rúndacht agus le bheith discrídach agus éirí i mbun a chuid dualgais.

Beidh an ceapachán ag braith ar ghrinnfhiosrúcháin an nGardaí agus ar sheiceáil teistimeiríochtaí. Beidh tréimhse ceithre mhí ann don phromadh.

Seol do litir iarrtais, C.V agus cóip de do theastais chuig: An Cathaoirleach, Gaelscoil Éirne, Fearann an Bhaile, Béal Átha Seanaidh, Co Dhún na nGall

roimh 22 /12/2017.

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INTERVIEW TIMES & DATES**

Galway: Grey office Park Galway Retail Park –

Tuesday 05th December and Tuesday 19th December from 10am until 3.30pm.

Sligo: Clayton Hotel, Clonon Road – Wednesday 06th December from 10am until 3.30pm.

Letterkenny: Radisson Hotel, Letterkenny Retail Park – Thursday 07th December from 10am until 3.30pm.

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Appropriate Assessment of Aquaculture and Fisheries in Lough
Swilly SAC and SPA

Marine Institute

Version - May 2013

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Preface

In Ireland, the implementation of the Habitats Directive in relation to certain fisheries and aquaculture activities that occur within designated sites is achieved through Article 6(3) of the Directive whereby such activities, which are licenced by the Department of Agriculture, Food and the Marine (DAFM) or Department of Communications, Energy and Natural Resources (DCENR), are viewed as plans and projects and are therefore subject to Appropriate Assessment (AA). The Habitats Directive is transposed in Ireland in the European Communities (Birds and Natural Habitats) Regulations 2011. Appropriate assessments are currently carried out against the conservation objectives (COs), and more specifically on the version of the COs that are available at the time of the Assessment, for designated ecological features, within the site, as defined by the National Parks and Wildlife Service (NPWS). NPWS are the competent authority for the management of Natura 2000 sites in Ireland. Obviously, aquaculture and fishing operations existed in coastal areas prior to the designation of such areas under the Directives. Ireland is thereby assessing both existing and proposed aquaculture and fishing activities in such sites. This is an incremental process, as agreed with the EU Commission in 2009, and will eventually cover all fishing and aquaculture activities in all Natura 2000 sites.

The process of identifying existing and proposed activities and submitting these for assessment is, in the case of fisheries, outlined in SI 346/2009. Here, the industry or the Minister may bring forward fishing proposals or plans which become subject to assessment. These so called Fishery Natura Plans (FNPs) may simply be descriptions of existing activities or may also include modifications to activities that mitigate, prior to the assessment, perceived effects to the ecology of a designated feature in the site. In the case of aquaculture DAMF receives applications to undertake such activity and submits a set of applications, at a defined point in time, for assessment. The FNPs and aquaculture applications are then subject to AA. If the AA finds that significant effects of such activities cannot be discounted the plans or projects will need to be mitigated further if such activities are to continue. The AA is not explicit on how this mitigation should be achieved but rather the degree of mitigation required. In effect, therefore, the AA is a 'point in time' assessment of fishing and aquaculture activities to determine if they are consistent with COs for designated features within a Natura site and thereby compliant with the Directives.

This report is structured such that the summary, conclusions and recommendations from the assessments of fisheries and aquaculture activities in Lough Swilly on SAC and SPA features are provided in the first part of this report while the full assessments on the SAC and the SPA are provided in Annex 1 and 2, respectively. The Fishery Natura Plan for Native Oysters in Lough Swilly is provided in Annex 3. The information used in the preparation of this report is based on information provided by Department of Agriculture Food and Marine (Aquaculture licences and the spatial database held by DAFM), National Parks and Wildlife Service (Conservation Objectives and spatial extent of habitats), Bord Iascaigh Mhara (Industry Profiling) and Lough Swilly Wild Oyster Society Ltd (Fishery Natura Plan).

Summary SAC Considerations

Conservation Objectives

- Lough Swilly in Donegal is designated as a Special Area of Conservation (SAC) under the Habitats Directive. The area is designated due to the presence of priority habitats, namely Estuaries, Coastal Lagoons, Atlantic Salt Meadows (*Glauco-Puccinellietalia maritima*) and Old Sessile oak woods with *Ilex* and *Blechnum* in the British Isles, and species (Otter, *Lutra lutra*) as listed in the Habitats Directive. The qualifying interest of Estuaries' supports six different sedimentary communities-Fine Sand Community Complex, Intertidal Mixed Sediments with Polychaetes, Subtidal Mixed Sediment with Polychaetes and Bivalves, Muddy Fine Sand with *Thyasira flexuosa*, Mud Community Complex and *Ostrea edulis* Dominated Community
- Conservation Objectives for these habitats and species were identified by NPWS (2011a) and relate to the requirement to maintain habitat distribution, structure and function as defined by characterizing (dominant) species in these habitats. For designated species the objective is to maintain various attributes of the populations including population size, cohort structure and the distribution of the species in the Lough.

Assessment of impact of aquaculture and fishing activities

- There is a range of aquaculture and fishing activities in the Lough. The main aquaculture activity is the bottom culture of mussels and oysters, while the suspended culture of oysters (bag and trestle) also occurs. The profile of the aquaculture industry in the Lough, used in this assessment, is derived from the list of licence applications received by DAFM and provided to the MI for assessment in April 2012. NPWS (2011b) provide guidance on interpretation of the Conservation Objectives which are in effect management targets for habitats and species in the Lough.
- Some activities are deemed to be inconsistent with long term maintenance of certain sensitive habitats while other habitats can tolerate a range of activities. For the practical purpose of management a 15% threshold of overlap between a disturbing activity and a habitat is given in the guidance and below which such disturbance will be deemed non-significant. Disturbance is defined as that which leads to a change in the distribution of habitat or a change in the characterizing species of the habitat (which may indicate change in structure and function).
- The following activities were deemed to be disturbing:

Mussel Bottom Culture:

- This aquaculture type (licensed and applications) overlaps all of the six different community types found within the qualifying interest of Lough Swilly SAC. Considering the range of impacts identified (Biodeposition, Physical disturbance, Monoculture, Introduction of non-native species) and the persistent nature of the culture method, this activity is considered disturbing to all of the sedimentary habitats within the Lough. Alone this activity overlaps more than 15% of three of the communities (Subtidal Mixed Sediment with Polychaetes and Bivalves community-32.1%, Muddy Fine Sand with *Thyasira flexuosa* community-16.1%, *Ostrea edulis* dominated community-26.5%) and is therefore deemed to have a significantly disturbing effect on these communities.

Oyster Bottom Culture:

- This aquaculture type (applications) overlaps three of the six different community types found within the qualifying interest of Lough Swilly SAC. Considering the range of impacts identified (listed above) and the persistent nature of the culture method, this activity is considered disturbing.

Oyster Suspended Culture:

- This aquaculture type (applications) overlaps five of the six different community types found within the qualifying interest of Lough Swilly SAC. This culture method was deemed disturbing (Biodeposition, Physical disturbance, Introduction of non-native species) on one of the five communities on which it occurs i.e. *Ostrea edulis* dominated community. The primary reason for this assessment is that the characterising species *O. edulis* which is considered sensitive to a range of activities and it must be afforded protection as if it were a biogenic structure (similar to eel grass or mearl). The structures used for the culture of *C. gigas* and activity associated with it will also likely prevent the active management of the habitat type.

Oyster & Mussel Bottom Culture:

- This aquaculture type (licensed) overlaps all of the six different community types found within the qualifying interest of Lough SAC. Considering the range of impacts identified (listed above) and the persistent nature of the culture method, this activity is considered disturbing on all of the sedimentary habitats within the Lough. Alone this activity overlaps more than 15% of three of the communities (Fine sand community complex-19%, Subtidal Mixed Sediment with Polychaetes and Bivalves-18.1%, Muddy Fine Sand with *Thyasira flexuosa* community-48%) and is therefore deemed to have a significantly disturbing effect on these communities.

Existing (licensed) activities (19.14%-51.26%) exceed the threshold value (15%) in four of the six community types present (Table 1). For the two other habitat types, the individual aquaculture activities considered as disturbing do not overlap the community types at a significant level (>15%) but at the spatial overlap of approx. 12% which approaches the 15% threshold. However, when these disturbing activities (licensed and applications) are combined the level of overlap on individual communities is, in all cases, above the accepted threshold (>15%). The combined spatial overlap of activities (licensed, applications), considered disturbing, on individual community types range from 18.7% to 63.72% (Table 1). All values exceed the 15% guideline threshold for spatial overlap with habitats (NPWS 2011). Therefore, in-combination the overlap of these activities is not consistent with the COs for the following community types:

- Fine sand community complex
- Intertidal mixed sediment with polychaetes
- Mud community complex
- Muddy fine sand with *Thyasira flexuosa*
- *Ostrea edulis* dominated community
- Subtidal Mixed sediment with polychaetes and bivalves

Summary SPA Considerations

Conservation objectives

- The Special Conservation Interests (SCIs) of the Lough Swilly SPA include breeding populations of Black-headed Gull, Common Tern and Sandwich Tern and non-breeding populations of Whooper Swan, Greenland White-fronted Goose, Greylag Goose, Shelduck, Wigeon, Teal, Mallard, Shoveler, Scaup, Goldeneye, Red-breasted Merganser, Great Crested Grebe, Grey Heron, Coot, Oystercatcher, Knot, Dunlin, Curlew, Greenshank, Redshank, and Common Gull.
- The conservation objectives for the Black-headed Gull, Sandwich Tern and Common Tern breeding populations at Lough Swilly are to maintain their favourable conservation condition, which are defined by there being no significant decline in the abundance of the breeding population, the productivity rate and the distribution of breeding colonies.
- The conservation objectives for the non-breeding SCI species Lough Swilly are to maintain their favourable conservation condition, which are defined by there being stable or increasing long-term population trends and no significant decrease in numbers or range of areas used within Lough Swilly.
- The wetland habitats within Lough Swilly SPA and the waterbirds that utilise this resource are an additional SCI (the wetlands and water birds SCI). The conservation objective for this SCI is to maintain its favourable conservation condition, which is defined by there being no significant decrease in the permanent area occupied by subtidal, intertidal, supratidal and lagoon and associated habitats

Assessment of impact of aquaculture and fishing activities

- Most of the analyses of the likely impacts of activities covered in the assessment are based on calculations of spatial overlap between the SCI species distribution and the spatial extent of the activities. These analyses focus on distribution patterns of feeding, or potentially feeding birds, as the main potential impacts will be to the availability and/or quality of feeding habitat, although assessment of potential impacts on roosting birds is also included, where relevant. The distribution of waterbird species that mainly feed in deep subtidal waters have been analysed using data from the Irish Wetland Bird Survey (I-WeBS) counts of Lough Swilly (mainly using data from 2006/07-2010/11). The distribution of waterbird species that mainly feed in intertidal and/or shallow subtidal waters has mainly been analysed using the National Parks and Wildlife Service (NPWS) Baseline Waterbird Survey (BWS) low tide counts (carried out in 2009/10). Maps of flock locations from the NPWS BWS low tide counts and descriptions of waterbird distribution in Sheppard (2002)¹ and NPWS (2011)² have also been used to interpret the patterns derived from these analyses.
- There are three SCI species listed for their breeding populations. While the location of the breeding colony is known, there is no detailed information available on the distribution of foraging birds from the breeding colony. Therefore, we have not been able to carry out detailed distributional analyses for these species.

¹ Sheppard, R. (2002). The wintering waterbirds of Lough Swilly, County Donegal. *Irish Birds*, 7, 65–78.

² NPWS (2011). Lough Swilly Special Protection Area (Site Code 4075). Version 1. Conservation Objectives Supporting Document.

- The methodology identifies potentially significant impacts as those that will cause displacement of 5% or more of the total Lough Swilly population of a non-breeding SCI species.
- Whooper Swan, Greenland White-fronted Goose, Greylag Goose and Coot were screened out from appropriate assessment because they do not have any significant spatial overlap with any of the activities being assessed.
- The Conservation Objectives define the favourable conservation condition of the wetlands and waterbirds SCI at Lough Swilly purely in terms of habitat area. None of the activities being assessed will cause any change in the extents of subtidal, intertidal, supratidal and lagoon habitats. Therefore, the activities being assessed are not likely to have any significant impact on this SCI and it has been screened out from any further assessment.

Mussel bottom culture

Within the Lough Swilly SPA there are currently seven sites licensed (covering 512 ha) and another 13 applications (covering 549 ha) pending for mussel bottom culture. There are also an additional three sites licensed (covering 1174 ha) for the bottom culture of mussels and oysters together. The key aspects of this activity in relation to potential impacts on SCI species are: -

- Collection of mussel seed
- Ongrowing of mussel seed in nursery areas mainly in the intertidal
- Further ongrowing of mussels in subtidal waters
- Harvesting of mussels

Collection of mussel seed

- The seed mussel harvesting operations will not result in a net reduction in mussel availability and are not likely to cause reduced food availability for Scaup and Goldeneye (the two SCI species that may feed on subtidal mussels). The seed mussel harvesting takes place over a short period of time so any disturbance impacts will be of short duration and will not affect the availability of resources in this area. Therefore, there are no potentially significant impacts that are likely to arise from seed mussel harvesting.

Ongrowing of mussel in the intertidal and subtidal zones

- Ongrowing of mussels in intertidal and subtidal zones may cause changes in the physical structure of the habitat, and is considered disturbing to the intertidal biotopes affected, due to extirpation of the characteristic infaunal species from the area covered by mussels, and, in some cases, the sensitivity of characteristic species to organic enrichment, smothering and/or physical disturbance from dredging. Ongrowing of mussels in the subtidal zone may also reduce demersal fish populations although this response of fish populations is uncertain.
- Six of the intertidal and shallow subtidal SCI species at Lough Swilly can be considered potentially sensitive to mussel ongrowing: Shelduck, Wigeon, Teal, Mallard, Shoveler and Dunlin. Assuming that

there is 100% occupancy of the mussel bottom culture plots, and that birds are uniformly distributed through suitable habitat, significant displacement of Shelduck, Shoveler and Dunlin could occur although its likelihood is probably low. There is some evidence that Dunlin may, in fact have a positive association with mussel beds.

- Ongrowing of mussels in the subtidal zone is likely to have positive impacts on Scaup and Goldeneye by increasing their food supply. However, it may reduce food resources for fish-eating species depending on how fish species respond to increased mussel cover on the seabed. This could result in significant displacement impacts to Red-breasted Merganser and Great Crested Grebe. However, the existence of alternative prey resources (pelagic fish) suggests that displacement is probably unlikely to occur.
- Ongrowing of mussels in subtidal waters could have significant impacts on prey resources of Common Tern, potentially causing reduced productivity and, if continued over a period of years, reduced abundance of the breeding colony. Sandwich Tern prey resources are less likely to be significantly affected, but the reliability of this conclusion is low.
- Husbandry activity at high tide associated with ongrowing of mussel seed in intertidal nursery areas, the relaying of the seed mussels, the dredging of the seed mussels following ongrowing, the relaying of the mussels into subtidal waters and stock movements during ongrowing all have the potential to cause disturbance impacts to species in the subtidal zone. However, these activities will only occur for short periods of time, and will only affect limited areas of habitat at any one time, so any disturbance impacts will be of short duration and will not affect the availability of habitat and food resources.

Harvesting of mussels

- Mussel harvesting will result in the removal of mussel biomass that would otherwise have been available for birds to feed on. This could affect SCI species that feed on mussels (Scaup, Goldeneye, Oystercatcher, Knot and Common Gull). However, this mussel biomass has been produced by aquaculture. Where the mussels have been cultivated from seed mussels from the Irish Sea Fishery, this represents a net input into the system during the cultivation period. Where the mussels have been cultivated from seed mussels from the local seed area, the cultivation will have increased the biomass that would have been produced by this seed mussel resulting in a net increase in food availability during the cultivation period. It will also have made it available to the intertidally feeding species, and dispersed it more widely thereby reducing potential food limitation due to competitive effects. The biomass is not all removed during the harvest season so the food resources will always be available to some degree. Therefore, there are no potentially significant impacts of mussel biomass removal on SCI species resulting from the harvesting of mussels.
- Mussel harvesting will cause disturbance impacts to SCI species that use deep subtidal waters. While this activity may occur throughout the year it will only affect limited areas of habitat at any one time, so any disturbance impacts will be of short duration and will not affect the availability of resources in this area. Therefore, there are no potentially significant disturbance impacts that are likely to arise from the harvesting of mussels in subtidal waters.

Oyster bottom culture

This activity involves the bottom culture of both native and Pacific oysters. Within the Lough Swilly SPA there are currently two applications (covering 280 ha) pending for oyster bottom culture. There are also an additional three sites licensed (covering 1174 ha) for the bottom culture of mussels and oysters together. The key aspects of this activity in relation to potential impacts on SCI species are: -

- A nursery phase in the intertidal zone
- Further on-growing of oysters in subtidal waters
- Harvesting of oysters

The nursery, on-growing and harvesting of oysters and the stock movements during on-growing has the potential to cause disturbance impacts to SCI species that use deep subtidal waters. However, these activities will only occur for short periods of time, and will only affect limited areas of habitat at any one time, so any disturbance impacts will be of short duration and will not affect the availability of resources in this area. Therefore, there are no potentially significant disturbance impacts that are likely to arise from the growing and harvesting of oysters in subtidal waters.

Nursery phase in the intertidal zone

The nursery phase in the intertidal zone involves trestles and/or BST longlines in areas licensed for suspended culture, which are in separate areas, outside the oyster bottom culture plots (see below). No activities associated with oyster bottom culture will occur within the intertidal zones of the oyster bottom culture plots.

Ongrowing of oysters in subtidal waters

The areas used for oyster bottom culture will generally be below the lowest astronomical tide, so SCI species that only feed in shallow subtidal habitat are unlikely to be affected.

Ongrowing of oysters in subtidal waters is considered disturbing to the subtidal biotopes affected, due to the sensitivity of some of the characteristic species to organic enrichment, smothering and/or physical disturbance from dredging. Therefore, it could potentially have negative impacts on two SCI species (Scaup and Goldeneye) that feed on benthic invertebrates in deep subtidal waters. The distribution patterns and habitat usage of Goldeneye in Lough Swilly mean that they do not show any significant overlap with the areas potentially affected by this activity. Assuming that there is 100% occupancy of the oyster bottom culture plots, and that birds are uniformly distributed through suitable habitat, there is potential for the on-growing of oysters in subtidal waters to cause significant displacement impacts to Scaup, due to either a reduction in the suitability of existing mussel beds as feeding habitat, or through impacts to other benthic invertebrates that they feed on. However, it should be noted that the assumption of a negative response of this species to subtidal oyster cover is a precautionary assumption in the absence of clear evidence about the nature of its response.

It is considered unlikely that on-growing of oysters in subtidal waters would impact negatively on fishes as the oysters, along with shell 'hash', provides a low relief habitat that will increase general heterogeneity in overall structure and which has been shown to increase diversity and abundance of fish species. Therefore, there are unlikely to be negative impacts on food resources for the mainly fish-eating SCI species (Red-breasted Merganser, Great Crested Grebe, Sandwich Tern and Common Tern).

Harvesting of oysters

Oyster harvesting will result in the removal of oyster biomass that would otherwise have been available for birds to feed on. However, there are no SCI species at Lough Swilly that are likely to feed on oysters in subtidal waters.

Suspended oyster culture

There are two methods of suspended oyster culture in Lough Swilly: bags and trestles in intertidal habitat and BST longlines in subtidal habitat. Within the Lough Swilly SPA there are currently three sites (comprising five plots) licensed for suspended oyster culture and three applications covering a total area of 118 ha.

Suspended oyster culture causes a significant physical alteration to the structure of intertidal and subtidal habitat through the placement of physical structures (oyster trestles or poles and longlines) in the habitat and may also cause impacts to benthic invertebrates through sedimentation and eutrophication. It may also cause impacts to waterbirds through disturbance associated with husbandry activities.

Based on previous research six of the intertidal and shallow subtidal SCI species at Lough Swilly can be considered potentially sensitive to negative impacts from intertidal oyster culture using trestles: Shelduck, Wigeon, Teal, Mallard, Shoveler, Knot, and Dunlin. However, the distribution patterns and habitat usage of these species in Lough Swilly mean that they do not show any significant overlap with the areas potentially affected by this activity.

By analogy with suspended mussel culture (see below) subtidal oyster culture using BST longlines is considered unlikely to cause impacts to the predominantly fish-eating SCI species (Red-breasted Merganser, Great Crested Grebe, Sandwich Tern and Common Tern). The distribution patterns and habitat usage of other two SCI species that feed in deep subtidal habitat (Scaup and Goldeneye) mean that they do not show any significant overlap with the areas potentially affected by this activity.

Suspended mussel culture

There is a single site licensed for suspended mussel culture in the Lough Swilly SPA. This site contains one plot of 12 ha located in subtidal habitat in the *Rathmullan* subsite.

Previous work indicates that suspended mussel culture may increase the abundance of fish, and a detailed study found no evidence of adverse impacts from suspended mussel culture on fish-eating bird species. Therefore, subtidal mussel culture using longlines is unlikely to cause impacts to Red-breasted Merganser, Great Crested Grebe, Sandwich Tern and Common Tern. The distribution patterns and habitat usage of other two SCI species that feed in deep subtidal habitat (Scaup and Goldeneye) mean that they do not show any significant overlap with the areas potentially affected by this activity.

The Fishery Natura Plan for native oysters

The objective of the Fishery Natura Plan (FNP) is to develop a sustainable fishery for native oysters in Lough Swilly. The key aspects in relation to potential impacts on SCI species are: -

- Development of a spawning reserve, a cultch area and a cultch control area
- Fishing native oysters and Pacific oysters with dredges

Development of a spawning reserve, a cultch area and a cultch control area

The Fishery Natura Plan for native oysters (FNP) proposes the creation of a spawning reserve, a cultch area and a cultch control area, all within the Ballybegly subsite. The spawning reserve (55 ha) will be closed to fishing. Pacific oysters will be removed, by dredging, from the reserve and mature native oysters (>55 mm) will be transplanted into the reserve. Mussel and oyster shell will be deposited in the cultch area (50.5 hectares) and Pacific oysters will be removed from the cultch and cultch control areas.

The FNP will result in an increase in oyster density in the spawning reserve and an increase in the cover of both dead shells and live oysters in the cultching area. The cultch control area is an area that will be left unaltered as a comparison and will have no impact on habitat structure or benthic fauna. It seems likely that the responses of species to oyster cover (compared to open mud/sandflats) will be similar to their responses to mussel cover. Therefore, the SCI species that may be negatively affected by increased oyster cover in the intertidal and/or shallow subtidal zones are considered to be Shelduck, Wigeon, Teal, Mallard, Shoveler and Dunlin. Of these species, only Dunlin occurs in significant numbers within the Ballybegly subsite. While crude calculations of spatial overlap indicates a potential displacement effect close to the threshold level for significance, considerations of their patterns of habitat usage in relation to the likely magnitude of change in habitat structure indicate that the spawn reserve and cultching area are unlikely to cause significant impacts to the Lough Swilly Dunlin population.

Work from the Wadden Sea has indicated that there may be reduced densities of mussel-feeding birds on oyster beds compared to mussel beds. However, based on the known distribution of mussel beds, the distribution of Oystercatcher flocks during the NPWS BWS low tide counts, and the likely low numbers/infrequent occurrence of Knot in this subsite, it seems unlikely that the potential reduced suitability of existing mussel beds for mussel-feeding species in the intertidal zone will cause significant displacement impacts to any SCI species.

The potential impacts of habitat alteration of the spawning reserve and the cultching area on SCI species in the subtidal zone will be similar to those from bottom culture of oysters (see above). Therefore, the species that may be negatively affected by increased oyster cover in the subtidal zone are Scaup and Goldeneye. Neither of these species occur in significant numbers within the Ballybegly subsite.

Fishing native oysters and Pacific oysters with dredges

Fishing will occur in areas where Pacific oysters comprise more than 50% of all oysters; and in areas with densities of native oysters > 0.25 m⁻² where < 70% are juveniles. During its first year of operation, the FNP will potentially result in fishing of 465 ha of intertidal habitat, mainly in the Ballybegly, Ray and Shellfield subsites, and 377 ha of subtidal habitat, mainly in the Ballybegly, Blanket Nook, Castle Shanaghan, Leannan Estuary and Ray subsites (referred to as the *FNP dredging zone*). The area fished for Pacific oysters are expected to decrease during the lifetime of the FNP, but the areas fished for native oysters may increase, if the FNP is successful. There is an existing oyster fishery in Lough Swilly, since the 18th century at least. The degree to which the fishing proposed in the FNP would represent intensification or reduction in fishing activity, and/or changes in the spatial area fished, is not known. However, dredging for Pacific oyster in the last few years has been of a fairly intense nature, particularly in certain areas.

Dredging for oysters represents a physical surface and sub-surface pressure and the characterising species of the affected biotopes are deemed fragile and therefore have a degree of intolerance to dredging but the recoverability of these species is generally likely to be moderate or high. It is considered unlikely that oyster dredging has any significant mortality effect on other bivalves but tube building polychaetes could be damaged. The direct impacts of dredging may, therefore, affect food resources for waterbirds that feed on benthic invertebrates. In addition dredging may affect demersal fish populations, thereby affecting the SCI species that mainly feed on fish.

Fishing will coincide with the main period that the non-breeding waterbirds are using these areas. Therefore, even a temporary reduction in the availability of benthic invertebrates could cause displacement of waterbirds. Therefore, the potential impact on waterbirds will depend upon the actual spatial and temporal extent and intensity of the fishery and the speed of recovery of sensitive fauna. For example, if it takes a period of months for sensitive fauna to recover, then food resources for waterbirds could be significantly affected if a high intensity fishery occurs over a wide area.

Of the intertidal SCI species that feed on benthic invertebrates, Grey Heron, Oystercatcher, Knot, Dunlin, Curlew, Greenshank, Redshank and Common Gull show significant spatial overlap with the FNP dredging zone. However, considerations of patterns of habitat usage and likely diet indicate that Grey Heron, Oystercatcher, Knot, Redshank and Common Gull are less likely to be affected by the potential impacts of dredging on benthic invertebrates. Dunlin is the species most likely to be affected, given its high degree of overlap with FNP dredging zone and the importance of polychaetes in its diet. This species has an unfavourable conservation condition at Lough Swilly and a decreasing trend over the last five years which reflects national trends.

Of the subtidal SCI species that feed on benthic invertebrates or fish, Goldeneye and Scaup do not show a significant overlap with the FNP dredging zone. Based on the limited available information about their foraging distribution it also appears unlikely that dredging would have significant impacts on prey resources for Sandwich and Common Terns. Red-breasted Merganser and Great Crested Grebe do show a significant overlap with the FNP dredging zone.

Dredging may also cause disturbance to SCI species that use deep subtidal waters. Assuming a moderate disturbance response of 200 m each boat could affect around 13 ha of habitat. Therefore, up to 30 boats dredging an area of no more than 840 ha could result in a significant level of potential disturbance. In theory, depending on stock biomass and density, fishing could occur every day throughout the fishing period (19th September to 31st March). In practice this is unlikely to occur. However, without the provision of details of likely fishing intensity and duration it is impossible to make a realistic assessment of the likely impacts of disturbance and a precautionary approach has to be adopted. On this basis disturbance could potentially have significant impacts on Shelduck, Mallard, Shoveler Red-breasted Merganser and Great Crested Grebe, and, possibly, Common Gull.

There is an existing oyster fishery in Lough Swilly. Therefore, the current status and trends of waterbird populations in Lough Swilly may reflect the impacts (if any) of oyster dredging. Of the species listed above Red-breasted Merganser, Great Crested Grebe, Dunlin, Curlew and Common Gull have unfavourable conservation status, although these mainly reflect the all-Ireland trend (apart from Common Gull, for which there is no all-Ireland trend assessment). There is no historical data on the scale and intensity of the oyster fishery in Lough Swilly so it is not possible to analyse species trends in relation to oyster fishing activity.

SAC Conclusions and Recommendations

- Some aquaculture (mussel and oyster culture) activities that are carried out in the Lough Swilly SAC have been considered as disturbing on habitats. The extent of existing and proposed aquaculture activities are presented in Table 1 below, wherein existing licenced activities account for greater than the 15% threshold of interaction in four of the six habitat types found in the feature of conservation interest (i.e. Estuary). When applications are considered, in combination with licenced activities, threshold values are exceeded in all communities identified (Table 1).
- Oyster fishery activities/plans within the bay are not compatible with aquaculture activities by virtue of the species targeted i.e., oysters as opposed to mussels for on-bottom culture methods, as well as the risk of interference with structures used for aquaculture (e.g. float and ropes and bags and trestles). The oyster fishery proposal as reflected in the Fishery Natura Plan (Annex1), however, is broadly compatible with the conservation of '*Ostrea edulis dominated community*' that constitutes approx 906ha of the conservation feature of the SAC (i.e. 15% of Estuary). While the ultimate goal of the plan is to increase the standing stock of native oysters in the Lough, to a level which can sustain fishery activity, this is considered a beneficial management proposal to the overall status of the native oyster, and native oyster habitat, in the Lough.
- Given the findings summarized above (and in Chapter 7 of Annex I) it is concluded that the *status-quo* relating to aquaculture activities (i.e. existing licences) is not consistent with the conservation objectives or achievement of good conservation status for habitats within the SAC. This is manifest in two ways;

(1) the threshold value for considering disturbing activity of 15% is exceeded for a number of different habitat types and also constitutes 28.6% of Estuary, the overall feature of conservation interest. When considering the cumulative values of current licences and applications, the threshold values are exceeded in all habitat types and constitute 39.7% of the feature Estuary

(2) the incompatibility of native oyster fishing and shellfish culture. As indicated previously and specifically in relation to oyster habitat, the objective of the Fishery plan for native oysters is to increase the density of native oyster, whereas the objective of bottom mussel and Pacific oyster culture is to increase the density of Pacific oyster and mussels, both of which are considered disturbing activities. These objectives cannot be simultaneously achieved in the same area; operationally these activities are incompatible. Therefore, as the oyster fishing plan is considered more compatible with the COs for '*Ostrea edulis dominated community*' than aquaculture activities oyster fishing would seem to have precedence over aquaculture activities in this habitat on this basis alone.

- Following are a number of recommendations relating to Aquaculture and Fisheries activities that will reduce possible impacts of aquaculture and fisheries on habitats to levels consistent with achievement of good environmental status and that are consistent with the conservation objectives.

Aquaculture

Spatial overlap of disturbing aquaculture activity and individual habitats should be reduced to 15%. To achieve this 'goal', aquaculture activities may be managed in a number of different ways including, *inter alia*:

1. Revoke inactive licences as per the Fisheries (Aquaculture) Act 1997 (Section 69-Subsections 1 and/or 2; wherein licenced areas unused for a period greater than 2 years can be revoked by the Minister).
2. Do not issue new licences in Lough Swilly unless the type of activity proposed is considered non-disturbing to habitats of conservation interest.

3. No aquaculture activities should be carried out in '*Ostrea edulis* dominated community', as they are all considered disturbing to this sensitive habitat type.
4. A *pro-rata* reduction of licenced areas be applied to reduce overlap to <15% with individual habitats. To this end, Table 1 (below) identifies the specific overlap between those activities considered potentially disturbing, (i.e. licenced and applications) and individual habitat types. These data may aid in the selection of specific areas where reductions in aquaculture activities might be targeted.

Fisheries

1. Rationalizing aquaculture licenced areas down to 15% overlap with individual habitat will represent significant reduction in extent of such activities. Some of the proposed activities in the oyster fishing plan also occurs in non-oyster habitat thereby making it more difficult for aquaculture to reduce to the 15% in-combination threshold. As the existing extent of habitat defined as oyster habitat includes areas where oyster is at very low density and given that only a proportion of it is fished and given the uncertainty regarding how feasible it is to restore oyster stocks the activities associated with the oyster fishery plan should only occur in '*Ostrea edulis dominated community*' and not in other habitats. The main activity affected will be the location of the spawning reserve for oyster which should be moved into the '*Ostrea edulis dominated community*'. This may be a reasonable compromise, considering the very significant reductions in aquaculture activity required to bring aquaculture activity below the 15% overlap threshold with habitats.
2. It will be necessary to implement all of the measures outlined in the oyster fishery plan and where necessary to give these measures legislative support, if it is to achieve its objective and therefore be compatible with the conservation objectives for '*Ostrea edulis dominated community*'.
3. An implementation plan for the oyster fishery proposal should be developed with the relevant stakeholder groups.

Table 1. Spatial information on individual aquaculture licences considered potentially disturbing and overlap (ha and proportion in italics) with each habitat in L. Swilly.															
License ID	Status	Species	Total License Area (ha)	Fine sand community complex		Intertidal mixed sediment with polychaetes		Mud community complex		Muddy fine sand with <i>Thyasira flexuosa</i>		<i>Ostrea edulis</i> dominated community		Subtidal mixed sediment with polychaetes and bivalves	
Extent (ha) of marine habitat within qualifying interest (estuary):				582.63		655.30		1126.92		1320.48		905.98		1314.03	
				Area	% habitat	Area	% habitat	Area	% habitat	Area	% habitat	Area	% habitat	Area	% habitat
T12/251A	Licensed	Mussels	24.00							0.34	0.03	8.33	0.92	15.32	1.17
T12/251B	Licensed	Mussels	43.50			24.88	3.80							18.62	1.42
T12/273A	Licensed	Mussels	48.05							45.23	3.42			2.76	0.21
T12/278A	Licensed	Mussels	19.00							2.52	0.19			16.48	1.25
T12/280/1A	Licensed	Mussels	16.25											16.25	1.24
T12/293	Licensed	Mussels	196.00					5.86	0.52			110.12	12.15	80.02	6.09
T12/298	Licensed	Mussels	164.80					0.14	0.01			82.11	9.06	82.55	6.28
T12/037A	Licensed	Oysters & Mussels	304.26	0.10	0.02	12.07	1.84	136.02	12.07					156.07	11.88
T12/037B	Licensed	Oysters & Mussels	844.03	94.09	16.15	33.71	5.14			628.87	47.62	5.90	0.65	81.47	6.20
T12/037C	Licensed	Oysters & Mussels	25.42	17.30	2.97	8.12	1.24								
T12/297	Licensed	Oysters	2.25									2.25	0.25		
T12/311A ¹	Licensed	Oysters	24.00									3.45	0.38		
Total area (or proportion) of habitat occupied by potentially disturbing licenced aquaculture (ha)				111.49	19.14	78.77	12.02	142.02	12.60	676.96	51.27	212.16	23.42	469.55	35.73

License ID	Status	Species	Total License Area (ha)	Fine sand community complex		Intertidal mixed sediment with polychaetes		Mud community complex		Muddy fine sand with <i>Thyasira flexuosa</i>		<i>Ostrea edulis</i> dominated community		Subtidal mixed sediment with polychaetes and bivalves	
				Area	% habitat	Area	% habitat	Area	% habitat	Area	% habitat	Area	% habitat	Area	% habitat
T12/328A	Application	Mussels	44.50	40.93	7.02	3.57	0.55								
T12/328B	Application	Mussels	34.53			1.29	0.20	0.56	0.05					32.68	2.49
T12/328C	Application	Mussels	166.93					52.95	4.70			2.30	0.25	111.68	
T12/328D	Application	Mussels	13.96							13.96	1.06				
T12/330A	Application	Mussels	17.99											17.99	1.37
T12/330B	Application	Mussels	60.64			26.84	4.10	1.99	0.18	22.56	1.71	9.25	1.02		
T12/330C	Application	Mussels	35.04							35.04	2.65				
T12/341A	Application	Mussels	9.00			8.08	1.23							0.92	0.07
T12/341B	Application	Mussels	27.88			6.32	0.96							21.55	1.64
T12/341C	Application	Mussels	16.62									16.62	1.83		
T12/344/1A	Application	Mussels	7.94							7.94	0.60				
T12/379A	Application	Mussels	97.83			0.03	0.00			84.91	6.43	11.88	1.31	1.01	0.08
T12/398B	Application	Mussels	16.32					13.42	1.19					2.91	0.22
T12/339A ²	Application	Oysters	135.24			3.15	0.48					65.50	7.23	10.74	0.82
T12/339B ²	Application	Oysters	145.03									25.71	2.84		0.00
Suspended Culture (Bags & Trestles)															
T12/317A ¹	Application	Oysters	2.25									1.04	0.11		
T12/343A ¹	Application	Oysters	6.00									3.91	0.43		
Total area (or proportion) of habitat occupied by potentially disturbing aquaculture (ha)				152.41	26.16	128.05	19.54	210.94	18.72	841.36	63.72	348.37	38.45	669.02	50.91

NOTES: 1: The sites considered here are intertidal culture of oysters using bag and trestles. This activity is considered non-disturbing to all bar one ('Ostrea' dominated) community type. The values in the table reflect the interaction with this community type only.

2: These sites overlap with existing licenced areas for a portion of the area applied; the values presented in table represent that area that does not overlap with existing licenced areas.

SPA Conclusions

This assessment has identified the following potentially significant impacts: -

Ongrowing of mussels

- Displacement of Shelduck, Shoveler and Dunlin due to habitat alteration from the ongrowing of mussel seed in intertidal nursery areas.
- Displacement of Red-breasted Merganser and Great Crested Grebe due to impacts on food resources from the ongrowing of mussels in subtidal waters.
- Reduced productivity and, possibly, abundance of the Common Tern breeding colony due to impacts on food resources from the ongrowing of mussels in subtidal waters.

Growing of oysters

- Displacement of Scaup due to impacts on food resources from the ongrowing of oysters in subtidal waters.

Fishing for native oysters

- Displacement of Red-breasted Merganser, Great Crested Grebe, Dunlin, Curlew and Greenshank, and possibly other species, due to impacts on food resources from fishing native and Pacific oysters with dredges as part of the Fishery Natura Plan for native oysters.
- Displacement of Shelduck, Mallard, Shoveler, Red-breasted Merganser and Great Crested Grebe, and, possibly, Common Gull, due to disturbance associated with fishing native and Pacific oysters with dredges as part of the Fishery Natura Plan for native oysters.

However, these potential impacts arise from worst-case scenario assessments, due to the lack of detailed information about the spatial and temporal extent of the activities being assessed. They are based on unrealistic assumptions of 100% occupancy of mussel and oyster bottom culture plots, and fishing oysters to the maximum spatial extent and temporal intensity that would be permitted under the Fishery Natura Plan. They also assume 100% displacement of the affected species. In some cases, there may also be considerable uncertainty about the nature of the species response to the activity being assessed.

No potentially significant impacts have been identified in the case of the following activities;

- Collection of mussel seed (from licenced aquaculture areas) for mussel bottom culture and harvesting of mussels following ongrowing.
- The nursery phase of oyster bottom culture and harvesting of oysters following ongrowing.
- Suspended oyster culture.
- Suspended mussel culture.
- Development of a spawning reserve, a cultch area and a cultch control area as part of the Fishery Natura Plan for native oysters.

