



EIA Screening Assessment

T12/37

EIA SCREENING ASSESSMENT T12/37

1. Applicant Details

Name
Address

Lough Swilly Shellfish Growers Society
Station House
Malin Road
Carndonagh
Co. Donegal

2. Characteristics of Project

a) Species cultivation proposed

Blue Mussels (*Mytilus edulis*) Oysters (*Ostrea Edulis* and *C. Gigas*)

b) Method

Bottom culture for mussels-bag and trestle and hanging basket for oysters

c) Production in intertidal zone

Yes

d) Production beyond intertidal zone

Yes

e) Source of seed/spat etc

Natural falling/Irish Sea mussel seed – Oyster seed France Naissan Turbot

f) Is a non-native species to be cultivated?

Yes With the exception of Articles 3 & 4 Regulation EC 708/2007 does not apply to the production of *C. Gigas*

g) Annual Production Estimates - Tonnes

Year 1	c. 1000MT mussels-	200 tonnes oysters
Year 2	c. 1000MT mussels-	200 tonnes oysters
Year 3	c. 1000MT mussels-	200 tonnes oysters
Year 4	c. 1000MT mussels-	200 tonnes oysters

3. Location of Project

a) File No.

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b) No. of sites

3 sites on expired licence - proposal for division into 4 sites

c) Location

Lough Swilly

d) Heclares

1,174 ha- as assessed in AA

e) Shellfish Waters Designation

Yes

If yes, identify area as per S.I. 268 of 2006/S.I. 55 of 2009

S.I. 55 of 2009 Lough Swilly Map No. 28 August 2008

f) Natura 2000 site

Yes

Lough Swilly SAC (SAC002287), Lough Swilly SPA (SPA 004075)

If yes, identify site and type

4. Development Plan

a) County Development Plan

Yes – Donegal County Development Plan

Chapter 8 - Tourism and Marine. The Council will support the sustainable development of the aquaculture sector to maximise its contribution to economic growth within the County. In particular, the Council acknowledge the development and expansion of the oyster farming industry in the county and its potential in terms of employment and product export.

If yes, identify relevant sections

If yes, period covered

b) Local Area Plan

If yes, identify relevant sections

c) Other

If yes, please specify and identify relevant sections

2012-2018

No

No

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EIA SCREENING CHECKLIST			
Is it an ANNEX II project?		YES	
Is the project located on or adjacent to a Natura 2000 area?		YES Sites located in Lough Swilly SAC Site Code(002287), Lough Swilly SPA Site Code (004075)	
If yes, has the appropriate assessment been carried out?		YES- Appropriate Assessment of Aquaculture and Fisheries in Lough Swilly carried out by Marine Institute- published May 2013	
1. CHARACTERISTICS OF THE PROJECT - ANNEX III (1)		Yes/No - Briefly describe	Is this likely to result in a significant effect? Yes/No? - Why
(a) Size of project			
Will the project be out of scale with the existing environment?		Yes. The development is large (1,174 Ha) in scale relative to the body of coastal water within which it is located.	As part of a separate process an Appropriate Assessment was carried out under Article 6(3) of the Habitats Directive it concluded that it was likely that the proposed activity, alone or in combination with other aquaculture activities, would have significant impacts on the Conservation Objectives of the Lough Swilly SAC and the Lough Swilly SPA.
Will it lead to further consequential development or works (e.g. new roads, landing facilities, provision of new water supply)?		No. Existing infrastructure will be used and no additional infrastructure developments are needed.	
(b) Cumulation with other development			
Are there potential cumulative impacts with existing aquaculture projects or with other licensed aquaculture projects but which have not yet begun?		Yes. There are other aquaculture projects adjacent to this site involving the cultivation of mussels and oysters.	Cumulative impacts of bottom mussel cultivation in the Lough was considered in the Appropriate Assessment. It was concluded that this aquaculture type, both currently licensed sites and sites for which new applications have been made, 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, Introduction of non-native species) 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 communities (Sub-tidal Mixed Sediment with Polychaetes and Bivalves community -32.1%, Muddy Fine Sand <i>Thyasira flexuosa</i> community – 16.1%, <i>Ostrea edulis</i> dominated community – 26.5%) and is therefore deemed to have a significantly disturbing effect on these communities. Oyster suspended culture type aquaculture activity is deemed disturbing in the case of one of the community types found within the qualifying interests of Lough Swilly SAC i.e. <i>Ostrea edulis</i> dominated community. There will be no significant cumulative impacts on other sensitive receptors such as air quality, water quality, cultural heritage. The BST longline system may impact on visual amenity due to higher duration of periods of exposure at low tide.		Are there potential cumulative impacts with existing foreshore projects or with foreshore projects licensed but which have not yet begun?
	No.	

Should the application for this project be regarded as an integral part of a more substantial project? If so, can related projects which are subject to separate applications proceed independently?	No.	
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1. CHARACTERISTICS OF THE PROJECT - ANNEX III (1) cont'd		
(c) Use of natural resources		
Will installation or operation of the project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?		
• land (especially undeveloped or agricultural land)? • water? • energy including electricity and fuels? • any other resources?		
(d) Production of waste		
Will the project produce wastes during installation or operation or decommissioning? • municipal waste (household and/or commercial)? • surplus product? • construction or demolition wastes? • redundant machinery or equipment? • any other solid wastes? • liquid or solid wastes in suspension?	Yes. The cultivated shellfish will produce faeces and pseudofaeces. Thinning, grading, harvesting and removal of mortalities will result in shells being discarded. Materials associated with the cultivation process may need to be replaced or discarded.	No. High levels of plankton occur naturally at the location and shellfish cultivation at this scale will not result in limiting plankton growth or abundance.

(e) Pollution and nuisances		
Will the project release pollutants or any hazardous, toxic or noxious substances to air? Emissions from: • combustion of fossil fuels from stationary or mobile sources? • construction activities including plant & equipment? • any other source	Yes. There will be emissions associated with the husbandry and harvesting of shellfish from tractors/ boats and other machinery. There will be no release to the air of other hazardous, toxic or noxious pollutants.	No. The emissions levels will be low and will not have a significant effect.
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1. CHARACTERISTICS OF THE PROJECT - ANNEX III (1) cont'd	Yes/No - Briefly describe	Is this likely to result in a significant effect? Yes/No? - Why
e) Pollution and nuisances		
Will the project cause noise and vibration or release of light? • from operation of equipment e.g. engines? • from blasting or piling? • from construction or operational traffic? • from lighting or other systems? • from any other sources?	Yes. There will be noise associated with the husbandry and harvesting of the shellfish e.g., use of tractors/boats and other machinery.	No. Noise levels will not be significant.
(f) Risk of accidents, having regard in particular to substances or technologies used		
Will there be any risk of accidents during installation or operation of the project which could affect human health or the environment?	Yes. There may be a minimal risk of physical injury while working on the site but no risk to human health. There is minor risk to the environment from vessel breakdown or accidents.	No. The risk of occurrence and magnitude of impact are likely to be low.
Will the project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?	No. No chemicals or hazardous substances will be used during the production process.	

Will the project involve use, storage, transport, handling or production of substances or materials which could be harmful to people or the environment (flora, fauna, water supplies)? • use of hazardous or toxic substances? • potential changes in occurrence of disease or effect on disease carriers (e.g. insect or water borne diseases?)	No. Cultivation of mussels and oysters depends on naturally occurring marine resources. No harmful substances or materials will be used or released during the production process.	
T12 /37 1. CHARACTERISTICS OF THE PROJECT - ANNEX III (1) cont'd (g) Will installation, operation or decommissioning of the project involve actions which will cause physical changes in the locality (topography, land use, changes in waterbodies, etc)? • dredging? • coastal structures (seawalls, piers)? • offshore structures? • facilities for storage of goods or materials? • facilities for treatment or disposal of solid wastes or liquid effluents? • new road, rail or sea traffic during construction or operation? • new road, rail, air, waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc? • closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements? • new or diverted transmission lines or pipelines? • transport of personnel or materials for construction, operation or decommissioning? • decommissioning or restoration works? • introduction of alien species? • loss of native species or genetic diversity? • any other changes?	Yes/No - Briefly describe Yes. There will be dredging. Trestles, poles and baskets will be placed on the foreshore. Yes. <i>Crassostrea Gigas</i>. With the exception of Article 3 and 4, Regulation EC 708/2007 does not apply to the production of <i>C. Gigas</i>. A feature of the conservation objectives for Lough Swilly is to maintain favourable	Is this likely to result in a significant effect? Yes/No? - Why Yes. The dredging activities (seed relaying, stock movements, predator control and harvesting associated with bottom culture practice are deemed disturbing to the physical habitat and to the resident faunal community. Such physical disturbance can lead to the removal and /or destruction of infaunal species and changes to sediment composition. There is a significant risk of reproduction of Pacific oyster and the formation of naturalised populations within Lough Swilly. Bottom culture of pacific oysters in the past has had this impact in Lough Swilly. Continuation of this activity is not likely to be approved for the reason of feral population establishment in the past. Suspended culture of pacific oysters will require use of triploid (only) stock.

	conservation conditions of the <i>Ostrea edulis</i> dominated community.	The AA found that the bottom cultivation of mussels overlaps of the <i>Ostrea edulis</i> dominated community. In particular, in relation to the proposed area of this site, there is a small overlap (5.90 ha or 0.65%) with the <i>Ostrea edulis</i> dominated community. The AA concluded that bottom culture aquaculture activity is considered disturbing on the <i>Ostrea edulis</i> dominated community.
(h) Inherent social changes		
Will the project result in social changes, for example, in demography, traditional lifestyles, employment?	It is anticipated that job opportunities would result from this project.	Locally beneficial but not significant.
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2. LOCATION OF THE PROJECT - ANNEX III (2)	Yes/No - Briefly describe	Is this likely to result in a significant effect? Yes/No? -- Why
(a) Existing land use		
Are there existing land uses on or around the location which could be affected by the project, e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, water catchments, functional floodplains, mining or quarrying?	No. Terrestrial land uses will not be affected and there is no spatial overlap with other users of the foreshore.	
Are there any areas on or around the location which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected?	No.	
Is the project located in a previously undeveloped area?	No. There is other shellfish production in the bay	

T12/37	2. LOCATION OF THE PROJECT - ANNEX III (2)		Is this likely to result in a significant effect? Yes/No? – Why
(b) Relative abundance, quality and regenerative capacity of natural resources in the area Are there any areas on or around the location which contain important, high quality or scarce resources which could be affected by the project? • groundwater resources • surface waters • fisheries • tourism	Yes. Fisheries	There is a small overlap with the <i>Ostrea edulis</i> dominated community. The AA concluded that bottom culture aquaculture activity is considered disturbing on the <i>Ostrea edulis</i> dominated community.	
(c) Absorption capacity of the natural environment Are there any areas on or around the location which are protected under international or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the project?	Yes. Sites located in Lough Swilly SAC (SAC002287), Lough Swilly SPA (SPA 004075)	The AA concluded that Mussel bottom culture is deemed disturbing in the case of the six community types found within the qualifying interest of Lough Swilly SAC. Oyster suspended culture type aquaculture activity overlaps with five of the community types found within the qualifying interest of Lough Swilly SAC and is deemed disturbing in the case of one of the community types found within the qualifying interest of Lough Swilly SAC, i.e <i>Ostrea edulis</i> dominated community.	
Are there any other areas on or around the location which are important or sensitive for reasons of their ecology? • wetlands, watercourses or other waterbodies? • the coastal zone? • mountains, forests or woodlands? • nature reserves and parks?	Yes. The wetlands habitats contained with the Lough Swilly SPA (004075) are of conservation importance for the waterbirds that use this resource	The AA concluded that none of the activities assessed will cause any change to the extent of subtidal, intertidal, supratidal and lagoon habitats. Therefore it is not likely to have any significant impacts on any wetlands in the area.	
Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected?	Yes. Lough Swilly SPA (004075) is designated for breeding populations of Black-headed Gull, Common Tern and	The Whooper Swan, Greenland White-fronted Goose, Greylag Goose and Coot were screened out as they do not have any	

	Sandwich Tern and also 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. A feature of the conservation objectives for Lough Swilly is to maintain favourable conservation conditions of the <i>Ostrea edulis</i> dominated community.	significant spatial overlap with any of the activities being assessed. The AA concluded based on the assumption of 100% occupancy of the mussel bottom culture plots, and that birds are uniformly distributed through suitable habitat, the following potentially significant impacts have been identified in this assessment. Ongrowing of mussel seed in inter-tidal nursery areas could potentially cause significant displacement impacts to Shelduck, Shoveler and Dunlin. The assumption of a negative response of these species to inter-tidal mussel cover is a precautionary assumption in the absence of clear evidence about the nature of their responses. There is some evidence that Dunlin, may, in fact have a positive association with mussel beds. Ongrowing of mussels in sub-tidal water could potentially cause significant displacement impact on Red-breasted Merganser, Great Crested Grebe due to potential impact on benthic prey resources. The existence of alternative prey resources (pelagic fish) that would not be affected means that complete displacement is unlikely to occur. Assessment of potential impacts to the Sandwich Tern and Common Tern is limited by the lack of information about the distribution of their foraging habitat within Lough Swilly. Ongrowing of mussels in sub-tidal waters could have significant
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		impact on Common Tern prey resources. Sandwich Tern prey resources are less likely to be significantly affected. Mussel bottom culture has the potential to contribute towards a significant cumulative impact on their prey resources if the pelagic fisheries also affect their prey resources. The AA found that the bottom cultivation of mussels and oysters overlaps with the <i>Ostrea edulis</i> dominated community. In particular, in relation to the proposed area of this site, there is a small overlap with the <i>Ostrea edulis</i> dominated community. The AA concluded that bottom culture aquaculture activity is considered disturbing on the <i>Ostrea edulis</i> dominated community. Oyster suspended culture type aquaculture activity overlaps with five of the community types found within the qualifying interest of Lough Swilly SAC and is deemed disturbing in the case of one of the community types found within the qualifying interest of Lough Swilly SAC, i.e. <i>Ostrea edulis</i> dominated community.
Are there any inland, coastal, marine or underground waters on or around the location which could be affected?	No.	
Are there any groundwater source protection zones or areas that contribute to the recharge of groundwater resources?	No.	

T12/37	2. LOCATION OF THE PROJECT - ANNEX III (2) cont'd	Yes/No - Briefly describe	Is this likely to result in a significant effect? Yes/No? - Why
(c) Absorption capacity of the natural environment cont'd	Are there any areas or features of high landscape or scenic value on or around the location which could be affected?	No.	
	Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected?	No. Public access to recreational and other activities will not be impacted by the project.	
	Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected?	No. The amount of additional traffic generated will not be significant.	
	Is the project in a location where it is likely to be highly visible to many people?	No. Population density in the area is low. Visibility of the site from public views is low.	
	Are there any areas or features of historic, cultural or archaeological importance on or around the location which could be affected?	No. No protected structures identified in the County development plan. Underwater Archaeology issue will be addressed in statutory consultation with the relevant body.	
	Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected?	No. Results of monitoring under Shellfish Waters Directive do not indicate water quality issues in the vicinity of proposed shellfish production area. Mussels and Oysters in this area currently have a "B" classification under Annex II of EU Regulation 854/2004	
	Is the area densely populated?	No.	

Is the location of the project susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	No.	
Having considered the likelihood of the proposed aquaculture having significant effects on the environment the consensus of the Screening Group is that an Environmental Impact Statement is not required for this project. As part of a separate process, an Appropriate Assessment was carried out under Article 6(3) of the Habitats Directive which concluded that it was likely that the proposed activity, alone or in combination with other aquaculture activities, would have impacts on the Conservation Objectives of the Lough Swilly SAC/SPA. The conclusions of the Appropriate Assessment need to be fully considered prior to any licence determination being made.		
EIA SCREENING GROUP NAMES		
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SIGNED ON BEHALF OF THE GROUP		DEPARTMENT'S AQUACULTURE & FORESHORE MANAGEMENT DIVISION REPRESENTATIVE
NAME IN BLOCK CAPITALS - BATT WHELTON	Batt Whelton	DATE 13 th Oct 2015

