Northumberland IFCA
Strategic Environmental Assessment
Scoping Report

April 2013
Northumberland IFCA Strategic Environmental Assessment

Scoping Report

April 2013
## Issue and revision record

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Originator</th>
<th>Checker</th>
<th>Approver</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>13.03.2013</td>
<td>N Court</td>
<td>N Levy</td>
<td>A Craddy</td>
<td>Draft for Comment</td>
</tr>
<tr>
<td>B</td>
<td>04.04.13</td>
<td>N Court</td>
<td>N Levy</td>
<td>A Craddy</td>
<td>For Submission</td>
</tr>
</tbody>
</table>

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.
### Content

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Abbreviations</td>
<td>i</td>
</tr>
<tr>
<td></td>
<td>Glossary</td>
<td>ii</td>
</tr>
<tr>
<td></td>
<td>Non-Technical Summary</td>
<td>1</td>
</tr>
<tr>
<td>1.</td>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>1.1</td>
<td>Background</td>
<td>3</td>
</tr>
<tr>
<td>1.2</td>
<td>Purpose of the Scoping Stage and Scoping Report</td>
<td>3</td>
</tr>
<tr>
<td>1.3</td>
<td>Limitations of the Scoping Exercise</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>Strategic Environment Assessment</td>
<td>4</td>
</tr>
<tr>
<td>2.1</td>
<td>SEA Legislative Requirements and Purpose</td>
<td>4</td>
</tr>
<tr>
<td>2.2</td>
<td>SEA Process and Stages</td>
<td>4</td>
</tr>
<tr>
<td>2.3</td>
<td>SEA Stage A - Scoping</td>
<td>6</td>
</tr>
<tr>
<td>3.</td>
<td>Description and Context Northumberland IFCA Fisheries Management Plan</td>
<td>7</td>
</tr>
<tr>
<td>3.1</td>
<td>Northumberland Inshore Fisheries and Conservation Authority (NIFCA)</td>
<td>7</td>
</tr>
<tr>
<td>3.2</td>
<td>Overview of Fisheries</td>
<td>8</td>
</tr>
<tr>
<td>3.3</td>
<td>Shellfish and Whitefish Fisheries Management Regime</td>
<td>9</td>
</tr>
<tr>
<td>4.</td>
<td>Relationship with other Policies, Plans and Programmes</td>
<td>14</td>
</tr>
<tr>
<td>4.1</td>
<td>Policies, Plans and Programmes Review</td>
<td>14</td>
</tr>
<tr>
<td>5.</td>
<td>Environmental Baseline</td>
<td>16</td>
</tr>
<tr>
<td>5.1</td>
<td>Baseline Information</td>
<td>16</td>
</tr>
<tr>
<td>5.2</td>
<td>Air Quality</td>
<td>17</td>
</tr>
<tr>
<td>5.3</td>
<td>Biodiversity, Flora and Fauna</td>
<td>17</td>
</tr>
<tr>
<td>5.4</td>
<td>Climate</td>
<td>26</td>
</tr>
<tr>
<td>5.5</td>
<td>Energy</td>
<td>27</td>
</tr>
<tr>
<td>5.6</td>
<td>Historic Environment</td>
<td>27</td>
</tr>
<tr>
<td>5.7</td>
<td>Landscape/Seascape</td>
<td>28</td>
</tr>
<tr>
<td>5.8</td>
<td>Soils</td>
<td>29</td>
</tr>
<tr>
<td>5.9</td>
<td>Waste</td>
<td>29</td>
</tr>
<tr>
<td>5.10</td>
<td>Water Quality</td>
<td>31</td>
</tr>
<tr>
<td>5.11</td>
<td>Human Health</td>
<td>32</td>
</tr>
<tr>
<td>5.12</td>
<td>Material Assets</td>
<td>34</td>
</tr>
<tr>
<td>5.13</td>
<td>Socio-Economics</td>
<td>35</td>
</tr>
<tr>
<td>5.14</td>
<td>Tourism</td>
<td>37</td>
</tr>
<tr>
<td>5.15</td>
<td>Transport</td>
<td>38</td>
</tr>
<tr>
<td>5.16</td>
<td>Future Baseline</td>
<td>38</td>
</tr>
</tbody>
</table>
## 6. Key Environmental Issues and Opportunities

### 6.1 Key Issues, Opportunities and Scoping

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
</tr>
</tbody>
</table>

## 7. SEA Framework

### 7.1 SEA Objectives, Indictors and Assessment Criteria

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
</tr>
</tbody>
</table>

### 7.2 Compatibility of SEA Objectives

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
</tr>
</tbody>
</table>

## 8. Consultation

### 8.1 Scoping Consultation

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>54</td>
</tr>
</tbody>
</table>

## 9. Next Steps

### 9.1 Remaining Stages of the SEA Process

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>56</td>
</tr>
</tbody>
</table>

## Appendices

### Appendix A. Policies, Plans and Programmes Review

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>61</td>
</tr>
</tbody>
</table>
# Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AONB</td>
<td>Area of Outstanding Natural Beauty</td>
</tr>
<tr>
<td>AQMA</td>
<td>Air Quality Management Area</td>
</tr>
<tr>
<td>BNNC</td>
<td>Berwickshire and North Northumberland Coast</td>
</tr>
<tr>
<td>CEFAS</td>
<td>Centre for Environment, Fisheries &amp; Aquaculture Science</td>
</tr>
<tr>
<td>CO</td>
<td>Carbon Monoxide</td>
</tr>
<tr>
<td>CO₂</td>
<td>Carbon Dioxide</td>
</tr>
<tr>
<td>DCLG</td>
<td>Department for Communities and Local Government</td>
</tr>
<tr>
<td>DEFRA</td>
<td>Department for Environment, Food and Rural Affairs</td>
</tr>
<tr>
<td>EA</td>
<td>Environment Agency</td>
</tr>
<tr>
<td>EMS</td>
<td>European Marine Site</td>
</tr>
<tr>
<td>FTE</td>
<td>Full Time Employment</td>
</tr>
<tr>
<td>FU</td>
<td>Functional Unit</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>ICES</td>
<td>International Council for the Exploration of the Sea</td>
</tr>
<tr>
<td>IFCA</td>
<td>Inshore Fisheries and Conservation Authority</td>
</tr>
<tr>
<td>IMD</td>
<td>Index of Multiple Deprivation</td>
</tr>
<tr>
<td>LPUE</td>
<td>Landings Per Unit Effort</td>
</tr>
<tr>
<td>MCA</td>
<td>Maritime Coastguard Agency</td>
</tr>
<tr>
<td>MCZ</td>
<td>Marine Conservation Zone</td>
</tr>
<tr>
<td>MMO</td>
<td>Marine Management Organisation</td>
</tr>
<tr>
<td>MPA</td>
<td>Marine Protected Area</td>
</tr>
<tr>
<td>NIFCA</td>
<td>Northumberland Inshore Fisheries and Conservation Authority</td>
</tr>
<tr>
<td>NOₓ</td>
<td>Nitrogen Oxide</td>
</tr>
<tr>
<td>PPP</td>
<td>Policies, Plans, Programmes</td>
</tr>
<tr>
<td>rMCZ</td>
<td>Recommended Marine Conservation Zone</td>
</tr>
<tr>
<td>SAC</td>
<td>Special Area of Conservation</td>
</tr>
<tr>
<td>SEA</td>
<td>Strategic Environmental Assessment</td>
</tr>
<tr>
<td>SEPA</td>
<td>Scottish Environmental Protection Agency</td>
</tr>
<tr>
<td>SOₓ</td>
<td>Sulphur Oxide</td>
</tr>
<tr>
<td>SPA</td>
<td>Special Protection Area</td>
</tr>
<tr>
<td>SSSI</td>
<td>Site of Special Scientific Interest</td>
</tr>
<tr>
<td>TAC</td>
<td>Total Allowable Catch</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>VMR</td>
<td>Voluntary Marine Reserve</td>
</tr>
<tr>
<td>WFD</td>
<td>Water Framework Directive</td>
</tr>
<tr>
<td>WWF</td>
<td>World Wildlife Fund</td>
</tr>
</tbody>
</table>
Glossary

**Alien Species**
Also known as non-native, non-indigenous, foreign, exotic, introduced, biological pollutants, are species, subspecies, or lower taxon, occurring outside their natural range (past or present) and natural dispersal potential (i.e. outside the range it occupies naturally or could not occupy without direct or indirect introduction or husbandry by humans) and includes any part, gametes or propagules of such species that might survive and subsequently reproduce.

**Baseline**
A description of the present and future state of an area, in the absence of any development, taking into account changes resulting from natural events and from other human activities.

**Biodiversity or biological diversity**
Is the totality of genes, species, and ecosystems in a region. Biodiversity can be divided into three hierarchical categories, genes, species, and ecosystems, that describe quite different aspects of living systems and that scientists measure in different ways.

**Carrying Capacity**
The potential maximum production a species or population can maintain in relation to available food resources within an area.

**Consultation Body**
An authority which because of its environmental responsibilities is likely to be concerned by the effects of implementing plans and programmes and must be consulted under the SEA Directive. The Consultation Bodies designated in the SEA Regulations are Natural England, English Heritage and the Environment Agency.

**Climate Change Adaptation**
Involves adjustments to natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

**Climate Change Mitigation**
Involves taking action to reduce the impact of human activity on the climate system, primarily through reducing greenhouse gas emissions.

**Depleted**
Is the status of a fish stock or stock assemblage driven by fishing at very low level of abundance compared to historical levels, with dramatically reduced spawning biomass and reproductive capacity.

**Discards**
Are those components of a fish stock thrown back after capture e.g. because they are below the minimum landing size or because quota have been exhausted for that species. Most of the discarded fish will not to survive. However, shellfish discards have relatively high rates of survival.

**Ecosystem Approach**
The comprehensive integrated management of human activities based on best available scientific knowledge about the ecosystem and its dynamics, in order to identify and take action on influences which are critical to the health of the marine ecosystems, thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity.

**Indicator**
A measure of variables over time, often used to measure achievement of objectives.
Material Assets
The infrastructure and those assets necessary to the capture fisheries and aquaculture sectors, including fishing vessels, ports and processing facilities.

Mitigation Measures
Refers to measures to avoid, reduce or offset significant adverse effects.

Non-Target Species
Fishing not only harvests species that are sought by fishers, but also significantly affects species that are not sought or wanted. Non-target species may include fish, sharks, crustaceans, molluscs, marine mammals and reptiles that are unintentionally taken by the fishery or are not routinely assessed for fisheries management. The term usually relates to an entire fishery and its management and not to the targeted fishing activities of individual fishers. Non-target species can also be classified as bycatch or by-product. By-product are species that have market value and tend to be retained and sold by fishers, while bycatch are discarded.

Objective
A statement of what is intended, specifying the desired direction of change in trends.

Scoping
The process of deciding the scope and level of detail of an SEA, including the sustainability effects and options which need to be considered, the assessment methods to be used, and the structure and contents of the Environmental Report.

SEA Directive

Shellfish
Group of invertebrates that includes both molluscs, e.g. clams, and crustaceans, e.g. lobsters.

Strategic Environmental Assessment
Generic term used internationally to describe environmental assessment as applied to policies, plans and programmes. In this report, ‘SEA’ is used to refer to the type of environmental assessment required under the SEA Directive.

SEA Framework
This is the objectives and criteria developed for the project.

SEA Objectives
These are specific objectives that have been developed for this project. They are also part of the SEA Framework, against which the project objectives and design have been tested for the purposes of this SEA.

Special Areas of Conservation
Are strictly protected sites designated under the EC Habitats Directive. Together with Special Protection Areas, they make up the Natura 2000 sites.

Special Protection Area
Are strictly protected sites classified in accordance with Article 4 of the EC Directive on the conservation of wild birds (79/409/EEC), also known as the Birds Directive, which came into force in April 1979. They are classified for rare and vulnerable birds, listed in Annex I to the Birds Directive, and for regularly occurring migratory species. They are part of Natura 2000 network of European protected sites.

Stakeholder
A term to describe any organisation or individual that has a direct interest in actions or decisions. Their interest may be because they will have a role in implementing the decisions, or because they will be
affected by the decision.

**Stock**

A part of a fish population usually with a particular migration pattern, specific spawning grounds, and subject to a distinct fishery.

**Target Species**

Those species that are primarily sought by the fishermen in a particular fishery. The species subject of directed fishing effort in a fishery. There may be primary as well as secondary target species.

**V-Notching**

The NIFCA V-notching scheme puts a notch in the tail flap of a sized and berried lobster only (87mm). This gives the female 1 or 2 more chances of spawning before being eligible for recapture. It is an offence to land a V notched lobster, male or female.
Non-Technical Summary

Mott MacDonald was commissioned by the Northumberland Inshore Fisheries and Conservation Authority (NIFCA) to undertake a Strategic Environment Assessment (SEA) of its fisheries management regime. In the NIFCA context, although there is no single or discrete plan to manage shellfish and whitefish fisheries, the management regime as a whole can be assessed. This regime will constitute the ‘plan or programme’ for the purposes of this SEA. NIFCA currently have a set of byelaws that govern fishing activities in the District (these byelaws are currently undergoing review).

Under the European Directive 2001/42/EC, on the assessment of the effects of certain plans and programmes on the environment (also known as the ‘Strategic Environmental Assessment (SEA) Directive’), and the resulting Environmental Assessment of Plans and Programmes Regulations 2004, a SEA is required to ensure that the environmental effects of the fisheries management regime are considered. This Scoping Report presents the results of Stage A of the SEA process.

As part of the SEA scoping process, a review of international, national, and regional policies, plans and programmes was undertaken and key messages and objectives identified. Baseline information was gathered for the District and key issues and opportunities for the fisheries management regime were identified. This information was used to develop the SEA Framework for the regime, consisting of SEA objectives, criteria and indicators. The SEA objectives proposed for the regime are:

<table>
<thead>
<tr>
<th>Ref</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Harvest fish stocks at sustainable levels and allow for the recovery of depleted stocks.</td>
</tr>
<tr>
<td>2</td>
<td>Reduce mortality rates caused by discarding and bycatching of non-target incidental catch, including rare, threatened and endangered species.</td>
</tr>
<tr>
<td>3</td>
<td>Work with relevant authorities to protect, maintain and restore the biodiversity of aquatic ecosystems.</td>
</tr>
<tr>
<td>4</td>
<td>Assess and if need be mitigate/reduce the impacts of capture fisheries on aquatic habitats and species.</td>
</tr>
<tr>
<td>5</td>
<td>Conserve marine biodiversity by preventing the introduction of non-native species to the marine environment, and assess the feasibility of recovering impacted ecosystems impacted by the introduction of non-native species.</td>
</tr>
<tr>
<td>6</td>
<td>Identify, manage, plan and adapt to the effects of climate change on the marine environment and fishing industry.</td>
</tr>
<tr>
<td>7</td>
<td>Reduce emissions of carbon dioxide and other greenhouse gases through cleaner and more efficient energy use.</td>
</tr>
<tr>
<td>Ref</td>
<td>Objectives</td>
</tr>
<tr>
<td>-----</td>
<td>------------</td>
</tr>
<tr>
<td>8</td>
<td>Protect and, where appropriate, enhance the marine and land-based historic and cultural assets, and protect archaeological sites in the area.</td>
</tr>
<tr>
<td>9</td>
<td>Protect and enhance landscapes and seascapes through sympathetic fisheries infrastructure development and activities.</td>
</tr>
<tr>
<td>10</td>
<td>Avoid discharges to sea and waste to the marine environment from vessels and fishing operations</td>
</tr>
<tr>
<td>11</td>
<td>Ensure marine pollution arising from fishing and processing activities does not compromise targets established by the Water Framework Directive.</td>
</tr>
<tr>
<td>12</td>
<td>Maintain and enhance the quality of material assets, in proportion with the available resource base and carrying capacity.</td>
</tr>
<tr>
<td>13</td>
<td>Maintain and enhance fishing communities by developing a sustainable fisheries management regime.</td>
</tr>
<tr>
<td>14</td>
<td>Promote the adoption of best practice Health and Safety in the fishing industry and other relevant marine activities, e.g. archaeological activities.</td>
</tr>
<tr>
<td>15</td>
<td>Protect and promote the fishing tourism industry by developing a holistic and sustainable fisheries management regime.</td>
</tr>
</tbody>
</table>

Under the SEA Regulations Natural England (NE), Environment Agency (EA) and English Heritage (EH) are statutory consultees; however, for IFCA’s the Marine Management Organisation (MMO) is also a statutory consultee. The Scoping Report is being sent to the statutory consultees and also to wider stakeholders. The Scoping Report will be issued for a formal five week consultation period. Once the consultation period has finished all consultation responses will be tabulated, taken into account and reported within the Environmental Report which is the next stage of the SEA process.
1. Introduction

1.1 Background

Mott MacDonald was commissioned by the Northumberland Inshore Fisheries and Conservation Authority (NIFCA) to undertake a Strategic Environmental Assessment (SEA) of shellfish and whitefish fisheries under their management jurisdiction, as set out in the European Directive 2001/42/EC and the resulting Environmental Assessment of Plans and Programmes Regulations in 2004. A SEA provides a formalised and structured process to enable the environmental effects of a plan or programme to be assessed and considered in any subsequent management decisions. In the NIFCA context, although there is no single or discrete plan to manage shellfish and whitefish fisheries, the management regime as a whole can be assessed. This regime will constitute the ‘plan or programme’ for the purposes of this SEA. This Scoping Report is the first stage in the SEA process.

1.2 Purpose of the Scoping Stage and Scoping Report

The aim of this Scoping Report is to set the context and scope for the SEA of the NIFCA Whitefish and Shellfish Management Regime. Specifically it aims to:

- Review relevant plans and programmes and their implications for the SEA and Fisheries Management Regime;
- Establish the baseline environmental information and key issues and opportunities for the NIFCA District;
- Set the context and objectives of the SEA; and
- Decide on the scope for the SEA, ensuring that it covers all the likely significant environment effects of the regime.

Under the SEA Regulations Natural England (NE), Environment Agency (EA) and English Heritage (EH) are statutory consultees; however, for IFCA’s the Marine Management Organisation (MMO) is also a statutory consultee. The Scoping Report will be issued for consultation to the statutory consultees and wider stakeholders for a formal five week consultation period. Once the consultation period has finished all consultation responses will be tabulated, taken into account and reported within the Environmental Report which is the next stage of the SEA process. (see Section 8 for further details on consultation and stakeholders).

1.3 Limitations of the Scoping Exercise

NIFCA has relied on published data and information both provided internally by NIFCA and from third party organisations in the production of this Scoping Report.

The baseline information collected in this Scoping Report is the most up-to-date information currently available, however it is possible that conditions described in this report may change over time. It is likely that this dataset will be updated throughout the SEA process, as new information becomes available or other information presents itself. The consultation process aims to address and minimise any gaps in information to ensure all potential environmental effects have been considered with regard to the fisheries regime.
2. Strategic Environment Assessment

2.1 SEA Legislative Requirements and Purpose

An SEA is required for the NIFCA Shellfish and Whitefish Fisheries Management Regime under the European Union Directive 2001/42/EC, more commonly known as the SEA Directive. The Directive was transposed into United Kingdom (UK) law via the Environmental Assessment of Plans and Programmes Regulations 2004, which requires an assessment of the effects of certain plans and programmes on the environment.

Article 3 of the SEA directive defines the scope of when SEA is required for plans and programmes. Article 3 (2a) states that SEA is required for plans and programmes which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in Annexes I and II to Directive 85/337/EEC. Article 3 (2b) states that an SEA is required for plans and programmes which, in view of the likely effect on sites, have been determined to require an assessment pursuant to Article 6 or 7 of Directive 92/43/EEC.

Some of the key objectives of the SEA process are to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans with a view to promoting sustainable development. The SEA also works to inform the decision-making process through the identification and assessment of the significant and cumulative effects a plan or programme may have on the environment. This is conducted at a strategic level and enables consultation on the potential effects of a plan with a wide range of stakeholders.

2.2 SEA Process and Stages

The NIFCA SEA will be carried out in accordance with the Office of Deputy Prime Minister (ODPM) (now the Department for Communities and Local Government (DCLG)) Guidance ‘A Practical Guide to the Strategic Environmental Assessment Directive’ (September 2005), and will meet the requirements of the SEA Directive (and resulting SEA Regulations). Figure 2.1 shows the different stages in the SEA process, and Table 2.1 breaks the stages down into the individual tasks involved.
### Figure 2.1: SEA Process Stages

<table>
<thead>
<tr>
<th>Stage A</th>
<th>Setting the context and objectives, establishing the baseline and deciding on the scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage B</td>
<td>Developing and refining alternatives and assessing effects</td>
</tr>
<tr>
<td>Stage C</td>
<td>Preparing the Environmental Report</td>
</tr>
<tr>
<td>Stage D</td>
<td>Consulting on the draft plan or programme and the Environmental Report</td>
</tr>
<tr>
<td>Stage E</td>
<td>Monitoring implementation of the plans or programme</td>
</tr>
</tbody>
</table>

### Table 2.1: Description of SEA Stages and Tasks

<table>
<thead>
<tr>
<th>SEA Stage</th>
<th>SEA Task</th>
<th>Task Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage A</strong> Setting the context and objectives, establishing the baseline and deciding on the scope</td>
<td>A1: Identifying other relevant plans, programmes, and environmental protection objectives</td>
<td>To establish how the plan or programme is affected by outside factors, to suggest ideas for how any constraints can be addressed, and to help to identify SEA objectives</td>
</tr>
<tr>
<td></td>
<td>A2: Collecting baseline information</td>
<td>To provide an evidence base for environmental problems, prediction of effects, and monitoring; to help in the development of SEA objectives</td>
</tr>
<tr>
<td></td>
<td>A3: Identifying environmental problems</td>
<td>To help focus the SEA and streamline the subsequent stages, including baseline information analysis, setting of the SEA objectives, prediction of effects and monitoring</td>
</tr>
<tr>
<td></td>
<td>A4: Developing SEA objectives</td>
<td>To provide a means by which the environmental performance of the plan or programme and alternatives can be assessed</td>
</tr>
<tr>
<td></td>
<td>A5: Consulting on the scope of SEA</td>
<td>To ensure that the SEA covers the likely significant environmental effects of the plan or programme</td>
</tr>
<tr>
<td><strong>Stage B</strong> Developing and refining alternatives and assessing effects</td>
<td>B1: Testing the plan or programme objectives against the SEA objectives</td>
<td>To identify potential synergies or inconsistencies between the objectives of the plan or programme and the SEA objectives and help in developing alternatives</td>
</tr>
<tr>
<td></td>
<td>B2: Developing strategic alternatives</td>
<td>To develop and refine strategic alternatives</td>
</tr>
<tr>
<td></td>
<td>B3: Predicting the effects of the draft plan or programme, including alternatives</td>
<td>To predict the significant environmental effects of the plan or programme and alternatives</td>
</tr>
<tr>
<td></td>
<td>B4: Evaluating the effects of the draft plan or programme, including alternatives</td>
<td>To evaluate the predicted effects of the plan or programme and its alternatives and assist in the refinement of the plan or programme</td>
</tr>
</tbody>
</table>
### Northumberland IFCA Strategic Environmental Assessment

**Scoping Report**

<table>
<thead>
<tr>
<th>SEA Stage</th>
<th>SEA Task</th>
<th>Task Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>B5:</td>
<td>Considering ways of mitigating adverse effects</td>
<td>To ensure that adverse effects are identified and potential mitigation measures are considered</td>
</tr>
<tr>
<td>B6:</td>
<td>Proposing measures to monitor the environmental effects of plan or programme implementation</td>
<td>To details the means by which the environmental performance for the plan or programme can be assessed</td>
</tr>
<tr>
<td><strong>Stage C</strong></td>
<td><strong>Preparing the Environmental Report</strong></td>
<td></td>
</tr>
<tr>
<td>C1:</td>
<td>Preparing the Environmental Report</td>
<td>To present the predicted environmental effects of the plan or programme, including alternatives, in a form suitable for public consultation and use by decision-makers</td>
</tr>
<tr>
<td><strong>Stage D</strong></td>
<td><strong>Consulting on the draft plan or programme and the Environmental Report</strong></td>
<td></td>
</tr>
<tr>
<td>D1:</td>
<td>Consulting on the draft plan or programme and Environmental Report</td>
<td>To give the public and the Consultation Bodies an opportunity to express their opinions on the findings of the Environmental Report and to use it as a reference point in commenting on the plan or programme. To gather more information through the opinions and concerns of the public</td>
</tr>
<tr>
<td>D2:</td>
<td>Assessing significant changes</td>
<td>To ensure that the environmental implications of any significant changes to the draft plan or programme at this stage are assessed and taken into account</td>
</tr>
<tr>
<td>D3:</td>
<td>Decision making and providing information</td>
<td>To provide information on how the Environmental Report and consultees' opinions were taken into account in deciding the final form of the plan or programme to be adopted</td>
</tr>
<tr>
<td><strong>Stage E</strong></td>
<td><strong>Monitoring implementation of the plans or programme</strong></td>
<td></td>
</tr>
<tr>
<td>E1:</td>
<td>Developing aims and methods for monitoring</td>
<td>To track the environmental effects of the plan or programme to show whether they are as predicted; to help identify adverse effects</td>
</tr>
<tr>
<td>E2:</td>
<td>Responding to adverse effects</td>
<td>To prepare for appropriate responses where adverse effects are identified</td>
</tr>
</tbody>
</table>

Source: Adapted from 'A Practical Guide to the Strategic Environmental Assessment Directive' (ODPM, September 2005)

#### 2.3 SEA Stage A - Scoping

This report covers Stage A of the SEA process, known as the scoping stage (see Table 2.1). Stages B to D will be covered in the Environmental Report, and Stage E (Monitoring) will be carried out by NIFCA as part of their monitoring programme.
### 3. Description and Context

#### Northumberland IFCA Fisheries

#### 3.1 Northumberland Inshore Fisheries and Conservation Authority (NIFCA)

#### 3.1.1 Background

Inshore Fisheries and Conservation Authorities (IFCAs) are either committees or joint committees of the local authorities that fall within an IFC District. They are tasked with the sustainable management of inshore sea fisheries resources in their local area. They are made up of representatives from the constituent local authorities (who provide funding for the IFCA) along with people from across the different sectors that use or are knowledgeable about the inshore marine area, such as commercial and recreational fishermen, environmental groups and marine researchers, who offer their time voluntarily.

NIFCA exists to lead, champion and manage a sustainable marine environment and inshore fisheries by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry in the NIFCA District. The NIFCA District comprises the sea within the national waters of the United Kingdom adjacent to the County of Northumberland and the Metropolitan Borough of North Tyneside out to 6 nautical miles from baselines. It also covers all of the land in the County and the Metropolitan Borough and all rivers and estuaries within the District up to the tidal limits. The District runs from the English/Scottish border in the north to the border between North and South Tyneside in the River Tyne in the south (see Figure 3.1).

#### 3.1.2 Aims and Objectives

The aims of NIFCA are to:
- ensure that the exploitation of sea fisheries resources is carried out in a sustainable way;
- balance the social and economic benefits of exploiting the sea fisheries resources of the District with the need to protect the marine environment from, or promote its recovery from, the effects of such exploitation;
- take any other steps which in the Authority’s opinion are necessary, or expedient for the purpose of making a contribution to the achievement of sustainable development;
- balance the different needs of persons engaged in the exploitation of sea fisheries resources in the District; and
- ensure all objectives of all Marine Protected Areas in the District are furthered.
3.2 Overview of Fisheries

As of 2012 there were 112 registered potting vessels, 12 drift net licences, 27 beach net licences and 44 trawlers (of these 44 trawlers most purely trawl but a few trawl and dredge or trawl, dredge and pot) (all figures are total figures including active and inactive licences). Moreover, there are 65 local and visiting boats with permits to trawl within the 3 mile limit and three scallop dredgers. In addition, over 500 hobby fishermen are registered (active and inactive) with the authority under its pot limitation byelaw scheme.

Throughout the District potting is the main fishing method from the static fleet. Pots, creels, traps and cages (these are fundamentally the same gear but a wide variety of styles) are used to fish for lobsters, brown crabs, velvet crabs and some for nephrops at various times of the year. The lobster season normally starts in June and is at its peak in August and September. In the summer when the fishermen have their pots very close inshore they are also able to catch large numbers of velvet crabs. By October lobsters start to become scarce and due to the unsettled weather most fishermen start to either reduce or take all their pots out of the water. The fishermen who continue to pot usually move their pots offshore to target brown crabs throughout the winter and into spring. In the last 5 years there has been an increase in the number of fishermen who have invested in prawn pots which they tend to work further offshore, just on the edge of the

Figure 3.1: NIFCA Limits of the District

Source: DEFRA
hard ground, where they can catch very good quality large nephrops which are kept alive by putting them into individual tubes; this is to stop them harming each other as high quality Nephrops are more profitable.

Furthermore, the trawl fleet has become ever more reliant on the local prawn (nephrops) fishery, which is now the fleet’s principal fishery. The local fishery takes place between 0-25 miles offshore with best catches being seen during the autumn and winter months. When the fishery is at its height it also attracts a large number of visiting trawlers from Scotland, Northern Ireland and other English ports. The majority of the visiting trawlers are larger and more powerful than the local boats and most also use more than one net (multi rigged), and these combined factors enable them to work further offshore in most weather conditions and, because they are towing 2-3 nets, they can potentially catch more prawns, which can be an issue between the locals and visitors. Byelaw 14 was introduced by Northumberland Sea Fisheries Committee (NSFC) to restrict any fishing boat from “multi rigging, pair trawling and pair seining” inside the NIFCA District (6 mile limit).

In the summer months a number of smaller under 10 metre boats from North Shields, Blyth and Amble move up to the Firth of Forth to target the summer prawns, normally working daylight and darkness throughout the week and coming home at weekends. The remaining under 10 metre boats and the larger local trawlers tend to work further offshore in the summer when the weather is usually finer, targeting both white fish and prawns. Mesh sizes for Nephrops are approximately 80-100mm, and for whitefish over 100mm.

The Authority also restricts the size of trawlers which can fish within its District, e.g. between 0-3 miles vessels allowed to trawl must be below 11.59 metres and have a trawling permit. No vessels over 24 metres are allowed to trawl within any part of the District, and at the present time there are approximately 115 local and visiting boats with permits to trawl within the 3 mile limit. No vessel can Purse Seine Net or Ring Net within the Committee’s District and any vessels dredging within the Authority’s District are restricted to no more than 10 dredges in total.

3.3 Shellfish and Whitefish Fisheries Management Regime

An important part of the SEA process is to accurately define the plan or programme to be assessed. In the NIFCA context, although there is no single or discrete plan to manage shellfish and whitefish fisheries, the management regime as a whole can be assessed. This regime will constitute the ‘plan or programme’ for the purposes of this SEA. NIFCA currently have a set of byelaws that govern fishing activities in the District, shown in Table 3.1 below (these byelaws are currently undergoing review).

Table 3.1: NIFCA Byelaws

<table>
<thead>
<tr>
<th>Byelaw Ref</th>
<th>Byelaw Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Revocation of Existing Byelaws</td>
</tr>
<tr>
<td>2</td>
<td>Application and Saving for Scientific Purposes</td>
</tr>
<tr>
<td>3</td>
<td>Trawling and Size of Vessels</td>
</tr>
<tr>
<td>4</td>
<td>Fixed Engines</td>
</tr>
<tr>
<td>5</td>
<td>Purse Seine Net</td>
</tr>
<tr>
<td>6</td>
<td>Protection of ‘V’ Notched Lobsters</td>
</tr>
<tr>
<td>7</td>
<td>Berried (Egg Bearing) or Soft Shelled Crab (Cancer pagurus) or Lobster (Homarus gammarus)</td>
</tr>
<tr>
<td>8</td>
<td>Parts of Shellfish</td>
</tr>
<tr>
<td>9</td>
<td>Prohibition on Use of Edible Crab (Cancer pagurus) for Bait</td>
</tr>
</tbody>
</table>
Northumberland IFCA Strategic Environmental Assessment
Scoping Report

<table>
<thead>
<tr>
<th>Byelaw Ref</th>
<th>Byelaw Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Redepositing of Shellfish</td>
</tr>
<tr>
<td>11</td>
<td>Marking of Fishing Gear and Keep Boxes</td>
</tr>
<tr>
<td>12</td>
<td>Dredges</td>
</tr>
<tr>
<td>13</td>
<td>Permit to Fish for Sell Lobsters, Crabs, Velvet Crabs, Whelks and Prawns</td>
</tr>
<tr>
<td>14</td>
<td>Multi-rigging, Pair Trawling and Pair Seining</td>
</tr>
<tr>
<td>15</td>
<td>Pot Limitations</td>
</tr>
</tbody>
</table>

Source: Northumberland IFCA

For the purposes of the SEA, the management regime will be categorised into methods undertaken to harvest the shellfish and whitefish species in the NIFCA district, and the species taken across like methods of harvesting. Table 3.2 and Table 3.3 outline the results of this approach.

Table 3.2: Categorisation of NIFCA Shellfish Fisheries by Fishing Method Employed and Species

<table>
<thead>
<tr>
<th>Species</th>
<th>Pot Fishery</th>
<th>Dredge Fishery</th>
<th>Method Employed</th>
<th>Hand Gathering</th>
<th>Gillnets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown Crab</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Lobster</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Scallops</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mussels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Velvet crabsp</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Nephrops</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 3.3: Categorisation of NIFCA Whitefish Fisheries by Fishing Method Employed and Species

<table>
<thead>
<tr>
<th>Species</th>
<th>Gillnets</th>
<th>Drift net</th>
<th>Hand line</th>
<th>Trawl</th>
<th>Beach &amp; T-net</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cod</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Sole</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Turbot</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other flatfish</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Mackerel</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Haddock</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Salmon</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sea trout</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Whiting</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Monkfish</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Catfish</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is therefore proposed that the SEA will be undertaken for the management regime for the following shellfish and whitefish fisheries:

**Shellfish**
- Pot fishery for Brown Crab, Lobster, Velvet Crab, and Nephrops;
- Dredge fishery for Scallops;
- Trawl fishery for Nephrops;
- Hand gathering fishery for Brown Crab, Lobster, Mussels, and Velvet Crabs;
- Gillnets fishery for Lobster.

**Whitefish**
- Gillnets fishery for Cod, Turbot, Other Flatfish, and Mackerel;
- Drift nets fishery for Salmon and Sea Trout;
- Hand lines fishery for Mackerel;
- Trawl fishery for Cod, Sole, Turbot, Other flatfish, Haddock, Whiting, Monkfish, and Catfish;
- Beach and T nets fishery for Salmon and Sea Trout.

The current state of these fisheries and the nature of the management regime in place are further described in Table 3.4 to Table 3.13. These tables will be developed in the Environmental Report.

### Table 3.4: Characteristics of the Pot Fishery for Brown Crab, Lobster, Velvet Crab, and Nephrops

<table>
<thead>
<tr>
<th>Species</th>
<th>Brown Crab, Lobster, Velvet Crab, and Nephrops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method of Capture</td>
<td>Pot Fishery</td>
</tr>
<tr>
<td>Geographical Area</td>
<td>Whole district</td>
</tr>
<tr>
<td>Stock Status</td>
<td>Deemed sustainable, under review by Cefas</td>
</tr>
<tr>
<td>Management Measures (byelaws/regulations)</td>
<td>6. Protection of “V” Notched Lobsters</td>
</tr>
<tr>
<td></td>
<td>7. Berried (Egg Bearing) or Soft Shelled Crab (Cancer pagurus) or Lobster (Homarus gammarus)</td>
</tr>
<tr>
<td></td>
<td>8. Parts of Shellfish</td>
</tr>
<tr>
<td></td>
<td>9. Prohibition on Use of Edible Crab (Cancer pagurus) for Bait</td>
</tr>
<tr>
<td></td>
<td>13. Permit to Fish for Sell Lobsters, Crabs, Velvet Crabs, Whelks and Prawns</td>
</tr>
<tr>
<td></td>
<td>15. Pot Limitation, EU SI minimum landing size and SI V notched lobster</td>
</tr>
</tbody>
</table>

### Table 3.5: Characteristics of the Dredge Fishery for Scallops

<table>
<thead>
<tr>
<th>Species</th>
<th>Scallops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method of Capture</td>
<td>Dredge fishery</td>
</tr>
<tr>
<td>Geographical Area</td>
<td>North of the district, Amble to border</td>
</tr>
<tr>
<td>Stock Status</td>
<td>Unknown</td>
</tr>
<tr>
<td>Catch History</td>
<td>National landing statistics held by MMO</td>
</tr>
<tr>
<td>Management Measures (byelaws/regulations)</td>
<td>12. Dredges</td>
</tr>
</tbody>
</table>

### Table 3.6: Characteristics of the Trawl Fishery for Nephrops

<table>
<thead>
<tr>
<th>Species</th>
<th>Nephrops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method of Capture</td>
<td>Trawl fishery</td>
</tr>
<tr>
<td>Geographical Area</td>
<td>Predominantly Amble south and outside of district</td>
</tr>
<tr>
<td>Stock Status</td>
<td>Unknown</td>
</tr>
<tr>
<td>Catch History</td>
<td>National landing statistics by MMO</td>
</tr>
<tr>
<td>Management Measures</td>
<td>3. Trawling and Size of Vessels</td>
</tr>
</tbody>
</table>
Table 3.7: Characteristics of the Hand Gathering Fishery for Brown Crab, Lobster, Mussels, and Velvet Crabs

<table>
<thead>
<tr>
<th>Species (byelaws/regulations)</th>
<th>Nephrops</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Multi-rigging, Pair Trawling and Pair Seining</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Species</th>
<th>Brown Crab, Lobster, Mussels, and Velvet Crabs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method of Capture</td>
<td>Hand gathering</td>
</tr>
<tr>
<td>Geographical Area</td>
<td>Intertidal – whole district</td>
</tr>
<tr>
<td>Stock Status</td>
<td>Unknown</td>
</tr>
<tr>
<td>Catch History</td>
<td>Unknown</td>
</tr>
<tr>
<td>Management Measures (byelaws/regulations)</td>
<td>6. Protection of ‘V’ Notched Lobsters</td>
</tr>
<tr>
<td></td>
<td>7. Berried (Egg Bearing) or Soft Shelled Crab (Cancer pagurus) or Lobster (Homarus gammarus)</td>
</tr>
<tr>
<td></td>
<td>8. Parts of Shellfish</td>
</tr>
<tr>
<td></td>
<td>9. Prohibition on Use of Edible Crab (Cancer pagurus) for Bait</td>
</tr>
<tr>
<td></td>
<td>13. Permit to Fish for Sell Lobsters, Crabs, Velvet Crabs, Whelks and Prawns</td>
</tr>
<tr>
<td></td>
<td>EU SI minimum landing size and SI V notched lobster</td>
</tr>
</tbody>
</table>

Table 3.8: Characteristics of the Gillnets Fishery for Lobster

<table>
<thead>
<tr>
<th>Species</th>
<th>Lobster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method of Capture</td>
<td>Gillnets</td>
</tr>
<tr>
<td>Geographical Area</td>
<td>Whole district</td>
</tr>
<tr>
<td>Stock Status</td>
<td>Deemed sustainable but under review by Cefas</td>
</tr>
<tr>
<td>Catch History</td>
<td>Permit return and national landing statistics held by MMO</td>
</tr>
<tr>
<td>Management Measures (byelaws/regulations)</td>
<td>6. Protection of ‘V’ Notched Lobsters</td>
</tr>
<tr>
<td></td>
<td>7. Berried (Egg Bearing) or Soft Shelled Crab (Cancer pagurus) or Lobster (Homarus gammarus)</td>
</tr>
<tr>
<td></td>
<td>8. Parts of Shellfish</td>
</tr>
<tr>
<td></td>
<td>9. Prohibition on Use of Edible Crab (Cancer pagurus) for Bait</td>
</tr>
<tr>
<td></td>
<td>13. Permit to Fish for Sell Lobsters, Crabs, Velvet Crabs, Whelks and Prawns</td>
</tr>
<tr>
<td></td>
<td>15. Pot Limitations</td>
</tr>
<tr>
<td></td>
<td>EU SI minimum landing size and SI V notched lobster</td>
</tr>
</tbody>
</table>

Table 3.9: Characteristics of the Gillnets Fishery for Cod, Turbot, Other Flatfish, and Mackerel

<table>
<thead>
<tr>
<th>Species</th>
<th>Cod, Turbot, Other Flatfish, and Mackerel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method of Capture</td>
<td>Gillnets</td>
</tr>
<tr>
<td>Geographical Area</td>
<td>Whole district</td>
</tr>
<tr>
<td>Stock Status</td>
<td>Cefas</td>
</tr>
<tr>
<td>Catch History</td>
<td>National statistics held by MMO</td>
</tr>
<tr>
<td>Management Measures (byelaws/regulations)</td>
<td>4. Fixed Engines</td>
</tr>
<tr>
<td></td>
<td>Minimum landing sizes set by MMO</td>
</tr>
</tbody>
</table>

Table 3.10: Characteristics of the Drift Nets Fishery for Salmon, and Sea Trout

<table>
<thead>
<tr>
<th>Species</th>
<th>Salmon and Sea Trout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method of Capture</td>
<td>Drift nets</td>
</tr>
<tr>
<td>Geographical Area</td>
<td>Whole district</td>
</tr>
</tbody>
</table>
### Species: Salmon and Sea Trout

<table>
<thead>
<tr>
<th>Species</th>
<th>Salmon and Sea Trout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Status</td>
<td>Held by Environment Agency</td>
</tr>
<tr>
<td>Catch History</td>
<td>Held by Environment Agency</td>
</tr>
</tbody>
</table>
| Management Measures (byelaws/regulations) | 4. Fixed Engines  
Minimum landing sizes set by MMO |

### Table 3.11: Characteristics of the Hand Lines Fishery for Mackerel

<table>
<thead>
<tr>
<th>Species</th>
<th>Mackerel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method of Capture</td>
<td>Hand lines</td>
</tr>
<tr>
<td>Geographical Area</td>
<td>Whole district</td>
</tr>
<tr>
<td>Stock Status</td>
<td>Held by Cefas</td>
</tr>
<tr>
<td>Catch History</td>
<td>Held by MMO</td>
</tr>
<tr>
<td>Management Measures (byelaws/regulations)</td>
<td>MMO licence and minimum landing size</td>
</tr>
</tbody>
</table>

### Table 3.12: Characteristics of the Trawl Fishery for Cod, Sole, Turbot, Other flatfish, Haddock, Whiting, Monkfish, and Catfish

<table>
<thead>
<tr>
<th>Species</th>
<th>Cod, Sole, Turbot, Other flatfish, Haddock, Whiting, Monkfish, and Catfish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method of Capture</td>
<td>Trawl fishery</td>
</tr>
<tr>
<td>Geographical Area</td>
<td>Potentially whole district, generally Amble south and outside of district</td>
</tr>
<tr>
<td>Stock Status</td>
<td>Cefas</td>
</tr>
<tr>
<td>Catch History</td>
<td>MMO</td>
</tr>
</tbody>
</table>
| Management Measures (byelaws/regulations)            | 3. Trawling and Size of Vessel  
5. Purse Seine Net  
14. Multi-rigging, Pair Trawling and Pair Seining  
MMO licence and minimum landing sizes |

### Table 3.13: Characteristics of the Beach and T-nets Fishery for Salmon, and Sea Trout

<table>
<thead>
<tr>
<th>Species</th>
<th>Salmon and Sea Trout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method of Capture</td>
<td>Beach and T Nets</td>
</tr>
<tr>
<td>Geographical Area</td>
<td>Whole district</td>
</tr>
<tr>
<td>Stock Status</td>
<td>Held by EA</td>
</tr>
<tr>
<td>Catch History</td>
<td>Held by EA</td>
</tr>
</tbody>
</table>
| Management Measures (byelaws/regulations) | 4. Fixed Engines  
Minimum landing sizes enforced by EA |
4. Relationship with other Policies, Plans and Programmes

The SEA Directive requires:

“an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes”

“the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation”

SEA Directive Annex I (a) and (e)

4.1 Policies, Plans and Programmes Review

A review of the range of plans and programmes relevant to the NIFCA shellfish and whitefish fisheries management regime SEA was undertaken as part of the scoping process. The aim was to determine how the current management regime and future management options may be affected by these outside factors. This step ensures compliance with Annex 1(a) of the SEA Directive.

Furthermore, the fisheries regime must comply with all current relevant policies, plans, programmes (PPPs) and environmental protection legislation at international, national and local levels. The regime must support and where possible strengthen the objectives of other local plans and strategies within the NIFCA region. A review of these documents is required in order to identify any potential inconsistencies or constraints between these documents and the regime. Any inconsistencies and constraints identified can then be addressed. Figure 4.1 lists current relevant PPPs, which have been considered in this Scoping Report. Appendix A presents the PPP review and a description on how these objectives or requirements will be considered in the development of the regime and SEA process.
Figure 4.1: Relevant Policies, Plans, Programmes and Environmental Protection Legislation

NATIONAL
- DEFRA, Fisheries 2027
- Sea Fisheries Act 1967 (as amended in 1997)
- Sea Fisheries Regulation Act (1966)
- Sea Fish Conservation Act (1992)
- The Environment Act (1995)
- The Shrimp Fishing Nets Order (2002)
- Natural Environment and Rural Communities Act (2006)
- The Conservation of Habitats and Species (Amendment) Regulations (2012)
- The Offshore Marine Conservation (Natural Habitats, &c.) (Amendment) Regulations (2012)
- The Registration of Fish Buyers and Sellers and Designation of Fish Auction Sites Regulations (2005)
- Marine and Coastal Access Act (2009)
- UK Marine Policy Statement (2011)
- Climate Change Act (2008)
- Sea Trout and Salmon Fisheries Strategy (2008 – 2012)
- National Trout and Grayling Fisheries Strategy (2003)
- Merchant Shipping Act (1996)
- Environmental Protection Act (1990)
- Climate Change – UK Programme (2006)
- UK Post-2010 Biodiversity Framework (2012)
- Water White Paper (2011)
- Scallop Fishing Order 2012

REGIONAL (NORTH EAST ENGLAND)
- North East Declaration on Climate Change

LOCAL
- NIFCA Byelaws
- Northumberland IFCA Annual Plan
- Northumberland and North Tyneside Shoreline Management Plan 2
- Northumberland Coast AONB and Berwickshire and North Northumberland Coast EMS Management Plan (2009-14)
- Northumberland County Council Core Strategy Issues and Options
- Northumberland Consolidated Planning Policy Framework

EUROPEAN
- Common Fisheries Policy
- Electronic Recording and Reporting System (ERS)
- DEFRA, Fisheries 2027
- EC Directive on Bathing Water (76/160/EEC)
- The European Community Shellfish Waters Directive 2006/113/EC (the Directive)
- The Registration of Fish Buyers and Sellers and Designation of Fish Auction Sites Regulations (2005)
- Merchant Shipping Act (1995)
- Ramsar Convention on wetlands of International Importance (1971)
- Kyoto Protocol on Climate Change (1997)
- UN Framework Convention on Climate Change (1992)
- Berne Convention on the Conservation of European Wildlife and Natural Habitats (1979)
- Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)
- UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (1972)
- Convention on Biological Diversity (CBD)
- FAO Code of Conduct for Responsible Fisheries
- NIFCA Byelaws
- Northumberland IFCA Annual Plan
- Northumberland and North Tyneside Shoreline Management Plan 2
- Northumberland Coast AONB and Berwickshire and North Northumberland Coast EMS Management Plan (2009-14)
- Northumberland County Council Core Strategy Issues and Options
- Northumberland Consolidated Planning Policy Framework

INTERNATIONAL
- FAO Code of Conduct for Responsible Fisheries
- Convention on Biological Diversity (CBD)
- FAO Code of Conduct for Responsible Fisheries
- MARPOL 73/78
- OSPAR Convention (1992)
5. Environmental Baseline

The SEA Directive requires:

“the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme”

“the environmental characteristics of areas likely to be significantly affected”

SEA Directive Annex I (b) and (c)

5.1 Baseline Information

High level environmental and socio-economic baseline information for the fisheries management regime was collected and examined for NIFCA District as part of the scoping process. This information provides the basis for predicting and monitoring the effects of both current and possible future fisheries management options. It also helps to identify potential sustainability issues, and alternative management options in the context of national, regional and local targets and trends.

The baseline topics outlined include, but are not limited to, those identified in Annex 1(f) of the ‘SEA Directive’. The topics have been separated into environmental considerations and socio-economic considerations:

Environment
- Air Quality – emissions to air, particulate matter and odour.
- Biodiversity, Flora and Fauna – target species, non-target species, habitats and issues concerning bio-security.
- Climate Change - the effects of climate change on the North Sea
- Energy – fuel consumption by fishing fleet.
- Historic Environment – inland historical assets and wreck sites.
- Landscape/Seascape – natural environment features and characteristics.
- Soils – interaction with the sea.
- Waste – liquid and solid waste from fish processing.
- Water Quality – chemical and ecological status and bathing water quality.

Socio-Economic
- Human Health – region’s health, the benefits of consuming seafood, the health and safety of the District’s fishermen, the indirect benefits from recreational fishing and impacts of discarded fishing gear.
- Material Assets – fleet size, ports and processing facilities.
- Socio-Economics – Population, the fishing community and the fishing industry.
- Tourism – tourism destinations and angling.
- Transport – distribution network.
5.2 Air Quality

The environmental effects of fishing activities on air quality are intrinsically linked. A reduction in fuel usage and emissions will reduce the amount of carbon dioxide into the atmosphere. In the UK as a whole, at the current level of fuel consumption, around 45,000 tonnes CO$_2$ is produced by the fishing fleet on an annual basis.\(^1\) If the improvements in efficiency of fishing activities were realised, this would save around seven percent, or over 7,000 tonnes CO$_2$ emissions per year. There are several ways the industry could reduce fuel consumption resulting in a cut in emissions and operating costs including reducing towing speed, changing fishing method and modifying gear. With the rapid rise in oil prices, fuel consumption has become a significant component of operating costs as well as an environmental concern.

Exhaust gas emissions (CO$_2$, nitrogen oxides [NO$_X$] and carbon monoxide [CO]) in the fish processing sector result from the combustion of gas and fuel oil or diesel in turbines, boilers, compressors and other engines for power and heat generation; however, quantities are currently unknown.

The emissions to air from the fishing fleet and infrastructure in the NIFCA District are not known at present; however, the contribution to the UK fishing industry total will be small, based on the small fleet size. The majority of local vessels are small and their operations are undertaken by low capital businesses. In addition, the landings of small coastal boats are, in all likelihood, collected from beach stations and delivered to an outlet by either the fishermen’s trucks, or by a lorry supplied by a processor/outlet such (e.g. Burgons of Eyemouth). However, these emissions will likely play only a very small part of the total emissions of vehicles in Northumberland.

Odour is a significant form of air pollution and can potentially reduce air quality. Odour is most common in areas surrounding fish processing facilities. Major sources include storage sites for processing waste, cooking by-products during fish meal production, fish drying processes, and odour emitted during filling and emptying of bulk tanks and silos. Fish quality may deteriorate under the anaerobic conditions found in onboard storage on fishing vessels and in the raw material silos of fish processing facilities. This deterioration causes the formation of odorous compounds such as ammonia, mercaptans, and hydrogen sulfide gas.\(^2\) Particulate emissions are generally not a serious problem in the fish processing sector.

5.3 Biodiversity, Flora and Fauna

The fishing industry is now a shadow of its former self, with most fishing effort directed towards potting for crab and lobster; however, trawling activities for Nephrops and pelagic and demersal fish also takes place in the District. A small amount of salmon and sea trout netting still occurs on the site. Netting occurs during a limited season (licenced, but not regulated by NIFCA), but this is also in decline. Bait digging, mostly for lugworm and ragworm, is a relatively common practice along the coast. Bait digging is commonly carried out by amateur anglers; however, some small-scale commercial digging does occur. On rocky shores the collection of periwinkles for human consumption occurs all year round, with peak effort coinciding with the Christmas period, although most of this production is now exported to France, Belgium and Spain. Intertidal collection of lobsters takes place all year round, commercially and recreationally.

The biodiversity, flora and fauna impacted by fisheries can be classified under three main categories:

\(^1\) Mott Macdonald. 2008. Pilot Shellfish Fisheries Strategic Environmental Assessment: Scoping Report
5.3.1 Target Species

With continual declines in white fish stocks the existing fishing industry is experiencing a decline in vessels, fishers and landings. Fishing activity is now focused mainly on crabs, lobsters and prawns and limited processing of local salmon and other fish.\(^3\)

5.3.1.1 Shellfish Species

Nationally, the North East Coast contains some important shellfish waters in the UK. Information about the state of stocks of these species is largely limited to those targeted in commercial, and to a lesser extent, recreational fisheries. The District supports important shellfish fisheries for lobster, brown or edible crab and velvet crab.

Lobster: Lobsters (Homarus gammarus) are most commonly found in rocky substrata, living in holes and excavated tunnels from the lower shore to about 60 m depth.\(^4\) They are widely distributed along the NIFCA coast wherever there is suitable habitat to shelter the various life history stages.

Lobster is the main target species for inshore vessels working out of the local ports throughout Northumberland, the main season runs from July through to January with catch rates falling as the season progresses. This decline may reflect a combination of depletion, but also reduced foraging activity for food as water temperature declines though the autumn and into winter. During 2007 in excess of 130,000kg of lobsters were landed into the region.

CEFAS (Centre for Environment, Fisheries & Aquaculture Science) report that the status of the stock of lobster in the Northumberland (and Durham) area is very low and that females are below the minimum recommended level\(^5\). In addition, the report explains that the exploitation level of lobster is very high and is significantly above the maximum recommended level; the assessments therefore raise concerns about sustainability in the long term.

However, NIFCA report that, since the start of the lobster v-notching scheme, the Authority has had positive feedback throughout the district (and beyond supporting the scheme) from fishermen claiming that

---


numbers of immature lobsters have increased, the v-notching scheme intends to future-proof the fishery by maintaining and enhancing healthy lobster stocks within the Authority’s district.

**Brown Crab:** Brown crab (Cancer pagurus) is found on bedrock including under boulders, mixed coarse grounds, and offshore in muddy sand. It occupies the lower shore, shallow sublittoral and offshore to about 100 m. It is mainly, but not exclusively, a nocturnal species; an active predator that consumes a variety of crustaceans and molluscs. Historical tagging studies show that hen crabs carry out reproductive migrations believed to be within distinctive inshore and offshore stocks. These self-sustaining populations would effectively be ‘manageable’ as separate stocks, and would respond separately to management measures. The stock considered in this assessment is inshore stock.

The status of the stock of brown crab in the Central North Sea is low and is around the minimum recommended level. Exploitation level is moderate on females and, although likely to be sustainable is above the level required for Maximum Sustainable Yield. There is a trend of increasing exploitation rate on males and this is likely to be unsustainable in the long term.

Reported landings and fishing effort increased substantially following the introduction of Buyers and Sellers legislation and the Restrictive Shellfish License Scheme in 2006 (an increase which is likely due to better recording rather than an increase in effort). Since this period fishing activity data are thought to be generally more reliable but the integrity of the time series, especially fishing effort, is uncertain.

**Velvet Crab:** The velvet crab (Necora puber) is a fast moving swimming crab that grows to about 8 cm. It is found on stony and rock substrata intertidally and in shallow water, most abundant on moderately sheltered shores.

Information on the structure of the stocks supporting the new velvet crab fishery is limited. However, Walmsley and Pawson noted that velvet crabs have attracted more interest as markets have opened up. They are caught in pots set in the shelter of the coast, often as a bycatch to lobsters, and provide an important resource during the winter when they have a higher survival rate when stored prior to being taken in vivier lorries to Europe, where they are sold live.

**Nephrops:** The Nephrops, (Nephrops norvegicus), also called the prawn, Norway lobster, Dublin Bay prawn, langoustine, scampi or Nephrops is a pale orange crustacean that can grow up to 25cm in length but is often much smaller. Nephrops live in shallow often branching burrows in soft stable mud at depths ranging from 20m to 800m. Although small planktonic Nephrops larvae are transported by the currents and may be carried from one part of the North Sea to another, it is believed that there is very little exchange of adults between functional units. Adult Nephrops are relatively sedentary, seldom moving more than a few hundred metres from their burrows.

---


Nephrops landings from the North Sea have progressively increased over the years and the implementation of the “buyers and sellers” regulations in 2006 considerably tightened up the levels of reporting for Nephrops. Since 2006 the landings figures are considered to be more reliable and recent increases in landings and landings per unit effort (LPUE) may have resulted from the increase in reporting levels, not necessarily actual changes to the stock. However, it could also be argued that effort in Nephrops fisheries has increased due to a number of whitefish fishermen choosing to opt for Nephrops that can be fished with a smaller mesh than in the whitefish fisheries.

Nephrops are the only shellfish stocks that are assessed by the International Council for the Exploration of the Sea (ICES). The stock are assessed at the individual stock level (called functional units) Nephrops stocks at FU (functional unit) level appear to be fairly stable in terms of abundance and size composition. Notable exceptions have been observed on the Fladen ground which showed a marked increase in abundance and on the Farne Deeps where the population size of Nephrops dropped in 2007 and unusual changes in the seasonal sex-ratio pattern occurred following increased fishing effort in 2006. In 2010, it was reported that effort was becoming limiting (due to the days at sea restrictions) for Nephrops vessels with the result that vessels were remaining in port for longer periods during strong tides or periods or poor weather when catches were expected to be low.

Mussels: The edible mussel (Mytilus edulis) is one of the most common shore animals. It is a gregarious species commonly found around the coast on the rocky shores of open coasts attached to the rock surface and in crevices, and on rocks and piers in sheltered harbours and estuaries, often occurring as dense masses.11 Whilst there is considerable knowledge about the general biology and life history of mussels, and a detailed knowledge about the mussel stocks in some parts of the UK, there is little scientific knowledge about those stocks of these species that are exploited in the NIFCA District.

A survey of the natural population of mussels on the large bed located on Fenham Flats, part of the Lindisfarne Nature Reserve, adjacent to Holy Island, was undertaken in order to estimate the size of the mussel stock. This stock assessment has revealed that as of March 2012, there was an estimated 3,460 tonnes of mussel biomass within this 43.80 hectare (ha) mussel bed – both of which are comparable with the 2011 results of 3864 tonnes of mussel biomass and 45.65ha of mussel bed. The overall numbers of mussels on the beds, however, is significantly down on all previous years. The overall number of mussels estimated on the beds now stands at 262 million, well down on the high in 2010 when there was an estimated 486 million mussels on the beds. The main factor in this reduction would appear to be the absence of juveniles, particularly below 20mm in size. The reason for the reduction in the number of juveniles may be:

- due to poor spat (e.g. the spawn or larvae of shellfish) production over the last few years. This may very well be linked to the poor condition of the mussels in general that has been observed for some time; or,
- because mussel stocks fluctuate markedly, and spawning success is episodic, unpredictable, and unreliable. There has been a run of poor years for reasons that are not known. Mussel beds are sometimes prone to catastrophic losses when bio-deposits build up under the animals, which are then washed away in winter storms

Whelk: The common whelk (Buccinum undatum) grows up to 10 cm in length; it is occasionally intertidal but mainly subtidal down to 1,200 m. It is found on muddy sand, gravel and also rock and is sometimes present in brackish waters. Masses of lentil shaped eggs are often found attached to subtidal rocks, stones or shells. Empty egg masses, known as ‘sea wash balls’, are often found on the strandline and are

sometimes mistaken for sponges. There is no commercial targeting of whelk in the NIFCA district and information levels of fishing activity for whelks are unknown.

**Scallops:** Variegated Scallops (Chlamys varia) are found from just below the tidal zone, down to depths of up to 80 metres. These scallops live on rocky and gravelly shores and seabeds, and can be widely found across the Northumberland coast.\(^{12}\) There is little information on the scale of landings or levels of fishing activity for scallops within the NIFCA District; however, it is reported that two trawlers in the Northern district were scallop dredging over the quarter: one was from Amble working full-time and the other from Seahouses working periodically and having varying degrees of success.\(^{13}\)

**Cockle:** The cockle (Cerastoderma edule) inhabits the surface of a variety of sediments, burrowing to a depth of < 5 cm. It is found on clean sand, muddy sand, mud or muddy gravel from the middle to lower intertidal, sometimes sub-tidal. Cockles are periodically abundant in estuaries and sheltered bays, and population densities of 10,000 per m\(^2\) have been recorded. The general principles of cockle dynamics, harvesting and management are well known and well established in other areas (e.g. the Wash, Thames Estuary and the Burry Inlet, Wales). No commercial fishing of cockles takes place in the district and there is no scientific information on the detailed distribution of the local stocks or their dynamics.

**Oyster:** The oyster (Ostrea edulis) is an irregularly shaped bivalve with a thin shell, found attached to stones and to other bivalve shells. It is approximately circular and up to 60 mm in diameter. They are found between intertidal waters and depths of 150 m on rocks, bivalve shells, often scallop shells and algal holdfasts. There are no native oyster species in the NIFCA district; however, pacific oysters (Crassostrea gigas) are grown on the seashore of Fenham.

### 5.3.1.2 Whitefish Species

Capture fisheries are widely acknowledged to result in significant impacts on marine ecosystems, in particular on the target stocks. Such extractive fisheries are known to have fundamental long-term impacts on the age structure of fish stocks, shifting the age distributions towards smaller and faster growing individuals.\(^{14}\) This shift reduces the proportion of the older, larger fish in the stock, thus reducing sustainable yield and, in the long term, endangering reproductive dynamics. Such stocks are generally less productive and there can be quite profound knock-on effects to dependent and associated habitats and species within the marine ecosystem.\(^{15}\)

In the last decade there has been a notable decline in traditional whitefish fisheries, particularly those targeting cod. This decline, combined with increasing restrictions and controls on fishing activity has driven changes in both the species targeted and the methods of fishing employed by the local inshore fishing industry.

In the District, whitefish are caught both as a bycatch in the Nephrops fishery and in a directed fishery. The Farn Deeps, a deep-water trench some 10–20 miles offshore, has traditionally provided good catches of

---


haddock, cod and whiting for most of the year, although these fish are also caught closer inshore, particularly in the winter months. Northumberland SFC byelaws prohibit the use of purse seines, ring nets or similar encircling nets and trawlers over 11.6m in length operating within 3 miles of the coast. Flatfish, such as lemon sole and turbot, command a high market price and form an important part of the mixed demersal trawl fishery. Plaice are landed in greater quantities during the warmer months of the year.

Boats <10 m principally set gill nets and trammel nets for cod, which move inshore from autumn through to spring. Cod (Gadus morhua) grow to approximately 120 cm in length, weighing around 12kg. Atlantic cod are commonly found on sandy bottoms. Atlantic cod is one of the UK’s most popular commercial species and as a result has been fished extensively in UK waters. They can often be found in large, dense shoals, making them an easy target for fishermen. Extensive over fishing has resulted in this once prolific species becoming commercially rare. Spawning occurs between February and April when 3 to 6 million buoyant eggs are released, often forming great swarms that can be transported miles by ocean currents before hatching after 12 days.\(^\text{16}\)

Gill and trammel nets also take whiting, pollack, saithe and crustacea. Each net measures 75–100 m in length and 1.5–2 m in depth and up to 6 nets are joined together to form a ‘fleet’. In order to prevent the illegal capture of salmon and sea trout, NIFCA have only authorised the use of nets (other than licensed salmon T-nets) in areas where the depth of water exceeds 7 m, and netting is prohibited around the mouths of the Rivers Tyne, Wansbeck and Coquet.

Tangle and trammel nets are used to catch flatfish, principally plaice and turbot. Nets used to catch plaice generally have a mesh size of 100–120 mm, whereas nets used for turbot and monkfish can have a mesh size of up to 300 mm. Boats under 10m may set over 5,000m of netting, though most set between 1,000 and 2,500m. Gill netting activity has decreased notably in the last 5 years, principally due to a scarcity of cod during the winter. As a result, fishermen are not investing in new nets.

5.3.2 Non-target Species

5.3.2.1 Efforts

In the past, trawlers and seiners targeted herring on well-known spawning grounds off the Farne Islands. Following the re-opening of the herring fishery in 1983, fishing effort has been minimal as local stocks have failed to recover and demand is low. Herring are now occasionally caught in drift nets close inshore and they are sometimes exploited for pot bait.

Salmon migrating to spawn in rivers on the east coast of Scotland and the north-east coast of England are believed to enter the North Sea from the north, to move south and then inshore, before swimming north along the English coast to their home rivers. Sea trout originating from these same rivers are thought to migrate southwards to feed in the southern North Sea and are also exploited as they migrate north to spawn. Drift nets up to 550 m in length take a greater proportion of salmon than Northumbria T-nets, and the mesh varies between 120 and 135 mm, depending on the area and time of year.

Following the buy-out of 53 drift net licences in 2003, 7 licences were issued in 2006 for fishing for salmon and sea trout with drift or T-net in the Northumberland region (from Holy Island down to Souter Point (3 miles south of the River Tyne), 7 for ‘stell’ net only and 20 for T-net only. Fishing for salmon and sea trout in the ‘Tweed Box’ at the mouth of the River Tweed and which extends into England as far south as Holy Island (as defined by the Tweed Fisheries Acts 1857–1969) is subject to Scottish law, and drift nets are banned. The fishing season for drift nets in the whole of the North East Coast fishery starts on 1 June and ends on 31 August. The T/J-net fishery for sea trout starts on 26 March. Closed areas (known as ‘playgrounds’) have been established around the mouths of the Rivers Coquet, Wansbeck and Tyne, although T-nets are permitted in some of these areas. T-nets used between Boulmer and Hauxley (within private stell fisheries) and close to the River Tyne are set at fixed berths and fishermen operate under a rota system. In the Druridge Bay, Beadnell and Holy Island areas, there are no formal rotas or rigidly fixed stations for T-netting.

5.3.2.2 Bycatch

The ecosystems in the NIFCA District include a diverse range of marine species including cetaceans, birds, fish and a myriad of invertebrates, including commercial and non-commercial species. Bycatch of these marine species occurs where non-target fish and other organisms are also caught. Species known to be caught in the NIFCA District fisheries bycatch include brown crab and velvet crab, caught as bycatch in the lobster fishery.¹⁷ There is no systematic data gathering for other species. In addition, as mentioned above, some whitefish are caught as bycatch in the Nephors fishery.

Some species of cetaceans (e.g. dolphins) are known to be accidentally caught in fishing gear and either killed or damaged as a result. In addition, fishing activities have the potential to impact negatively on seabirds: a) by accidentally catching and killing seabirds in fishing gear (in general, bycatch of seabirds tends to be highest in the vicinity of major breeding colonies); and b) by reducing the amount of food provided to seabirds through discards and offal discharge; however, this effect has not been quantified and it is extremely difficult to prove a link between fish stock reductions caused by fisheries and changes within populations of seabirds.

5.3.2.3 Discards

Lobster pots are hauled onboard across roller systems to a handling area where the pots are emptied. Inevitably, there is some proportion of the catch that is discarded as not all species caught are desirable to fishers. Discards from potting have a high survival rate; however, there is no quantifiable or verifiable information on the species discarded from the shellfish or whitefish fisheries in the NIFCA District. More details about discarding will be presented in Section 5.9 on Waste below.

5.3.3 Aquatic habitats, biodiversity and ecosystems

The seabed substrate throughout the north east coast, both inshore and offshore, provides a good matrix of ‘hard’ and ‘soft’ ground, supporting diverse ecosystems and a wide range of marine species, including a wide range of commercially valuable shellfish and whitefish species.

¹⁷ Browne, A.B. 2010. An Insight into the Fisheries throughout the District of the Authority’s predecessor body Northumberland Sea Fisheries Committee in 2010. [on-line], [cited 19/12/2012].

303529/EVT/EES/001/B
http://pims01/pims/llisapi.dll/properties/1528632154
The North East coast is biodiversity rich and is characterised by its vegetated cliffs and submerged or partly submerged sea caves of international importance, together with underwater reefs teeming with colourful marine life.

There are several sensitive areas in the NIFCA District that have been afforded international protection. These areas include:

- Berwickshire and North Northumberland Coast (BNNC) Special Area of Conservation (SAC), OSPAR Marine Protected Area (MPA) and European Marine Site (EMS) - contributes towards the important European network of Annex I habitats and Annex II species listed in the 1992 EU Habitats Directive. Special features of the SAC include reefs, caves, mudflats, large shallow inlets and bays and grey seals. It should be noted that the BNNC EMS also includes the bird interest features and intertidal area of the Lindisfarne Special Protection Area (SPA) (as described below).

- Lindisfarne Special Protected Area (SPA) and Ramsar Site – supports an internationally important assemblage of waterfowl, high numbers of migratory species (e.g. greylag goose) and internationally important populations of rare birds as identified in Annex I of the 1979 EC Birds Directive (e.g. golden plover, whooper swan). The Lindisfarne SPA is also designated under the Ramsar Convention as a wetland of international importance.

- Northumbria Coast SPA and Ramsar Site - includes much of the coastline between the Tweed and Tees Estuaries in North-East England. In summer, the site supports important numbers of breeding Little Tern Sterna albifrons, whilst in winter the mixture of rocky and sandy shore supports large number of Turnstone and Purple Sandpiper.

- North Northumberland Dunes SAC – qualifying features include embryonic shifting dunes, shifting dunes along the shoreline with Ammophila arenaria (white dunes), shifting dunes with marram, fixed dunes with herbaceous vegetation (grey dunes), dune grassland, dunes with creeping willow, humid dune slacks and petalwort.

- Farne Islands SPA - a group of low-lying islands between 2-6 km off the coast of Northumberland. The islands are important as nesting areas for sea birds, especially terns, gulls and auks.

In addition, there are a number of other designations in the NIFCA District, including:

- Coquet to St Mary’s recommended Marine Conservation Zones (rMCZ) - intertidal and subtidal rock and sediments features, including diverse intertidal underboulder communities of conservation importance.

- Within the site there are the following nine Sites of Special Scientific Interest (SSSIs):
  - Alnmouth Saltmarsh and Dunes;
  - Coquet Island;
  - Cresswell and Newbiggin Shores;
  - Cresswell Ponds;
  - Hadston Links;
  - Low Hauxley Shore;
  - Northumberland Shore;
  - Tynemouth to Seaton Sluice; and
  - Warkworth Dunes and Saltmarsh.

- Farnes East rMCZ - The mud within this site is an important fishing ground for nephrops. This area also has a high level of pelagic ecological importance, and supports diverse marine life communities. With burrowing mega fauna proliferating, a variety of worms, sea snails and paired-shelled bivalves are present.

- Aln Estuary MCZ - predominantly coastal saltmarsh and saline reedbed with sheltered muddy gravel and estuarine rocky habitats, all of which are UK Biodiversity Action Plan priority habitats. The inner part of the Aln Estuary at Coquet supports sprat and flounder nurseries. Juvenile migratory species including...
plaice, flounder, brown trout, Atlantic salmon, European eel and sand eel have been found close to the estuary.

- The Northumberland Coast is designated as an Area of Outstanding Natural Beauty (AONB). It covers an area of 138 square km along 64km of coastline from Berwick to the Coquet estuary. The AONB contains a tremendous variety of natural and historical interest.
- The BNNC includes the St Abbs and Eyemouth Voluntary Marine Reserve (VMR). Which has a special assemblage of marine life that and is fished by local fishermen using traditional lobster pots to catch shellfish. It was established in 1984, the first of its kind in the UK. The VMR is not within the NIFCA district but the EMS (which the VMR sits within) is a cross border site that is partly within the NIFCA district. It should be noted that NIFCA have no statutory powers cross border.

Figure 5.1: Ecological Designated Sites

Source: www.magic.gov.uk
5.3.4 Bio-safety

Shipping and aquaculture are responsible for approximately 90% and 10%, respectively, of the introductions of marine alien species in Europe (WWF-Germany, 2004). About 80 non-indigenous species are assumed to have been introduced into the North Sea by transoceanic shipping and aquaculture. The number is certainly underestimated as most small organisms received insufficient attention at the species level.\textsuperscript{18}

More commonly, alien species have been introduced, intentionally or accidentally, as a result of mariculture activities. Some species of finfish, shellfish (molluscs, crustaceans, and echinoderms) and aquatic plants (including seaweeds) are imported from other sea areas specifically for cultivation, either extensively for commercial reasons or otherwise for the aquaria trade or research. Some, such as mussels and oysters, are deliberately introduced to a location in the wild; others, such as farmed salmon, occasionally escape into the wild and establish themselves.

Introduced species compete with their native counterparts for food, vital space, may also interbreed with the local species altering their genetic makeup. Introduced species may also potentially alter habitats and the balance of existing communities, resulting in changes to the structure and function of entire marine ecosystems. Species of concern in the District are cord grass (Spartina spp.), that has colonised mudflats particularly at Lindisfarne, and the Chinese mitten crab (Eriocheir sinensis) currently present in the River Tyne.

Details on foreign species are unknown in the NIFCA district and will be investigated in the Environmental Report if further information becomes available; however, this is not expected to be a big problem owing to the low level of opportunity for shellfish cultivation in the district.

5.4 Climate

Marine air and sea surface temperatures have been rising at a similar rate to land air temperature but with strong regional variations. Since the 1980s, the rate of rise has been about 0.2 - 0.6ºC per decade.\textsuperscript{19} In the UK, warming has been faster in the English Channel and southern North Sea than in the Scottish continental shelf waters.

The functioning of the marine ecosystem is strongly influenced by ocean climate and acidification, whilst storms, extreme wave events, sea-level rise and coastal erosion pose threats to human life, built structures and shipping. The environmental effects of climate change on the marine environment can be far reaching and include changes to community structure as species colonise warmer environments. Therefore, adaptation and mitigation for climate change has become imperative. The adoption of flexible nature conservation that focuses holistically on the environment, allowing the development and migration of habitats and species, is critical to managing the effects of climate change.

Climate change impacts have been observed on individual species and species subsets; however, it remains to be seen whether there are systematic, coherent assemblage-wide responses to climate change.


that could be used as a representative indicator of changing biological state.\textsuperscript{20} Changes in species composition could offer new possibilities for the fisheries in the NIFCA District; however, they could also bring about undesirable consequences to the established fisheries in the district.

In the North Sea, most species have deepened over time. The deepening of North Sea bottom-dwelling fishes in response to climate change is the marine analogue of the upward movement of terrestrial species to higher altitudes. The deepening of the demersal fish assemblage in response to temperature could be used as a biotic indicator of the effects of climate change in the North Sea and other semi-enclosed seas. Changes in the species community composition in the NIFCA District will be investigated in the Environmental Report.

\textbf{5.5 Energy}

Fishing is one of the most energy-intensive food production methods in the world and it depends almost entirely on fossil fuels. In 2000, the world’s fishing fleets were responsible for about 1.2% of total global fuel consumption, which corresponds to approximately 0.67 litres of fuel per kg of fish and shellfish landed. In 2008, the EU fleet consumed 3.7 billion litres of fuel, representing 25% of the value of landings.\textsuperscript{21}

Seafish estimates that the entire UK fishing fleet consume around 300 million litres of fuel per year\textsuperscript{22} and at the current level of fuel consumption, around 45,000 tonnes CO\textsubscript{2} is produced by the UK fishing fleet on an annual basis. There are a significant number of vessels working in the shellfish, and to a lesser extent whitefish, fisheries in the NIFCA District that contribute to this consumption. The nature and extent of the emissions to air resulting from the operation of the fishing fleet in the NIFCA District are not known at present.

There are several ways the industry could reduce fuel consumption resulting in a cut in emissions and operating costs including reducing towing speed, changing fishing method and modifying gear. With the rapid rise in oil prices, fuel consumption has become a significant component of operating costs as well as an environmental concern.

Fish processing facilities use energy to produce hot water, steam, and electricity for process and cleaning applications. Electricity is used for electrical equipment, air conditioning, cooling, freezing, and ice production.

The situation in the NIFCA District will be reviewed in the Environmental Report.

\textbf{5.6 Historic Environment}

The historic environment makes an important contribution to the character, quality, environment and economy in the NIFCA District. The District’s cultural heritage, summarised in Table 5.1 below, has been shaped by a combination of factors, including the quality of agricultural and natural resources, distinctive landscape features and location (i.e. the position as a national and maritime frontier). The rich cultural heritage has left a legacy of well-preserved archaeological sites, historic buildings and other assets - many

\textsuperscript{22} Curtis, H.C., Graham, K., Rossiter, T. 2006. Operations for improving fuel efficiency in the UK fishing fleet
of national and international importance. These sites represent a valuable resource for both local communities and visitors.

Table 5.1: NIFCA District’s Cultural Heritage

<table>
<thead>
<tr>
<th>Designation</th>
<th>Number of assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Heritage Site</td>
<td>1</td>
</tr>
<tr>
<td>Scheduled Monuments</td>
<td>957</td>
</tr>
<tr>
<td>Grade I listed buildings</td>
<td>176</td>
</tr>
<tr>
<td>Grade II* listed buildings</td>
<td>272</td>
</tr>
<tr>
<td>Grade II listed buildings</td>
<td>5,138</td>
</tr>
<tr>
<td>Conservation Areas</td>
<td>69</td>
</tr>
<tr>
<td>Registered Parks and Gardens</td>
<td>18</td>
</tr>
<tr>
<td>Registered Battlefields</td>
<td>4</td>
</tr>
</tbody>
</table>

At this stage it is felt that fishing activities will not impinge on the architectural heritage of the NIFCA District. This environmental objective has thus been scoped out of the Environmental Report.

The Protection of Wrecks Act (1973) allows the Government to designate a wreck to prevent uncontrolled interference. Designated sites are identified as being likely to contain the remains of a vessel, or its contents, which are of historical, artistic or archaeological importance. A 'Statutory Instrument' identifies the location of the site and also the extent of the restricted area used to ensure the protection of the site. In some cases the site is indicated by a buoy, usually yellow and inscribed Protected Wreck. Suitably placed notices sometimes indicate sites close to the shore. Some are warning signs and others are public information notices giving a brief explanation of why the wreck is important and a description of the site. All protected wrecks are listed in the annual Admiralty Notices to Mariners and are marked on appropriate UK Hydrographic Office charts. There are a huge number of wreck sites in the NIFCA District and further offshore; therefore, details will not be presented in this report.

5.7 Landscape/Seascape

The Northumberland Coast AONB and Berwickshire and North Northumberland Coast EMS are two facets of the NIFCA District coastline. The primary purpose of the AONB and EMS designations is to conserve and enhance the beauty and the special and qualifying features of the natural environment. The coastline is characterised by long sand beaches, high rock cliffs and extensive reefs, clustered settlements, heritage sites (such as castles), extensive sea and inland views, abundant wild bird populations, grasslands and many other elements, all of which contribute to the visual amenity of the coast. Combinations of these elements result in land and seascapes with an individual, local character.

With much of the UK’s coastlines designated under either conservation objectives or specific landscape designations, any development within the coastal zone will need to be in keeping with the scale and nature of the surrounding countryside and seascape.

---

5.8 Soils

Soils occupy a rather unique position in earth heritage environmental assessment because they are not explicitly covered by any of the existing designated area legislations in Britain. Because soils do not fit neatly into a site-based framework, they can be overlooked in environmental assessment.\(^{24}\)

Soils provide an important interface between the geosphere, biosphere and hydrosphere and play an important part in biodiversity conservation. The fisheries sector has the potential to affect soils, mainly through the development of terrestrial sites for land-side facilities in port areas as well as the construction of buildings, such as fish processing facilities, on green field sites; however, the potential impacts are considered low. Key issues include the potential contamination of “clean” sites, remediation of sites with existing contamination issues, and in some cases, the preservation of important or rare soil types.

5.9 Waste

The catching and processing of fish generates a significant amount of waste. Of a total UK fish and shellfish resource it is estimated that approximately 43% ends up as products for human consumption and the remainder is classed as waste.\(^{25}\) The majority of waste is produced in the on-shore processing sector (roughly 35% of the resource), whereas discards and processing waste at sea produce smaller quantities (17% and 5% respectively). The details of each waste “type” are provided below. In addition, a section on material waste (fishing equipment, nets, etc.) has been included.

5.9.1 Discards

It is estimated by the Food and Agricultural Organisation (FAO) that between 17.9 and 39.5 million tonnes of whole fish are discarded worldwide each year in commercial fisheries. Seafish have estimated the weight of discarded demersal, pelagic fish and shellfish, shown in Table 5.2 below:

Table 5.2: Estimate of fish discarded at sea from UK vessels landing into the UK

<table>
<thead>
<tr>
<th>Type</th>
<th>Landings (tonnes)</th>
<th>Min</th>
<th>Max</th>
<th>Ave</th>
<th>Discards per catch (%)</th>
<th>Min</th>
<th>Max</th>
<th>Ave</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demersal</td>
<td>236,398</td>
<td>40</td>
<td>60</td>
<td>50</td>
<td>50</td>
<td>94,559</td>
<td>141,839</td>
<td>118,199</td>
</tr>
<tr>
<td>Pelagic</td>
<td>107,277</td>
<td>5</td>
<td>20</td>
<td>12.5</td>
<td>12.5</td>
<td>5,364</td>
<td>21,455</td>
<td>13,410</td>
</tr>
<tr>
<td>Shellfish</td>
<td>110,929*</td>
<td>5</td>
<td>20</td>
<td>12.5</td>
<td>12.5</td>
<td>5,546</td>
<td>22,186</td>
<td>13,866</td>
</tr>
</tbody>
</table>

Total 448,604 105,470 185,480 145,475

Source: Seafish

Estimated discards in the NIFCA District are currently unknown.


5.9.2 Waste at Sea

Most demersal fish are processed, to some extent, at sea before landing. The resultant waste consists of guts, liver and other viscera which are removed during the gutting operation. The ratio of gutting waste varies according to the species, fishing grounds and season. For cod, it varies between 8-22% of the whole weight of the fish but is typically 16%. It is not typical for pelagic fish and shellfish to receive any processing at sea, with the exception of a proportion of the Nephrops catch. It is currently not known how much waste is discarded at sea in the NIFCA District.

5.9.3 Onshore Processing

The very great majority of fish and shellfish processing operations are carried out in shore-based processing facilities.

In general, fish processing can utilise high volumes of water and most water consumed at fish processing plants ultimately becomes effluent. Fish processing effluent contains high levels of organic matter due to the presence of oils, proteins and suspended solids. It can also contain high levels of phosphates and nitrates. Effluent quality is highly dependent upon the type of fish being processed. Pollution loads generated from the processing of oily fish species are much higher than from white fish species, due to the high oil content and the fact that these species are usually not gutted or cleaned on the fishing vessel. Fish processing effluent contains scraps of flesh, blood and soluble substances from entrails, as well as detergents and other cleaning agents. Effluent from the processing of oily fish can also contain very high levels of oil. At present there is no information on the consumption of water by fish processing facilities in the NIFCA District.

The seafood processing industry generates a significant amount of solid waste. It is estimated that approximately 312,875 tonnes of seafood processing waste is produced each year in the UK. Approximately 80% (249,950 tonnes) of this is finfish waste whereas 20% (62,925 tonnes) is shellfish. It is not been possible to estimate the quantities of waste produced by other sectors of the industry. The majority of waste is produced in the on-shore processing sector (35% of the resource) whereas discards and processing waste at sea produce smaller quantities (17% and 5% respectively of the resource). There is currently no information on solid waste produced in the NIFCA District.

5.9.4 Material Waste

Derelict fishing gear, defined as gear that has been lost or abandoned in the marine environment, presents a threat to marine organisms and the environment through impacts such as entanglements and ghost fishing. It consists of any items used for recreational or commercial fishing activities, such as nets, pots, ropes, and fishing line. Details of this waste type are not currently known in the NIFCA District.

The importance of waste products in the NIFCA District area will be discussed in the Environmental Report.


303529/EVT/EES/001/B
http://pims01/pims/llisapi.dll/properties/1528632154
5.10 Water Quality

Environment Agency (EA) and Scottish Environment Protection Agency (SEPA) use standards and targets to protect and improve water quality. Water Framework Directive (WFD) governs water quality and is implemented by the EA in Northumberland and SEPA in Berwickshire. It is designed to improve and integrate management of inland and coastal water bodies. It was transposed into UK law in 2003 and aims to have good chemical and ecological status for all water bodies by 2015. The chemical and ecological status for rivers, lakes, and estuarine and coastal waters for the NIFCA District has been presented in Figure 5.2 below. According to the Environment Agency, the chemical status of the coastal waters is “good” and the ecological status ranges from “good to bad”.

Furthermore, 93% of England’s bathing waters met the minimum European water quality standard, with over 58% meeting the tighter guideline standard. In Northumberland and Berwickshire, the bathing water regulations are implemented by EA, SEPA and the local authorities. Eight out of nine bathing beaches in Northumberland and Berwickshire consistently achieve ‘guideline’ water quality; however, Spittal suffers from poor quality due to the influence of the River Tweed.
The European Shellfish Waters Directive (79/923/EEC) aims to protect shellfish populations. It sets water quality standards in areas where shellfish grow and reproduce. The Directive requires that certain substances are monitored in the water in which the shellfish live. These substances can threaten the survival of shellfish or inhibit their growth. The EA and SEPA are responsible for monitoring these substances at specific points. The directive will be replaced in 2013 by the WFD. This must provide equivalent protection of shellfish waters as the Shellfish Waters Directive.

5.11 Human Health

Although there are many aspects to human health and fisheries, this section will focus on: a) the overall health of the region; b) the benefits of consuming seafood; c) the health and safety of the District’s fishermen; d) the indirect benefits from recreational fishing; and e) the impacts of discarded fishing gear.
5.11.1 Health in the North East

The health of people in the North East is generally worse than England as a whole. Levels of deprivation are high (see Figure 5.3) and life expectancy for both men and women is lower than the England average. This represents a huge burden in human and economic costs, holding the region back from achieving its potential.

Figure 5.3: Index of Multiple Deprivation 2007 by Lower Super Output Area in the North East Region

Source: North East Health Profile 2010

5.11.2 Seafood Consumption

Four out of five households consume seafood at least once a month and in 2011 households purchased 356,000 tonnes seafood products. Seafood has recognised health benefits in terms of cardiovascular disease prevention (coronary heart disease, sudden death, stroke, etc.), neuro-development (foetal, infant, child development and adult cognitive function) as well as other health outcomes (cancer prevention, improved mental health and behaviour, muscular and skeletal development and improved immune system performance). In particular, there is evidence that suggests association between EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid) omega-3 fatty acids in fish and reduced risk of coronary heart disease (23005 Dietary Guidelines). Recent research from the Avon Longitudinal Study Group has shown that omega-3 fatty acids contained in fish – particularly oily fish – are associated with boosting children’s future brain power and social skills.

The figures for seafood consumption in the NIFCA District are unknown

5.11.3 Health and Safety of Fishermen

The commercial fishing industry has significant dangers. For every 1,000 fishing boats, there are 55 accidents. The UK’s Maritime Coastguard Agency (MCA) regards safety on fishing vessels as a vital part of its work. The health and safety of fishermen in the District is currently unknown.

5.11.4 Recreational Fishing

Recreational fishing occurs on various levels throughout the NIFCA area including potting, netting and hand gathering for a wide range of shellfish species. Whilst a number of other environmental considerations, associated with this type of activity, must be taken into account, it can bring positive health benefits to those individuals involved. Such health benefits include regular exercise, reductions in truancy rates and levels of anti-social behaviour.

5.11.5 Discarded Fishing Gear

Discarded fishing gear and other equipment is deposited in harbour areas, at sea or is washed up on beaches and intertidal areas causing a hazard to human health and local flora and fauna. Ghost fishing is a term used for lost or abandoned fishing gear that continues to catch fish. It is environmentally detrimental and the fish caught is wasted. However, the problem of consequential ghost fishing can be solved by building into traps a biodegradable panel that will later allow fish or crustacea to escape if they are ‘ghost fished’.

In the case of the pot fisheries some gear losses are inevitable, usually in bad weather conditions. Generally fishers try to minimise this because the gear is very expensive. For trawlers gear loss is hugely expensive, so efforts are made to avoid losses or to retrieve lost gear by grappling.

5.12 Material Assets

The key material assets maintained by the capture fisheries sector in the NIFCA District include: a) vessels and equipment; b) fishing ports and harbours; c) processing facilities; and d) training / educational facilities.

5.12.1 Fishing Vessels

In 2012 there were 112 registered potting vessels, 12 drift net licences, 27 beach net licences and 44 trawlers. In addition, there are 65 local and visiting boats with permits to trawl within the 3 mile limit and three scallop dredgers. The fleet size of vessels in the NIFCA District has declined over the last decade.

5.12.2 Ports and Harbours

There are 16 ports and harbours in the District. Blyth is a modern port, handling up to 1 million tonnes of cargo each year and offering a first class handling, storage and distribution service. The second largest Northumbrian port, handling in excess of 150,000 tonnes of cargo, with capacity to handle significant additional tonnage and around 250 shipping movements annually.

5.12.3 Processing Facilities

Since 2012, the number of UK sea fish processing units has continued to fall, albeit at a slower rate than between 2008 and 2010. The number of sea fish processing units now stands at 325 (see Table 5.3 below), a decrease of 15% on the 384 units recorded in 2010. Employment in the industry has also reduced since 2010.

Table 5.3: Processing Facilities UK

<table>
<thead>
<tr>
<th>Region</th>
<th>Primary</th>
<th>Mixed</th>
<th>Secondary</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humberside</td>
<td>37</td>
<td>18</td>
<td>11</td>
<td>66</td>
</tr>
<tr>
<td>Grampian</td>
<td>23</td>
<td>33</td>
<td>7</td>
<td>63</td>
</tr>
<tr>
<td>North England</td>
<td>16</td>
<td>20</td>
<td>11</td>
<td>47</td>
</tr>
<tr>
<td>South/Midlands/Wales</td>
<td>12</td>
<td>23</td>
<td>7</td>
<td>42</td>
</tr>
<tr>
<td>Other Scotland</td>
<td>6</td>
<td>27</td>
<td>4</td>
<td>37</td>
</tr>
<tr>
<td>S W England</td>
<td>14</td>
<td>17</td>
<td>3</td>
<td>34</td>
</tr>
<tr>
<td>Highlands and Islands</td>
<td>6</td>
<td>12</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>N. Ireland</td>
<td>5</td>
<td>9</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Grand Total</td>
<td>119</td>
<td>159</td>
<td>47</td>
<td>325</td>
</tr>
</tbody>
</table>

From the table above it is clear to see that seafish processing plays an important role in the North of England. Information on the number or types of processing facilities is not widely available.

5.12.4 Educational Facilities

Fishermen now have access to a wide range of vocational qualifications – within the Marine Vessel Operations NVQ/SVQ framework – which enable them to train to nationally recognised industry standards. Details on training and educational facilities in the District are currently unknown.

5.13 Socio-Economics

5.13.1 Population

Details of the population in Northumberland have been provided in Table 5.4 below.

Table 5.4: Population Summary - Northumberland

<table>
<thead>
<tr>
<th>All People</th>
<th>Northumberland</th>
<th>North East Region</th>
<th>England</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>312,000</td>
<td>2,606,600</td>
<td>52,234,000</td>
</tr>
<tr>
<td>Density (all people)</td>
<td>Ha</td>
<td>0.62</td>
<td>3.04</td>
</tr>
<tr>
<td></td>
<td>Sq. km</td>
<td>62</td>
<td>304</td>
</tr>
<tr>
<td>Males</td>
<td>Count</td>
<td>152,800</td>
<td>1,279,100</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>49</td>
<td>49.1</td>
</tr>
<tr>
<td>Females</td>
<td>Count</td>
<td>159,100</td>
<td>1,327,500</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>51</td>
<td>50.9</td>
</tr>
</tbody>
</table>
Figure 5.4 displays county level Full Time Employment (FTE), broken down by sector for each of the into five-yearly increments of the projection period. It can clearly be seen that the agriculture, forestry and fishing are declining.

Figure 5.4: Projected FTE employment by sub-sector, 2008-28

Source: Northumberland County Council

The findings of the Northumberland County Council appear to be supported by the declining numbers of fishermen in the UK fishing industry, as identified by the Marine Management Organisation (MMO). The number of regular and part-time fishermen has fallen from 47,000 in 1938\(^{31}\) to approximately 12,000 today (see Figure 5.5: UK Fishing Effort - 2001 to 2011), and landings in 2010 were a quarter what they were 50 years ago.

However, it must be noted that, although there are declining fishermen and vessel numbers, on the whole efforts have remain the same for a number of years, due to an increase in pots (for example) per vessel.

Figure 5.5: UK Fishing Effort - 2001 to 2011

Source: Marine Management Organisation 2012

Jobs lost on the boats also has a knock on effect further down the supply chain, affecting the fish processors, the net makers, the equipment suppliers, the market sellers and the transport companies whose livelihoods also depend on the industry.

5.13.2 Economy

Seafood is a multi-billion pound industry in the UK. Four out of five households consume seafood at least once a month and in 2011 households purchased 356,000 tonnes seafood products worth £2.89bn. In 2010, UK vessels landed 411,000 tonnes of seafood worth £549 million. Compared with 2009, this is an increase of 5% in quantity and a 5% increase in value. By volume the UK catch is spread fairly equally between demersal, pelagic and shellfish species. Shellfish, such as langoustine and scallops, account for almost half of all landings by value, followed by demersal species such as monkfish, and then pelagic species, such as mackerel.

The fishing industry in Northumberland is of crucial importance to local communities and the economy throughout the District. This sector remains an important economic activity for some ports and harbours on the North East and is an important component in the vitality of some of the county’s coastal communities. Some 75 vessels currently work out of the 16 ports and harbours in Northumberland alone, with more than half operating out of Amble and Blyth. Thus, the sector has a strong presence in particular localities and supports processing and secondary businesses. Moreover, the fisheries sector contributes to the tourism offer of the county (discussed in more detail in Section 5.14: Tourism). Agriculture and forestry are also of huge significance to the distinctiveness of the county’s communities, heritage and natural environment, and to the visitor economy. They are an integral part in the management of the county’s natural resources and shape the county’s landscape and communities.

5.14 Tourism

The economy is now changing to one where tourism is one of the most important sectors. Tourism generates more than £706 million in direct and indirect expenditure for Northumberland and it is estimated

303529/EVT/EES/001/B
http://pims01/pims/llisapi.dll/properties/1528632154
that approximately 9.1 million people visited Northumberland in 2011; this was an increase of 2% on 2010.\textsuperscript{32} The largest proportion of visitors travelled to Northumberland between the months of July and September.

Tourism is an important element of the rural economy, supported by some of the most valuable natural resources and cultural assets in England, with many historic buildings and settlements. These include, Hadrian’s Wall, a World Heritage site which crosses the region and some of the largest areas of uninterrupted space and tranquillity in England. The majority of the upland areas, and some of the northern coastal areas, are of national and international environmental importance; many of the region’s rivers also fall into this category.\textsuperscript{33} The villages and towns along the coast are popular tourist destinations during the summer months, with the population of Seahouses, Berwick, Craster, Holy Island and Amble increasing during this season.

Moreover, angling is an important touristic activity for the District, and there are a large number of local anglers throughout the District both with Clubs and unaffiliated. The recreational sea angling sector has over 1 million participants and the sector is an important market for the north-east coast of the UK. There is growing awareness that the recreational fisheries are highly significant in terms of the number of people participating in them, the total catch and their economic impacts. Commercial fishing in the UK, in 2004, was worth £300 million while it is estimated that £1 billion is spent on anglers on recreational fishing every year. This makes the recreational sectors economic contribution to the UK more significant than the commercial fishing sector.\textsuperscript{34}

Angling is also particularly important for tourism and related businesses/communities, for example, hotels, public houses, bed and breakfast establishments and restaurants in fishing communities at the coast and nearby will all rely to an extent on visiting sea anglers.\textsuperscript{35}

\section*{5.15 Transport}

Transport associated with the fishing industry mainly involves the distribution of landed fish to their point of sale. This will be concentrated around harbours and ports and could potentially cause congestion and environmental impacts. In addition to transport in the locality, there is important transport of shellfish to distant markets, e.g. lobsters, edible crabs and velvet crabs to Ireland, France and Spain. At present, the transport fleet in the NIFCA District is not large, and even during the peak fishing season, there are no predicted problems associated with the transport of shellfish or whitefish from the area.

\section*{5.16 Future Baseline}

The SEA Directive requires that ‘the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the Plan or Programme’ is identified. Prediction of future trends is difficult because they depend on a wide range of global, national and regional factors and decision-making. A ‘Do Nothing’ scenario will be assessed and the results presented in the Environmental Report.


\textsuperscript{34} Aftergood, S. 2011. A study of recreational sea angling data and perceptions of distributions and changing abundances of certain warm water fish species along the eastern UK coast.

From an initial review of baseline data it is likely that the following trends will continue:

- **Air Quality** – a decline in number of vessels could have a positive impact on the industry’s contribution to greenhouse gas emissions.
- **Biodiversity, Flora and Fauna** - habitats and species are likely to continue to be protected through European and UK legislation. However, continued overfishing and unsustainable fishing practices may put pressure on these ecological areas. Future climate change effects and a rise in sea temperature may also affect ecosystems, habitats and species.
- **Climate** – future climate change effects are likely to include sea level rise, higher temperatures and more severe weather conditions.
- **Energy** – there is predicted to be a continued reliance on energy from fossil fuels.
- **Historic Environment** – historic assets are likely to continue to be protected through European and UK legislation. The regime is not likely to have any impact on the historic environment inland; however, it could have a positive impact on wreck sites.
- **Landscape/Seascape** – the UK’s coastlines will continue to be protected under either conservation objectives or specific landscape designations.
- **Soils** – the fisheries sector is not likely to have any impact on soils.
- **Waste** – reduced numbers of fish landed will likely see a proportional decrease in solid and liquid wastes from processing.
- **Water Quality** – water quality is likely to continue to be maintained and improved through legislation such as the Water Framework Directive
- **Human Health** – the overall health of the region is expected to increase.
- **Material Assets** – Fishing industry is in steady decline and this is expected to continue in the future.
- **Socio-Economics** – the population of the County is predicted to increase. This may put pressure food security (leading to overfishing) and access to jobs.
- **Tourism** – tourism is important for the area and it is expected that the number of people visiting the District is likely to increase.
- **Transport** – a declining industry could see a reduction in fishing related transportation.
### 6. Key Environmental Issues and Opportunities

The SEA Directive requires:

> “any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of particular environmental importance, such as areas designated pursuant to Directive 79/409/EEC and 92/43/EEC”

SEA Directive Annex I (d)

#### 6.1 Key Issues, Opportunities and Scoping

A key stage in the scoping process is to decide what topics are relevant for the NIFCA SEA and what topics (if any) should be scoped out. Table 6.1 presents which topics that have been scoped in and out. It also presents the key issues and opportunities relevant to each topic. Topics were scoped in based on the baseline situation and the potential impact of the fisheries management regime may have on them. This was assessed using professional judgement to review baseline conditions and current environmental issues for the NIFCA district and to determine the likelihood of this potential impact.
### Table 6.1: Key Issues and Opportunities

<table>
<thead>
<tr>
<th>SEA Topic</th>
<th>Scoped In</th>
<th>Scoped Out</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Quality</td>
<td>✓</td>
<td></td>
<td>The environmental effects of fishing activities on air quality are intrinsically linked. A reduction in fuel usage will reduce the amount of emissions into the atmosphere. In addition, odour plays a significant part in air pollution in fish processing industry. There are several ways the industry could reduce fuel consumption resulting in a cut in emissions and operating costs including reducing towing speed, changing fishing method and modifying gear. With the rapid rise in oil prices, fuel consumption has become a significant component of operating costs as well as an environmental concern. However, NIFCA does not have any control over vessel types except its own vessel. Carbon emission and other greenhouse gas emission are dealt with under climate change mitigation topic. The regime will not, in all likelihood have any influence in reducing the impact of odour at processing facilities.</td>
</tr>
<tr>
<td>Biodiversity, flora and fauna</td>
<td>✓</td>
<td></td>
<td>The District supports important fisheries for a variety of shellfish and whitefish species. There has been a notable decline in traditional whitefish fisheries in the North Sea (in particular Cod). Fishing activity in the NIFCA District is now focused mainly on crabs, lobsters and prawns and limited processing of local salmon and other fish. Environmental effects of capture fisheries on target fish stocks Capture fisheries are widely acknowledged to result in often significant impacts on marine ecosystems. Ecosystem effects of fishing include: - biomass removal of the target species; - bycatch of marine mammals, seabirds, and fish; - discarding of by-catch; and - mechanical disturbance and damage of benthic communities by bottom trawling. There is increasing fishing pressure (fleet capacity / effort / catch) on target fisheries. Uncertainty over the status of the target fisheries resulting from a lack of specific stock assessments/research. Concerns that certain white fish and shellfish species are being illegally fished in neighbouring districts and landed/transported in the NIFCA Area. The regime should encourage an ecosystem services approach to biodiversity, i.e. a holistic approach, encompassing the whole ecosystem, rather than focusing on one species or habitat. The regime could have a positive impact on whitefish and shellfish fish stocks, through careful management (e.g. pot limitations) and by issuing of permits to fish. Getting hold of good quality bait is an ongoing issue for fishermen. Seals can cause problems particularly in the salmon fishery.</td>
</tr>
</tbody>
</table>
Environmental effects of capture fisheries on non-target species

A particular fishery will commonly take a bycatch of non-target species, even though the focus is usually on a single species. This bycatch may be landed or, more usually, is discarded at sea. Part of the catch of exploited species may also be discarded to comply with fisheries regulations, for example if individual fish are undersized and cannot be legally landed, or if total catches exceed the species quota (or total allowable catch, TAC).

The regime could have a positive impact on non-target species fish stocks, through careful management (e.g. restrictions on seine nets) and by issuing of permits to fish.

Environmental effects of capture fisheries on marine habitats

Continuing problem caused by damaging and potentially damaging fishing activities in European Marine Sites and other marine habitats. Those activities include all bottom-towed fishing gear, including scallop dredging, beam trawls, and otter trawls, and unregulated static fishing gear.

Bio-security

Introduced species compete with their native counterparts for food, vital space, and in some instances interbreed with the local species altering their genetic makeup. Introduced species may also potentially alter habitats and the balance of existing communities, resulting in changes to the structure and function of entire marine ecosystems.

Climate Change Mitigation/Energy

Use of fuel marine vessels leads to combustion related GHG emissions. A reduction in fuel usage or adoption of new technologies could reduce the amount of GHG emissions released into the atmosphere.

There are several ways the industry could reduce fuel consumption resulting in a cut in emissions and operating costs including reducing towing speed, changing fishing method and modifying equipment. With the rapid rise in oil prices, fuel consumption has become a significant component of operating costs as well as an environmental concern. For example the uptake of sail power to augment diesel may be a viable alternative.

Increased global atmospheric CO₂ causes a decrease in the pH of seawater (increase in acidity) which may have negative consequences for species and ecosystems particularly calcifying organisms such as corals and shellfish. This will have associated socio-economic impacts. Reduction in ocean pH also reduces oceans ability to further absorb CO₂ and therefore buffer the effect on climate change.

With the rapid rise in oil prices, fuel consumption has become a significant component of operating costs as well as an environmental...
Climate Change Adaptation

Climate variability and longer-term change have led to marked changes in North East Atlantic conditions over the last century. Sea surface temperatures of North Atlantic and UK coastal waters have warmed by 0.2–0.6°C a decade over the past 30 years. These seas are warming faster than the adjacent land and faster than the global average.

<table>
<thead>
<tr>
<th>SEA Topic</th>
<th>Scoped In</th>
<th>Scoped Out</th>
<th>Evidence</th>
<th>Key Issues and Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The environmental effects of climate change on the marine environment can be far reaching. There are likely to be some positives (e.g. tourism) and negatives (e.g. native plant and animal species). Climatic processes directly impact shellfish and whitefish populations and potentially alter patterns of biodiversity and ecological functioning.</td>
</tr>
<tr>
<td>Climate Change Adaptation</td>
<td></td>
<td></td>
<td></td>
<td>Changes to sea level, storms and wave climate - Increase in sea level causes flooding in coastal areas that are undefended, causing loss or damage to property, agriculture and habitats. A potential changed wave climate and storminess may cause damage to coastal and marine infrastructure as well as disruption to shipping and ferry services.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Changes to temperature, salinity and water circulation - Increased temperature causes shifts in the type of species and numbers, affecting ecosystem structure as well as fish and shellfish catches. Warmer temperatures may provide new habitats for invasive non-native species, diseases and pathogens. Changes to salinity may disrupt ocean currents which can have devastating consequences for climate as a whole. Increased temperatures may also present some opportunities as arctic shipping lanes open for transport and UK tourism may be enhanced.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fisheries and Aquaculture - Shifts in species distribution would have economic consequences for UK fisheries as traditional target species become less abundant or move out of fishing areas, but new species may move in and present new opportunities. Increased seawater temperatures could allow the culturing of new species but may encourage diseases and invasive non-native species which could displace native species or cause unsuitability for human consumption. Cod stocks and other cold water fish are likely to move northwards replaced by warmer water species. The shellfish industry may be able to adapt, by realising opportunities for developing specialist fisheries for those species dependent on higher temperatures. Additionally, harvestable areas may be extended and growing seasons may lengthen or shorten. The impacts on traditionally fished species are likely to be less favourable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Human health - Increased temperatures may increase incidence of certain diseases and pathogens (including Vibrios and certain toxic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evidence</th>
<th>Key Issues and Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The environmental effects of climate change on the marine environment can be far reaching. There are likely to be some positives (e.g. tourism) and negatives (e.g. native plant and animal species). Climatic processes directly impact shellfish and whitefish populations and potentially alter patterns of biodiversity and ecological functioning.</td>
</tr>
<tr>
<td>Changes to sea level, storms and wave climate - Increase in sea level causes flooding in coastal areas that are undefended, causing loss or damage to property, agriculture and habitats. A potential changed wave climate and storminess may cause damage to coastal and marine infrastructure as well as disruption to shipping and ferry services.</td>
<td></td>
</tr>
<tr>
<td>Changes to temperature, salinity and water circulation - Increased temperature causes shifts in the type of species and numbers, affecting ecosystem structure as well as fish and shellfish catches. Warmer temperatures may provide new habitats for invasive non-native species, diseases and pathogens. Changes to salinity may disrupt ocean currents which can have devastating consequences for climate as a whole. Increased temperatures may also present some opportunities as arctic shipping lanes open for transport and UK tourism may be enhanced.</td>
<td></td>
</tr>
<tr>
<td>Fisheries and Aquaculture - Shifts in species distribution would have economic consequences for UK fisheries as traditional target species become less abundant or move out of fishing areas, but new species may move in and present new opportunities. Increased seawater temperatures could allow the culturing of new species but may encourage diseases and invasive non-native species which could displace native species or cause unsuitability for human consumption. Cod stocks and other cold water fish are likely to move northwards replaced by warmer water species. The shellfish industry may be able to adapt, by realising opportunities for developing specialist fisheries for those species dependent on higher temperatures. Additionally, harvestable areas may be extended and growing seasons may lengthen or shorten. The impacts on traditionally fished species are likely to be less favourable.</td>
<td></td>
</tr>
<tr>
<td>Human health - Increased temperatures may increase incidence of certain diseases and pathogens (including Vibrios and certain toxic</td>
<td></td>
</tr>
</tbody>
</table>
### Key Issues and Opportunities

<table>
<thead>
<tr>
<th>Evidence</th>
<th>Historic Environment</th>
<th>Landscape / Seascape</th>
</tr>
</thead>
<tbody>
<tr>
<td>algae). Increased precipitation and flash-flooding may increase incidence of sewer flooding and release of sewage-borne pathogens. Animal health - Fish immune systems are very sensitive to temperature change. Increased temperatures may shift the balance between hosts and pathogens causing irreparable damage to fish and shellfish stocks. Invasive non-native species - Increased temperatures may accelerate the spread dangerous or harmful invasive non-native species, causing displacement and/or destruction of native species, shellfish stocks and damage to coastal sea defences (mitten crab). Eutrophication - Intense precipitation and associated flash flooding may suddenly increase the nutrient composition of coastal waters causing decline in water quality, eutrophication and harmful algal bloom events. Distribution of marine species - Temperature change may result in the northward shift of marine animal populations (fish, marine mammals, seabirds, zooplankton, inter-tidal invertebrates etc) and may also result in a shift towards deeper waters. Changes in the timing of biological events (phenology) - Changes in the timing of spawning, larval life cycles, zooplankton availability etc. as a consequence of changes in weather, temperature, ocean currents or stratification, could impact on successful recruitment of commercial fish or benthic invertebrates – i.e. ‘match-mismatch’ of key prey resources. Nutrient cycles and ecosystem function - Changes in temperature, salinity and pH may impact nitrogen and carbon cycles as well as oxygen content of coastal waters. This could have consequences for pelagic and benthic production – with wider consequences for ecosystem functioning and commercial fisheries. In addition to responding to climate change risks and opportunities, climate change management is also important to demonstrate leadership in the sector.</td>
<td>It is felt that fishing activities will not impinge on the architectural heritage of the NIFCA District; however, there are a number of wreck sites in the NIFCA district, which have the potential to be affected by the Districts fishing practice. The Northumberland Coast AONB and Berwickshire and Northumberland Coast EMS are two facets of the NIFCA District. Fishing activities can directly impact on the seabed, or features on the seabed, where there may be shipwrecks or other valuable historical or cultural artefacts. Damage to the historic environment is acknowledged to occur as a result of trawling and dredging, as well as through other fishing methods such as angling, potting, and netting, and through sonic effects. The regime seek to protect the historic environment, through ensuring fishing activities do not damage historic features on the seabed. Fishing activities can directly impact on the seabed, or features on the seabed, as a result of trawling and dredging, as well as through other</td>
<td></td>
</tr>
<tr>
<td>SEA Topic</td>
<td>Scoped In</td>
<td>Scoped Out</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>coastline, characterised by long sand beaches, high rock cliffs, abundant wild bird populations, grasslands and so on.</td>
<td>fishing methods such as angling, potting, and netting, and through sonic effects. The regime seek to protect the landscape/seascape, through ensuring fishing activities do not damage sensitive seascape features such as coral reefs.</td>
<td></td>
</tr>
<tr>
<td>Soils</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Waste</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Water Quality</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Human Health</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
# Northumberland IFCA Strategic Environmental Assessment
## Scoping Report

<table>
<thead>
<tr>
<th>SEA Topic</th>
<th>Scoped In</th>
<th>Scoped Out</th>
<th>Evidence</th>
<th>Key Issues and Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Assets</td>
<td>✓</td>
<td></td>
<td>Commercial fishing in the NIFCA has seen a decline in recent years, including a decrease in the number of fishing vessels and processing facilities. Fishermen argue they are struggling to survive in an industry hit hard by quotas, restrictions and declining fish stocks.</td>
<td>Material assets continue to decline in the District. The regime will help to keep the industry sustainable and viable for the future. It should also help to maintain and increase vessel numbers and associated industries.</td>
</tr>
<tr>
<td>Socio-Economics (Population and Economy)</td>
<td>✓</td>
<td></td>
<td>The fishing industry in Northumberland is of crucial importance to local communities and the economy throughout the District, despite a dramatic decline in size and value over the past few decades. In 2006, 508 fishermen were employed in the North-East commercial fishing fleet. In addition to the economic value and direct income from landings, it has been suggested that a single commercial fisherman might provide direct employment for up to four individuals in associated industries.36</td>
<td>The maintenance and promotion of jobs and livelihoods in these communities is an important issue and substantial social and economic value is attached to the fisheries within the District. There are long established links between fisheries and the coastal community in the NIFCA district. Fisheries have been an important source of food security and income for substantial sections of the coastal populations. However, there is growing concern to ensure that harvesting of the resources is conducted in a sustainable manner to allow for the long-term use of the fishery resources. A decline of fish stocks has seen a reduction in the number of fishermen working in the NIFCA district. Jobs lost on the boats has a knock on effect further down the supply chain, affecting the fish processors, the net makers, the equipment suppliers, the market sellers and the transport companies whose livelihoods also depend on the industry. The regime will promote sustainable fishing practices, which should in turn help to increase fish stocks, providing a sustainable fishing environment, which is able to support the needs of the local (and wider) community. The regime should also allow fishermen to continue to work in the industry and earn a decent living and should encourage / provide opportunities for other individuals to start a career as a fisherman.</td>
</tr>
<tr>
<td>Tourism</td>
<td>✓</td>
<td></td>
<td>The economy is now changing to one where tourism is one of the most important sectors. Tourism generates more than £706 million in direct and indirect expenditure for Northumberland and it is estimated that approximately 9.1 million people visited Northumberland in 2011.</td>
<td>Improvement in the Tourism Comfort Index is likely to increase tourism numbers throughout the year, coupled with increasing overseas tourism leading to a ‘Stay-cation’ culture. Increases in severe weather could disrupt tourism and recreational activities (water sports, fishing); it could also lead to changes in species’ distribution (birds, cetaceans, seals) of ecotourism interest. Decreases in water quality due to e.g. increase in sewer overflows could reduce tourism potential; however warmer temperatures may encourage UK tourists to visit the region.</td>
</tr>
</tbody>
</table>

---

36 The University of Hull. dna. Towards a Sustainable Coast.
Angling is an important activity, with a large number of local anglers throughout the district both with Clubs and unaffiliated. Angling is also particularly important for tourism and related businesses/communities. Hotels, public houses, bed and breakfast establishments and restaurants in fishing communities at the coast and nearby will all rely to an extent on visiting sea anglers.

Opportunity for diversification e.g. taking tourists on fishing trips; however, a balance must be maintained between such diversity and commercial fishing activity.

The regime will seek to manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social environmental (e.g. tourism and recreational angling) and the economic benefits of commercial fishing to ensure healthy seas, sustainable fisheries and a viable industry.

Fishing industry transport will be concentrated around harbours and ports and could potentially cause congestion and environmental impacts. However, the regime will not, in all likelihood have any impact (positive or negative) on transport and therefore will be omitted from the Environmental Report. Transport in terms of fishing vessels, boats etc is covered under material assets. Transportation of illegally caught shellfish and whitefish is covered under biodiversity.
7. SEA Framework

7.1 SEA Objectives, Indictors and Assessment Criteria

A key stage in the SEA process is the development of the SEA Framework which includes SEA objectives, assessment criteria and indicators (see Table 7.1). The SEA objectives and assessment criteria will be used in the Stage B (the assessment stage) to appraise the fisheries regime to determine predicted environmental effects. The SEA objectives have been developed based on the SEA Directive topics, baseline information, and key issues for the district. The indicators will be used as the basis for monitoring proposals to monitor the implementation of the fisheries regime. Monitoring proposals and specific indicators chosen will depend on the results of the assessment. Monitoring should be focused where negative effects are identified.
<table>
<thead>
<tr>
<th>Topic</th>
<th>NIFCA SEA Objectives</th>
<th>Assessment Criteria</th>
<th>Indicators</th>
</tr>
</thead>
</table>
| Biodiversity, flora   | Harvest fish stocks at sustainable levels and allow for the recovery of depleted stocks. | - Will it sustain, as a minimum, or increase fish stocks?  
- Will it protect target species from overfishing?  
- Will it help combat illegal transportation of fish?  
- Estimated population of target species.  
- Proportion of stocks with full reproductive capacity.  
- Fish stocks outside of Safe Biological Limits (SBL).  
- Landings and fish mortality by species.  
- Value of landings by port and species.  
- Number of illegal landings/vehicle transportations |                                                                                                                                                                                                                   |
| flora and fauna        |                                                                                     |                                                                                                                                                                                                                       |                                                                                                                                                                                                                     |
| Non-target Species    | Reduce mortality rates caused by discarding and bycatching of non-target incidental catch, including rare, threatened and endangered species. | - Will it reduce bycatching of non-target species?  
- Will it reduce the mortality rates of discarded fish?  
- Will it sustain, as a minimum, or increase fish stocks?  
- Discard number per target number.  
- Discard weight per target weight.  
- Estimated mortality rate of bycatch.  
- Estimated population of non-target species. |                                                                                                                                                                                                                   |
| Habitats              | Work with relevant authorities to protect, maintain and restore the biodiversity of aquatic ecosystems. Assess and if need be mitigate reduce the impacts of capture fisheries on aquatic habitats and species. | - Will it encourage habitat creation?  
- Will it involve loss or damage to statutory to non-statutory habitats?  
- Number, area and type of habitats created.  
- Area and number of statutory and non-statutory ecological sites that will be lost/damaged as a result of the regime |                                                                                                                                                                                                                   |
| Bio-safety             | Conserve marine biodiversity by preventing the introduction of non-native species to the marine environment, and assess the feasibility of recovering impacted ecosystems impacted by the introduction of non-native species. | - Will it protect indigenous fish species from invasive or no-native fish species  
- Estimated number of non-native fish species identified.                                                                                                                                                      |                                                                                                                                                                                                                   |
| Climate Change        | Identify, manage, plan and adapt to the effects of climate change on the marine environment and fishing industry. | - Will it assist in building capacity to respond the impacts of climate change on the marine environment and fishing industry?  
- Will it help the fishing industry to adapt to climate change effects?  
- Adaptive capacity measures implemented  
- Adaptation actions implemented to manage risks and realise opportunities |                                                                                                                                                                                                                   |
| Adaptation            |                                                                                     |                                                                                                                                                                                                                       |                                                                                                                                                                                                                     |
| Climate Change        | Reduce emissions of carbon dioxide and other greenhouse gases through cleaner and more efficient energy use. | - Will the regime minimise the carbon footprint of fisheries, e.g. promote low carbon technology for fishing; reduce CO₂ emissions; promote efficient energy use  
- Carbon dioxide (CO₂) emissions from energy use |                                                                                                                                                                                                                   |
## Northumberland IFCA Strategic Environmental Assessment
### Scoping Report

<table>
<thead>
<tr>
<th>Topic</th>
<th>NIFCA SEA Objectives</th>
<th>Assessment Criteria</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Historic Environment</strong></td>
<td>Protect and, where appropriate, enhance the marine and land-based historic and cultural assets, and protect archaeological sites in the area</td>
<td>- Will it affect the fabric of a historic asset?</td>
<td>- Number of Designated Wreck Sites</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Will it affect the setting of a historic asset?</td>
<td>- Number of scheduled wrecks (below Mean Low Water)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Will it help protect historic assets?</td>
<td>- Number of listed buildings or scheduled monuments</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Number of historic assets damaged by fishing activities;</td>
</tr>
<tr>
<td><strong>Landscape/Seascape</strong></td>
<td>Protect and enhance landscapes and seascapes through sympathetic fisheries infrastructure development and activities</td>
<td>- Will it negatively affect landscape/seascape quality and character?</td>
<td>- Identification, designation and condition of landscape/seascape</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Will it enhance landscape/seascape quality and character?</td>
<td>- Number of activities which take place in designated landscape/seascape areas</td>
</tr>
<tr>
<td><strong>Waste</strong></td>
<td>Avoid discharges to sea and waste to the marine environment from vessels and fishing operations.</td>
<td>- Will it maintain existing assets and equipment; thus reducing waste?</td>
<td>- Number of boats decommissioned</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Will it avoid (or at least reduce) discharges to sea?</td>
<td>- Tonnes of net / fishing equipment sent to landfill</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Will it encourage recycling or reuse of waste products? (options include, but are not limited to, biofuels, composting, fertilisers, energy from waste, pharmaceuticals, fish meal)</td>
<td>- Tonnes of fishing equipment washed onshore</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Estimated tonnes / litres of waste material discharged to sea</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Tonnes of waste recycled or reused</td>
</tr>
<tr>
<td><strong>Water Quality</strong></td>
<td>Ensure marine pollution arising from fishing and processing activities does not compromise targets established by the Water Framework Directive.</td>
<td>- Will it affect the ecological status/potential of water bodies?</td>
<td>- Ecological status of water bodies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Will it affect the chemical status/potential of water bodies?</td>
<td>- Chemical status of water bodies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Will it affect overall water quality of water bodies?</td>
<td>- Estimated number of fuel spills per annum (including approximate litres spilled in each incident).</td>
</tr>
<tr>
<td><strong>Human Health</strong></td>
<td>Promote the adoption of best practice Health and Safety in the fishing industry and other relevant marine activities, e.g. archaeological activities.</td>
<td>- Will the regime promote the importance of Health and Safety in the fishing industry?</td>
<td>- Number of reported accidents</td>
</tr>
</tbody>
</table>
## Northumberland IFCA Strategic Environmental Assessment Scoping Report

### Topic | NIFCA SEA Objectives | Assessment Criteria | Indicators
--- | --- | --- | ---
**Material Assets** | Maintain and enhance the quality of material assets[^37], in proportion with the available resource base and carrying capacity. | • Will the regime increase or decrease the number of fishing vessels?
• Will the scheme use sustainable materials
• Will it utilise/expand existing infrastructure rather than building new infrastructure? | • % change in number of fishing vessels per annum
• % of A-Rated, recycled, reused material used in any infrastructure development

**Socio-Economics** | Maintain and enhance fishing communities by developing a sustainable fisheries management regime. | • Will it promote sustainable fishing practice, one which can significantly contribute to the local economy?
• Will the regime create jobs in the community? | • Value of landings
• Number of fishermen employed
• Total employment in sector as % of total employment
• Economic value of fishing industry

**Tourism** | Protect and promote the fishing tourism industry by developing a holistic and sustainable fisheries management regime | • Will it encourage fishing tourism and recreational angling? | • Local spending (or GDP) generated by fishing tourism
• Number of recreational fishing trips per month
• Number of Angling licenses issued

[^37]: That infrastructure and those assets necessary to the sector, including fishing vessels, ports and processing facilities.
7.2 Compatibility of SEA Objectives

When developing objectives based on environmental, social and economic issues, it is likely that not all of these objectives will relate or be compatible. For example, objectives which are economic issues may sometimes conflict with environmental objectives, and vice versa. A compatibility assessment of the SEA objectives (Table 7.2) is presented in Table 7.3, and demonstrates any potential conflicts and uncertainties between objectives.

Table 7.2: SEA Objectives

<table>
<thead>
<tr>
<th>Ref</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Harvest fish stocks at sustainable levels and allow for the recovery of depleted stocks.</td>
</tr>
<tr>
<td>2</td>
<td>Reduce mortality rates caused by discarding and bycatching of non-target incidental catch, including rare, threatened and endangered species.</td>
</tr>
<tr>
<td>3</td>
<td>Work with relevant authorities to protect, maintain and restore the biodiversity of aquatic ecosystems.</td>
</tr>
<tr>
<td>4</td>
<td>Assess and if need be mitigate/reduce the impacts of capture fisheries on aquatic habitats and species.</td>
</tr>
<tr>
<td>5</td>
<td>Conserve marine biodiversity by preventing the introduction of non-native species to the marine environment, and assess the feasibility of recovering impacted ecosystems impacted by the introduction of non-native species.</td>
</tr>
<tr>
<td>6</td>
<td>Identify, manage, plan and adapt to the effects of climate change on the marine environment and fishing industry.</td>
</tr>
<tr>
<td>7</td>
<td>Reduce emissions of carbon dioxide and other greenhouse gases through cleaner and more efficient energy use.</td>
</tr>
<tr>
<td>8</td>
<td>Protect and, where appropriate, enhance the marine and land-based historic and cultural assets, and protect archaeological sites in the area.</td>
</tr>
<tr>
<td>9</td>
<td>Protect and enhance landscapes and seascapes through sympathetic fisheries infrastructure development and activities.</td>
</tr>
<tr>
<td>10</td>
<td>Avoid discharges to sea and waste to the marine environment from vessels and fishing operations.</td>
</tr>
<tr>
<td>11</td>
<td>Ensure marine pollution arising from fishing and processing activities does not compromise targets established by the Water Framework Directive.</td>
</tr>
<tr>
<td>12</td>
<td>Maintain and enhance the quality of material assets, in proportion with the available resource base and carrying capacity.</td>
</tr>
<tr>
<td>13</td>
<td>Maintain and enhance fishing communities by developing a sustainable fisheries management regime.</td>
</tr>
<tr>
<td>14</td>
<td>Promote the adoption of best practice Health and Safety in the fishing industry and other relevant marine activities, e.g. archaeological activities.</td>
</tr>
<tr>
<td>15</td>
<td>Protect and promote the fishing tourism industry by developing a holistic and sustainable fisheries management regime.</td>
</tr>
</tbody>
</table>

The following key has been used to illustrate the SEA objectives compatibility:

- Objectives are compatible
- Objectives are potentially incompatible
- Objectives are not related
- / Uncertainty over relationship
**Table 7.3: SEA Objectives and Compatibility Matrix**

<table>
<thead>
<tr>
<th>SEA Objectives</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvest fish stocks at sustainable levels</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce bycatch mortality rates</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protect, maintain and restore ecosystems</td>
<td></td>
<td></td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce impacts of capture fisheries on habitats/species</td>
<td></td>
<td></td>
<td></td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conserve marine biodiversity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educate manage and plan for climate change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce carbon emissions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protect and enhance historic and cultural assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protect and enhance landscape/seascape</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoid discharges to sea / waste to the marine environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Ensure marine pollution does not compromise WFD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Maintain and enhance material assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Maintain and enhance fishing communities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>+</td>
</tr>
<tr>
<td>Promote the adoption of best practice Health and Safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+ +</td>
<td>+</td>
</tr>
<tr>
<td>Protect and promote the fishing tourism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+</td>
</tr>
</tbody>
</table>

Instances of uncertainty between SEA objectives are explained below:

1. **Objective 7 with Objective 15:** Promoting tourism is likely to increase visitor numbers to the area which may generate more traffic and vehicles journeys, which will cause more emissions to the atmosphere.
8. Consultation

8.1 Scoping Consultation

Under the SEA Regulations Natural England (NE), Environment Agency (EA) and English Heritage (EH) are statutory consultees; however, for IFCA’s the Marine Management Organisation (MMO) is also a statutory consultee. The Scoping Report is being sent to the statutory consultees and also to wider stakeholders. The Scoping Report will be issued for a formal five week consultation period.

It is proposed that each consultee is supplied with a copy of the SEA Scoping Report for comment via email. Once the consultation period has finished all consultation responses will be tabulated and recorded. Comments will then be taken into account and reported within the Environmental Report. All comments received will be taken into consideration and where appropriate, changes will be made to the Environmental Report.

Statutory Consultees
- Natural England – Fisheries and Environment
- Environment Agency – Fisheries and Environment
- English Heritage
- Marine Management Organisation

Other Stakeholders
- District Fisheries Officers (NIFCA and neighbouring IFCA’s)
- South East Scotland Inshore Fishery
- Marine Scotland
- Tweed Commission
- Sea Fishing Industry Authority – individuals and representative organisations/groups
- Fishing industry members in the NIFCA District
- Local fisheries groups
- The Crown Estate
- CEFAS
- DEFRA
- Relevant local authorities
- EMS Implementation Officer at the Council
- Elected representatives including members of Parliament and Councillors
- Environmental and marine NGOs, e.g. WWF, RSPB
- Marine Stewardship Council
- Academic institutions including Newcastle University Marine Science Department
- Archaeological Trust
- Coastal Forum
- Retailers

This list is not intended to be exhaustive (or ranked) and other relevant and/or interested stakeholders that are identified during the consultation process should also be included.

At this stage NIFCA would welcome consultee views on the list of relevant plans and programmes, baseline information, key environmental issues, proposed SEA framework, assessment methodology and scope of the Environmental Report. The questions below are intended to focus the readers mind:
Consultee Question:

1. Are there any additional plans or programmes at the international, national, regional or local level which have been excluded from Appendix A, which your organisation thinks are relevant to the NIFCA Fisheries SEA?

2. Do you agree with the review of the current key environmental issues in the NIFCA district?

3. Do you think the environmental and socio-economic baseline data collected for the NIFCA district is appropriate and relevant?

4. Is any environmental or socio-economic baseline information currently missing?

5. Is there any inaccurate environmental or socio-economic baseline information?

6. Are the SEA objectives and associated assessment criteria and indicators suitable for the fisheries SEA?

7. Does the wording of any existing objectives need to be changed, added or removed?

8. Do the draft SEA indicators provide a relevant measure for the objective? If not can you suggest appropriate alternatives?

9. Do you have any other comments on the Scoping Report?
9. Next Steps

9.1 Remaining Stages of the SEA Process

This Scoping Report shows the results of Stage A of the SEA process. The next stage of the process is Stage B which involves assessing the fisheries regime against the SEA objectives. The results of the appraisal will be recorded in an Environmental Report (Stage C). The Environmental Report will then be sent out for formal public consultation and the Environmental Report updated as necessary (Stage D). Stage E ‘Monitoring’ will be carried out by NIFCA as part of their monitoring programme following adoption of the fisheries plan.

9.1.1 Stage B: Developing and refining alternatives and assessing effects

Task B1: Testing the Plan Objectives against the SEA Objectives

It is essential that the objectives of the fisheries regime are in accordance with sustainability principles, so they will need to be tested for compatibility with the SEA objectives. This will also help in refining the regime objectives as well as in identifying options.

Outcomes may be positive, neutral or conflicting. The aim is to achieve consistency between the objectives; however this is not always possible. Where conflicts between objectives arise decision makers will have to decide where the priority lies, this decision and justification should be recorded in the SEA.

Task B2: Developing strategic alternatives

The purpose of this stage is to identify alternative options to deliver the regime including a ‘Do Nothing’ option. A ‘Do Nothing’ option assumes that the regime is not developed and adopted. In considering options close regard will be paid to constraints, such as funding and institutional capacity. Any constraints will be documented to demonstrate whether these are feasible to take forward.

Task B3: Predicting the effects of the draft Plan, including alternatives

As already stated there is no single or discrete plan to manage shellfish and whitefish fisheries. Therefore, the NIFCA management regime for shellfish and whitefish fisheries under NIFCA’s jurisdiction will be assessed against the SEA Framework to determine the effects this regime has on the environment. As discussed in Section 3.3 the regime has been categorised into methods undertaken to harvest the shellfish and whitefish species in the NIFCA district, and the species taken across like methods of harvesting. The SEA will be undertaken for the management regime for the following shellfish and whitefish fisheries:

**Shellfish**
- Pot fishery for Brown Crab, Lobster, Velvet Crab, and Nephrops;
- Dredge fishery for Scallops;
- Trawl fishery for Nephrops;
- Hand gathering fishery for Brown Crab, Lobster, Mussels, and Velvet Crabs;
- Gillnets fishery for Lobster.

**Whitefish**
- Gillnets fishery for Cod, Turbot, Other Flatfish, and Mackerel;
• Drift nets fishery for Salmon, and Sea Trout;
• Hand lines fishery for Mackerel;
• Trawl fishery for Cod, Sole, Turbot, Other flatfish, Haddock, Whiting, Monkfish, and Catfish;
• Beach and T-nets fishery for Salmon, and Sea Trout.

The assessment process will involve the consideration of the current fisheries management regime (as described above) in terms of current byelaws and the implementation of each of the principal European, national and local fisheries management measures against each of the SEA objectives and assessment criteria. The assessment will help to identify areas where fisheries management in the district could be strengthened, possibly with new byelaws or changes to byelaws.

The assessment process will consider positive as well as negative effects, and uncertainties about the nature and significance of effects will be noted. Prediction of effects involves:
• Identifying the changes to the baseline which are predicted to arise from the regime; and
• Describing these changes in terms of their magnitude, their geographical scale, the time period over which they will occur, whether they are permanent or temporary, positive or negative, probable or improbable, frequent or rare, and whether or not there are cumulative and/or synergistic effects.

Task B4: Evaluating the effects of the draft Plan, including alternatives

Having identified the effects of the current fisheries regime, an assessment of the significance of these effects needs to be conducted. It should be noted whether the effect is likely to be positive, negative, neutral or uncertain, and the timescale and significance of the effect, e.g. whether it is likely to be short or long-term, major or minor. The Department for Communities and Local Government (DCLG) guidance provides a list of options for deciding how a significant issue can be recognised.

There are several methods of recording the appraisal, an example is given below:

<table>
<thead>
<tr>
<th>Effect</th>
<th>Duration of Effect</th>
<th>Cumulative Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>+++ Significant positive effect</td>
<td>LT Long Term</td>
<td>D Direct</td>
</tr>
<tr>
<td>++ Moderate positive effect</td>
<td>MT Medium term</td>
<td>I Indirect</td>
</tr>
<tr>
<td>+ Minor positive effect</td>
<td>ST Short Term</td>
<td>SE Secondary</td>
</tr>
<tr>
<td>0 Neutral or no effect</td>
<td>Perm Permanent</td>
<td>SY Synergistic</td>
</tr>
<tr>
<td>- Minor negative effect</td>
<td>Temp Temporary</td>
<td></td>
</tr>
<tr>
<td>-- Moderate negative effect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--- Significant negative effect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>? Uncertainty over effect or multiple effects which are both positive and negative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D Effect depends on implementation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Task B5: Considering ways of mitigating adverse effects and maximising beneficial effects

Where the regime is likely to have significant effects, measures will be considered to prevent, reduce or offset any adverse effects and maximise positive effects.
Task B6: Proposing measures to monitor the environmental effects of plan implementation

Decisions about what to monitor and how to do this will be considered at an early stage in the SEA process. Aims and methods for monitoring will be established and included in the Environmental Report. Monitoring measures will be clearly linked to indicators and objectives used in the appraisal and will consider both positive and negative effects. Monitoring should be focused on:

- Significant effects that may give rise to irreversible damage, with a view to identifying trends before such damage occurs; and
- Significant effects where there was uncertainty in the SEA and where monitoring would enable preventative or mitigation measures to be taken.

9.1.2 Stage C: Preparing the Environmental Report

C1: Preparing the Environmental Report

The Environmental Report on the fisheries regime is a key output of the SEA process. It presents information on the effects of the regime on which formal public consultation is carried out. The Environmental Report must show that the SEA Directive’s requirements have been met. This is achieved through sign-posting the places in the Environmental Report where information required by the Directive is provided. The Environmental Report will summarise the results of the assessment (Stage B of the SEA process). The following structure and content is proposed for the Environmental Report:

<table>
<thead>
<tr>
<th>Structure of Report</th>
<th>Information to Include</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-technical summary</td>
<td>• Summary of the SEA process;</td>
</tr>
<tr>
<td></td>
<td>• Summary of the likely significant effects of the fisheries regime;</td>
</tr>
<tr>
<td></td>
<td>• Statement on the difference the process has made to date; and</td>
</tr>
<tr>
<td></td>
<td>• How to comment on the report.</td>
</tr>
<tr>
<td>Methodology used</td>
<td>• Approach adopted in the SEA;</td>
</tr>
<tr>
<td></td>
<td>• Who was consulted and when; and</td>
</tr>
<tr>
<td></td>
<td>• Difficulties encountered in compiling information or carrying out the assessment.</td>
</tr>
<tr>
<td>Background</td>
<td>• Purpose of the SEA; and</td>
</tr>
<tr>
<td></td>
<td>• Objective and Context of the fisheries regime.</td>
</tr>
<tr>
<td>SEA Objectives, Baseline</td>
<td>• Plans and programmes review and implications for the regime and SEA;</td>
</tr>
<tr>
<td>and Context</td>
<td>• Description of the baseline characteristics and the predicted future baseline;</td>
</tr>
<tr>
<td></td>
<td>• Environmental Issues and Opportunities;</td>
</tr>
<tr>
<td></td>
<td>• Limitations of the data, assumptions made; and</td>
</tr>
<tr>
<td></td>
<td>• SEA objectives, assessment criteria and indicators.</td>
</tr>
<tr>
<td>Fisheries Regime Issues</td>
<td>• Main strategic options considered and how they were identified;</td>
</tr>
<tr>
<td>and Options</td>
<td>• Assessment and comparison of environmental effects of the options; and</td>
</tr>
<tr>
<td></td>
<td>• How environmental issues were considered in choosing the preferred strategic options.</td>
</tr>
<tr>
<td>Fisheries Regime</td>
<td>• Assessment of environmental effects of the regime;</td>
</tr>
<tr>
<td>Assessment</td>
<td>• Proposed mitigation measures; and</td>
</tr>
<tr>
<td></td>
<td>• Uncertainties and risks.</td>
</tr>
<tr>
<td>Implementation</td>
<td>• Links to other tiers of plans and programmes and the project level; and</td>
</tr>
<tr>
<td></td>
<td>• Proposals for monitoring.</td>
</tr>
</tbody>
</table>
9.1.3 Stage D: Consulting on the draft plan and the Environmental Report

Task D1: Consulting on the draft plan and Environmental Report

As required by the SEA Regulations, consultation and participation by key stakeholders including the public will take place to ensure a robust consultation. The SEA Regulations do not state a specific time period for consultation but states that ‘authorities shall be given an early and effective opportunity within appropriate time frames to express their opinion’. The consultation period has yet to be agreed but it is envisaged that it would be between 5 and 8 weeks. The consultation responses will be reviewed and taken into account in the decision-making process and documented.

Task D2: Assessment of significant changes

Any significant alterations to the regime or SEA as a result of the consultation in Stage D1 will be assessed in terms of their environmental implications. The final Environmental Report will need to be amended as necessary to reflect any changes.

Task D3: Decision making and providing information

Information in the Environmental Report and responses to consultation will be taken into account during the preparation of the regime before it is adopted. Following adoption, a short statement will be produced which outlines how the SEA process has influenced the development of the fisheries regime, how consultation comments were taken into consideration and how the regime will be monitored. This summary will provide enough information to make it clear how the regime was changed (if at all) as a result of the SEA process and consultation.

9.1.4 Completion of Stage E

Stage E ‘Monitoring implementation of the plan’ of the SEA process will be carried out by NIFCA as part of their monitoring programme.
Appendices

Appendix A. Policies, Plans and Programmes Review

61
Appendix A. Policies, Plans and Programmes Review
### Table A.1: Policies, Plans and Programmes

<table>
<thead>
<tr>
<th>Plan Title</th>
<th>Plan Description and Key Relevant Objectives/Targets</th>
<th>Implications for the Regime and SEA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>International</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramsar Convention on wetlands of International Importance (1971)</td>
<td>Provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The aim is &quot;the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world&quot;. The Convention uses a broad definition of the types of wetlands covered, including lakes and rivers, swamps and marshes, wet grasslands and peatlands, oases, estuaries, deltas and tidal flats, near-shore marine areas, mangroves and coral reefs, and human-made sites such as fish ponds, rice paddies, reservoirs, and salt pans.</td>
<td>The Northumberland Coast is a designated Ramsar site. The Fisheries Management regime / plan should aim to protect these areas.</td>
</tr>
<tr>
<td>Kyoto Protocol on Climate Change (1997)</td>
<td>The protocol was ratified in 2004. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas (GHG) emissions. The Kyoto Protocol requires the EU to cut its greenhouse gas emissions to 8% below 1990 levels by 2008-2012.</td>
<td>The Regime will need to take into account the impact of changing sea temperatures on marine environment.</td>
</tr>
<tr>
<td>UN Framework Convention on Climate Change (1992)</td>
<td>The stated objective is to achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.</td>
<td>The Regime will need to take into account the impact of changing sea temperatures on marine environment.</td>
</tr>
<tr>
<td>Berne Convention on the Conservation of European Wildlife and Natural Habitats (1979)</td>
<td>The aims are to conserve wild flora and fauna and their natural habitats and to promote European cooperation. Particular importance is placed on the need to protect endangered natural habitats and endangered vulnerable species, including migratory species</td>
<td>The Regime will need to take into account the presence of protected species and designated sites.</td>
</tr>
<tr>
<td>Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)</td>
<td>The Convention aims to conserve terrestrial, aquatic and avian migratory species throughout their range.</td>
<td>The Regime will need to take into account the presence of any migratory species and their habitats.</td>
</tr>
<tr>
<td>UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (1972)</td>
<td>The Convention defines the kind of natural or cultural sites which can be considered for inscription on the World Heritage List. The Convention sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them. By signing the Convention, each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage. The States Parties are encouraged to integrate the protection of the cultural and natural heritage into regional planning programmes, set up staff and services at their sites, undertake scientific and technical conservation research and adopt measures which give this heritage a function in the day-to-day life of the community.</td>
<td>Northumberland has rich heritage. Through its SEA, the Regime will consider potential effects arising from its implementation on heritage assets and their setting.</td>
</tr>
<tr>
<td>United Nations Convention on the Law of the Sea (UNCLOS)</td>
<td>The Law of the Sea Convention defines the rights and responsibilities of nations in their use of the world’s oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources. The Convention concluded in 1982 replaced four 1958 treaties. UNCLOS came into force in 1994. To date 155 countries and the European Community have joined in the Convention. Article 303(1) of the convention sets out the duty to protect objects of an archaeological and historical nature found in all sea areas.</td>
<td>The project should encourage the sustainable use of resources and protect and enhance biodiversity.</td>
</tr>
</tbody>
</table>
### Northumberland IFCA Strategic Environmental Assessment

**Plan Title**

**Plan Description and Key Relevant Objectives/Targets**

**Implications for the Regime and SEA**


The Agreement was adopted on 4 August 1995 by the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks. The 1995 UN Fish Stocks Agreement is an elaboration of the provisions of the 1982 United Nations Convention on the Law of the Sea (1982 UN Convention) dealing with conservation and management of straddling fish stocks and highly migratory fish stocks. In particular the Agreement provides for the implementation of Articles 63 and 64 and as appropriate the sections of Part VII of the 1982 Convention. Straddling fish stocks are those that straddle the boundary of a State’s Exclusive Economic Zone (EEZ) and the high seas (some stocks straddle ‘out’ of an EEZ while others straddle ‘into’ an EEZ) while highly migratory fish stocks are those that generally roam over large distances and may be found in numerous EEZ jurisdictions and the high seas. Highly Migratory Species are defined by a listing in Annex 1 of the 1982 UN Convention. The Agreement can summarised as follows in that it: elaborates general principles concerning conservation and management of straddling fish stocks and highly migratory fish stocks; applies the concept of the Precautionary Approach to the conservation and management of these stocks; emphasises the special role of regional fisheries management organisations in the conservation and management of straddling fish stocks and highly migratory fish stocks; elaborates upon the obligations of states to cooperate in the conservation and management of straddling fish stocks and highly migratory fish stocks. This includes a duty upon States not to authorise vessels to fish for such fish stocks unless the State is party to, or co-operates with, any subregional or regional fisheries management organisation or arrangement established and which has competence to establish conservation and management measures for the stock concerned; elaborates upon the obligations of states with respect to vessels flying their flag on the high seas; introduces innovative enforcement provisions for the high seas; and introduces provisions with respect to the requirements of developing states.

The project should encourage the sustainable use of resources and protect and enhance biodiversity.

#### Convention on Biological Diversity (CBD)

The CBD aims to ensure the conservation of biodiversity (i.e. the complete variety of life on Earth), its sustainable use, and the fair and equitable sharing of the benefits arising from the use of genetic resources. The Convention thus has a potentially huge impact, but relies heavily on action at the national level and under other related treaties and fora to achieve its objectives.

The project should encourage the sustainable use of resources and protect and enhance biodiversity.

#### FAO Code of Conduct for Responsible Fisheries

This is a comprehensive, albeit voluntary, code of practice that is widely respected in the international fishing community. It is potentially the most helpful code for fisheries managers, because although it is voluntary, it sets out many of the desired objectives.

The project will review this Code with a view to address relevant issues for the NIFCA district.

#### MARPOL 73/78

Marpol 73/78 is the International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" is short for marine pollution and 73/78 short for the years 1973 and 1978.) Marpol 73/78 is one of the most important international marine environmental conventions. It was designed to minimize pollution of the seas, including dumping, oil and exhaust pollution. Its stated object is: to preserve the marine environment through the complete elimination of pollution by oil and other harmful substances and the minimization of accidental discharge of such substances.

This sets limits on sulphur oxide and nitrogen oxide emissions from ship exhausts and prohibits deliberate emissions of ozone depleting substances. The annex includes a global cap of 4.5% m/m on the sulphur content of fuel oil and calls on IMO to monitor the worldwide average sulphur content of fuel.

The regime should aim to reduce pollution (including emissions to air and to water) from vessels which operate within the district.

<table>
<thead>
<tr>
<th>Plan Title</th>
<th>Plan Description and Key Relevant Objectives/Targets</th>
<th>Implications for the Regime and SEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Nations Fish Stocks Agreement (UNFSA) (1995)</td>
<td>The Agreement was adopted on 4 August 1995 by the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks. The 1995 UN Fish Stocks Agreement is an elaboration of the provisions of the 1982 United Nations Convention on the Law of the Sea (1982 UN Convention) dealing with conservation and management of straddling fish stocks and highly migratory fish stocks. In particular the Agreement provides for the implementation of Articles 63 and 64 and as appropriate the sections of Part VII of the 1982 Convention. Straddling fish stocks are those that straddle the boundary of a State’s Exclusive Economic Zone (EEZ) and the high seas (some stocks straddle ‘out’ of an EEZ while others straddle ‘into’ an EEZ) while highly migratory fish stocks are those that generally roam over large distances and may be found in numerous EEZ jurisdictions and the high seas. Highly Migratory Species are defined by a listing in Annex 1 of the 1982 UN Convention. The Agreement can summarised as follows in that it: elaborates general principles concerning conservation and management of straddling fish stocks and highly migratory fish stocks; applies the concept of the Precautionary Approach to the conservation and management of these stocks; emphasises the special role of regional fisheries management organisations in the conservation and management of straddling fish stocks and highly migratory fish stocks; elaborates upon the obligations of states to cooperate in the conservation and management of straddling fish stocks and highly migratory fish stocks. This includes a duty upon States not to authorise vessels to fish for such fish stocks unless the State is party to, or co-operates with, any subregional or regional fisheries management organisation or arrangement established and which has competence to establish conservation and management measures for the stock concerned; elaborates upon the obligations of states with respect to vessels flying their flag on the high seas; introduces innovative enforcement provisions for the high seas; and introduces provisions with respect to the requirements of developing states.</td>
<td>The project should encourage the sustainable use of resources and protect and enhance biodiversity.</td>
</tr>
<tr>
<td>Convention on Biological Diversity (CBD)</td>
<td>The CBD aims to ensure the conservation of biodiversity (i.e. the complete variety of life on Earth), its sustainable use, and the fair and equitable sharing of the benefits arising from the use of genetic resources. The Convention thus has a potentially huge impact, but relies heavily on action at the national level and under other related treaties and fora to achieve its objectives.</td>
<td>The project should encourage the sustainable use of resources and protect and enhance biodiversity.</td>
</tr>
<tr>
<td>FAO Code of Conduct for Responsible Fisheries</td>
<td>This is a comprehensive, albeit voluntary, code of practice that is widely respected in the international fishing community. It is potentially the most helpful code for fisheries managers, because although it is voluntary, it sets out many of the desired objectives.</td>
<td>The project will review this Code with a view to address relevant issues for the NIFCA district.</td>
</tr>
<tr>
<td>MARPOL 73/78</td>
<td>Marpol 73/78 is the International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. (&quot;Marpol&quot; is short for marine pollution and 73/78 short for the years 1973 and 1978.) Marpol 73/78 is one of the most important international marine environmental conventions. It was designed to minimize pollution of the seas, including dumping, oil and exhaust pollution. Its stated object is: to preserve the marine environment through the complete elimination of pollution by oil and other harmful substances and the minimization of accidental discharge of such substances. This sets limits on sulphur oxide and nitrogen oxide emissions from ship exhausts and prohibits deliberate emissions of ozone depleting substances. The annex includes a global cap of 4.5% m/m on the sulphur content of fuel oil and calls on IMO to monitor the worldwide average sulphur content of fuel.</td>
<td>The regime should aim to reduce pollution (including emissions to air and to water) from vessels which operate within the district.</td>
</tr>
<tr>
<td>Plan Title</td>
<td>Plan Description and Key Relevant Objectives/Targets</td>
<td>Implications for the Regime and SEA</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Common Fisheries Policy</td>
<td>The Common Fisheries Policy (CFP) is the European Union’s instrument for the management of fisheries and aquaculture. It provides the legal framework for the exploitation of living marine resources in EU waters and for those vessels registered in the EU fishing in non-EU waters. The CFP not only sets the framework for the allocation of fisheries resources amongst member states and their rights of access to community waters, but also allows the introduction of technical measures for the conservation of fisheries resources.</td>
<td>The project should encourage adherence to the CFP to conserve fisheries resources in the Northumberland area.</td>
</tr>
<tr>
<td>Electronic Recording and Reporting System (ERS)</td>
<td>Council Regulation 1224/2009 requires fishing vessels to record and report catch data electronically. This began in January 2010 for vessels of 24 metres and greater length and the rest of the fleet will follow (by Jan 2012). The Electronic recording and reporting system (ERS) is used to record, report, process, store and send fisheries data (catch, landing, sales and transhipment).</td>
<td>The project will adhere to the Scheme to gain a better understanding of the fisheries resources in the Northumberland area.</td>
</tr>
</tbody>
</table>
| EU Biodiversity Strategy to 2020: Our Life Insurance, Our Natural Capital (2011) | Strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020. There are six main targets and 20 actions to help Europe reach its goal. The six targets cover:  
  - Full implementation of EU nature legislation to protect biodiversity;  
  - Better protection for ecosystems, and more use of green infrastructure;  
  - More sustainable agriculture and forestry;  
  - Better management of fish stocks;  
  - Tighter controls on invasive alien species; and  
  - A bigger EU contribution to averting global biodiversity loss.  
  
  The strategy is in line with two commitments made by EU leaders in March 2010. The first is the 2020 headline target: “Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss”; the second is the 2050 vision: “By 2050, European Union biodiversity and the ecosystem services it provides – its natural capital – are protected, valued and appropriately restored for biodiversity’s intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided.” | There are several European, national and local designated sites of nature conservation within the NIFCA district. The Regime should aim to protect these areas and where possible contribute to biodiversity. The Regime should promote biodiversity where possible by including policies which aim to protect the environment from fisheries activities both commercial, leisure and recreational. |
<p>| EC Directive on the Conservation of Natural Habitats of Wild Fauna and Flora (92/43/EEC) | The main aim of this Directive is to promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements. While the Directive makes a contribution to the general objective of sustainable development; it ensures the conservation of a wide range of rare, threatened or endemic species, including around 450 animals and 500 plants. Some 200 rare and characteristic habitat types are also targeted for conservation in their own right. The Directive provides for a ban on the downgrading of breeding and resting places for certain strictly protected animal species. Exceptions to the strict protection rules can be granted under very specific conditions. The Habitats Directive also establishes the EU wide Natura 2000 ecological network of protected areas. For these areas it provides a high level of safeguards against potentially damaging developments. Together with the Birds Directive, the Habitats Directive forms the backbone of EU nature protection legislation. | There are several Natura 2000 sites in the NIFCA district. The Regime should aim to protect these areas and where possible contribute to their biodiversity. |
| EC Directive on the Conservation of Wild Birds (2009/147/EC)               | Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (this is the codified version of Directive 79/409/EEC as amended). This Directive ensures far-reaching protection for all of Europe’s wild birds, identifying 194 species and sub-species among them as particularly threatened and in need of special conservation measures. There are a number of | There are several SPAs within Northumberland. The regime should aim to protect these areas and should not threaten bird species. |</p>
<table>
<thead>
<tr>
<th>Plan Title</th>
<th>Plan Description and Key Relevant Objectives/Targets</th>
<th>Implications for the Regime and SEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northumberland IFCA Strategic Environmental Assessment Scoping Report</td>
<td>components to this scheme: Member States are required to designate Special Protection Areas (SPAs) for 194 particularly threatened species and all migratory bird species. SPAs are scientifically identified areas critical for the survival of the targeted species, such as wetlands. They are part of the Natura 2000 ecological network set up under the Habitats Directive 92/43/EEC; A second component bans activities that directly threaten birds, such as the deliberate killing or capture of birds, the destruction of their nests and taking of their eggs, and associated activities such as trading in live or dead birds (with a few exceptions); and A third component establishes rules that limit the number of bird species that can be hunted (82 species and sub-species) and the periods during which they can be hunted. It also defines hunting methods which are permitted (e.g. non-selective hunting is banned).</td>
<td>The regime should aim to enhance rather than diminish the status of aquatic environments.</td>
</tr>
<tr>
<td>EC Water Framework Directive (2000/60/EEC)</td>
<td>The WFD has the following key aim:  - Expanding the scope of water protection to all waters, surface waters and groundwater;  - Achieving “good status” for all waters by a set deadline;  - Water management based on river basins;  - “Combined approach” of emission limit values and quality standards;  - Getting the prices right;  - Getting the citizen involved more closely; and  - Streamlining legislation.  There are a number of objectives in respect of which the quality of water is protected. The key ones at European level are general protection of the aquatic ecology, specific protection of unique and valuable habitats, protection of drinking water resources, and protection of bathing water. Member States must aim to reach good chemical and ecological status in inland and coastal waters by 2015.</td>
<td>The regime should aim to enhance rather than diminish the status of aquatic environments.</td>
</tr>
<tr>
<td>EC Directive on Bathing Water (76/160/EEC)</td>
<td>The overall objective of the Directive remains the protection of public health whilst bathing, but the revised Directive (into force 2006) also offers an opportunity to improve management practices at bathing waters and to standardise the information provided to bathers across Europe and aims to set more stringent water quality standards and also puts a stronger emphasis on beach management and public information.</td>
<td>The regime isn’t directly concerned with bathing waters. However, the regime should take holistic approach and consider any wider effects.</td>
</tr>
<tr>
<td>The European Community Shellfish Waters Directive 2006/113/EC (the Directive)</td>
<td>The aim of the EC Shellfish Waters Directive is to protect or improve shellfish waters in order to support shellfish life and growth, therefore contributing to the high quality of shellfish products directly edible by man. It sets physical, chemical and microbiological water quality requirements that designated shellfish waters must either comply with (‘mandatory’ standards) or endeavour to meet (‘guideline’ standards). The Directive is designed to protect the aquatic habitat of bivalve and gastropod molluscs, including oysters, mussels, cockles, scallops and clams. It does not cover shellfish crustaceans such as crabs, crayfish and lobsters. The original Shellfish Waters Directive (79/923/EEC), adopted on 30 October 1979, was repealed by the codified Shellfish Waters Directive (2006/113/EC), which entered into force on 20 May 2008.</td>
<td>The project will take this Directive into account.</td>
</tr>
</tbody>
</table>
### Plan Title | Plan Description and Key Relevant Objectives/Targets | Implications for the Regime and SEA
--- | --- | ---
Waters Directive (2006/113/EC), adopted on 12 December 2006. Codification is a routine procedure that consolidates an existing Directive, with any amendments made since its introduction, into a single, more accessible document. The codified Directive maintains all existing measures which provide for the monitoring and assessment of shellfish waters and the setting of the water quality standards they are required to achieve. Any reference to the repealed Directive should be construed as referring to the new one. DEFRA is committed to improving water quality to a level where all designated shellfish waters can support at least ‘class B’ production areas. This is regarded as an achievable interim target towards meeting the guideline faecal coliform standard for shellfish flesh quality under the Shellfish Waters Directive, providing significant environmental benefits as well as benefits to the shellfish industry. The Directive will be repealed in 2013 by the EC Water Framework Directive. | The project will take this Directive into account. |
Shellfish Hygiene Directive Shellfish harvesting areas are monitored to see that shellfish are fit for human consumption under the European Community (EC) Shellfish Hygiene Directive (91/492/EEC). Bivalve production areas are classified according to the level of treatment they require prior to their sale. Local authorities collect this information and send it to the Food Standards Agency who compiles a national picture. Standards are set in terms of concentrations of coliform bacteria and Salmonella. Harvesting sites are classified from A to C, where grade A sites do not require pre-treatment and grade C sites require intensive purification. | The regime will plan for potential future impacts caused by climate change across the NIFCA area. |
EU Strategy on Climate Change This document sets out concrete steps to limit the effects of climate change and to reduce the risk of massive and irreversible disruptions to the planet. The EU and its Member States have confirmed their target to limit the global average temperature increase to 2° Celsius compared with pre-industrial levels, the point beyond which the impact of climatic change is believed to increase dramatically. | The regime will plan for potential future impacts caused by climate change across the NIFCA area. |
EU Air Quality Directive (2008/50/EC) It establishes ambitious, cost-effective targets for improving human health and environmental quality up to 2020. The EU objective on air quality is "to achieve levels of air quality that do not result in unacceptable impacts on, and risks to, human health and the environment." The regime is unlikely to affect air quality; however, the project will take this Directive into account. | The Northumberland Coast is an Area of Outstanding Natural Beauty. It is unlikely that the regime will affect the Northumberland landscape; however, the regime will consider any potential effects arising from its implementation on the character and special features of these areas. |
The European Landscape Convention (2004) Also known as the Florence Convention, - promotes the protection, management and planning of European landscapes and organises European co-operation on landscape issues. | The regime will consider potential effects arising from its implementation on the character and special features of these areas. |
Charter for the Protection and Management of Archaeological Heritage (1990) The charter lays down principles relating to the different aspects of archaeological heritage management. These include the responsibilities of public authorities and legislators, principles relating to the professional performance of the processes of inventorisation, survey, excavation, documentation, research, maintenance, conservation, preservation, reconstruction, information, presentation, public access and use of the heritage, and the qualification of professionals involved in the protection of the archaeological heritage. The Charter states that policies for the protection of archaeological heritage should constitute an integral component of policies relating to land use, development, and planning as well as of cultural, environmental and educational policies. The NIFCA area has rich heritage. Fishing and fishing-related activities have the potential to directly affect our marine landscape and cultural heritage. The regime will consider potential effects arising from its implementation on archaeological assets and their setting and should aim to help protect this heritage. | The NIFCA area has rich heritage. Fishing and fishing-related activities have the potential to directly affect our marine landscape and cultural heritage. The regime will consider potential effects |
Convention for the Protection of Architectural Heritage of Europe (2009) The aim of this Convention is to protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study. Sources are considered to be elements of the archaeological heritage all remain and objects and any other traces of mankind from past epochs, the preservation and study of which help to retrace the history of mankind and its relation with the natural environment. | The NIFCA area has rich heritage. Fishing and fishing-related activities have the potential to directly affect our marine landscape and cultural heritage. The regime will consider potential effects |
<table>
<thead>
<tr>
<th>Plan Title</th>
<th>Plan Description and Key Relevant Objectives/Targets</th>
<th>Implications for the Regime and SEA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environment, for which excavations or discoveries and other methods of research into mankind and the related environment are the main sources of information, and which are located in any area within the jurisdiction of the Parties. The archaeological heritage shall include structures, constructions, groups of buildings, developed sites, moveable objects, monuments of other kinds as well as their context, whether situated on land or under water.</strong></td>
<td>arising from its implementation on archaeological assets and their setting and should aim to help protect this heritage.</td>
<td></td>
</tr>
<tr>
<td><strong>Mainstreaming Sustainable Development into EU Policies (2009) including Johannesburg Declaration on Sustainable Development (2002) and EU Sustainable Development Strategy (2006)</strong></td>
<td>The principles of sustainable development will be embedded into the regime through consideration of biodiversity, climate change, etc. The SEA will ensure that all aspects of sustainability (environmental, social and economic) are considered within the regime.</td>
<td></td>
</tr>
<tr>
<td><strong>Commission Regulation (EC) No 517/2008 of 10 June 2008 Laying down detailed rules for the implementation of Council Regulation (EC) No 850/98 as regards the determination of the mesh size and assessing the thickness of twine of fishing nets</strong></td>
<td>The project will take this Directive into account.</td>
<td></td>
</tr>
<tr>
<td><strong>Commission Regulation (EC) No 146/2007 of 15 February 2007 Amending Regulation (EEC) No 3440/84 as regards conditions for certain trawls for vessels operating pump aboard systems</strong></td>
<td>The project will take this Directive into account.</td>
<td></td>
</tr>
<tr>
<td><strong>OSPAR Convention (1992)</strong></td>
<td>The project should encourage the sustainable use of resources and protect and enhance biodiversity.</td>
<td></td>
</tr>
<tr>
<td><strong>DEFRA, Fisheries 2027 Fisheries 2027 aims to: explain the changes in fisheries and fisheries management over the past thirty years and what we are now trying to be achieved; set out the balance to be struck between economic, social and environmental priorities; clarify, through nine vision statements, what is considered to be needed to deliver</strong></td>
<td>The project should encourage the sustainable use of resources and protect and enhance biodiversity.</td>
<td></td>
</tr>
<tr>
<td>Plan Title</td>
<td>Plan Description and Key Relevant Objectives/Targets</td>
<td>Implications for the Regime and SEA</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Sea Fisheries Act 1967 (as amended in 1997)</td>
<td>The Sea Fisheries (Shellfish) Act (1967) (amended 1997) grants Several Orders (to individuals) and Regulating Orders (to companies) for the purpose of regulating the fishing opportunities of a range of shellfish species in a way designed to promote sustainable exploitation.</td>
<td>The project will take this into consideration.</td>
</tr>
<tr>
<td>Sea Fisheries Regulation Act (1966)</td>
<td>This is the main piece of legislation relating to Sea Fisheries Committees. It replaced the 1888 Act under which the North Eastern Committee was established. The Act contains detailed powers authorising the Minister to create a Sea Fisheries District within a defined area and to create a local Fisheries Committee for the regulation of the sea fisheries centred within the District. The Act also gives the Minister the power to wind up any Sea Fisheries Committee or combine any existing Districts. The Act also authorises local Fisheries Committees to make Byelaws for: restricting or prohibiting the fishing for or taking of all or any specified kinds of sea fish during any period; restricting or prohibiting any method of fishing and for determining the size of mesh for and dimensions of any instrument of fishing; and for the regulation, protection and development of fisheries for shellfish. The powers of the Committee to appoint Fishery Officers for the purpose of observance of Byelaws are contained in the Act which lays down the powers of Fishery Officers and Penalties for obstruction and contravention of Byelaws. The Act authorises Fishery Officers in certain circumstances to enter and search premises for the purpose of detecting offences. Finally the Act contains miscellaneous powers requiring statistical returns from Committees; an annual meeting of representatives of the local Fisheries Committees and representatives of the Minister; payment of committee expenses and other general matters.</td>
<td>The project will take this into consideration.</td>
</tr>
<tr>
<td>Sea Fish Conservation Act (1992)</td>
<td>An Act to amend the law relating to licences under sections 4 and 4A of the Sea Fish (Conservation) Act 1967. This Act is important because it contains the authority for any Fishery Officer of a local fisheries committee to board any fishing boat or enter any premises used for carrying on any activity related to the treatment or storage of sea fish to search, examine and seize any fish which may have been landed, sold or exposed for sale in contravention of any restriction or prohibition. There is no requirement for the owner of the premises or vessel concerned to be given prior notice of the search or to be present at the time of the search. The Act also contains provisions relating to: Restriction on commercial use of undersize fish; Size limits for fish; Regulation of nets and other fishing gear; Power to restrict fishing for sea fish; Penalties for offences and instigation of proceedings by Sea Fisheries Committee.</td>
<td>The project should encourage the sustainable use of resources and protect and enhance biodiversity.</td>
</tr>
<tr>
<td>The Environment Act (1995)</td>
<td>The Environment Act 1995 amended the Sea Fisheries Regulation Act 1966 to allow Sea Fisheries Committees to make byelaws to control fisheries for environmental reasons as well as for fisheries management, and provides for people with environmental expertise to be included on their committees. It also allows Ministers and the Environment Agency to regulate fishing activities for marine environmental purposes.</td>
<td>The project should encourage the sustainable use of resources and protect and enhance biodiversity.</td>
</tr>
<tr>
<td>The Sea Fisheries (Wildlife Conservation) Act</td>
<td>The Sea Fisheries (Wildlife Conservation) Act 1992 requires Sea Fisheries Committees to have regard to the conservation of marine flora and fauna and to endeavour to achieve a reasonable balance between that and other considerations in the discharge of their functions under the Sea Fisheries Acts. Although, with the interpretation of the term &quot;sustainable use of resources&quot; encompasses action to conserve or enhance any features of archaeological or historic interest (as Section 102(5) amends the Sea Fisheries Regulation Act 1966).</td>
<td>The project should encourage the sustainable use of resources and protect and enhance biodiversity.</td>
</tr>
</tbody>
</table>
### Plan Title

<table>
<thead>
<tr>
<th>Plan Description and Key Relevant Objectives/Targets</th>
<th>Implications for the Regime and SEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction of the Environment Act 1995. Sea Fisheries Committees now have broader environmental powers, this duty remains. Thus, conservation implications must be considered for fisheries management byelaws as well as for environmental ones. Sea Fisheries Committees must also take account of the conservation implications in carrying out their responsibilities for the management of several or regulated fisheries.</td>
<td>The project will take this Order into consideration.</td>
</tr>
<tr>
<td>This Order sets a) the Prohibition on fishing for shrimps without a separator trawl or sorting grid and b) details Powers of British seafishery officers. The fishing prohibitions are detailed and set limits for mesh sizes, net size and design; and for the capture of fish and common shrimp, i.e. shrimps (Crangon spp.), Aesop shrimps (Pandalus montagui) or a combination of the two. The powers of sea fisheries officers are granted so that they can implement and, if necessary, board fishing vessels and request the help of the master.</td>
<td>The project should encourage the protection of sensitive habitats and the enhancement of biodiversity.</td>
</tr>
<tr>
<td>The Natural Environment and Rural Communities Act 2006 specifically established and constituted Natural England and placed an obligation on public authorities to have regard for the conservation of biodiversity. Amongst other things the legislation also empowers the Secretary of State to publish lists of living organisms or habitats thought to be of key importance to the conservation of biodiversity in England and Wales. Importantly, with regard to Sea Fisheries Committees, the NERC Act 2006 amended Section 28 of the CROW Act 2000 making SFC’s liable to prosecution and upon conviction, a fine of up to £20,000, where they continued to permit an operation which caused damage to the features of a SSSI.</td>
<td>The project should encourage the protection of sensitive habitats and the enhancement of biodiversity.</td>
</tr>
<tr>
<td>The Conservation of Habitats and Species Regulations 2010 apply in the terrestrial environment and in territorial waters out to 12 nautical miles. The EU Habitats and Wild Birds Directives are transposed in UK offshore waters by separate regulations. The objective of the Habitats Directive is to protect biodiversity through the conservation of natural habitats and species of wild fauna and flora. The Directive lays down rules for the protection, management and exploitation of such habitats and species.</td>
<td>The NIFCA area contains many protected habitats and species. The regime should comply with the Regulations. The regime should promote biodiversity.</td>
</tr>
<tr>
<td>The 2007 Regulations apply in the ‘offshore area’ beyond 12 nautical miles from the UK coast. They provide protection for a variety of marine species and wild birds through a number of offences that aim to prevent damaging activities affecting protected species and habitats. For example, deliberately killing, injuring or disturbing a protected species (such as dolphins) beyond 12 nautical miles from shore is now a criminal offence.</td>
<td>The project should encourage the protection of sensitive habitats and the enhancement of biodiversity.</td>
</tr>
<tr>
<td>Under the Countryside and Rights of Way Act 2000 Sea Fisheries Committees are classed as ‘28G’ authorities with powers to grant permissions to other parties to carry out proposed operations. Where such operations are likely to damage a SSSI, the legislation places a duty on Sea Fisheries Committees to consult and take advice from the Nature Conservancy Council (English Nature).</td>
<td>The project should encourage the protection of sensitive habitats and the enhancement of biodiversity.</td>
</tr>
<tr>
<td>The purpose of this legislation is to record the first sale of fish landed in the UK in order to improve monitoring and control of landings. It also aims to aid secondary buyers in determining whether the fish they are buying were legitimately landed. This legislation will be particularly important to record the landings of vessels &lt;10 m length, which have not, until recently, had to submit as detailed records as vessels &gt;10 m length.</td>
<td>The regime will adhere to this legislation.</td>
</tr>
<tr>
<td>The Act will help to achieve clean, healthy, safe, productive and biologically diverse oceans and seas. It will provide better protection for the marine environment; sustainable use of our marine resources; an integrated planning system for managing our seas, coasts and estuaries; a robust legal framework for decision-making; streamlined regulation and enforcement; and access to the coast.</td>
<td>The project should encourage the sustainable use of resources and protect and enhance biodiversity.</td>
</tr>
<tr>
<td>Plan Title</td>
<td>Plan Description and Key Relevant Objectives/Targets</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>The Government’s vision for the marine environment is for clean healthy, safe, productive and biologically diverse oceans and seas. This was set out in the Marine Stewardship Report in 2002 together with a package of initiatives and reviews to turn this vision into reality. The State of the Seas Report was published in March 2005. It indicated how far the government has come towards delivering its vision for the marine environment, how far is still to go and the kinds of challenges and threats that the marine environment faces. Managing the sometimes conflicting demands for energy, aggregates, shipping and fishing while also ensuring that conservation objectives are achieved is a part of that significant challenge faced. The Bill will introduce a better system for managing marine resources, so that the government can make the process by which developers get consents simpler, while ensuring that it manages potential conflicts between uses of the sea and deliver its objectives to ensure sustainability. One of the aims is on Fisheries Management and Marine Enforcement: The fishing industry is a valuable economic activity, but needs to be effectively managed to protect both stocks and broader environmental sustainability. The Government has agreed to look at a new approach across the UK for combining fisheries and marine resource management, for which the Marine Bill will provide the opportunity to take an integrated approach to changes in fisheries management and related environmental and marine resource issues.</td>
<td></td>
</tr>
<tr>
<td>UK Marine Policy Statement (2011)</td>
<td>This Marine Policy Statement (MPS) is the framework for preparing Marine Plans and taking decisions affecting the marine environment. It will contribute to the achievement of sustainable development in the United Kingdom marine area1. It has been prepared and adopted for the purposes of section 44 of the Marine and Coastal Access Act 2009. The MPS will facilitate and support the formulation of Marine Plans, ensuring that marine resources are used in a sustainable way in line with the high level marine objectives and thereby: - Promote sustainable economic development; - Enable the UK’s move towards a low-carbon economy, in order to mitigate the causes of climate change and ocean acidification and adapt to their effects; - Ensure a sustainable marine environment which promotes healthy, functioning marine ecosystems and protects marine habitats, species and our heritage assets; and - Contribute to the societal benefits of the marine area, including the sustainable use of marine resources to address local social and economic issues.</td>
</tr>
<tr>
<td>National Planning Policy Framework (2012)</td>
<td>The National Planning Policy Framework (NPPF) replaces a very long list of existing guidance including all Planning Policy Statements (PPS) (except PPS10 Planning for Sustainable Waste Management), all Planning Policy Guidance notes (PPG), all Mineral Planning Statements (MPS), some Mineral Planning Guidance notes (MPG) (MPG4, 8, 9 and 14 remain in force) and some Ministerial Circulars and Letters. The main change and</td>
</tr>
</tbody>
</table>
## Plan Title

### Plan Description and Key Relevant Objectives/Targets

First policy of the NPPF is a presumption in favour of sustainable development, which it states “should be seen as a golden thread running through both plan-making and decision-taking”. The NPPF states that local authorities should adopt pro-active strategies to mitigate and adapt to climate change, taking into account flood risk, coastal change, water supply and demand considerations. Paragraphs 100-104 replace the previous advice in PPS25 on flood risk. There is associated interim technical guidance provided in a technical appendix to the NPPF, which retains the sequential test and exception test. The NPPF has changed little with regard to the principles to flood risk but the detailed analysis and guidance has been removed and will be reliant on Local Plans for local guidance. The NPPF states that local planning authorities should reduce risk from coastal change by avoiding inappropriate development in vulnerable areas or adding to the impacts of physical changes to the coast. They should identify as a Coastal Change Management Area any area likely to be affected by physical changes to the coast. Paragraphs 109-125 of the NPPF provide advice on biodiversity, contaminated land, land stability, geo-diversity, air pollution, noise pollution and water pollution.


The Strategy for sustainable development aims to “…enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations.”

Guiding principles: Living within environmental limits; Ensuring a strong, healthy and just society; Achieving a sustainable economy; Promoting good governance; and Using sound science responsibly. UK priorities for immediate action: Sustainable consumption and production; Climate change and energy; Natural resource protection and environmental enhancement; and Sustainable communities.

The project will take this into consideration.

Wildlife and Countryside Act (1981)

The Act makes it an offence (subject to exceptions) to intentionally kill, injure, or take, possess, or trade in any wild animal listed in Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. The Act also prohibits certain methods of killing, injuring, or taking wild animals. The Act requires surveying authorities to maintain up to date definitive maps and statements, for the purpose of clarifying public rights of way.

The project will take this into consideration.

Climate Change Act (2008)

In 2008 the UK Government passed the Climate Change Act. It was the first legislation in the world to create a legally binding framework to tackle climate change. The Act sets the legally binding target of an 80% cut in greenhouse gas emissions by 2050, and sets a carbon budgeting system that caps emissions over five year periods. It also provides UK governments with powers regarding preparing for climate change impacts. The two key aims of the Act are to: Improve carbon management, helping the transition towards a low-carbon economy in the UK; and Demonstrate UK leadership internationally, signalling commitment to taking our share of responsibility for reducing global emissions in the context of developing international negotiations.

The regime will seek to contribute to the reduction in GHG emissions, and to mitigate for and adapt to climate change.


The Regulations transpose the EC WFD in UK law. They will help implement the WFD requirement in England and Wales. They aim to protect and enhance the quality of: Surface freshwater (including lakes, streams and rivers); Groundwaters; Groundwater dependant ecosystems; Estuaries; and Coastal waters out to one mile from low-water.

The regime will continue to protect and enhance the waters in which it operates.


The vision set out in the Strategy is - Enough water for people and the environment, “Management and use of water that is environmentally, socially and economically sustainable, providing the right amount of water for people, agriculture, commerce and industry, and an improved water-related environment.” Key themes and aims of the strategy are: Adapting to and mitigating climate change – The EA is able to manage water resources and protect the water environment in the face of climate change; A better water environment – species and habitat that depend on water are restored, protected, improved and valued; Sustainable planning

The project will take this into consideration.
<table>
<thead>
<tr>
<th>Plan Title</th>
<th>Plan Description and Key Relevant Objectives/Targets</th>
<th>Implications for the Regime and SEA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northumberland IFCA Strategic Environmental Assessment</strong>&lt;br&gt;<strong>Scoping Report</strong></td>
<td>and management of water resources – good water management contributes to sustainable development by supporting people and the economy in an improved environment; and Water and the water environment are valued – people value water and enjoy their water environment and how it contributes to their quality of life.</td>
<td></td>
</tr>
</tbody>
</table>
| **Sea Trout and Salmon Fisheries Strategy (2008 – 2012)** | The Strategy sets outs key results for achievement by 2021. These are:  
− Self-sustaining sea trout and salmon in abundance in more rivers;  
− Economic and social benefits optimised for sea trout and salmon fisheries;  
− Widespread and positive partnerships, producing benefits; and  
− To achieve these results the Strategy sets out 16 specific aims. Aim 1 is to improve environmental conditions and increase the availability of good habitat. A set of measures and targets are also presented in the Strategy. One of the targets is: 76% of rivers outside the ‘at risk’ category for 2013. | The regime will take into consideration the need to protect the District’s salmon and sea trout at sustainable levels. |
| **National Trout and Grayling Fisheries Strategy (2003)** | The strategy is founded on the Agency’s duty to maintain, improve and develop fisheries within the overall aim of contributing to sustainable development. The aim of the strategy is to conserve and improve wild stocks of trout, sea trout, char and grayling, while enhancing the environment for all types of fisheries for these species in England and Wales. It also aims to enhance the social and economic benefits derived from these fisheries. Policies are included to help ensure the conservation of wild stocks of trout and grayling. These relate to three main areas: Exploitation; Stocking; and Habitat.  
Policy 22: We will work with others to monitor, protect and improve the physical, chemical and biological quality of trout, char and grayling habitat, including work with Government to ensure that impacts on fisheries are fully considered in the development of new policies and grant schemes relating to land use.  
Policy 24: Obstructions - For any new structures, where the Agency’s consent is required, these must be designed to enable fish migration.  
Policy 26: We will work with others to monitor, protect and improve the appearance of fisheries, consistent with our duties in relation to flood defence, conservation, recreation and other functions. | The project will take this into consideration. |
| **Merchant Shipping Act (1995)** | The Act establishes requirements and procedures of merchant shipping. The Merchant Shipping (Pollution) Act 2006 amended section 178(1) of the Act. It restricts claims to being enforced within three years of the damage occurring. | The project will take this into consideration. |
| **Environmental Protection Act (1990)** | The Environmental Protection Act 1990 establishes in England, Scotland and Wales businesses’ legal responsibilities for the duty of care for waste, contaminated land and statutory nuisance. | The project will take this into consideration. |
| **Climate Change – UK Programme (2006)** | As the key UK document on Climate Change it contains a very broad range of issues covering the UK’s strategy for climate change, actions to reduce emissions and adaptation to climate change. The UK’s legally binding target under the Kyoto Protocol to reduce its greenhouse gas emissions to 12.5% below 1990 levels by 2008-2012 and its domestic goal of a 20% reduction in carbon dioxide emissions below 1990 levels by 2010. Emissions reductions are focussed in the following sectors: Energy supply; Business; Transport; Domestic; Agriculture, forestry and land use; and Public sector. | The regime will seek to contribute to the reduction in GHG emissions, and to mitigate for and adapt to climate change. |
| **Future Water: The Government’s Water Strategy for England (2008)** | The Strategy sets out how the Government wants the water sector to look by 2030 and the steps required to get there. The Vision for water policy and management is one where, by 2030 at the latest, the Government has: Improved the quality of our water environment and the ecology which it supports, and Continued to provide high levels of drinking water quality from our taps; Sustainably managed risks from flooding and | The regime will take this strategy into consideration. |
### Northumberland IFCA Strategic Environmental Assessment

**Scoping Report**

<table>
<thead>
<tr>
<th>Plan Title</th>
<th>Plan Description and Key Relevant Objectives/Targets</th>
<th>Implications for the Regime and SEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal Erosion Plan</td>
<td>coastal erosion, with greater understanding and more effective management of surface water; Ensured a sustainable use of water resources, and implemented fair, affordable and cost reflective water charges; Cut greenhouse gas emissions; and Embedded continuous adaptation to climate change and other pressures across the water industry and water users.</td>
<td>The regime will take this framework into consideration.</td>
</tr>
<tr>
<td>UK Post-2010 Biodiversity Framework (2012)</td>
<td>The purpose of the Framework is to set a broad enabling structure for action across the UK between now and 2020: To set out a shared vision and priorities for UK-scale activities, in a framework jointly owned by the four countries, and to which their own strategies will contribute; To identify priority work at a UK level which will be needed to help deliver the Aichi targets and the EU Biodiversity Strategy; To facilitate the aggregation and collation of information on activity and outcomes across all countries of the UK, where the four countries agree this will bring benefits compared to individual country work; and To streamline governance arrangements for UK-scale activity.</td>
<td>The regime will take this framework into consideration.</td>
</tr>
<tr>
<td>Water White Paper (2011)</td>
<td>This White Paper sets out a vision for future water management in which the water sector is resilient; water companies are more efficient and customer focused; and water is valued as the precious and finite resource it is. It explains that everyone has a part to play in the realisation of this vision.</td>
<td>The regime will take this into consideration.</td>
</tr>
<tr>
<td>Natural Environment White Paper (2012)</td>
<td>This White Paper recognises that a healthy, properly functioning natural environment is the foundation of sustained economic growth, prospering communities and personal well-being. It aims to mainstream the value of nature across society, including across government departments by: Facilitating greater local action to protect and improve nature; Creating a green economy, in which economic growth and the health of our natural resources sustain each other, and markets, business and Government better reflect the value of nature; Strengthening the connections between people and nature to the benefit of both; and Showing leadership in the European Union and internationally, to protect and enhance natural assets globally.</td>
<td>The regime will take this into consideration.</td>
</tr>
<tr>
<td>Biodiversity 2020: A Strategy for England’s Wildlife and Ecosystems (2011)</td>
<td>The Strategy sets out the strategic direction for biodiversity policy for the next decade on land (including rivers and lakes) and at sea. The mission for this strategy for the next decade, is: to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people. The Strategy identifies the key sectors that the Government will work with and the actions they will take. The sectors include Agriculture; Forestry; Planning and Development; Water Management; Marine Management; and Fisheries. For Water Management, the Strategy seeks to protect water ecosystems, including habitats and species, through a river basin planning approach; and also promote approaches to flood and erosion management which conserve the natural environment and improve biodiversity.</td>
<td>The project should encourage the sustainable use of resources and protect and enhance biodiversity.</td>
</tr>
</tbody>
</table>
- A limit on the number of dredges allowed in the 6-12nm limit, extending the previous restriction of 8 dredges per side in the 0-6nm limit.
- A new requirement for all scallops caught on trips which cover both the Western and Eastern English Channel to comply to the higher minimum landing of 110mm.
- Relaxes the rules on what attachments to dredges may be used, permitting those which increase the safety of tipping the dredge. | The regime will take this order into consideration. |

### Regional – The North East

<p>| The Integrated | The Integrated Regional Framework (IRF) is the framework for sustainable development in North East | The regime shares the vision for the Integrated |</p>
<table>
<thead>
<tr>
<th>Plan Title</th>
<th>Plan Description and Key Relevant Objectives/Targets</th>
<th>Implications for the Regime and SEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Framework – Achieving a better quality of life (2004)</td>
<td>England. The IRF presents a shared regional vision, which will ensure that regional strategies share a common purpose in achieving a sustainable future for the region. The Framework sets out 10 key objectives, which include: strengthening the economy; adapting to and mitigating against climate change; living within environmental limits; developing a more sustainable employment market; establishing a strong learning and skills base; improving health and wellbeing and reducing health inequalities; protecting and enhancing the environment; building sustainable communities; developing sustainable transport; and promoting and respecting the region’s culture and heritage.</td>
<td>Regional Framework.</td>
</tr>
<tr>
<td>Regional Spatial Strategy for North East England (2008)</td>
<td>The three main regional strategies (the RSS, the RES and the IRF) all share a common vision for a better North East: “…the North East will be a Region where present and future generations have a high quality of life. It will be a vibrant, self-reliant, ambitious and outward looking Region featuring a dynamic economy, a healthy environment, and a distinctive culture. Everyone will have the opportunity to realise their full potential.” The spatial strategy for all future development in the North East is based on the following principles: to promote an urban and rural renaissance; to contribute to the sustainable development of the Region; to reflect a sequential approach to land allocations; and to include appropriate phasing and plan, monitor, manage mechanisms for planning; and implementation of new development.</td>
<td>The regime will take this strategy into consideration.</td>
</tr>
<tr>
<td>Regional Economic Strategy for North East England (2008)</td>
<td>The Regional Economic Strategy (RES) sets out how greater and sustainable prosperity will be delivered to all the people of the North East over the period to 2016. The RES highlights actions which actively promote the achievement of sustainable development. In particular: Leadership: a commitment to work in partnership to improve leadership around sustainable development, including implementing the commitments and principles outlined in the Government’s Securing the Regions’ Futures Strategy. Business: specialist business support for encouraging resource efficiency; a strong focus on the development and deployment of low carbon technology and renewable energy within the ‘Three Pillars’ work; a strong focus on the delivery of the Energy White Paper 2003. People: a strong focus on economic inclusion including activities to improve access to employment; raise economic participation in deprived communities; promote equality and diversity. Place: a strong focus on delivering sustainable development best practice in regeneration and planning, including activities to ensure the incorporation of sustainable development principles and best practice in the planning, management and design processes of regeneration schemes; concentrate on demand management and energy usage in transport schemes; and promote, enhance and protect our natural, heritage and cultural assets.</td>
<td>The regime will take this strategy into consideration.</td>
</tr>
<tr>
<td>North East Strategy for the Environment (2008)</td>
<td>The Strategy sets out a strategic approach to address the main environmental challenges that the region faces. It identifies four broad themes: sustainable communities - how the environment and cultural assets contribute towards better places to live and work; resource management - making best use of our resources; environmental infrastructure - securing key natural, physical and cultural assets and realising their potential; and integration - action to meet the region’s environmental objectives whilst also delivering social and economic benefits. The accompanying action plan aims to ensure that the opportunities and objectives of the strategy are met.</td>
<td>The regime will take this strategy into consideration.</td>
</tr>
<tr>
<td>North East England Tourism Strategy 2005-2010 (2005)</td>
<td>The North East Tourism Strategy (NETS) was prepared to cover the 2005-2010 period. The Strategy identifies ten objectives: attract more domestic and overseas tourists to the region; increase visitors’ average spend and increase day visitor spend; increase visits throughout the year, not solely in the main holiday season; increase employment in tourism, and tourism related businesses; improve the productivity of the regional tourism economy; accelerate the rate of investment in the tourism product; improve the quality of the tourism product; improve the skills of the tourism workforce; improve levels of visitor satisfaction in the North East; and enhance tourist satisfaction in the North East.</td>
<td>The regime will seek to promote tourism in the NIFCA District.</td>
</tr>
</tbody>
</table>
### Plan Title

**North East Declaration on Climate Change**

Signs up regional Government partners to develop plans which progressively address the causes and the impacts of climate change, according to our regional priorities, securing maximum benefit for our communities.

Implications for the Regime and SEA: The regime will seek to mitigate against and adapt to the effects of climate change.

### Local

**NIFCA Byelaws**

By virtue of the Marine & Coastal Act 2009 (Transitional and Savings Provisions) Order 2011 these byelaws made by Northumberland Sea Fisheries Committee remain effective and enforceable by Northumberland IFCA.

Limits of the District:

- Revocation of Existing Byelaws
- Application and Saving for Scientific Purposes
- Trawling and Size of Vessels
- Fixed Engines
- Purse Seine Net
- Protection of ‘V’ Notched Lobsters
- Berried (Egg Bearing) or Soft Shelled Crab (Cancer pagurus) or Lobster (Homarus gammarus)
- Parts of Shellfish
- Prohibition on Use of Edible Crab (Cancer pagurus) for Bait
- Redepositing of Shellfish
- Marking of Fishing Gear and Keep Boxes
- Dredges
- Permit to Fish for and Sell Lobsters, Crabs, Velvet Crabs, Whelks and Prawns
- Multi-rigging, Pair Trawling and Pair Seining
- Pot Limitations

These byelaws are critical to the fisheries management regime for NIFCA.

**Northumberland IFCA Annual Plan**

The Northumberland IFCA Annual Plan enables the effective performance management of the Committee and the appraisal of its staff. The plan is reviewed annually and reflects improvements in performance brought about by achieved targets and also reflects the process of continuous improvement by the inclusion of new service aspirations contained in reviewed targets.

The annual plan is fundamental to the success and effective performance of the regime.

**Northumberland and North Tyneside Shoreline Management Plan 2**

Provides a large-scale assessment of the risks associated with coastal evolution and presents a policy framework to address these risks to people and the developed, historic and natural environment in a sustainable manner.

The regime will take this into consideration.


Identifies the pressures facing the water environment in the Northumbria River Basin District, and the actions that will address them. This plan focuses on the protection, improvement and sustainable use of the water environment. River basin management is a continuous process of planning and delivery.

The regime will take this into consideration.
<table>
<thead>
<tr>
<th>Plan Title</th>
<th>Plan Description and Key Relevant Objectives/Targets</th>
<th>Implications for the Regime and SEA</th>
</tr>
</thead>
</table>
| Northumberland Coast AONB and Berwickshire and North Northumberland Coast EMS Management Plan (2009-14) | Previously these two areas were managed separately; however, increased awareness of the importance of managing the coast and its land and sea, in a consistent and integrated way has led to the production of an integrated Plan. The Management Plan was prepared by the AONB Partnership and EMS Management Group on behalf of Northumberland County Council (NCC) pursuant to Sections 89 and 90 of the CRoW Act. There are four strategic management policies that apply to all themes and the entire Plan across land and sea:  
  − integrated coastal management;  
  − climate change adaptation and mitigation;  
  − community involvement and engagement; and  
  − sustainable development.                                                                                           | The regime will seek to protect and enhance the AONB and EMS, which are important features of the District. |
| Northumberland biodiversity action plan (2007)                  | N/A                                                                                                                                                                                                                                          | The project should encourage the sustainable use of resources and protect and enhance biodiversity. |
| Northumberland County Council Core Strategy Issues and Options  | The Northumberland County Council Core Strategy is in the “Issues and Options” Stage, which gives stakeholders the opportunity to shape and influence the Core Planning Strategy in its first stage of preparation. There are five issues which the Core Strategy needs to consider as regards the Water Environment, including:  
  − Flooding and the location of development;  
  − Increasing the resilience of development to flooding;  
  − Management of change from coastal erosion;  
  − Water quality; and  
  − Water supply and sewerage facilities and networks.                                                                | The regime will consider this strategy. |
| Northumberland Consolidated Planning Policy Framework           | The seven local planning authorities of Alnwick, Berwick-upon-Tweed, Blyth Valley, Castle Morpeth, Tynedale, Wansbeck and Northumberland County merged together to create one single local planning authority for Northumberland. The Northumberland Consolidated Planning Policy Framework is the local plan which sets planning policies in a local authority area.  
  The Consolidated Planning Policy Framework for Northumberland compromises two sections:  
  − Section A - Schedule of Statutory Development Plan Documents  
  − Section B - Schedule of Planning Policy Documents which do not form part of the Development Plan                                                                 | The Plan will consider this framework. |
| Northumberland Area Tourism Management Plan (ATMaP) (2010 – 2015) | The Northumberland Area Tourism Management Plan (ATMaP) 2010-2015 sets out the tourism activities and actions that tourism stakeholders in the county agree are required for the tourism sector to help make and keep Northumberland strong – economically, socially and environmentally. The document provides the framework for actions to be undertaken by a wide range of agencies, organisations and the business community.                                                                 | The regime will seek to promote tourism in the NIFCA District. |
| Northumberland Economic Strategy (2010 – 2012)                  | The purpose of the Northumberland Economic Strategy is to establish aims and priorities for promoting economic competitiveness and securing the resilience of the economy. The strategy provides the strategic context for economic development and regeneration as part of the county's community planning framework which includes the Sustainable Community Strategy, the Local Development Framework and other principal                                                                 | The regime will take this into consideration. |
### Plan Title

<table>
<thead>
<tr>
<th>Plan Description and Key Relevant Objectives/Targets</th>
<th>Implications for the Regime and SEA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northumberland: Resilient for the Future: Sustainable Community Strategy for Northumberland (2011)</strong></td>
<td>The Sustainable Community Strategy sets out the long-term vision for Northumberland. Its aim is to improve the economic, social and environmental well being of the community. Areas of focus include, but are not limited to:</td>
</tr>
<tr>
<td>− Raising awareness as to the likely impacts and opportunities of climate change in a meaningful way</td>
<td></td>
</tr>
<tr>
<td>− Reducing the county’s carbon footprint through a range of initiatives, incentives and compliance</td>
<td></td>
</tr>
<tr>
<td>− Building community, business, and environmental resilience to extreme weather events</td>
<td></td>
</tr>
<tr>
<td>− Exploiting the scope to develop enterprising climate change “response” technology and businesses</td>
<td></td>
</tr>
<tr>
<td>− Positively applying planning policy to maintain a network of viable communities</td>
<td></td>
</tr>
<tr>
<td>− Supporting a more mixed economy by expanding the county’s niche and supporting growth sectors</td>
<td></td>
</tr>
<tr>
<td>− Developing a broad purchasing culture among businesses and communities of “buy local”</td>
<td>The regime will take this into consideration.</td>
</tr>
</tbody>
</table>