

The background of the lower half of the page is a photograph of a rocky coastline. The image is overlaid with a color gradient that transitions from a bright cyan on the left to a deep magenta on the right. The text "Environmental Report Non Technical Summary" is centered over this image in a white, sans-serif font.

Environmental Report Non Technical Summary

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Environmental Report – Non Technical Summary

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Table of Contents

| | |
|---|----------|
| Non Technical Summary | 1 |
| Loughs Agency Aquaculture and Shellfisheries Management Strategy..... | 1 |
| Strategic Environmental Assessment (SEA)..... | 1 |
| The SEA Process..... | 5 |
| Consideration of Alternatives..... | 5 |
| SEA Findings..... | 6 |
| Mitigation..... | 9 |
| Monitoring..... | 9 |
| Consultation..... | 9 |

Non Technical Summary

Loughs Agency Aquaculture and Shellfisheries Management Strategy

The draft Aquaculture and Shellfisheries Management Strategy (“the Strategy”) presents the Loughs Agency’s intentions for the implementation of licensing land-based and marine fish farms and wild shellfisheries located in the Foyle and Carlingford areas.

The Loughs Agency, as part of the Foyle, Carlingford and Irish Lights Commission, was given the role of licensing authority through the Foyle and Carlingford Fisheries Order (Northern Ireland) 2007 and the Foyle and Carlingford Fisheries (Ireland) Act 2007.

The draft Strategy provides guidance on licensing for:

- Lough Foyle Aquaculture,
- Carlingford Lough Aquaculture,
- Wild Shellfisheries (in both Loughs), and
- Freshwater Aquaculture (in both water catchments).

The primary objective of the Strategy is to provide information for all lough users and stakeholders regarding how the new management will influence activities in the future. The Strategy sets out the management approach and policies on which future licence applications for aquaculture and marine wild shellfish will be considered.

The Strategy proposes mechanisms to bring forward an environmentally sustainable system of management. The fundamental overall objective of the Strategy is that of:

“achieving sustainable development of aquaculture and shellfisheries activities for the social, economic and environmental benefit of the communities who influence, enjoy and depend on these resources. “

The main objectives of the Strategy are:

- *Identifying viable opportunities for increasing the economic benefits obtainable through the future sustainable development of aquaculture and shellfisheries;*
- *Identifying the environmental challenges facing the development of aquaculture and shellfisheries and mitigating for these;*
- *Identifying areas of research and development necessary to enable the future development of aquaculture and shellfisheries and determining the priorities for this research and development and the funding available; and*
- *Ensure that stakeholders have access to decision makers and that their views can influence management decisions and approaches taken by the Agency going forward.*

Strategic Environmental Assessment (SEA)

The Environmental Report which this document summarises accompanies the Strategy. It presents the findings of a Strategic Environmental Assessment (SEA) which has been undertaken by AECOM to identify the likely significant environmental effects of the Strategy. SEA is required under EU Directive 2001/42/EC.

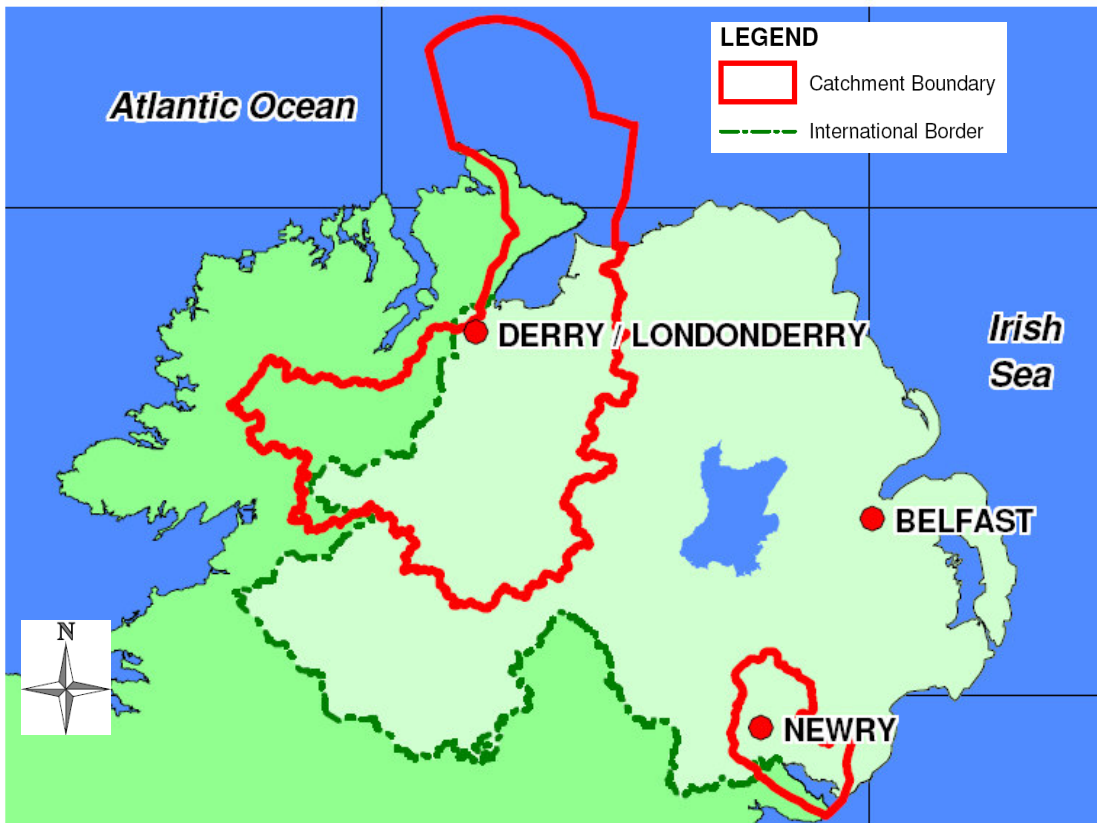
The purpose of SEA is to integrate environmental considerations within the Strategy. This was done in three key ways. Firstly options for management were developed with the Loughs Agency to inform decisions on how to manage licensing. Secondly, the potential environmental impacts of the options were predicted and these predictions were used to inform the development of the draft Strategy. Thirdly, in setting out the predicted environmental impacts of the draft Strategy in this publicly available Environmental Report, the public and other stakeholders can comment on the Strategy and its potential impacts.

This Non Technical Summary summarises the Environmental Report. Further details on the environmental assessment are contained in the main report.

Current Practice and State of the Environment

The Lough Foyle catchment area is 3700 square kilometres and the Carlingford Lough water catchment is 35 square kilometres. Both catchments are cross border. (See Illustration 1).

Illustration 1 Study Area



Not to scale

At present, the Department of Agriculture and Rural Development (DARD) licenses of land based fish farms in those parts of the Foyle and Carlingford Areas that are located in Northern Ireland, and the Department of Agriculture, Fisheries and Food (DAFF) is licences land based fish farms that are located in Ireland.

The Foyle water catchment is large, and supports a number of fresh water aquaculture sites. Commercial freshwater finfish farming is not currently of note in Carlingford although a number of angling club hatcheries exist. Freshwater aquaculture in the Foyle and Carlingford areas consists primarily of the culture of rainbow trout for the table market.

The licensing of marine aquaculture in Carlingford Lough located north of the navigation channel is the responsibility of DARD, whereas those located south of the channel fall under the responsibility of DAFF. No licences are currently in place for aquaculture activities in Lough Foyle due to issues regarding jurisdiction.

A number of intertidal culture (mussels, *Mytilus edulis* and Pacific oysters, *Crassostrea gigas*) and bottom culture (mussels only) activities are currently in operation in Carlingford Lough and Lough Foyle. A small area is also licensed for scallop production in Carlingford.

The Loughs Agency currently manages licences for wild shellfisheries in both loughs. In the Foyle wild mussels (*Mytilus edulis*) and native oysters (*Ostrea edulis*) are the main species harvested, while green crab (*Carcinus meanus*), velvet crab (*Necora puber*), periwinkles (*Littorina littorea*), whelk (*Buccinum undatum*), lobster (*Homarus gammarus*), cockles (*Cerastoderma edule*) and clam

species are also taken. In Carlingford wild mussel (*Mytilus edulis*) is the main species although there is some limited activity for cockles and periwinkles. It should be noted that the native oysters in Lough Foyle are a UK Biodiversity Action Plan species and considered to be of European importance in the Foyle.

Key existing environmental problems are those arising from a lack of aquaculture licensing in Lough Foyle, which impedes management of fisheries and aquaculture, with potential corresponding impacts of overfishing, water pollution, and loss of native species/habitats. A lack of effective impact mitigation due to the lack of management can also arise.

It is reasonable to assume that without the implementation of the draft Strategy that the environment will progress similarly to current practice, without any of the benefits of managed aquaculture licensing realised in Lough Foyle.

Key Environmental Protection Objectives

The study area is relatively large and contains a large amount of environmental receptors. Key environmental considerations are reviewed here, with full details given in the Environmental Report.

Of particular relevance to the draft Strategy are the designated sites for nature conservation importance, such as "Natura 2000" sites (designated under the Habitats Directive 92/43/EEC, and the Wild Birds Directive 79/409/EEC).

Natura 2000 sites are Special Protection Area (SPAs) and Special Areas of Conservation

(SACs). These sites within the study area listed below.

Foyle:

- Lough Foyle SPA
- Lough Derg SPA
- Magheradrummon Bog SAC
- Cloghernagore Bog and Glenveagh National Park SAC
- River Finn SAC
- Croaghonagh Bog SAC
- Dunragh Lough / Pettigo Plateau SAC
- Magilligan SAC
- Teal Lough cSAC
- Carn – Glenshane Pass cSAC
- Binevenagh cSAC
- Owenkillew River cSAC
- Banagher Glen cSAC
- Moneygal bog cSAC
- Fairy Water bogs cSAC
- Tonnagh Beg Bog cSAC
- Cranny Bogs cSAC
- Tully Bogs cSAC
- Deroran Bog cSAC
- Blackbog cSAC
- River Roe and Tributaries cSAC

Carlingford:

- Carlingford Lough SPA
- Derryleckagh cSAC
- Carlingford Mountain SAC

- Slieve Gullion cSAC
- Carlingford Shore SAC
- Eastern Mourne cSAC

Both Lough Foyle and Carlingford Lough also have internationally-designated Ramsar sites in Northern Ireland.

The Water Framework Directive (2000/60/EC) is new far-reaching legislation which sets clear targets for the improvement of water quality and provides a management approach for doing this.

As defined under the Water Framework Directive the Foyle catchment contains 294 rivers, eight lakes, and two transitional water bodies. In the Carlingford catchment 52 waterbodies were identified, with one lake. As part of the Water Framework Directive the current status of each has been identified, and specific goals have been given for improvement in status.

Lough Foyle and Carlingford Lough are both determined to have “Moderate Ecological Potential”, with a target of improving to good ecological potential by 2021. The status of the other watercourses in the catchments varies.

Designated shellfish waters (designated under the Shellfish Waters Directive (2006/113/EC) and as protected areas in the Water Framework Directive (2000/60/EC)) exist in both Foyle and Carlingford Loughs.

There are a number of other national and local designated sites within the catchments, as well as sites of local interest, such as records of sites or areas of local biodiversity interests.

The SEA Process

Prior to the assessment of the impacts of the Strategy, an SEA Scoping Report was produced which set out the proposed method and level of detail for this SEA. This was submitted to the Northern Ireland Environment Agency, the Environmental Protection Agency, the Department of Environment, Heritage and Local Government, and the Department of Communications, Marine and Natural Resources to provide comments and recommendations. It was also issued for comment to stakeholders. The Scoping Report set out relevant environmental problems, key aspects of the current state of the environment and relationships the Strategy has with other plans and programmes.

Following the scoping stage, options for the Strategy were developed. These options were consulted on and public exhibitions of the options for the Strategy were held in both the Foyle and Carlingford areas.

Responses from the Scoping Report and the options consultation were taken into account in the assessment and preparation of the Environmental Report.

Consideration of Alternatives

SEA legislation requires that alternatives to the Strategy are assessed. Reasonable alternatives or 'options' should be assessed as the Strategy develops, to integrate the SEA within the process of developing the Strategy.

A substantial portion of the SEA and Strategy development was devoted to the development, assessment and consultation on a series of options for the implementation and management of aquaculture and wild shellfisheries.

Given the differing regulatory histories in Carlingford and Foyle aquaculture, specific options were set out for each area. Wild shellfisheries and freshwater options were proposed for both catchments together.

The options covered the following topics:

- Licensing models;
- Geographic options (including various options for exclusion zones or specifications for development areas);
- Options for production sites;
- Capacity options;
- Management options; and
- Potential criteria for licence determination.
- "Do Nothing" Options

The options are not discussed in detail in this Non-Technical Summary but reasons for the inclusion or rejection of each measure are noted in the Environmental Report.

These options were consulted on and feedback from stakeholders was considered in the determination of the preferred options by the Loughs Agency.

An environmental assessment of the options was undertaken and reported in an Options Assessment Report. The environmental assessment of the options was considered by the Loughs Agency in the determination of the preferred options.

A decision on the preferred options was made by the Loughs Agency.

SEA Findings

The likely environmental effects of the draft Strategy have been assessed. This assessment was based on the proposals contained in the draft Aquaculture and Shellfisheries Management Strategy.

The Strategy translates the Loughs Agency's overall vision, aims and objectives into policies covering the following elements which were assessed in the SEA.

Objectives:

- *“Promote sustainable development of the wild shellfish industry.*
- *Promote sustainable development of aquaculture consistent with environmental standards.*
- *Aim to meet EU fish health requirements and maintain current fish health status where appropriate.*
- *Encourage environmental best practices in the aquaculture and shellfish industries in the Foyle and Carlingford areas.*
- *Protection of the Loughs and catchments as an ongoing resource.*
- *Implement the management plans.”*

10 specific policies for the conservation, management and development of aquaculture and shellfisheries:

- *“Licences will be considered within Natura 2000 sites, subject to the findings of an Appropriate Assessment.*
- *Licences will be considered in nationally designated sites and areas of local biodiversity interest subject to*

consultation with other Statutory agencies, NGO's and Stakeholders.

- *Aquaculture Licences will not be granted in documented wild/native shellfish areas and buffer zones may be applied on a case by case basis.*
- *The use of novel species and techniques will be investigated and used where appropriate subject to good environmental practice and Appropriate Assessments where necessary.*
- *The Agency will aim to optimise production in the aquaculture and wild shellfisheries sectors and will investigate the potential for carrying capacity modelling as a tool in facilitating this in the sea loughs.*
- *The Agency will support the involvement of stakeholders through the CLAMS process and other relevant stakeholder fora.*
- *The Agency will undertake monitoring of the stocks and environment within the FCILC areas to ensure that the industry develops in an environmentally sustainable manner. Limitations on methods used, areas fished and seasons will be made on this basis.*
- *Environmental Impact Assessments will be requested when and where appropriate.*
- *Full and transparent public consultations will be undertaken on all licence applications.*
- *Licences will be issued on the basis of set criteria.”*

Given the high-level nature of these policies and consequently the SEA, the identification of the detail of site-specific impacts was not possible.

The effects of these policies are summarised in below according to the SEA environmental topics.

Biodiversity, Flora and Fauna

The implementation of a new licensing regime for aquaculture in Lough Foyle should have a significant positive impact on biodiversity, flora and fauna in Lough Foyle.

Promotion of the sustainable development of the wild shellfishery, particularly for wild native oyster in Foyle, and the avoidance of native shellfish areas for aquaculture licensing, are considered to have a significant positive impact on biodiversity, flora and fauna as this management approach should ensure the continued presence of native wild oysters in Lough Foyle.

Outside Lough Foyle management will continue similarly to the existing situation and impacts in these locations are considered to be neutral.

There may be increased dredging and intertidal access for wild shellfish and aquaculture and this may occur in new areas. This could have a moderate to major negative impact to biodiversity, flora and fauna depending on the extent of any activities and any new areas used for aquaculture.

However, the details of increased activities or new areas are not known at this stage. It is also possible that the impacts will be less than moderate-major negative.

The Loughs Agency proposes to conduct updated surveys to establish current detail on the extent of native and wild shellfish in the Loughs.

It is also proposed to conduct a survey to document existing habitats and species in both the freshwater and marine environments to allow for consideration of impacts to sites or species of local, national and European biodiversity interest.

Water

The Loughs Agency is committed to the implementation of the Water Framework Directive and will continue to work with all parties to ensure the successful implementation of the Directive.

Impacts to water arising from the Strategy are considered to be due primarily to the possibility of increased frequency of dredging in the marine loughs (resulting in increased sedimentation in the water) and aquaculture in new areas. It is considered that this could have a moderate to major negative impact. As with biodiversity, flora and fauna the details of increased activities or new areas are not known at this stage. It is also possible that the impacts will be less than moderate-major negative.

Soil

Impact to soils are likely to be limited to those to sediments arising from increased dredging in new areas, an increased frequency of dredging and soil compaction from intertidal aquaculture, which could have a moderate to major negative impact. As with other topics the details of increased activities or new areas are not known at this stage. It is also possible

that the impacts will be less than moderate-major negative.

Landscape

Impacts to landscape are considered to be likely to arise from new aquaculture facilities, which would be a new feature in the landscape.

New aquaculture sites could be granted in designated landscape such as Areas of Outstanding Natural Beauty. This is considered to have a minor negative impact, although it will ultimately depend on the nature of the specific application.

Cultural Heritage

Impacts to cultural heritage sites are likely to arise from increased dredging or aquaculture in new areas which could impact on known or documented wrecks. New aquaculture sites could result in new impacts to freshwater aquatic cultural heritage sites. This could have a moderate to major negative impact. As with other topics the details of increased activities or new areas for aquaculture are not known at this stage. It is also possible that the impacts will be less than moderate-major negative.

Population and Material Assets

Aquaculture and wild shellfisheries are considered to be material assets.

The proposals to sustainably develop the wild shellfisheries and aquaculture are considered to have a significant positive impact.

Generally the proposals to improve management of aquaculture and wild shellfisheries are considered to have a positive impact on population and material assets through the improvement of a material asset.

Impacts to other material assets such as recreational users are not likely to be negative and there should be a benefit to other users in the improvement management of aquaculture in Lough Foyle.

Human Health

Aquaculture in new areas could impact on water quality, which would have an interactive impact on human health. However, the Strategy includes a commitment to the conservation of water resources, including water quality, and thus impacts are considered to be neutral.

Air

The potential exists for negative impacts to air arising from intensification of motorised boat and car use (in the case of intertidal areas). Overall air quality impacts from the existing wild shellfishing and aquaculture practices are not considered to be an environmental problem and thus potential impacts are considered to be neutral.

Climate

There could be a minor negative impact on climate in terms of contributing to coastal erosion (also a likely outcome of climate change) through increased dredging, dredging in new areas, and soil compaction.

It is noted that climate change science is evolving and that to consider potential implications of the climate change to shellfisheries and aquaculture the Loughs Agency will undertake an ongoing review of publications.

Interrelationship between topics

Key interrelationships include that between the increased frequency of dredging or dredging in new areas and impacts to sediments, water quality, biodiversity, flora and fauna, and air quality. Increased dredging could also interact with coastal erosion.

The policies which promote the sustainable management of aquaculture and shellfisheries, and commit to new management practices, should have a generic positive impact on all environmental topics.

Cumulative Impacts

A number of different cumulative impacts were considered. Cumulative impacts occur when:

- A particular policy could result in a number of licence applications which could have a cumulative impact.
- The combined effect of several policies within the Strategy may be of greater significance than when considered individually.
- The Strategy may combine with other plans or activities to result in significant cumulative effects.
- Cumulative effects with other activities (not the subject of the Strategy) and with other plans could be significant.

As assessment of these impacts was undertaken and overall cumulative impacts are not considered to be significant.

Special licensing arrangements have been put in place to consider cumulative impacts in the introduction of licensing in Lough Foyle.

Mitigation

The SEA Directive requires the development of mitigation measures, which are defined as:

“the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.”

Mitigation has been built into the strategy through the SEA process. Initial drafts of the strategy did not contain any policies relating to environmental issues; however through the SEA, policies were developed which set out environmental clarifications and commitments, and detail was added which clearly links the Strategy to the requirements of the implementation for the Water Framework Directive (2000/60/EC).

Monitoring

A monitoring plan has been prepared which monitors the environmental effects of the implementation of the draft Strategy. This includes survey proposals such as a new survey of wild and native shellfish, as well as annual reviews of progress in implementation considering the extent and impacts of any new areas used for aquaculture, reviews of production levels, and yearly confirmation that existing license holders are meeting all compliance conditions.

Consultation

This SEA Environmental Report and the draft Strategy will be available for consultation from 11 August for 5 weeks.

All comments received on the draft Strategy and SEA Environmental Report will then be reviewed and addressed where appropriate prior to adoption of the Strategy. An SEA

Statement will be published once the Strategy is adopted. This will set out how the findings from the SEA and comments from consultation have been integrated into the final Strategy.

The Environmental Report is available for downloading from www.loughs-agency.org

All comments received from consultation on the Environmental Report may be made available to view on the agency's website.