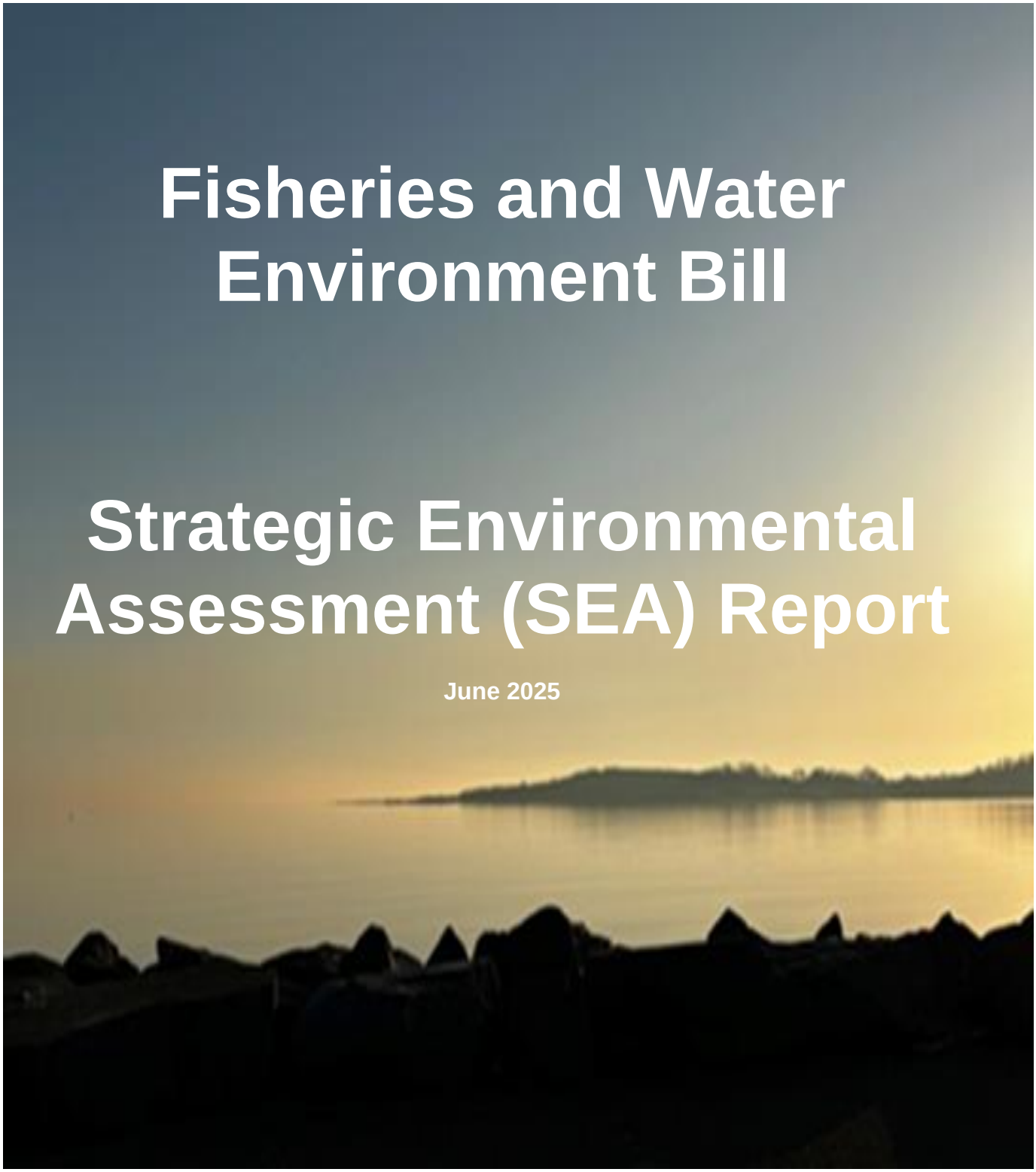
Fisheries and Water Environment Bill

Strategic Environmental Assessment (SEA) Report

June 2025



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Non-Technical Summary

Introduction

The Fisheries and Water Environment Bill is a proposal for new legislation which will make provision in relation to fishing and aquaculture in the marine and aquatic environment.

The Fisheries and Water Environment Bill is needed to modernise and give effect to Northern Ireland's fisheries policies so that these are consistent with the post-EU exit fisheries management framework provided by the UK Fisheries Act 2020, and high-level, strategic policies set out in the UK Joint Fisheries Statement (JFS).

The issues fisheries and aquatic ecosystems are facing have changed significantly since the Fisheries Act (Northern Ireland) 1966 (the 1966 Act) was introduced and terminology and assumptions within it no longer reflect the policy and legislative landscape.

The 1966 Act focuses on the protection of fisheries, without fully considering the wider ecosystem, species interactions, environmental changes or other stressors that are necessary to be fully aligned with the ecosystem-based approach and the principles of sustainable development.

The UK Fisheries Act 2020 has provided for a range of modernised policies for the sea-fishing sector, but work remains to be done to align aquaculture and inland fisheries to the vision of the fisheries policy authorities. While the UK Fisheries Act 2020 makes provisions for the protection of inland waters, the focus of the fisheries objectives and fisheries management plans is for marine stocks and marine ecosystems. This includes marine stocks that spend part of their life cycle in freshwaters, such as eel and salmon. However, the UK Fisheries Act 2020 provides an aspirational fisheries management framework that can also be adapted to apply to freshwater stocks.

A Fisheries and Water Environment Bill would ensure that fisheries management and regulation can keep pace with changes in the other parts of the UK, given that fisheries are largely a devolved matter. Many outstanding issues could be addressed

through the creation of a new legislative vehicle. In addition to the essential changes, the opportunity has been taken to review primary powers more widely, including regulation of aquaculture and water regulation.

Fisheries and Water Environment Bill Overview

Policy Proposals and Intent

Inland Fisheries and Aquaculture Objectives

Policy Intent - ***The Department wishes to modernise the approach to inland fisheries and aquaculture management to ensure consistency with wider UK marine and aquatic approaches.***

The Fisheries and Water Environment Bill is an opportunity to ensure that as inland fisheries and aquaculture policies are reviewed and developed, the Department has the legislative powers required to deliver on an ecosystem-based approach.

Our starting point is to establish objectives for inland fisheries and aquaculture which will provide the basis for managing these activities. The proposed objectives are adapted from the UK Fisheries Act 2020:

- the sustainability objective,
- the precautionary objective,
- the ecosystem objective,
- the scientific evidence objective,
- the bycatch objective,
- the national benefit objective, and
- the climate change objective.

The equal access objective is not considered to be relevant because only Northern Ireland vessels fish in our inland waters.

These objectives will frame our policies for the protection conservation and improvement of fisheries, fish stocks, and the aquatic environment and protecting or improving the health of fish or aquatic animals. This in turn is the basis for supporting

and enabling sustainable and productive fisheries (recreational and commercial) and aquaculture.

Management of Recreational Inland Angling

Policy Intent - ***We will manage the inland recreational angling in accordance with the fisheries objectives. We will provide opportunities for public angling through the management of fishing rights and provision of facilities which are safe, sustainable, accessible and affordable.***

The Department's policy aim is to protect the natural resource for the benefit of angling.

DAERA intend to continue to operate a licence and permit regime to support the management of recreational fishing and should retain the ability to deliver a Public Angling Estate (PAE) (and manage fishing rights) that demonstrably delivers on specific DAERA policy goals and can support delivery of other governmental policy goals.

Recognising that not all fishing rights and waters will be under DAERA ownership, they wish to retain the ability to influence and support other fishery development - this includes, where appropriate, the leasing of fishing rights to other organisations. DAERA would like to ensure that all fishing activity is carried out in a manner that avoids a negative impact on the stock. We therefore propose to maintain the power to introduce and amend regulations in respect of protection and conservation. This will be supported by the collection of data on recreational activity.

Management of Inland Commercial Fishing

Policy Intent - ***Inland commercial fisheries will operate in accordance with the fisheries objectives to ensure that current and future generations fish at sustainable levels, providing high quality food and socio-economic benefits for rural communities.***

We propose to continue to use Fishery Management Plans to set out policies relating to both commercial and recreational fisheries on Lough Neagh and Lough Erne.

The inland fisheries objectives that are proposed will be consistent with this objective and we intend to manage commercial inland fisheries in line with the best available scientific advice. Where necessary, we will regulate commercial inland fisheries to ensure long term sustainability of the commercial stocks and to manage potential adverse impacts on other species and the aquatic environment.

We seek to maintain the power to regulate commercial fisheries through licensing powers and to implement a mechanism of catch reporting for commercial fisheries to support management.

Aquaculture

Policy Intent - ***The Department wishes to ensure a comprehensive, transparent licensing system for aquaculture, which supports the sustainable development of all aquaculture sub-sectors in NI.***

The UK Fisheries Act 2020 and associated JFS highlights the importance of aquaculture to the UK. The Department recognises there is potential for future sustainable development and innovation of aquaculture and a review of current licences is inescapable to support development considerations.

In the marine area, the Department intends to explore better alignment of aquaculture licensing to Marine Licensing, allowing aquaculture to be licensed in line with the marine licensing process laid out in the Marine and Coastal Access Act 2009. For inland operations, the Department wants to explore a system similar to that employed elsewhere in the UK, where there is no independent Fish Culture Licence, but all elements of regulation are covered by existing consents (e.g. abstraction licensing, discharge consent, aquatic health approval etc). Any proposal would need to get planning approval from the planning authority and the Department would act as a statutory consultee and advisor in this process. This policy will clarify and simplify existing processes and ensure transparency to stakeholders in respect of aquaculture licence applications.

Enforcement – Inland and Sea Fisheries

Policy Intent - ***DAERA wishes to ensure that there is a consistent enforcement regime with appropriate powers to ensure that ecosystem health is prioritised and supported.***

The Fisheries and Water Environment Bill aims to provide the Department with sufficient enforcement powers:

- **Common Enforcement Powers -** The aim of this proposed policy is to ensure that DAERA staff can ensure a consistent enforcement regime to support ecosystem health and sustainable fish stocks within the NI jurisdiction.
- **Introduction of Fixed Penalty Notices (FPNs) and Fixed and Variable Monetary penalties (FMPs/VMPs) -** The policy would introduce a more flexible system including fixed penalty notices and civil sanctions like fixed and variable monetary fines, in addition to criminal sanctions to act as a deterrent for low to moderate breaches of regulations
- **Increased maximum penalties -** The policy would seek to align penalties with those in GB, and already available to Marine Licensing in Northern Ireland, as introduced by the Marine and Coastal Access Act 2009. This would raise the maximum fine to £50,000 for a range of offences under various legislation. Greater penalties enforceable through the courts would be introduced for ecosystem degradation offences. Introducing this policy would enable officers to deliver their statutory obligations effectively.

Permitting of Sea Fishing Activities in the Northern Ireland Zone

Policy Intent - ***The Department wishes to ensure improved management and regulation of in-shore fisheries.***

This proposal will provide DAERA with enabling powers to make regulations which would specifically allow for permitting arrangements for sea fishing and therefore provide for improved management and regulation of inshore fisheries.

The policy intention is to provide for the option to introduce permitting arrangements in the NI zone, for example, in specific areas or for a specific species only and this permitting arrangement should apply to vessels, for both commercial and recreational fishing activities, and also to individuals. The permit arrangement could also apply to the regulation of sea-angling in terms of licensing, permitting and evidence gathering.

The primary legislation would allow for permits to contain detailed conditions, and for DAERA to limit the number of permits issued, if necessary, to revoke permits where there have been breaches of the permit conditions and to allow for the introduction of charging for issuing such permits.

Policy Context

The Fisheries and Water Environment Bill aims to deliver sustainable management of our fisheries and aquaculture sectors, adopting an ecosystem-based approach that is consistent with the policy and legislative framework that the UK Fisheries Act 2020 provides for marine stocks. The Bill will ensure fisheries policies, aligned to the fisheries management framework, are animated in legislative provision, and include both the marine and aquatic environment within the scope, allowing for the development of policies to:

- focus on improving water quality and ecosystem health,
- promote sustainable fish stocks, and
- ensure appropriate enforcement deterrents for breaches of legislation.

The measures proposed within the Fisheries and Water Environment Bill would grant enhanced powers to allow DAERA to better manage and regulate activity within the aquatic environment. This would strengthen DAERA’s ability to deliver on national and international commitments in respect of the aquatic environment. The Fisheries and Water Environment Bill is therefore expected to complement the delivery of the Departments national and international objectives, without affecting the Departments ability to effectively implement relevant policies.

The policy context section of the Environmental Report outlines the relevant national and international policies, and objectives, which were identified during the SEA process. It is not anticipated that the Fisheries and Water Environment Bill will adversely impact the delivery of the relevant plans or policies identified during this strategic assessment.

Environmental Baseline Summary

The following section summarises the current environmental baseline in Northern Ireland that was used to inform the development of the Fisheries and Water Environment Bill. The high-level policies set out in the Bill seek to address a number of environmental issues which, without intervention, will likely continue to worsen.

Maintaining suitable environmental parameters is essential for supporting sustainable fish stocks. Salmon and trout are particularly sensitive to water quality and the first to be killed during a pollution event. An improvement in water quality will have a positive effect on these species in their freshwater environment. Salmon and eel stocks are significantly reduced across their natural range. Eel are listed as critically endangered and currently the spawning stock is less than 10% of their historical level. Salmon stocks in many rivers are struggling to meet Conservation Targets set for them.

The statistics show an overall picture of stagnation in the status of our water bodies. While there were some improvements in status, there were also deteriorations. It is highly unlikely Northern Ireland will achieve its objective of reaching good ecological status for surface water bodies by 2027 as required in the Water Framework Regulations without urgent, substantial and holistic measures across all society. The key pressures acting upon our water environment are related to nutrients as well as organic pollutants and are attributed to agricultural land use activities and sewage related impacts. In addition, none of our rivers, lakes, transitional & coastal water bodies will meet good chemical status due to the presence of ubiquitous, persistent, bioaccumulative, toxic (uPBT) substances.

Through implementation of the UK Marine Strategy, collaborative efforts have sought to achieve Good Environmental Status (GES) in our seas. Despite these efforts there remains a mixed picture for the condition of our marine environment, attributed

largely to anthropogenic pressures such as pollution, habitat loss, commercial and recreational fishing. Species composition and size structure of demersal fish communities are deteriorating.

Similar deterioration was reported in pelagic habitats where changes in plankton biomass, abundance and community structure have been observed. Although climate change is not often listed as a primary driver for failure to meet GES, studies show that our seas are getting warmer, more acidic, and oxygen depleted, putting increasing strain on an already vulnerable ecosystem.

Northern Ireland's sea fisheries are an essential natural asset, underpinning the livelihoods of coastal communities, contributing to food security, and supporting marine biodiversity. Recent scientific assessments suggest that while some fish stocks in the Irish Sea remain in good condition, others are experiencing pressure from a combination of environmental change, fishing activity, and habitat disturbance. Inshore marine ecosystems, including important spawning and nursery areas, are also increasingly vulnerable to pollution, seabed impacts, and the effects of climate change.

Stakeholder Engagement

DAERA officials have used a co-design process to engage with a range of stakeholders in relation to the industry pressures and this has informed the development of the high-level policy proposals for the Fisheries and Water Environment Bill. The co-design process was constructive and ensured that the practicalities of implementation of policy was taken account of by policy makers in arriving at a policy framework which will effect change.

Using a co-design approach ensures policy is developed within an inclusive environment which is responsive to changes within the sector, whilst prioritising the health of ecosystems in our marine and aquatic environments and minimising the risk of adverse effects on those in the 'main affected group' of the Bill.

The SEA has been developed to incorporate feedback from DAERA's statutory Consultation Authorities. This process ensures a reliable level of environmental expertise is available to inform the assessment process. An environmental

assessment, informed by subject matter experts, is used during the consultation period to support stakeholders and the public in providing meaningful responses which can contribute to further development of plans and policies.

Approach To Assessment

This Environmental Report has been produced to assess the potential environmental effects of implementing the various policies outlined in the Fisheries and Water Environment Bill. The approach used was an objective-led assessment and was conducted at a strategic level with an overall focus on long-term implementation of the Bill. Due to the high-level, strategic nature of the policies outlined, it is not possible to quantify the effects to the resolution that is possible at a project level. Overall, the policies are expected to have a positive effect on the environment. The proposed policies were assessed for their potential to positively or negatively impact on the following broad environmental topics:

- Biodiversity, flora and fauna;
- Population and human health;
- Soil/Sediments;
- Water;
- Air;
- Climatic Factors;
- Material Assets;
- Cultural Heritage;
- Landscape/Seascape.

The policies of the Fisheries and Water Environment Bill were assessed against a set of Strategic Environmental Objectives (SEOs). SEOs were developed in the context of the broader national and international environmental objectives, and the overall intent of the Bill itself.

Table 1 SEA Topic Objectives

Topic: Biodiversity, Flora and Fauna	
1	Conserve and protect aquatic biodiversity, including species and habitats
Topic: Socio-demographics	

2	Promote environmental justice and equitable access to clean aquatic resources
Topic: Soils	
3	Achieve and maintain sustainable soil management
Topic: Water	
4	Achieve and maintain high water quality
Topic: Air ***(Scoped Out)***	
5	~~Improve air quality to protect both human health and the aquatic environment~~
Topic: Climate Factors	
6	Mitigate climate change impacts, enhance resilience of aquatic ecosystems
Topic: Material Assets	
7	Ensure sustainable use of aquatic resources and infrastructure
Topic: Cultural heritage	
8	Protect and preserve marine and freshwater cultural heritage
Topic: Landscape and Seascape ***(Scoped Out)***	
9	~~Conserve and enhance the visual integrity of aquatic landscapes~~

Consideration of Alternatives

As required by the SEA regulations and the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 reasonable alternatives were considered.

DAERA recognises that the operational environment has changed significantly since the Fisheries Act (Northern Ireland) 1966 was introduced, and terminology and assumptions within it no longer reflect the current policy, legislative, and operational landscape. Similarly, modern aquaculture has expanded and evolved, far beyond the earlier traditional ‘fish farms’ to now encompass many new sectors, such as macro and micro algalculture and aquaponics. These sub-sectors could establish and develop in NI, but the existing legislation currently prevents this.

In light of the clear and pressing need to update legislation, which is approximately 60 years old, to enable it to deliver on the above drivers, DAERA considers it reasonable that there is not a suitable or practical alternative to the proposal for a Fisheries and Water Environment Bill as outlined above.

A ‘do – nothing’ scenario in essence will continue to limit fisheries management in Northern Ireland and leave it operating with an antiquated enforcement system that provides little or no deterrent to those that accidentally, or deliberately, break the law.

Delaying the production of a Fisheries and Water Environment Bill to a future mandate of the NI Executive possibly risks that different or competing priorities, within the Executive, could hamper its legislative journey and eventual adoption.

Legislative change of a smaller scale, such as removing inoperable parts of the Fisheries Act (Northern Ireland) 1966 would have negligible impact on the Departments ability to deliver on the commitments within the JFS, for which more significant legislative change was required.

Therefore, as the Responsible Authority, DAERA considers it is reasonable to progress the Bill now for the reasons outlined above and will take this approach forward for assessment within the Environmental Report.

Assessment Results

The Proposed policies of the Fisheries and Water Environment Bill have been assessed in terms of their potential positive or negative environmental effects, and the anticipated significance of these effects. The purpose of this is to predict and evaluate, as far as possible, the environmental effects of the Bill, highlighting potential issues or benefits which may result from its implementation. A more detailed assessment is available in Chapter 8 of the Environmental Report.

Anticipated Effect and Significance	
Positive	++
Minor Positive *(Negligible)*	+
Neutral	0
Minor Negative *(Negligible)*	-
Negative	--

Plan Components – high level policy proposals	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air	Climatic factors	Material assets	Cultural heritage	Landscape	Inter-relationship issues
Inland Fisheries and Aquaculture Objectives	+	+	0	+	0	+	+	+	0	0
Management of Recreational Inland Angling	+	+	0	+	0	+	+	+	0	0
Management of Inland Commercial Fishing	+	+	0	+	0	+	+	+	0	0
Aquaculture	+	+	0	+	0	+	+	+	0	0
Enforcement – Common enforcement powers, introduction of new fines and penalties	+	+	0	+	0	+	+	+	0	0
Permitting of Sea Fishing Activities in the Northern Ireland Zone	+	+	+	+	0	+	+	+	0	0

Effective implementation of the Fisheries and Water Environment Bill is expected to result in minor benefits for the SEA topics listed. An exception to this is the neutral areas where no positive or negative impacts were identified. These results are reflective of the high-level, strategic policy proposals which are expected to complement the delivery of the Department's wider environmental objectives. It is recognised that implementation of a secondary regulation programme as a result of the enactment of this primary legislation may indeed have more significant positive impacts, but the introduction of primary legislation by itself would not achieve this to the same extent without regulatory change to follow.

Mitigation and Monitoring

Mitigation

A Fisheries and Water Environment Bill is required to modernise and give effect to Northern Ireland's fisheries policies so that these are consistent with the post-EU exit fisheries management framework provided by the UK fisheries Act 2020, and the high-level, strategic policies set out in the JFS. In adopting the Bill, DAERA intends to deliver sustainable management of fisheries and aquaculture, and support a vibrant, profitable, and sustainable fishing and aquaculture sector, supported by a healthy marine environment that is resilient to change.

Alignment with the UK Fisheries Act 2020 would provide scope for the Department to respond to environmental pressures in accordance with the fisheries objectives. In doing so, the Bill could be implemented so as to prevent or mitigate adverse environmental impacts typically observed within marine and freshwater environments.

The proposed policies put forward in the Bill could largely be viewed as deliberately beneficial to the SEA topics, with potentially positive benefits for topics such as water quality over the long-term. A factor which could have knock-on effects on many key areas including biodiversity, population and human health, material assets, and cultural heritage.

The Fisheries and Water Environment Bill is comprised of policy proposals that principally amount to a suite of mitigation measures designed to respond to current environmental pressures. It is therefore unlikely that feasible mitigation measures could be designed and adopted to mitigate for the Bill itself. No further mitigation is required.

Monitoring

DAERA has determined, that the Fisheries and Water Environment Bill is unlikely to create any adverse environmental effects. Accordingly, as no significant environmental effects have been predicted as part of this assessment DAERA, as

the Responsible Authority, is not required to specifically monitor for such effects under the EAPP Regulations.

1. Introduction

Background

The Fisheries and Water Environment Bill is a proposal for new legislation which will make provision in relation to fishing and aquaculture in the marine and aquatic environment.

DAERA relies heavily on the 1966 Act as a key piece of primary legislation which guides the work in relation to fishing and fisheries. A new Bill is needed to modernise and give effect to Northern Ireland's fisheries policies so that these are consistent with the fisheries management framework provided by the UK Fisheries Act 2020, and high-level, strategic policies in the JFS.

The UK Fisheries Act 2020 provides for eight fisheries objectives; and the JFS sets the high-level, strategic policies which DAERA is required to pursue so as to achieve, or contribute to the achievement of, those fisheries objectives. The ambition articulated in the JFS and with which this Bill will align, is to deliver world class, sustainable management of our fisheries and aquaculture and to support a vibrant, profitable, and sustainable fishing and aquaculture sector, supported by a healthy marine environment that is resilient to climate change.

Need for a new Fisheries and Water Environment Bill and Key Facts

The operational environment has changed significantly since the Fisheries Act (Northern Ireland) 1966 was introduced, and terminology and assumptions within it no longer reflect the current policy, legislative, and operational landscape. Furthermore, modern aquaculture has evolved and is now more complex than traditional 'fish farming', encompassing many subdivisions such as macro and micro algaculture and aquaponics. The Department recognises that these are key aquaculture sub-sectors which could be established and developed in NI, but which current legislation does not support.

Development of a new Fisheries and Water Environment Bill will ensure, as a minimum, that aquaculture and inland fisheries are better managed; and that the common enforcement powers available to the UK's other sea fisheries authorities

are available to the Department in the same way. A Fisheries and Water Environment Bill would also ensure that fisheries management and regulation can keep pace with changes in the other parts of the UK, given that fisheries regulation is largely a devolved matter.

The main drivers for legislative change include:

- The Marine and Coastal Access Act 2009 introduced common enforcement powers for fisheries inspectors in GB. The proposed legislative change would provide DAERA inspectors equivalent powers to their counterparts in the rest of the UK and RoI.
- There is a pressing need to modernise enforcement activity and to ensure it is proportionate to the severity of any given offence. In bringing forward a fixed monetary penalty regime for certain offences, DAERA seeks to be an effective and efficient regulator.
- Delivering on national and international commitments to improve water quality and supporting the actions set out in the Lough Neagh Report and Action Plan.

Table 1: Fisheries and Water Environment Bill Plan for Northern Ireland – Key Facts

Responsible Authority	Department of Agriculture, Environment and Rural Affairs
Title	Fisheries and Water Environment Bill
Purpose	To ensure fisheries policies aligned to the fisheries management framework are animated in legislative provision and to include both the marine and aquatic environment within scope, allowing for the development of policies to: • focus on improving water quality and ecosystem health, • promote sustainable fish stocks, and

	• ensure appropriate enforcement deterrents for breaches of legislation**.**
What prompted the plan?	Some key aspects of the Fisheries Act (Northern Ireland) 1966, due to the passage of time, are now outdated and a new Fisheries and Water Environment Bill is needed to modernise and give effect to Northern Ireland's fisheries policies so that these are consistent with the post-EU exit fisheries management framework provided by the UK Fisheries Act 2020 and high-level, strategic policies set out in the JFS.
Geographical Area covered	Northern Irish inland waters, Northen Irish inshore region and Northern Irish offshore region.
Summary of nature/content	The Fisheries and Water Environment Bill aims to deliver sustainable management of our inland fisheries and aquaculture sectors, adopting an ecosystem-based approach that is consistent with the policy and legislative framework that the UK Fisheries Act 2020 provides for marine stocks.
Contact	Fisheries and Water Environment Bill Team – MarineandFisheriesBillTeam@daera-ni.gov.uk

SEA Requirements

The process of SEA was introduced under the European Directive 2001/42/EC 'the assessment of certain plans and programmes on the environment', commonly referred to as the SEA Directive. The Directive was transposed into domestic law in Northern Ireland through the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 (S.R. 280/2004) and remains as assimilated law. The SEA therefore assesses the environmental, economic and social impacts of the Bill.

Environmental assessment is established practice for many types of plans and programmes in the UK, but specific requirements and approaches vary. The regulations bring a new emphasis to the following areas in particular:

- Collecting and presenting information on the environmental baseline and current problems, and their likely future evolution;
- Predicting significant environmental effects of the plan or programme, including those of strategic alternatives;
- Addressing adverse environmental effects through mitigation measures;
- Consulting the public and authorities with environmental responsibilities as part of the assessment process; and
- Monitoring the environmental effects of the plan or programme during its implementation.

An SEA need not be done in any more detail, or using any more resources, than is useful for its purpose. The regulations require consideration of the significant environmental effects of the plan or programme, and of reasonable alternatives that take into account the objectives and the geographical scope of the plan or programme. It is desirable to provide sufficient commentary to justify the conclusions arrived at, with reference to the baseline information wherever possible.

It is not usually appropriate in SEA, and is often impracticable, to predict the effects of an individual project-level proposal in the degree of detail that would normally be required for an EIA of a project. If, however, a plan or programme proposes a specific development or type of land use for a particular area or location, the Environmental Report should include information which can reasonably be provided on the likely significant effects of that proposal and alternatives to it.

Where proposals need to be assessed more than once, e.g. at different stages of a plan or programme, information from earlier assessments can be used subject to any updating or extra detail which may be necessary. This can help to avoid unnecessary duplication of assessment.

The SEA topics listed in the regulations, to be scoped in or out at the SEA scoping stage are:

- Biodiversity, flora and fauna;
- Population and human health;
- Soil;
- Water;
- Air;
- Climatic factors;
- Material assets;
- Cultural heritage;
- Landscape/seascape.

As a precautionary measure all of these topics were included in the scoping stage to enable full consideration in relation to the proposal. An environmental baseline has been collated for each topic (Chapter 4) which was then used to develop targeted SEA objectives to undertake the assessment. The SEA objectives are provided in Chapter 7.

The SEA report has been developed to incorporate feedback from Statutory Consultation Authorities. The role of the Statutory Consultation Authorities is to consider the proposal and relevant supporting documentation against their environmental expertise. This ensures that decisions made by the Department are more robust and have received input from a range of sources.

Purpose and Structure of Environmental Report

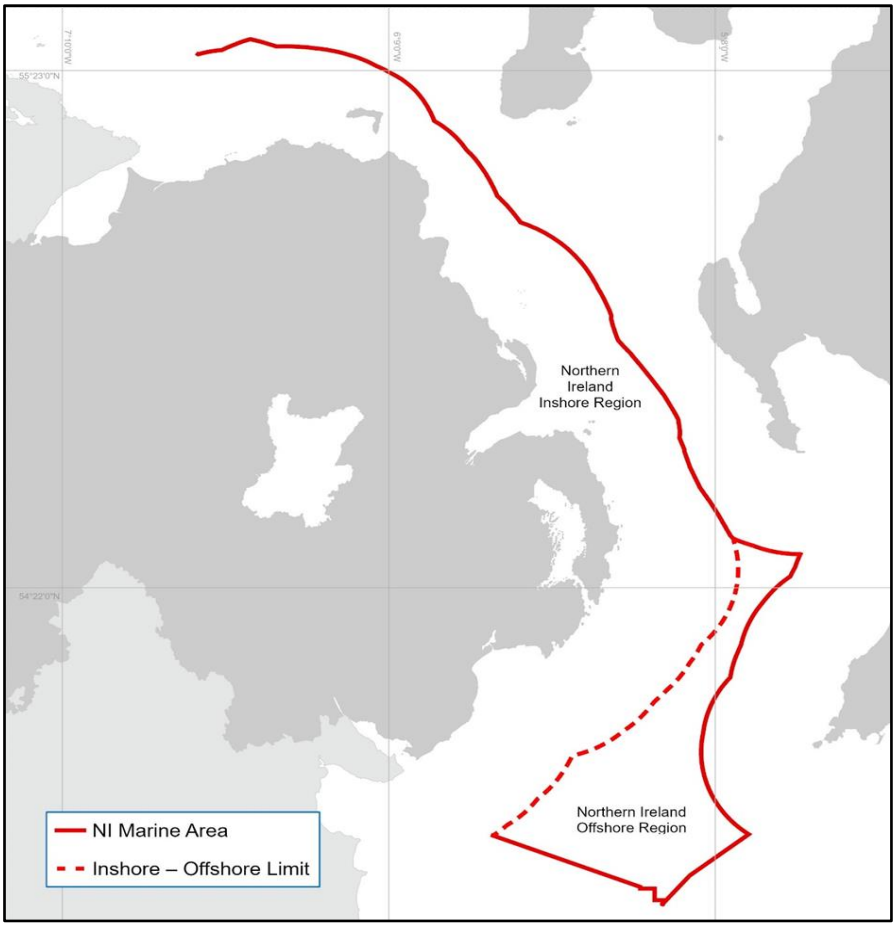
The purpose of this environmental report is to present the assessed environmental effects of the Fisheries and Water Environment Bill, including alternatives, in a form suitable for public consultation and use by decision makers. The environmental report contains the following chapters:

Chapter 1	Summarises the general background to the Fisheries and Water Environment Bill and assessments completed to inform its implementation.
Chapter 2	Provides an overview of the Fisheries and Water Environment Bill, proposals, and intent.

Chapter 3	Outlines policy context, and environmental objectives.
Chapter 4	Summarises the environmental baseline and overarching environmental issues of areas likely to be affected.
Chapter 5	Details how the Fisheries and Water Environment Bill was developed through co-design.
Chapter 6	Information on the SEA consultation.
Chapter 7	Information on how potential environmental effects were assessed.
Chapter 8	Results of assessment.
Chapter 9	Consideration of measures to mitigate and monitor outcomes.

2. Fisheries and Water Environment Bill Overview

The Department relies heavily on the Fisheries Act (Northern Ireland) 1966 as a key piece of primary legislation which guides the work in relation to fishing and fisheries. A new Fisheries and Water Environment Bill is needed to modernise and give effect to Northern Ireland's fisheries policies so that these are consistent with the fisheries management framework provided by the UK Fisheries Act 2020. The new Fisheries and Water Environment Bill will cover Northern Irish inland waters, Northern Irish inshore region and the Northern Irish Offshore region.



The UK Fisheries Act 2020 provides a modern fisheries management framework through eight fisheries objectives, the JFS, fisheries management plans, and a range of fisheries management powers. The ambition articulated in the JFS is to deliver world class, sustainable management of our fisheries and aquaculture and to

support a vibrant, profitable, and sustainable fishing and aquaculture sector supported by a healthy marine environment that is resilient to climate change.

The JFS sets the high-level, strategic policies which the UK fisheries policy authorities are required to pursue so as to achieve or contribute to the achievement of the fisheries objectives in the UK Fisheries Act 2020. The JFS recognises the importance of fishing, recreational sea fishing, and aquaculture to many of our coastal communities and recognises a healthy and resilient marine environment is the foundation for a prosperous seafood sector and thriving coastal communities, and that sustainable use and conservation of the sea is central to the fisheries management approach.

Fisheries policy and regulatory functions are largely devolved and DAERA is responsible for matters relating to fishing in Northern Ireland and the marine area adjacent to Northern Ireland. The Fisheries and Water Environment Bill proposes the following high-level themes:

- Conservation and protection of the aquatic habitats and species.
- Common enforcement powers for Enforcement Officers
- Enhanced enforcement approaches to regulation of inland fisheries and sea fisheries
- Streamlining of Aquaculture licensing

Policy and Intent

Inland Fisheries

Inland Fisheries and Aquaculture Objectives

The policy aim is to modernise the Department's approach to managing inland fisheries and aquaculture activities, adopting an ecosystem-based approach that is consistent with the policy and legislative framework that the UK Fisheries Act 2020 provides for marine stocks.

The starting point is to establish objectives for inland fisheries and aquaculture which will provide the basis for managing these activities. The proposed objectives are adapted from the UK Fisheries Act 2020:

- The “sustainability objective”
- The “precautionary objective”
- The “ecosystem objective”
- The “scientific evidence objective”
- The “bycatch objective”
- The “national benefit objective”
- The “climate change objective”

The equal access objective is not considered to be relevant because only Northern Ireland vessels fish in our inland waters.

These objectives will frame our policies for the protection conservation and improvement of fisheries, fish stocks, and the aquatic environment and protecting or improving the health of fish or aquatic animals. This in turn is the basis for supporting and enabling sustainable and productive fisheries (recreational and commercial) and aquaculture.

Management of Recreational Inland Angling

The policy aim is the protection of the natural resource for the benefit of angling.

DAERA will retain the ability to deliver a PAE (manage fishing rights), that demonstrably delivers on specific DAERA policy goals and can support delivery of other governmental policy goals. This requires DAERA to retain the power to protect, conserve and improve the fishery and associated aquatic habitat and to acquire and manage fishing rights within that context. We also proposed DAERA maintain existing powers to address management and development of derelict waters.

Recognising that not all fishing rights and waters will be under DAERA ownership, we wish to retain the ability to influence and support other fishery development - this includes, where appropriate, the leasing of fishing rights to other organisations.

Management of Inland Commercial Fishing

The policy aim is to manage commercial fishing operations to ensure sustainable operations which continue to provide a high-quality food product and socio-economic benefits for rural and fishing communities.

The proposal is to continue to maintain and review the Fisheries Management Plans for Lough Erne and Lough Neagh to support both commercial and recreational activities, to seek to maintain the power to regulate commercial fisheries through licensing powers and to implement a mechanism of catch reporting that is similar to systems used for inshore sea fisheries, and to maintain the power to introduce regulations for the purpose of managing inland commercial fisheries.

Aquaculture

The aim of the policy is to update and streamline the aquaculture licensing process to ensure it is fit for purpose and capable of supporting current and future aquaculture operations. It is proposed to simplify this by having two separate processes, one in the marine area and one for inland operations.

The intention is to retain the ability currently held by the Department to grant the licence holder exclusive rights to cultivate and take that species from a specified marine area. Aquaculture in the marine area will be managed in accordance with the policies in the JFS and Marine Plan for NI (once adopted).

For inland operations, the Department wants to explore a system similar to that employed elsewhere in the UK, where there is no independent fish culture licence, but all elements of regulation are covered by existing consents. Any proposal would need to need to get planning permission from the planning authority and the Department would act as a statutory consultee and advisor in this process. This aquaculture policy proposal will clarify and simplify existing processes and ensure transparency to stakeholders in respect of aquaculture licence applications.

Enforcement – Inland and Sea Fisheries

DAERA wishes to ensure that there is a consistent enforcement regime with appropriate powers to ensure that aquatic and ecosystem health is prioritised and supported.

The Fisheries and Water Environment Bill aims to provide the Department with sufficient enforcement powers:

- **Common Enforcement Powers -** The aim of this proposed policy is to ensure that DAERA staff can ensure a consistent enforcement regime to support ecosystem health and sustainable fish stocks within the NI jurisdiction.
- **Introduction of Fixed Penalty Notices (FPN's) and Fixed and Variable Monetary Penalties (FMP's/VMP's) -** The policy would introduce a more flexible system including fixed penalty notices and civil sanctions, like fixed and variable monetary fines, in addition to criminal sanctions to act as a deterrent for low to moderate breaches of regulations.
- **Increased maximum penalties -** The policy would seek to align penalties with those in GB, and already available to Marine Licensing in Northern Ireland, as introduced by the Marine and Coastal Access Act 2009. This would raise the maximum fine to £50,000 for a range of offences under various legislation. Greater penalties enforceable through the courts would be introduced for ecosystem degradation offences. Introducing this policy would enable officers to deliver their statutory obligations effectively.

Permitting of Sea Fishing Activities in the Northern Ireland Zone

The aim of the policy is to provide for the option to introduce permitting arrangements for sea fishing in the NI zone, for example in specific areas or for a specific species only.

This proposal is to provide DAERA with enabling powers to make regulations which would specifically allow for permitting arrangements for sea fishing and therefore provide for improved management and regulation of inshore fisheries.

The policy intention is to provide for the option to introduce permitting arrangements in the NI zone, for example in specific areas or for a specific species only and these permitting arrangements should apply to vessels, for both commercial and recreational fishing activities, and also to individuals. The permit arrangement could also apply to the regulation of sea-angling in terms of licensing, permitting and evidence gathering.

The primary legislation would allow for permits to contain detailed conditions, and for DAERA to limit the number of permits issued, if necessary, to revoke permits where there have been breaches of the permit conditions and to allow for the introduction of charging for issuing such permits.

Co-design of policy

DAERA engages with stakeholders and partners whose support is essential in delivering the policy outcomes that are outlined within this document. Through our combined actions, we can introduce interventions to help achieve our overall objectives.

As our policies will impact upon a range of partners and stakeholders, it has been of utmost benefit to design the policies in conjunction with those partners. Co-design has ensured that the problems are understood, and the proposed policy options are informed by multiple perspectives. We are grateful to the sector representatives who have engaged with policy teams in development of the resulting policy suite.

Alternatives Considered

As required by the SEA regulations and the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 reasonable alternatives were considered.

It is anticipated that implementation of these strategic policies will result in net positive environmental outcomes, when compared with current regulatory and enforcement measures.

Reasonable Alternatives Considered

Do Nothing / Business as Usual

Government intervention is typically justified where there are strong public interest reasons to do so on behalf of society and where the market cannot, on its own, deliver on the policy objectives. In order to protect fish stocks and the marine environment there is already a wide range of powers to regulate fisheries, emanating both from the UK and from local legislature. Continuing to work under those regulations will allow government to continue to manage fisheries to some degree, and therefore the first reasonable alternative option would be to 'do nothing,' meaning continue with business as usual and not introduce the Fisheries and Water Environment Bill. Under this option fisheries enforcement would rely on existing powers to manage fish stocks and the impact of fishing on the environment.

The existing legislation will not allow DAERA to deliver on the eight objectives set out in the UK Fisheries Act 2020 or the high-level strategic policies set out in the for inland fisheries and aquaculture. In addition, Sea Fisheries Enforcement Officers would not be afforded the same powers as their counterparts in other UK jurisdictions, meaning a lack of consistency between Northern Ireland and GB.

Development of the new Fisheries and Water Environment Bill will ensure, as a minimum, that aquaculture and inland fisheries are better managed; and that the common enforcement powers available to the UK's other sea fisheries authorities are available to the Department in the same way. A Fisheries and Water Environment Bill would also ensure that fisheries management and regulation can keep pace with changes in other parts of the UK.

Introduction of the Fisheries and Water Environment Bill in the following mandate

Delaying the introduction of the Fisheries and Water Environment Bill will, in the longer-term, achieve similar results as introduction within this mandate, it will, however, cause the Department a significant delay in introducing policies that align with the Fisheries Management Framework. A delay to the introduction of the Bill would result in a delay in keeping pace with the changes happening in other parts of the UK and likely have knock-on environmental, social, and economic impacts.

Amend the 1966 Act

By amending the 1966 Act to bring it up to date by amending and revoking sections of the Act but do not extend the work to introducing the objectives of the UK Fisheries Act 2020 to inland waters. By choosing this option, only some of the required legislative changes will be enacted and the Department will not have all the necessary legislative tools required to deliver an ecosystem-based approach aligned with the objectives set out in UK Fisheries Act 2020, and risks losing the ability to keep pace with the rest of the UK's fisheries management authorities.

Reason for Decision

As required by the SEA Directive and the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004, the consideration of reasonable alternatives is needed as part of the SEA process.

The consideration of legislative alternatives is not straightforward for a Bill that, in essence, seeks to modernise the now outdated Fisheries Act (Northern Ireland) 1966 which is the current key piece of primary legislation which DAERA relies on heavily to guide their work in relation to fishing and fisheries.

DAERA recognises that the operational environment has changed significantly since the Fisheries Act (Northern Ireland) 1966 was introduced, and terminology and assumptions within it no longer reflect the current policy, legislative, and operational landscape. Similarly, modern aquaculture has expanded and evolved, far beyond the earlier traditional 'fish farms' to now encompass many new sectors, such as macro and micro algalculture and aquaponics. These sub-sectors could establish and develop in NI, but the existing legislation currently prevents this.

The introduction of the UK Fisheries Act (2020) and the JFS create a modern fisheries management framework with which Northern Ireland's fisheries policies must be consistent.

The drivers for introducing a modern Fisheries and Water Environment Bill are:

- The Marine and Coastal Access Act 2009 introduced common enforcement powers for fisheries inspectors in GB. The proposed

legislative change would provide DAERA inspectors equivalent powers to their counterparts in the rest of the UK and RoI.

- There is a pressing need to modernise enforcement activity and to ensure it is proportionate to the severity of any given offence. In bringing forward a fixed monetary penalty regime for certain offences, DAERA seeks to be an effective and efficient regulator.
- Delivering on national and international commitments to improve water quality and supporting the actions set out in the Lough Neagh Report and Action Plan.

In light of the clear and pressing need to update legislation which is approximately 60 years old to enable it to deliver on the above drivers, DAERA considers it reasonable that there is not a suitable or practical alternative, other than the proposal for a Fisheries and Water Environment Bill as outlined above.

A ‘do – nothing’ scenario in essence will continue to limit fisheries management in Northern Ireland and leave it operating with an antiquated enforcement system that provides little or no deterrent to those that accidentally, or deliberately, break the law.

Delaying the production of a Fisheries and Water Environment Bill to a future mandate of the NI Executive risks that different or competing priorities, within the Executive, could hamper its legislative journey and eventual adoption.

Legislative change of a smaller scale, such as removing inoperable parts of the Fisheries Act (Northern Ireland) 1966 would have negligible impact on the Departments ability to deliver on the commitments within the JFS, for which more significant legislative change was required.

Therefore, as the Responsible Authority, DAERA considers it is reasonable to progress the Bill now for the reasons outlined above and will take this approach forward for assessment within this Environmental Report.

3. Policy Context

The Fisheries and Water Environment Bill is needed to modernise and give effect to Northern Ireland's fisheries policies so that these are consistent with the post-EU exit fisheries management framework provided by the UK Fisheries Act 2020, and high-level, strategic policies set out in the JFS.

The Bill aims to deliver sustainable management of our fisheries and aquaculture sectors, adopting an ecosystem-based approach that is consistent with the policy and legislative framework that the UK Fisheries Act 2020 provides for marine stocks. The Bill will ensure fisheries policies, aligned to the fisheries management framework, are animated in legislative provision, and include both the marine and aquatic environment within the scope, allowing for the development of policies to:

- focus on improving water quality and ecosystem health,
- promote sustainable fish stocks, and
- ensure appropriate enforcement deterrents for breaches of legislation.

The measures proposed within the Bill would grant enhanced powers to allow DAERA to better manage and regulate activity within the aquatic environment. This would strengthen DAERA's ability to deliver on national and international commitments in respect of the aquatic environment. The Fisheries and Water Environment Bill is therefore expected to complement the delivery of national and international objectives, without affecting the Department's ability to implement relevant policies.

Relevant Policy

At the international level, the United Nations Convention of the Law of the Sea established the right of coastal nations to set laws and regulate the use of the marine area out to 12 nautical miles. The Convention also establishes exclusive economic zones from 12 to 200 nautical miles from the coast, within which the coastal nation has sole rights over all natural resources. The OSPAR convention for the Protection of the Marine Environment of the North-East Atlantic regulates international cooperation on environmental protection in the North-East Atlantic. The OSPAR

convention combined and updated the 1972 Oslo and 1974 Paris Conventions to extend the cooperation of the Contracting Parties to cover all human activities that might adversely affect the marine environment of the North-East Atlantic.

The European Union (EU) Marine Strategy Framework Directive (Directive 2008/56/EC) is transposed in UK legislation by the Marine Strategy Regulations 2010 and following the UK's departure from the EU, the UK reports progress towards GES through its Marine Strategy.

It aims to protect more effectively the marine environment across Europe, achieve Good Environmental Status (GES) of the marine environment, and protect the resource base upon which marine-related economic and social activities depend. The UK's regional cooperation takes place through the existing framework of the OSPAR convention.

At the UK level, the Marine and Coastal Access Act 2009 requires that marine plans are prepared for the UK marine area (0 to 200 nautical miles). The Devolved Governments (the Scottish Government, the Welsh Assembly Government, and the Northern Ireland Executive) have jurisdiction over marine planning matters in their respective waters from 0 to 12 nautical miles (inshore waters). The Northern Ireland offshore region extends south-eastward from the 12nm territorial limit to the outer boundary of the Northern Ireland marine area. This distance measures 31nm at its furthest extent.

The Water (Amendment) (Northern Ireland) (EU Exit) Regulations 2019 ensures that the Water Framework Directive (as transposed) and the various supporting pieces of water legislation continue to operate in Northern Ireland after 1 January 2021. These supporting regulations are listed in Schedule 2 of The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017.

River Basin Management is a key element in implementing the Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017, taking an integrated approach to the protection, improvement and sustainable use of the water environment. It applies to groundwater and to all surface water bodies, including rivers, lakes, transitional (estuarine) and coastal waters out to one nautical mile.

The draft Marine Plan for Northern Ireland has been developed within the framework of the UK Marine Policy Statement (UK MPS). The vision of the Marine Plan is to promote a healthy marine area which is managed sustainably for economic, environmental and social prosperity of present and future generations.
This will facilitate the sustainable development of the marine area. The Marine Plan will come into effect when it is published in final form, by the Marine Plan Authority (DAERA). In the meantime, decisions by public authorities will be determined in accordance with the UK MPS. Following the publication of the Marine Plan, the UK MPS remains a material consideration. The key objectives of the draft Marine Plan are:

- To promote the sustainable development of productive activities, which support employment at all skill levels while fully considering the requirements of other marine interests.
- To help realise the potential of energy resources and energy storage within the marine area, while fully considering the requirements of other marine interests.
- To promote the development of vibrant, accessible and sustainable coastal communities.
- To promote the marine resource, its recreational value and its wider economic, environmental and social benefits to all.
- To promote the preservation and enjoyment of marine related heritage assets.
- To promote a healthy, resilient and adaptable marine ecosystem and an ecologically coherent network of Marine Protected Areas.
- To contribute towards climate change mitigation and adaptation measures.
- To continue to develop a sound marine evidence base in a coordinated manner, to increase understanding and to support the development, monitoring and review of marine plans.

Schedule 2 of the Environment Act 2021 required DAERA to prepare and publish an Environmental Improvement Plan (EIP) which is a plan for significantly improving the natural environment in Northern Ireland. It sets out a series of targets and interventions designed to deliver real improvements in the quality of the environment. It reflects many of the targets and requirements set in the Environment Act 2021.

The EIP sets out six strategic objectives:

1. Excellent air, water and land quality;
2. A healthy and accessible environment and landscapes everyone can connect with and enjoy;
3. Thriving, resilient and connected nature and wildlife;
4. Sustainable production and consumption on land and at sea;
5. Zero waste and a highly developed circular economy, and
6. Net zero greenhouse gas emissions and improved climate resilience and adaptability.

In February 2022, the Assembly approved the elements of the Environment Act 2021 relating to Northern Ireland devolved matters, including a statutory duty on DAERA to publish an environmental principles policy statement (EPPS), defined as: “a statement explaining how the environmental principles should be interpreted and proportionately applied: (a) by Northern Ireland departments when making policy; and (b) by Ministers of the Crown when making policy so far as relating to Northern Ireland.” NI departments and UK Government Ministers, making policy for Northern Ireland, will have a statutory duty to have due regard to the desired outcomes of the policy statement are:

- policymakers are assisted to make policy that will contribute to the improvement of environmental protection and the achievement of sustainable development in Northern Ireland;
- policies that will support environmental improvement, or that will at least avoid or prevent environmental damage are promoted;
- where environmental damage cannot be avoided, its original cause is targeted and rectification of the damage at source favoured;

- the associated costs are allocated to those who cause pollution or other environmental damage or give rise to need for action to prevent or rectify it;
- policymakers favour acting in a precautionary manner to protect the environment in the absence of full scientific certainty where there are credible threats of serious or irreversible environmental damage; and
- that the above outcomes and wider environmental objectives prevail across the development of all government policy by ensuring the integration of environmental protection and sustainable development aims and requirements in all departments' policies and activities.

Protecting Lough Neagh and the Environment' is a Programme for Government priority, which includes delivering the actions in the Lough Neagh Report to improve water quality. These actions are set out against four key pillars:

- 1. Education
- 2. Investment, incentivisation, innovation
- 3. Regulation
- 4. Enforcement

The Water (Northern Ireland) Order 1999 provides DAERA with duty to promote conservation and cleanliness of water resources and a broad range of associated regulatory powers. In exercising its functions, the Department is required to have regard to –

(a) the needs of industry and agriculture;

(b) the protection of fisheries;

(c) the protection of public health;

(d) the preservation of amenity and the conservation of flora and fauna; and

(e) the conservation of geological or physiographical features of special interest and any feature of archaeological, historical, architectural or traditional interest.

Table 2 Relevant policy and further description

Policy	Description
WER/River Basin Management Plans	River Basin Management Planning introduced a holistic approach to the management of water quality and requires the protection and improvement of all aspects of the water environment including rivers, lakes, estuaries, coastal waters and groundwater. The regulations place a responsibility on Northern Ireland to try and ensure that all inland and coastal waters reach at least "good status" (or good ecological potential for artificial or heavily modified water bodies). The regulations use five status classifications for waterbodies: High, Good, Moderate, Poor and Bad and allows for extended deadlines or less stringent objectives to be set for water bodies, should certain conditions be met. To achieve the target of reaching good status or above, Northern Ireland is required to implement management planning at river basin level, linking with other key policy areas such as agriculture, land use, biodiversity, tourism, recreation and flood protection. This is done through the publication of a river basin management plan (RBMP) which sets out a programme of measures to be implemented over six-year cycles aimed at improving the status of waterbodies.
UK Marine Strategy	The UKMS Regulations require the production of a "Marine Strategy" for all UK waters and that the approach is coordinated across all four UK Administrations. It also requires cooperation with other countries sharing our seas. The objective of the UK Marine Strategy reflects the UK's vision of having "clean, healthy, safe, productive and

	biologically diverse oceans and seas". It helps to deliver key international obligations and commitments to protect and preserve the marine environment including those under the UN Convention on the Law of the Sea (UNCLOS), the UN Sustainable Development Goal 14 (to conserve and sustainably use the ocean, seas and marine resources for sustainable development), the OSPAR North-East Atlantic Environment Strategy and the Convention on Biological Diversity. The Strategy applies an ecosystem-based approach to the management of human activities. In doing so, it seeks to keep the collective pressure of human activities within levels compatible with the achievement of Good Environmental Status. Achieving GES will maintain the capacity of marine ecosystems to respond to human-induced changes and enable the sustainable use of marine goods and services by present and future generations. The Marine Strategy considers 11 qualitative descriptors, alongside a wide range of human activities and prevailing physiographic, geographic and climatic conditions. The 11 descriptors are: • D1 - Biological diversity (cetaceans, seals, birds, fish, pelagic habitats and benthic habitats); • D2 - Non-indigenous species; • D3 - Commercially-exploited fish and shellfish; • D4 - Food webs (cetaceans, seals, birds, fish and pelagic habitats); • D5 – Eutrophication; • D6 - Sea-floor integrity (benthic habitats); • D7 - Hydrographical conditions; • D8 – Contaminants;

	• D9 - Contaminants in fish and other seafood; • D10 - Marine litter; and • D11 - Underwater noise.
Northern Ireland Marine Plan	The draft Marine Plan presents policies that reflect, clarify and signpost current policy measures and practices from the UK MPS and across NI and UK Government Departments. The draft Marine Plan reflects the unique character of the Northern Ireland marine area and the needs of its users. It aims to ensure that decisions taken in relation to the marine area, contribute to the delivery of national and regional policy objectives. It is a living document that will continue to evolve as the effectiveness of its policies are monitored and reviewed and the evidence base develops. The draft Marine Plan objectives are: 1. To promote the sustainable development of productive activities, which support employment at all skill levels while fully considering the requirements of other marine interests. 2. To help realise the potential of energy resources and energy storage within the marine area, while fully considering the requirements of other marine interests. 3. To promote the development of vibrant, accessible and sustainable coastal communities. 4. To promote the marine resource, its recreational value and its wider economic, environmental and social benefits to all. 5. To promote the preservation and enjoyment of marine related heritage assets. 6. To promote a healthy, resilient and adaptable marine ecosystem and ecologically coherent network of Marine Protected Areas.

	7. To contribute towards climate change mitigation and adaptation measures. 8. To continue to develop a sound marine evidence base in a coordinated manner, to increase understanding and to support the development, monitoring and review of marine plans.
The Marine Act (Northern Ireland) 2013	The Marine Act (Northern Ireland) 2013 is an Act to provide for marine plans in relation to the Northern Ireland inshore region; to provide for marine conservation zones in that region; to make further provision in relation to marine licensing for certain electricity works in that region; and for connected purposes. MCZs protect nationally important marine species, habitats and features of geological or geomorphological interest.
The Conservation (Natural Habitats, etc.) (Amendment) (NI) EU Exit Regulations 2019	To ensure the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) were operable after the end of the EU transition period, changes were made by the Conservation (Natural Habitats, etc.) (Amendment) (Northern Ireland) (EU Exit) Regulations 2019. SACs and SPAs in the UK no longer form part of the EU Natura 2000 (N2K) ecological network. The 2019 Regulations have created a national site network on land and at sea, including both the inshore and offshore marine areas in the UK. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) have been given the highest level of protection through the Conservation (Natural Habitats, etc.) (Amendment) (Northern Ireland) (EU Exit) Regulations 2019 for their internationally recognised importance for nature conservation. Almost all are underpinned by a more

	expansive network of Area's of Special Scientific Interest (ASSIs) which are protected under The Environment Order (Northern Ireland) 2002 (as amended). DAERA has a duty to have regard to the requirement to maintain conservation measures so that: • The habitats within the national site network sites do not deteriorate. • Conservation objectives for each European site are met; and • The species for which these sites have been designated are not significantly disturbed. The regulations also make it an offense to deliberately capture, injure, or kill a wild animal of a European protected species listed in Schedule II of those regulations.
Environment Order (Northern Ireland) 2002	The main functions of the Environment Order (Northern Ireland) 2002 are to establish a legal framework for implementing EU directives related to pollution prevention and control, particularly Integrated Pollution Prevention and Control (IPPC) and air quality, and to provide additional provisions for preventing and controlling environmental pollution. It also covers areas like waste management, air quality, and areas of special scientific interest. Key Functions: • The Order provides the legal basis in Northern Ireland for implementing EC Directives 96/61 (IPPC) and 96/62 (Ambient Air Quality Assessment and Management), as well as Directive 2010/75/EU on industrial emissions; • It empowers the Department to make regulations for preventing and controlling activities that could cause

	pollution, including those not specifically addressed by the IPPC Directive; • The Order includes provisions related to waste management licensing, including the regulation of sites where waste is disposed of; • It implements the requirements of the EU air quality directive and provides for air quality strategies, reviews, and the designation of air quality management areas; • The Order outlines the process for declaring, varying, and declassifying ASSIs, as well as the duties of landowners and occupiers within these areas.
The Wildlife (Northern Ireland) Order 1985 The Wildlife (Amendment) (Northern Ireland) Order 1995	The Wildlife (Northern Ireland) Order 1985 (the Order) and amendment The Wildlife (Amendment) (Northern Ireland) Order 1995 is designed to protect wildlife and their habitats, including both plants and animals, and to manage wildlife populations. This is achieved through legislation that prohibits certain actions that could harm protected species, and through the issuance of licenses for specific activities that may impact wildlife, such as research or conservation efforts.
Water (Northern Ireland) Order 1999	The main functions of the Water (Northern Ireland) Order 1999 and related regulations are to regulate water resources, protect water quality, and ensure the provision of safe and reliable water and sewerage services in Northern Ireland. This includes duties on the Department of Agriculture, Environment and Rural Affairs (DAERA) to promote water conservation and cleanliness, prevent pollution, and oversee the activities of water and sewerage undertakers. The Order also establishes a framework for managing water resources, including abstraction and impounding.

Further information on relevant plans and programmes can be found in Annex 1.

4. Environmental Baseline

Summary of Baseline Findings

The following section outlines the current environmental baseline in Northern Ireland that was used to inform the development of the Fisheries and Water Environment Bill. This is a broad-ranging environmental baseline that provides an overview of current environmental conditions, including pressing environmental issues. The high-level policies set out in the Bill seek to address a number of environmental issues which, without intervention, will likely continue to worsen.

Good water quality and habitat are essential for fish stocks. Salmon and trout are particularly sensitive to water quality and the first to be killed during a pollution event. An improvement in water quality could have a positive effect on these species in their freshwater environment. Salmon and eel stocks are significantly reduced across their natural range. Eel are listed as critically endangered and currently the spawning stock is less than 10% of their historical level. Salmon stocks in many rivers are struggling to meet Conservation Targets set for them.

The statistics show an overall picture of stagnation in the status of our water bodies. While there were some improvements in status, there were also deteriorations. It is highly unlikely Northern Ireland will achieve its objective of meeting Good Ecological Status (GES) for surface water bodies by 2027 as required in the Water Framework Regulations without urgent, substantial and holistic measures across all society.

The key pressures acting upon our water environment are related to nutrients as well as organic pollutants and are attributed to agricultural land use activities and sewage related impacts. In addition, none of our rivers, lakes, transitional & coastal water bodies will meet good chemical status due to the presence of ubiquitous, persistent, bioaccumulative, toxic (uPBT) substances.

Through implementation of the UK Marine Strategy, collaborative efforts have sought to achieve Good Environmental Status (GES) in our seas. Despite these efforts there remains a mixed picture for the condition of our marine environment, attributed largely to anthropogenic pressures such as pollution, habitat loss, commercial and recreational fishing. Species composition and size structure of demersal fish

communities are deteriorating. Similar deterioration was reported in pelagic habitats where changes in plankton biomass, abundance and community structure have been observed. Although climate change is not often listed as a primary driver for failure to meet GES, studies show that our seas are getting warmer, more acidic, and oxygen depleted, putting increasing strain on an already vulnerable ecosystem.

Northern Ireland's sea fisheries are an essential natural asset, underpinning the livelihoods of coastal communities, contributing to food security, and supporting marine biodiversity. Recent scientific assessments suggest that while some fish stocks in the Irish Sea remain in good condition, others are experiencing pressure from a combination of environmental change, fishing activity, and habitat disturbance.

Inshore marine ecosystems, including important spawning and nursery areas, are also increasingly vulnerable to pollution, seabed impacts, and the effects of climate change.

Biodiversity, Flora and Fauna

There is a wide range of natural habitats and species within Northern Ireland. A list of priority habitats and species, based on their significance within a UK or all-Ireland context, published by the Northern Ireland Environment Agency (NIEA), highlights 51 priority habitats and 594 species. Priority habitats include rivers, coastal saltmarsh, intertidal mudflats, lowland fens and eutrophic standing waters, while priority species include a variety of both terrestrial and aquatic flora and fauna.

The Northern Ireland coastline is over 650km long, it is the transitional boundary between the extensive network of inland freshwater habitats and the Northern Ireland marine area, a jurisdiction that covers over 6000km^2. These areas host a variety of important habitats essential to supporting the diverse range of flora and fauna characteristic to Northern Ireland.

The marine area comprises all marine waters including seabed, subsoil, sea loughs and tidal rivers, so far as the tide flows at Mean High Water Spring Tide (MHWST). It houses 50% of the region's biodiversity; a vast network of flora and fauna that comprise the marine food web. This ranges from microscopic phytoplankton and

zooplankton to large marine mammals. The network supports a diverse range of predator and prey species including around 60 species of elasmobranchs, 20 species of marine birds, and 15 species of cetacean.

Important commercial species in the Irish Sea include Nephrops, cod, haddock, hake and monkfish. Dredging for king scallops and dredging or trawling for queen scallops also make an important contribution to commercial landings. The regions rich taxa of seaweeds also support a burgeoning commercial harvesting industry. Beyond the scope of commercial fish, shellfish, and algae, biodiversity within the Northern Ireland marine area supports tourism and popular recreational activities such as bird watching, fishing, snorkelling, dolphin and whale watching, and foraging.

According to the NI Environmental Statistics Report 2024 (ESR2024) Northern Ireland has already exceeded its overarching conservation objective to designate 30% of its marine area for protection by 2030, fulfilling a commitment made under the Kunming-Montreal Global Biodiversity Framework. Currently 38% of waters fall within the existing Marine Protected Area (MPA) network, however, some additional designations will be required to achieve the target of being ecologically coherent. The current network includes 20 coastal ASSIs, 5 MCZs, 7 Ramsar sites, 7 marine SACs and 9 marine SPAs. The statutory designation of these sites allows for varying degrees of regulation and enforcement per the legislation under which they were designated.

ESR2024 reported that 87% of features within marine protected sites were in favourable condition in comparison to 42% in coastal habitats. Overall, just 38% of features within Northern Ireland's terrestrial and marine protected sites were in favourable condition, with birds, fish, marine mammals and non-vascular plants achieving favourability scores of 62%, 44%, 71%, and 49% respectively, these figures represent marine, freshwater, and terrestrial features.

In 2019 the Marine Strategy Part One: Updated assessment and Good Environmental Status report revealed that 11 of the 15 components used to assess achievement of Good Environmental Status (GES) in the Greater North and Celtic Seas had not achieved GES. Notably cetaceans, seals, birds, fish and commercial fish were all among those not reaching their target. The UK also failed to achieve

GES in descriptors for benthic and pelagic habitats, marine food webs, non-indigenous species, litter, and input of anthropogenic sound.

In a DAERA consultation document to inform the development of the third cycle of the River Basin Management Plan (2021-2027) (RBMP) it was noted that the most significant pressure on water quality in Northern Ireland is from the release of nutrients from agricultural and other sources.

Northern Ireland has a total of 66 water dependent UK national network sites (formerly Natura 2000 sites) which are designated under the Conservation (Natural Habitats, etc.) (Amendment) Regulations (Northern Ireland). The most up to date assessment indicates that while 71% of water dependent sites are still failing to meet conservation objectives, in a quarter (23%) of water dependent sites the failures are related to pressures from the water environment.

The 2024 NIEA Water Classification Statistics Report (WCSR), published in February 2025, revealed the ecological status of Northern Ireland's rivers, lakes, and transitional and coastal water bodies for 2024, per the criteria set out in The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017. The report stated that only 29% of the 450 river water bodies analysed were classified as good or high status, similarly only 24%, of the 21 lake water bodies studied, achieved good status, with none scoring high. The result for transitional and coastal water bodies was only marginally better than rivers and lakes, with 40% achieving good ecological status, and none scoring high.

Northern Ireland's inland waterways, comprising a network of rivers, lakes and wetlands, support a range of ecologically and commercially important species. Some species are specialists and dependent on specific environmental conditions for survival, whereas others are less selective but still depend on the maintenance of adequate parameters to thrive within their natural habitat. Good habitat and water quality are essential for Northern Ireland's fish stocks. Salmonids, species of particular importance to Northern Ireland both ecologically and commercially, are markedly sensitive to water quality and often first impacted by pollution events. Salmon and eel stocks are significantly reduced across their natural range. The European eel is currently listed as critically endangered with a spawning stock of

less than 10% that of historic levels, likewise salmon stocks in many rivers are struggling to meet conservation targets.

Since the 1950's, over 40,000 hectares of terrestrial and freshwater habitats have been lost to urban development. Land use change to support agricultural output has included activities like land reclamation, drainage, and increased production and stocking, which all have subsequent impacts on water and air quality. Despite an increase in actions to halt biodiversity loss, many elements of biodiversity in Northern Ireland continue to show decline.

The latest State of Nature report for Northern Ireland estimated that, of the 2,508 species assessed, 12% of species are threatened with extinction (based on IUCN regional red list data). Impacts from anthropogenic activity, particularly land use change, pollution and fisheries (principally in the marine environment), are key drivers affecting biodiversity in the region.

Invasive species are a growing environmental and economic threat to Northern Ireland. They are defined as harmful alien species whose introduction or spread threatens the environment, the economy, or society, including human health. Once established, invasive species are extremely difficult and costly to control and eradicate, and their ecological effects are often irreversible. Invasive non-native species such as Zebra mussels, Pacific oysters, Japanese knotweed and Canadian waterweed also play a significant role in environmental degradation, outcompeting native species for food and space, transmitting diseases, and disrupting food-webs.

The current threats posed by invasive species in Northern Ireland are significant. In response to these threats the Department of Environment has developed the Invasive Alien Species Strategy for Northern Ireland. The overarching strategic aim is to minimise the risk posed, and reduce the negative impacts caused, by invasive alien species in Northern Ireland. Increasing awareness and understanding of the risks and issues involved in tackling invasive alien species is a central overarching issue.

Water and soil

Water bodies are the basic management units for reporting and assessing compliance with environmental objectives. There are 571 water bodies in Northern Ireland, of which 496 are surface water bodies: including 450 rivers, 21 lakes, and 25 transitional & coastal water bodies (Marine); the remaining 75 are groundwater bodies.

The 2024 NIEA Water Classification Statistics Report, published in February 2025, revealed the chemical status of Northern Ireland's rivers, lakes, and transitional and coastal water bodies for 2024, per the criteria set out in The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017. Notably, new priority substances, so-called 'forever' chemicals, were introduced for the first time in the reporting of chemical status in 2018. Although a number of these ubiquitous, persistent, bioaccumulative, toxic (uPBT) substances are now banned or have restricted use, their widespread use in the past has resulted in their accumulation in the aquatic environment with subsequent breaching of assigned Environmental Quality Standard (EQS) values.

It is widely recognised that, given their persistence, the levels present in the aquatic environment will likely remain in breach of EQS values for some years to come. This finding is in common with European countries and indeed with countries across the globe where usage was widespread.

To allow for a meaningful comparison with chemical status in 2018, for which the uPBT substances were not monitored, it is important that chemical classification be presented both including and excluding the uPBT substances. Chemical status for a water body is now presented in three distinct subgroups; subgroup A which excludes uPBT substances and cypermethrin failures, subgroup B which includes uPBT but excludes cypermethrin failures, and subgroup C which includes failures for both uPBTs and cypermethrin failures.

For subgroup C the WCSR report stated that 100% of rivers, lakes and transitional waters failed to achieve good chemical status. In subgroup B 85% of rivers, 52% of lakes, and 8% of transitional and coastal water bodies achieved good status. Lastly,

subgroup A, which excludes both uPBTs and cypermethrin failures, saw 92% of rivers, 100% of lakes, and 32% of transitional and coastal water bodies achieve good status.

Northern Ireland groundwater varies greatly due to the diverse geology of the land. Different rock types form distinct aquifers, characteristic of the geological and hydrogeological features that control how the groundwater is stored, how it flows, and its chemical quality. Northern Ireland has a temperate, maritime climate, with annual average rainfall varying from just under 800 mm in low-lying, southern and eastern areas to around 2000 mm in upland, western areas. Rainfall is essential for recharging the aquifers, ensuring the long-term storage of fresh water capable of maintaining rivers and streams throughout periods of low precipitation.

Though not as significant as it was in the 20th century, groundwater is still extracted from boreholes, wells, and springs across the region for various purposes, including drinking water, industrial processes, and irrigation. The chemical and quantitative condition of groundwater bodies is monitored and appraised per requirements set out in The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017, but due to a long lag time, groundwater body classifications are not updated mid-cycle. Therefore, 2021 groundwater body status, which is included in the Northern Ireland Water Framework Statistics report 2021 remains current. According to the 2021 report 51 (68%) of 75 representative groundwater bodies have achieved good overall status, an increase from the 2015 status of 49 (65%).

The Quality of Bathing Water Regulations (Northern Ireland) 2008 sets quality standards for bathing water sites. Bathing water quality is monitored by DAERA Marine and Fisheries Division. One of its responsibilities is to ensure bathing waters are of high enough quality for the public to bathe in. The Quality of Bathing Water Regulations (Northern Ireland) 2008 sets quality standards for a number of parameters. The most important of these are the standards relating to the coliform and streptococcal groups of bacteria. For 2024, DAERA reported that 22 of the 26 designated sites received a classification of excellent status, with 2 receiving good status, and the remaining 2 classified as sufficient.

Northern Ireland also has 7 candidate bathing water sites, subject to the same testing regime, 6 of which achieved classifications of sufficient or better in the 2024

bathing water quality report. Rae's Wood, Northern Ireland's only candidate bathing water site situated in a freshwater environment, achieved a 2024 classification of poor, a rank reflective of the wider environmental issues which persist in Lough Neagh.

Lough Neagh is the largest freshwater body on the island of Ireland and in the British Isles, it has a surface area of 383km^2 and supplies over 40% of Northern Ireland's drinking water. Despite the protected status of Lough Neagh as an ASSI, SPA and Ramsar site, existing regulatory and policy frameworks have failed to adequately protect water quality, the Lough Neagh ecosystem, and the wider environment.

It is reported that a combination of climate change, invasive species, and pollution (excess phosphorus and nitrogen) are responsible for the proliferation of harmful blue-green algae in the lough. Failure to adequately address the causes of blue-green algae has resulted in substantial and persistent annual blooms of harmful algae, spreading so far downstream as to reach the marine environment.

The marine environment acts as a sink for many hazardous substances, such as persistent organic pollutants (POPs) and heavy metals. These find their way into the marine environment via a number of different sources including direct and indirect release from industrial and sewage works, breakdown of marine litter, discharge and release of oils and chemicals from shipping and offshore installations, surface runoff from land (including agricultural, road and landfill), and discharge from rivers and drainage systems.

UK Marine Strategy part one report, published in 2019, states that the UK marine area has largely achieved its aim of Good Environmental Status for contaminants. This report includes contaminants such as metals, radionuclides and hydrocarbons, for which all indicators assessed within the Celtic Sea region were shown to be stable or decreasing from levels reported in 2012.

Shellfish Water Protected Areas are areas designated for the protection of shellfish growth and production. Good water quality is important for the production of high-quality shellfish. The Water Framework Directive originally established a legal framework for the protection of SWPAs, but this has now been transposed into Northern Ireland regulations through The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017. The Water (Amendment) (Northern

Ireland) (EU Exit) Regulations 2019 ensures that the Water Framework Directive (as transposed) and the various supporting pieces of water legislation continue to operate in Northern Ireland after 1 January 2021. This legislation sets microbial guidelines for *E.Coli* in shellfish flesh. The value is set in the legislation at ≤230 E.coli in shellfish flesh and intervalvular liquid, and if 75% of samples meet this guideline value in any period of 12 months, the shellfish waters are deemed to be compliant with the microbial guideline value. In 2024 four out of nine designated shellfish water protected areas (SWPAs) complied with the Water Framework Directive Guideline E. Coli standard in Shellfish Flesh.

The Food Standards Agency (FSA) is responsible for the regular monitoring, grading, and reporting on water quality of the ten current SWPAs in Northern Ireland. Depending on the conditions observed within the SWPA, grades are allocated which reflect the level of processing required to ensure a harvest is fit for human consumption. Shellfish from areas with consistently prohibited level results (greater than 46000 E. coli/100g) must not be subject to production or be harvested. A report published by FSA in March of 2025 disclosed classifications of A, B, and C, across 7 active harvesting areas, with none reported to exhibit levels consistent with prohibition.

In January 2014, the Shellfish Waters Directive was subsumed into the Water Framework Directive, resulting in more stringent E. coli standards and a noticeable “drop” in the percentage of designated shellfish waters. In 2024, four out of nine (44%) of designated shellfish waters complied with the guideline E coli standard, an improvement from 2023, when only one out of nine (11%) of designated shellfish waters achieved compliance.

The geological landscape of Northern Ireland is remarkably varied, considering its relatively small area of about 14,000 km^2, and reflects the diverse geology on which it has been shaped. Northern Ireland has widespread geological deposits of relatively recent origin, known as superficial deposits, which formed during the last 2-3 million years of the Earths’ history, spanning the Ice Ages and Interglacial periods. By far the most abundant of these are glacial sediments, made of mixtures of clay, silt, sand and gravel that were laid down by the repeated growth and decay of former

ice sheets. Other sediments continue to form in lakes, rivers, estuaries and coastlines, whilst on high ground raised bogs of peat have steadily accumulated. Below the superficial deposits, or with just a cover of soil where such deposits are absent, are older rocks which geologists broadly split into two distinct types: sedimentary bedrock and basement bedrock. Sedimentary bedrock geology consists of younger sequences, including limestones, sandstones and clays and older sequences, including sandstones, siltstones and mudstones. Basement geology (which underlies the sediment geology) consists of rocks that formed from the solidification of molten rock below volcanoes (igneous rocks) and sediments or intrusions that have changed as a result of high temperatures and pressures (metamorphic rocks).

The Irish Sea is a small regional sea, around 58,000km^2 in area. In character, it has the form of a fairly shallow basin, with depths ranging from 20-100m over considerable areas, and a deeper channel extending north to south in the western part of the Irish Sea, reaching a maximum depth of 315m in the North Channel. The deeper channel connects with the Celtic Sea via St Georges Channel in the south, and the Malin Sea via the North Channel. Circulation of water is subject to a wide range of natural variability on many timescales.

Whilst certain types of seabed development, such as capital and maintenance dredging, and marine installations, may result in localised changes to bathymetry, there is no evidence to suggest human activities have substantially altered natural flow patterns in Northern Irish waters.

Around 75% of Northern Ireland’s 650-kilometre coastline is protected for its conservation value, the diverse land-sea interface consists of a number of important habitats including dune systems, rocky cliffs, sandy beaches, saltmarsh and mudflats. In general, coastal change in Northern Ireland generally occurs more slowly than that observed in other parts of the UK. Due to the positioning and geography of the marine and coastal area Northern Ireland is subject to a range of wave and tidal regimes. The North Coast is affected by Atlantic swells from the North whilst the east coast is influenced by a local wave climate generated in the Irish Sea. In the Northern Ireland marine area sediment quality is generally good, due to the energetic nature of the marine environment and the lack of contamination.

Air

Air pollution is the result of a number of substances introduced into the atmosphere, from a range of sources. According to DAERA's report on Air Pollution in Northern Ireland 2023; major sources of air pollution in Northern Ireland include domestic and industrial combustion, power generation, agriculture, and transport.

Ammonia (NH3) is an air pollutant largely emitted from agriculture which is known to have a damaging impact on biodiversity, including sensitive habitats, and ecosystem resilience, as well as human health. It is produced by many common farming activities, such as the housing of livestock, the storage and spreading of manure and slurries and the application of fertiliser. Reducing ammonia emissions across Northern Ireland is a key Departmental priority.

Local Air Quality Management (LAQM) provides the framework under the Environment Order (NI) 2002, within which air quality is managed by the 11 district councils in Northern Ireland. LAQM requires district councils to review and assess a range of air pollutants against the objectives set by the Air Quality Regulations (Northern Ireland) 2003, using a range of monitoring, modelling, observations, and corresponding analyses.

For locations where objectives are not expected to be met by the relevant target date, district councils are required to declare an Air Quality Management Area (AQMA), and (along with relevant authorities), to develop an Action Plan to address the problem. In the 2023 air quality report it was noted that Northern Ireland had 19 AQMAs, among these were Derry and Strabane District Council, and Belfast City Council having declared 4 each, and Mid Ulster District Council declaring 3. These AQMAs were triggered by levels of Nitrogen Dioxide originating from road traffic.

Whilst concentrations of sulphur dioxide (SO2), a pollutant associated with coal and oil combustion, have declined significantly since the 1990s, and a decreasing trend in nitrogen dioxide (NO2) concentrations has been observed at some monitoring sites in Northern Ireland, a number of pollutants in some parts of Northern Ireland continue to exceed air quality objectives. There is also growing concern regarding

ultra-fine particulate matter (particles with one dimension smaller than 100 nanometres (nm) across) in the UK and the impact of this on health.

Climate factors

Climate change is one of the most important threats to the environment and economy. The UK Climate Change Projections (UKCP18) report is the latest iteration of national climate projections for the United Kingdom which is based on the latest scientific findings and observations available from the Met Office and globally. The results set out a range of possible outcomes over the next century based on different rates of greenhouse gas emitted into the atmosphere.

UKCP18 project's greater chance of hotter, drier summers and warmer, wetter, winters with more extreme weather and rising sea levels. The current 'high emissions' scenario predicts that, by 2070, Northern Ireland's winters could be up to 3.9°C warmer and 25% wetter, whereas summers could be up to 4.9°C hotter, and 38% drier. By 2100 the UKCP18 predicts that sea levels around Belfast could rise by up to 94cms.

In recent years NI has experienced instances of extreme and notable weather events. The increased incidence and intensity of such events is consistent with a changing climate. These events can have serious consequences for all sectors across NI, affecting our infrastructure, buildings, service provision, and natural world.

The marine environment, through careful management, offers unique opportunities to mitigate climate change through carbon sequestration and marine renewable energy. It can also provide methods for dealing with the effects of climate change, one example being the creation or restoration of coastal habitats to mitigate flood risk.

Though the marine environment offers solutions to the climate crisis, it is also impacted significantly by rising temperatures and atmospheric carbon which are known to bring about oxygen depletion and lower pH levels. Increasingly frequent extreme weather events can also expedite the erosion and deposition processes that shape the Northern Ireland environment. This is especially evident within rivers, lakes and along the coast.

Socio-Demographics

In the 2021 census published by Northern Ireland Statistics and Research Agency (NISRA) the population of Northern Ireland was approximately 1.9 million. The population density was stated as 140 people per km^2, which varied across local government districts. More dispersed populations tended to inhabit rural areas compared to the higher densities observed within urban ranges, the largest urban centre being Belfast.

Industry and employment data showed that, of the 849,112 usual residents over the age of 16 and in employment, 16.46% were employed in human health and social work activities, 9.02% in education, 16.15% in the wholesale and retail trade, 8.41% in construction, and 8.75% in manufacturing. In direct relation to the terrestrial and aquatic environments 2.52% were employed in agriculture, forestry and fishing, and 0.69% were employed in water (supply, sewerage, waste and remediation).

Data collected by DAERA Marine and Fisheries Division in 2023 revealed that 1,593 people were employed in full time positions within the Northern Ireland fishing sector, with another 466 employed part time. Of the 2,059 roles; 733 were in catching, 958 in processing and marketing, and the remaining 368 were listed as other. In the same year this industry landed a total liveweight of 25,187 tonnes of wet fish and shellfish, with an estimated value of £36,164,000.

In 2022 DAERA Marine and Fisheries Division reported that the number of people employed in the Northern Ireland aquaculture industry totalled 141 across both marine and freshwater environments, with 101 employed in fulltime roles. In 2022 the industry reported a total production exceeding 4,588 metric tonnes of finfish and shellfish with an estimated value of £14,025,408.

Uses and Activities

The 2023 State of Nature report for Northern Ireland described the terrestrial landscape as being dominated by farmland with an estimated 76% coverage. Modern farming has become more homogeneous and moved away from traditional mixed farming techniques towards improved grassland. Arable farmland now accounts for only 3% of the land area in Northern Ireland. Of the 60% of agricultural

land that is now grass, 70% of this is classified as improved. Total income from farming in the livestock sector has increased by as much as 20% in Northern Ireland since 2019 with the numbers of livestock units having also increased.

Land use in Northern Ireland, as identified within the NI Corine Land use Dataset, is predominantly defined as pasture, which represents around 63% of land cover distributed throughout the region. The next highest proportion of land cover is recorded as natural grassland which makes up another 7%. A further 12% of agricultural land cover is classified as non-irrigated arable land, complex cultivation patterns, and land principally occupied by agriculture. The remaining land is classified as moors and heath, peat bogs, and coniferous forest, estimated at 5%, 4%, and 3%, respectively, in addition to the remaining 2% which is classed as urban, and sub-urban.

Activities within the marine space are dynamic in nature, and tend to overlap, making it more difficult to attribute distinct zones to particular activities. Some of the main uses of the marine space include commercial fishing, aquaculture, ports, shipping, navigation, dredging, disposal, recreation, coastal defence, and military activity. All of these activities risk the possibility of negatively impacting the marine space, which can manifest in the form of water quality degradation, marine litter, light pollution and noise pollution.

As UK governments grapple with the climate crisis, it is quickly becoming clear that parts of the Northern Ireland marine area will be earmarked for the future development of offshore renewable energy. Northern Ireland has pledged to develop 1 gigawatt (GW) of offshore wind energy by 2030, with a plan to accelerate the deployment if possible. This commitment is part of the Northern Ireland Energy Strategy, which aims to achieve 80% renewable electricity consumption by 2030 and diversify the renewable energy generation mix.

Material Assets

Northern Irelands marine and terrestrial infrastructure is integral to its economic and environmental wellbeing. The regions coastline supports a variety of natural and built assets. Ardglass, Kilkeel, and Portavogie harbours are essential to the Northern Ireland fishing sector, whereas ports at Belfast, Larne, Derry/Londonderry,

Warrenpoint, and Coleraine are important trade ports. The Belfast Harbour area is also host to a range of assets that includes businesses, accommodation, tourist attractions and travel, in the form of cruise ship and ferry terminals. Due to the unique landscape of the region other significant passenger ferries operate in Northern Ireland, such as the Carlingford and Strangford Lough ferries which support regional connectivity. The Strangford-Portaferry ferry has been operating since 1611 and is a vital transport link facilitating daily commutes across Strangford Lough.

The fishing sector in Northern Ireland comprises a range of material assets that are integral to food supply and socio-economic resilience. Key assets include a fleet of 265 licensed fishing vessels, primarily based in Kilkeel, Arglass and Portavogie, supported by associated infrastructure including harbours, slipways, fish processing facilities, ice plants and cold storage units. These physical assets are crucial to the landing, harvesting and distribution of key commercial species such as Nephrops, scallops, herring, and mackerel.

The sector relies heavily on fishing grounds within the Irish sea and adjoining waters, where healthy benthic and pelagic populations are required to maintain business. This represents the dynamic balance between economy and ecology and is regulated through quota systems, restrictions on fishing gear, and designation of protected areas.

In addition to the marine fishing activity, Northern Ireland’s inland fisheries represent a significant material asset, both in commercial and recreational fishing. Key river systems, including the Bann, Foyle, Erne and Bush, support nationally and internationally important migratory species like Atlantic Salmon, sea trout and European Eel. These rivers, and associated loughs, provide critical spawning and nursery habitats which are essential to the species’ lifecycles. These important areas support businesses, recreation and tourism, also playing a strong role in community identity. Infrastructure associated with the rivers and loughs includes hatcheries, nurseries, fish passes and access points for anglers.

NI water, which maintains the regions vast network of mains water and public sewers, provides around 99% of Northern Ireland’s drinking water. Potable water is derived from a range of sources, one being Lough Neagh which supplies over 40% of Northern Ireland, and roughly half of Belfast's drinking water. The raw water from

Lough Neagh is also used to supply several water treatment works, including Dunore Point, Moyola, Forked Bridge, and Castor Bay. Historically, the Mourne Conduit, constructed between 1893 and 1901, was a significant water supply serving greater Belfast and North Down with water from the Mourne Mountain reservoirs for over a century. Although the conduit is no longer the primary water supply, the catchment is still significant; serving around 130 million litres of drinking water per day to homes and businesses.

Groundwater is another crucial natural resource, essential to maintaining river flows and contributing to the biodiversity of rivers, lakes and wetlands. It is also a valuable resource for many homes and businesses, supplied through borehole and well abstraction. Water Quality of public drinking water is regulated under the Water and Sewerage Services (Northern Ireland) Order 2006, whereas private water supplies are regulated under the Private Water Supplies Regulations (Northern Ireland) 2017.

Submarine cables and pipelines are critical to Northern Ireland's infrastructure, linking the region to vital energy, communication, and data networks. The undersea systems and landing stations contribute to a wider supply network serving the region, delivering the power, fuel and internet connectivity that enables homes and businesses to function. Northern Ireland is connected to both Great Britain and the Republic of Ireland via a network of subsea fibreoptic cables. These connections enable digital resilience and international connectivity.

Gas pipelines, such as the Scotland to Northern Ireland Pipeline (SNIP), supply the country with power. SNIP is a major piece of infrastructure which transports natural gas from Twynholm, Scotland to Islandmagee, where it can be distributed using the regional gas network. One of the most important electricity interconnectors is the Moyle Interconnector, a High Voltage Direct Current (HVDC) cable that connects the electricity grids of Northern Ireland and Scotland. Conversely, the land-based North-South Interconnector links Northern Ireland's electricity Network with the Republic of Ireland, contributing to regional energy security and market integration across the island.

Cultural Heritage

Northern Ireland's cultural heritage is protected and maintained through a range of designations and high-level objectives. Culturally significant natural sites and species are present throughout Northern Ireland's marine and terrestrial environment, these include designated SACs, SPAs, MCZs, Nature Reserves, World Heritage sites and Areas of Outstanding Natural Beauty.

There are also many archaeological sites, historic monuments, and buildings which are located through many towns and rural areas. Heritage assets are a finite and often irreplaceable resource which can be vulnerable to a wide range of human activities and natural processes – including fishing. The most significant of these monuments and buildings are protected by legislation. Over 18,000 sites and monuments, including castles, tombs and forts, and 9,000 listed historic buildings, trace human history and settlement from 7,000 BC to the 20th century.

Northern Irelands inshore and offshore regions contain a rich archaeological record spanning 9000 years. It includes material ranging from prehistoric flint tools and log boats to historic harbour installations, First World War shipwrecks and coastal defences. The marine historic environment is comprised of the following principal historical asset types:

- Wrecks of ships, boats and aircraft;
- Submerged prehistory (artefacts, structures, deposits);
- Coastal and intertidal archaeology.

Features of archaeological or historic interest form part of the marine and aquatic environment. The Historic Environment Division (HED) works with DAERA Marine and Fisheries Division and other key partners to ensure significant marine archaeological sites are managed and protected through planning, licensing, designation, strategic investigation, and the appropriate policy and guidance. By helping to protect and manage sustainably our most important marine archaeological sites, HED ensures that these sites can be enjoyed by future generations and delivers on Government's High Level Marine Objectives.

Both the UK Marine Policy Statement (2011) and the Marine Plan for Northern Ireland (once adopted) further recognise the need to protect and manage marine cultural heritage to realise wider social, cultural, economic and environmental benefits.

Features of archaeological or historic interest contribute to marine ecosystems as distinctive habitats, both individually and as networks. Wrecks are frequently acknowledged to be 'hotspots' of marine life, contrasting with the surrounding seabed. Consequently, wrecks and historic structures can give rise to ecosystem services of considerable value: supporting marine flora and fauna at various stages of their lifecycles, harbouring protected species, aggregating species that are targeted commercially or recreationally, and contributing thereby to the economic viability of coastal communities.

Features of archaeological or historic interest are known to be impacted by fishing activity, including features designated under heritage legislation. Wrecks can also be associated with abandoned, lost or discarded fishing gear. This gear is a form of marine litter that degrades the marine environment and is a hazard to marine life. It can also be detrimental to features of archaeological or historic interest by introducing additional stresses, obscuring objects and artefacts, and creating a hazard to equipment and/or divers (including members of the public) accessing these features. DAERA has powers to make regulations for conserving features of archaeological or historic interest in inshore waters by virtue of s. 124(2A)(a) of the Fisheries Act (Northern Ireland) 1966.

Landscape and Seascape

Although a small area, Northern Ireland has a great variety of scenic countryside, reflecting its contrasting geology and topography as well as a long history of settlement and land use. The mosaic of prehistoric monuments, traditional farms and buildings, forest plantations, and wildlife habitats all contribute to the special landscapes that make up the local culture and heritage. The Northern Ireland landscape is diverse, featuring rolling hills, low mountains, large water bodies, and a dramatic coastline. The temperate climate with strong winds has shaped the landscape and its key features including Lough Neagh, Mourne Mountains in the

southeast, Sperrin Mountains in the Northwest, and the Antrim Plateau along the Northeast Coast.

Northern Ireland Regional Landscape Character Assessment (NIRLCA) breaks Northern Ireland down into 26 Regional Landscape Character Areas (LCAs) based on information on people and place and the combinations of nature, culture, and perception, that make each part of the region unique. These characteristic areas include Strangford, Ards and Lecale coastal lowlands, the Lower Bann Valley, and Slieve Gullion and South Armagh Hills.

A Seascape Character Assessment identified twenty-four different regional seascape character areas around the coast of Northern Ireland. This assessment looked at coastline, wildlife and the diverse built and cultural heritage of the region. The Northern Ireland seascape is a diverse and ecologically significant environment, extending from the Atlantic-facing north coast to the more sheltered waters of the Irish Sea. Characterised by rugged coastlines, sea cliffs, sandy bays, and estuarine habitats, this region supports a wide array of marine and coastal biodiversity. Key habitats include intertidal mudflats, kelp forests, maerl beds, and seagrass meadows, which provide crucial ecosystem services and breeding grounds for commercially important fish species.

The area hosts a range of protected sites, such as Marine Protected Areas (MPAs), Special Areas of Conservation (SACs), and Areas of Special Scientific Interest (ASSIs), safeguarding populations of harbour porpoise, common and grey seals, and seabird colonies including puffins, guillemots, and kittiwakes. Pressures from fishing, aquaculture, marine and coastal development, and climate change are all factors which can contribute to degradation of the marine and coastal landscape.

5. Stakeholder Engagement

DAERA officials have used a co-design process to engage with stakeholders in relation to the industry pressures and this has informed the development of the high-level proposals for the Fisheries and Water Environment Bill. The co-design process was constructive and ensured that the practicalities of implementation of policy was taken account of by policy makers in arriving at a policy framework which will effect change.

Using a co-design approach ensures policy is developed within an inclusive environment which is responsive to changes within the sector, whilst prioritising the health of ecosystems in our marine and aquatic environments and minimising the risk of adverse effects on those in the ‘main affected group’ of the Bill.

The SEA has been developed to incorporate feedback from DAERA’s statutory Consultation Authorities. This process ensures a reliable level of environmental expertise is available to inform the assessment process. An environmental assessment, informed by subject matter experts, is used during the consultation period to support stakeholders and the public in providing meaningful responses which can contribute to further development of plans and policies.

6. SEA Consultation Requirements

The Strategic Environmental Assessment consultation is integral to the policy development process. Consultation Authorities and the public are consulted in a manner that allows for early input into plans and proposals to ensure a fair and dynamic approach is taken. The process for the Fisheries and Water Environment Bill was as follows:

1) Development of high-level policy using co-design process
2) Screening and scoping to inform Environmental Report – Input sought from Consultation Authorities
3) Consultation on Environmental Report and draft Fisheries and Water Environment Bill – Input sought from Consultation Authorities, stakeholders, and public.
4) Consultation feedback considered and used to inform further development of Fisheries and Water Environment Bill
5) Adoption of plan or program with measures for monitoring outworkings.

Feedback from Statutory Consultees

The SEA has been developed to incorporate feedback from DAERA's statutory Consultation Authorities. This process ensures a reliable level of environmental expertise is available to inform the assessment process. An environmental assessment, informed by subject matter experts, is used during the consultation period to support stakeholders and the public in providing meaningful responses which can contribute to further development of plans and policies.

SEA Scoping Report Feedback

The Strategic Environmental Assessment scoping report was issued to statutory consultees on 15 May 2025. The statutory consultees consulted were:

- Water Management Unit (NIEA)
- Drinking Water Inspectorate (NIEA)
- Air and Environmental Quality Unit (NIEA)

- Conservation Science (NIEA)
- Land and Groundwater Team (NIEA)
- Inland Fisheries Inspectorate (DAERA)
- Countryside, Coast & Landscape Planning (NIEA)
- Industrial Pollution and Radiochemical Inspectorate (NIEA)
- Water Regulation Consents (NIEA)
- Climate Change & Green Growth Policy Division (DAERA)
- Water Policy (DAERA)
- Historic Environment (DfC)
- Marine Conservation (DAERA)
- Marine Evidence (DAERA)
- Marine Strategy and Catchments (DAERA)
- Marine Monitoring and Assessment (DAERA)
- Sea Fisheries Inspectorate (DAERA)
- Marine Planning (DAERA)

Key issues raised by consultees:

The key issues raised by consultees have been incorporated within the production of this SEA report. Amendments made as a result of consultation responses include the following:

- References to Northern Ireland draft Marine Plan added.
- Amendments to baseline information for:
    - Designated Shellfish Water Protected Areas
    - Drinking Water Protected Areas
    - Historic Environment
    - Climate Change
    - Natural Environment.

7. Approach to Assessment

Overview

The process of completing a Strategic Environmental Assessment provides a mechanism for evaluating the environmental criteria relevant to a prospective plan or policy. The approach involves a systematic, proactive evaluation of the potential environmental impacts of proposals before they are implemented. The scoping process is used to identify potential issues against a suite of environmental baselines under the following SEA topics:

- Biodiversity, Flora and Fauna
- Population and Human health
- Soil (Marine geology, sediments, and coastal processes)
- Water
- Air
- Climatic Factors
- Material Assets
- Cultural Heritage
- Landscape and Seascape

Scope of Assessment

Following the creation of, and consultation on, the SEA scoping report for the Fisheries and Water Environment Bill it was determined that no negative environmental impacts were anticipated across each of the SEA topics listed. As a result of this, those topics where negligible positive impacts were anticipated were scoped in, and those where no impacts were anticipated were scoped out from further consideration.

Table 3 SEA topics and reason for scoping decision

SEA Topic	Scoped In/Out	Comment
Biodiversity, Flora and Fauna	In	The Fisheries and Water Environment Bill is a suite of strategic, high-level policy proposals that seek to protect and, where feasible, enhance the aquatic environment. Through ecosystem-based fisheries management it has the opportunity to yield positive outcomes for species and habitats.
Population and Human health	In	The Fisheries and Water Environment Bill seeks to implement provisions to allow for better management of the aquatic environment. This has potential to produce positive environmental outcomes. The policy provides scope for sustainable, ecosystem-based management of fisheries to support the industry into the future, protecting jobs and preventing harmful fishing practices. Increasing deterrents to illegal and harmful activities within the aquatic environment which could bring about improvements to water quality, providing direct and indirect benefits to human health.
Soil (Marine geology, sediments, and coastal processes)	In	Policy proposals within the Fisheries and Water Environment Bill seek to deter harmful, illegal activities within the aquatic environment through implementation of increased penalties for offences. Prevention of such incidents within the water environment could yield positive outcomes for the adjacent soils and sediments.
Water	In	The Fisheries and Water Environment Bill proposes a suite of policies designed to enhance

SEA Topic	Scoped In/Out	Comment
		management of the water environment. It is anticipated that a more coherent licensing scheme for aquaculture, and the application of ecosystem-based management for fisheries and aquaculture activity could have a positive impact on water quality through the maintenance of healthy ecosystems. Equally, introduction of common enforcement powers for Enforcement Officers, and increased fines for offenders, has potential to deter activities that may impact water quality.
Air	Out	The policy proposals set out in the Fisheries and Water Environment Bill address a number of environmental factors. Though there may be indirect impacts on air quality it is not considered that these would be significant or measurable.
Climatic Factors	In	The high-level policies proposed in the Fisheries and Water Environment Bill provide for improved management of the aquatic environment. Enhanced regulation and enforcement, particularly in relation to prevention of harmful fishing and aquaculture practices, has the potential to improve climate resilience within the aquatic environment.
Material Assets	In	The Fisheries and Water Environment Bill aims to apply an ecosystem-based approach to fisheries management and prevent or deter destructive activities within the aquatic environment. This has potential to support the resources on which many of Northern Ireland's material assets depend, such as fisheries and aquaculture sites.

SEA Topic	Scoped In/Out	Comment
Cultural Heritage	In	The Fisheries and Water Environment Bill has the opportunity to protect multiple facets of cultural heritage. Provisions to protect the aquatic environment and manage fishing and aquaculture using an eco-system-based approach, has potential to provide positive outcomes for habitats and species. This could promote sustainability within the fishing industry, supporting jobs and sources of high-quality food into the future.
Landscape and Seascape	Out	The policy proposals set out in the Fisheries and Water Environment Bill address a number of environmental factors. Though there may be indirect impacts on the landscape and seascape it is not considered that these would be significant or measurable.

SEA Objectives and Assessment Questions

The SEA Assessment has been carried out using a set of objectives that relate to each of the SEA topics outlined below. These form the assessment framework which was used to determine the likely significant effects of the high-level policy proposals set out in the Fisheries and Water Environment Bill. Table 4 provides an overview of the SEA topics, and the guide questions used to determine the likely significant effects of the Fisheries and Water Environment Bill according to each SEA topic.

Table 4 All SEA topics and objectives

Topic: Biodiversity, Flora and Fauna	
1	Conserves and protects aquatic biodiversity, including species and habitats?
Topic: Socio-demographics	
2	Promotes environmental justice and equitable access to clean aquatic resources?
Topic: Soils	
3	Achieves and maintains sustainable soil management?
Topic: Water	
4	Achieves and maintains high water quality?
Topic: Air ***(Scoped Out)***	
5	Improves air quality to protect both human health and the aquatic environment?
Topic: Climate Factors	
6	Mitigates climate change impacts, enhancing resilience of aquatic ecosystems?
Topic: Material Assets	
7	Ensures sustainable use of aquatic resources and infrastructure?
Topic: Cultural heritage	
8	Protects and preserves marine and freshwater cultural heritage?
Topic: Landscape and Seascape ***(Scoped Out)***	
9	Conserves and enhances the visual integrity of aquatic landscapes?

8. Assessment

Scoping of the strategic, high-level policy proposals was undertaken to consider how each proposal has potential to have positive or negative environmental impacts. Strategic Environmental Assessment guidance requires that, alongside direct impacts, any secondary, cumulative and synergistic effects are identified, where feasible.

Thorough assessment of the potential effects, expected to arise as a result of the proposed policies, has concluded that **no adverse environmental effects are anticipated**. Where possible effects have been identified, these are expected to be minor positive effects, resulting in **negligible environmental benefits** over the long-term implementation of the Fisheries and Water Environment Bill. No significant environmental effects are anticipated as a result of the adoption of the Bill.

The Fisheries and Water Environment Bill has been intentionally designed to complement the achievement of environmental objectives. The Bill seeks to apply legislative provisions to protect and manage the environment in line with overarching environmental aims. Consideration of how the implementation interacts with other plans and policies will therefore be made at implementation level, to prevent negative cumulative or synergistic impacts. Where potential effects have been identified they have been included in table 5.

Detailed Appraisal: Environmental Assessment of Impacts of the proposed Fisheries and Water Environment Bill

The purpose of this section of the Environmental Report is to predict and evaluate, as far as possible, the likely significant effects of implementing the high-level policies set out in the Fisheries and Water Environment Bill, and set out measures to prevent, reduce and/or offset significant adverse effects identified.

The prediction of likely significant effects is to include:

- Effects identified under the relevant SEA topics listed (Biodiversity, flora and fauna, Population and human health, Soil, Water, Air, Climate Factors, Material Assets, Cultural Heritage, Landscape and seascape)

- Positive (+) and negative (-) effects where identified, otherwise stating neutral (0) where none are anticipated.
- Likely secondary, cumulative, and synergistic effects are identified where practicable.

The prediction and evaluation of effects makes use of relevant accepted standards, regulations, and thresholds. Methods used to evaluate the effects are described.

Table 5 Interactions between the high-level policies and the environment and their significance

Plan Components – high level policy proposals	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air	Climatic factors	Material assets	Cultural heritage	Landscape	Inter-relationship issues	Potential Environmental Effects	Anticipated Significance	
												Positive	++
												Minor Positive (Negligible)	+
												Minor Negative (Negligible)	-
												Negative	--
Inland Fisheries and Aquaculture Objectives	✓	✓	×	✓	×	✓	✓	✓	×	×	Productivity of fisheries is dependent on the health of the habitat. Management of this habitat requires consideration of all components of the ecosystem. This policy aims to provide a legislative framework that sets out fisheries management within an ecosystem-based context and support seamless	+ Improved management of freshwater habitats and species. + Supporting sustainable jobs and high-quality food source. + Protection of freshwater habitats through improved management techniques. + Improved management to ensure climate resilience in freshwater ecosystems.	

Plan Components – high level policy proposals	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air	Climatic factors	Material assets	Cultural heritage	Landscape	Inter-relationship issues	Potential Environmental Effects	Anticipated Significance	
												Positive	++
												Minor Positive (Negligible)	+
												Minor Negative (Negligible)	-
												Negative	--
											management across the entire habitat of fish stock.	+ Protection of resources to support material assets. + Conservation of culturally significant foods, jobs and lifestyles.	
Management of Recreational Inland Angling	✓	✓	×	✓	×	✓	✓	✓	×	×	Angling can directly impact on the biodiversity (removal of target species). There is a low to medium risk of transfer of unwanted species through restocking activity. This policy aims to adopt a regime of management of angling, and restocking, using	+ Improved management of freshwater habitats and species. + Provision of sustainable, safe, recreation yielding high-quality food. + Protection of freshwater habitats. Prevention of	

Plan Components – high level policy proposals	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air	Climatic factors	Material assets	Cultural heritage	Landscape	Inter-relationship issues	Potential Environmental Effects	Anticipated Significance	
												Positive	++
												Minor Positive (Negligible)	+
												Minor Negative (Negligible)	-
												Negative	--
											a sustainable, ecosystem-based-approach, in line with the objectives of the UK Fisheries Act 2020. It could result in positive environmental outcomes for the aquatic environment. Sustainable management of angling estate can protect biodiversity and provide other positive impacts for flora and fauna through site management.	destructive uses of the environment. + Improved management to ensure climate resilience in freshwater ecosystems. + Protection of material assets. + Conservation of culturally significant foods, jobs and lifestyles.	

Plan Components – high level policy proposals	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air	Climatic factors	Material assets	Cultural heritage	Landscape	Inter-relationship issues	Potential Environmental Effects	Anticipated Significance	
												Positive	++
												Minor Positive (Negligible)	+
												Minor Negative (Negligible)	-
												Negative	--
Management of Inland Commercial Fishing	✓	✓	×	✓	×	✓	✓	✓	×	×	Unsustainable commercial fishing has the potential to have significant environmental and socio-economic impacts. The aim is to manage this activity at a sustainable level in the longer term to support future fishing opportunities, biodiversity and ecological resilience.	+ Improved management of freshwater habitats and species. + Sustainable jobs and high-quality food source. + Protection of freshwater habitats. Prevention of destructive uses of the environment. + Improved management to ensure climate resilience in freshwater ecosystems.	

Plan Components – high level policy proposals	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air	Climatic factors	Material assets	Cultural heritage	Landscape	Inter-relationship issues	Potential Environmental Effects	Anticipated Significance
												Positive ++ Minor Positive (Negligible) + Minor Negative (Negligible) - Negative --
												+ Protection of resources which support material assets. + Conservation of culturally significant foods, jobs and lifestyles.
Aquaculture	✓	✓	×	✓	×	✓	✓	✓	×	×	The aim is to update and streamline the aquaculture licensing process to ensure it is fit for purpose and capable of supporting current and future aquaculture operations.	+ Improved management and licensing of aquaculture to prevent harm to species and habitats. + Promote sustainable jobs and high-quality food source.

Plan Components – high level policy proposals	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air	Climatic factors	Material assets	Cultural heritage	Landscape	Inter-relationship issues	Potential Environmental Effects	Anticipated Significance	
												Positive	++
												Minor Positive (Negligible)	+
												Minor Negative (Negligible)	-
												Negative	--
											The new licensing regime will contain a robust assessment process that will require the applicant to clearly demonstrate the environmental impact caused as a result of their proposal. Aquaculture generally has the potential to both positively and negatively impact biodiversity and water quality, therefore a fit for purpose approach would allow for	+ Protection of aquatic environment. Prevention of destructive techniques. + Improved management to ensure climate resilience in aquatic ecosystems. + Protection of resources which support material assets. + Conservation of culturally significant foods, jobs and lifestyles.	

Plan Components – high level policy proposals	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air	Climatic factors	Material assets	Cultural heritage	Landscape	Inter-relationship issues	Potential Environmental Effects	Anticipated Significance
												Positive ++ Minor Positive (Negligible) + Minor Negative (Negligible) - Negative --
											more sustainable management.	
Permitting of Sea Fishing Activities in the Northern Ireland Zone	✓	✓	✓	✓	×	✓	✓	✓	×	×	Aims to provide the option to introduce a permit scheme in the Northern Ireland zone, inshore waters, in specific areas or for a specific species only; such as may be deemed necessary for conservation purposes	+ Greater protections for species and habitats. + Protecting the integrity of marine food-webs which supports the fishing industry (jobs & food). + Potential to prevent harmful activities in benthic habitats + Potential to prevent removal of species that contribute to improved water quality.

Plan Components – high level policy proposals	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air	Climatic factors	Material assets	Cultural heritage	Landscape	Inter-relationship issues	Potential Environmental Effects	Anticipated Significance	
												Positive	++
												Minor Positive (Negligible)	+
												Minor Negative (Negligible)	-
												Negative	--
												+ Improved climate resilience in aquatic ecosystems. + Protection for material assets + Conservation of culturally significant foods, jobs and lifestyles	
Enforcement – Common enforcement powers, introduction of new fines and penalties	✓	✓	×	✓	×	✓	✓	✓	×	×	This aims to provide for a more effective regime for enforcing fishing and water environment regulations by extending the powers of those warranted officers that have that responsibility, thereby contributing to the	+ Greater protections for species and habitats. + Sustaining employment and high-quality food source. + Ensuring safer working conditions in aquatic environment.	

Plan Components – high level policy proposals	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air	Climatic factors	Material assets	Cultural heritage	Landscape	Inter-relationship issues	Potential Environmental Effects	Anticipated Significance	
												Positive	++
												Minor Positive (Negligible)	+
												Minor Negative (Negligible)	-
												Negative	--
											policy of sustainable fisheries.	+ Measures to protect water quality in aquatic environments. + Prevention of destructive activities. + Improved climate resilience in aquatic ecosystems. + Protection of resources which support material assets. + Conservation of culturally significant foods, jobs and lifestyles.	

Matrix Assessment of the proposed Fisheries and Water Environment Bill

The second step of the assessment is used to scrutinise the potential adverse or uncertain impacts that have been identified by the high-level assessment. Each policy area identified as having potential environmental effects is analysed against each of the SEA objectives in more detail.

Key for Likely Effects

+	Likely beneficial environmental effect
0	Neutral/ No effects anticipated
-	Likely adverse environmental effect

Inland Fisheries and Aquaculture Objectives

Table 6 (A) Policy Proposal: Inland Fisheries and Aquaculture Objectives

SEA Theme	Rating	Description
Biodiversity, flora, and fauna	+	The Department wishes to modernise its current approach to managing inland fisheries and aquaculture, adopting an ecosystem-based approach that is consistent with the policy and legislative framework that the UK Fisheries Act 2020 provides for marine stocks. These objectives will frame policies for the protection, conservation and improvement of inland fisheries, fish stocks and aquatic animals. This provides the opportunity for the Department to support and enable sustainable and productive fisheries, maintaining healthy stocks, and minimising adverse impacts to connected habitats and species, and supporting integrity of food-webs.
Population and human health	+	Adoption of a management framework that aligns inland fisheries with the marine objectives of the UK Fisheries Act 2020 would see fisheries managed in a way that does not compromise the capacity of ecosystems to respond to human-induced changes. In doing so, it is expected that fisheries would be managed more sustainably and, over the long term, support provision of jobs and healthy food. Furthermore, efforts to ensure negative impacts on ecosystems are minimised and, where possible, reversed could result in improved environmental conditions for those operating within the aquatic environment both commercially and recreationally.
Soil	0	It is not anticipated that this policy proposal will have an impact on the overall quality of soil.

Water	+	It is anticipated that the application of an updated management framework for inland fisheries will yield an overall net positive result for water quality within the aquatic environment. Adoption of an ecosystem-based approach to management of inland fisheries provides an opportunity for the Department to ensure that the collective pressure of fishing activities is kept within levels compatible with the achievement of overarching environmental commitments such as the commitment to achieving Good Ecological Status in The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017.
Air	0	It is not anticipated that this policy proposal will have an impact on the overall quality of air.
Climate Factors	+	Implementation of a fisheries management plan for inland waters that aligns with the policy set out in the UK Fisheries Act 2020 is expected to have a minor positive environmental impact in relation to climate factors within inland waters. Applying an ecosystem-based approach to inland waters could ensure fishing activity does not compromise the capacity of marine ecosystems to respond to human-induced changes, such as climate change. Sustainable management of fisheries, achieved through reducing bycatch, reducing overfishing, and adopting an ecosystem-focused approach to restocking, has an opportunity to preserve, and restore, the ability of aquatic ecosystems to respond to climate change.
Material Assets	+	The Department seeks to apply an ecosystem-based management approach to inland fisheries to ensure the long-term viability of inland fisheries. By applying objectives which align with the UK Fisheries Act 2020, such as the sustainability objective and the climate change objective, the

		Fisheries and Water Environment Bill has the opportunity to ensure the sustainable future of relevant material assets in Northern Ireland.
Cultural Heritage	+	Adoption of objectives to ensure the long-term, sustainable exploitation of inland fish stocks has potential to restore and maintain populations of harvested species within ecologically sustainable limits. Application of science-led, ecosystem-based management of harvested species, to support long-term exploitation, may be important to securing the future of culturally significant jobs and foods within Northern Ireland.
Landscape and seascape	0	It is not anticipated that this policy proposal will have an impact on the overall quality of the landscape.

Management of Recreational Inland Angling

Table 6 (B) Policy Proposal: Management of Recreational Inland Angling

SEA Theme	Rating	Description
Biodiversity, flora, and fauna	+	The Department seeks to manage recreational inland angling in accordance with the fisheries objectives laid out in the UK Fisheries Act 2020. Adoption of an ecosystem-based approach to fisheries management has the potential to limit the adverse impacts of recreational fishing on aquatic ecosystems. This policy aims to maintain powers to introduce regulations in respect of protection and conservation i.e. bag limits and minimum sizes that will support sustainable use of the resource within all waters, not just DAERA-owned fisheries.

		Implementation of the scientific objective, as outlined in the UK Fisheries Act 2020, has the opportunity to ensure management of fishing activity is based on the best available scientific advice. In comparison with current management methods this has potential to yield improved environmental outcomes for habitats and species.
Population and human health	+	This policy seeks to manage recreational inland angling in accordance with the fisheries objectives. In doing so the Department aims to provide opportunities for public angling through the management of fishing rights and provision of facilities which are safe, sustainable, accessible, and affordable. This commitment to sustainable management of recreational inland angling can ensure long-term availability of a valuable, safe, accessible recreational outlet, beneficial to the physical and mental wellbeing of service users.
Soil	0	It is not anticipated that this policy proposal will have an impact on the overall quality of soil.
Water	+	DAERA seeks to retain the ability to manage the Public Angling Estate (PAE) to support delivery of other governmental policy goals. This requires DAERA to retain the power to protect, conserve and improve the fisheries and associated aquatic habitats, and acquire and manage fishing rights within that context. Through implementation of the fishery objectives, such as the science objective, management of angling activities will be based on the best available scientific advice. It is anticipated that this ecosystem-based management could prevent degradation of water quality within the relevant habitats.
Air	0	It is not anticipated that this policy proposal will have an impact on the overall quality of air.

Climate Factors	+	Through application of fisheries objectives, particularly the climate objective, the Department would aim to minimise the adverse effect of fishing and aquaculture activities on climate change and adapt future management of inland recreational angling in response to the effects of climate change. It is anticipated that these actions could improve the ability of habitats and species to respond to the impacts of climate change.
Material Assets	+	Through ecosystem-based management of recreational fisheries, the Department seeks to ensure facilities are safe, sustainable, accessible, and affordable. It is expected that, through implementation of the sustainability objective, facilities will be managed in a way that is environmentally sustainable in the long term, and managed so as to achieve economic, social and employment benefits, and contribute to the availability of food supplies.
Cultural Heritage	+	Adoption of the sustainability objective, in line with the UK Fisheries Act 2020, could result in enhanced management of inland recreational angling so as to achieve economic, social and employment benefits. In ensuring the long-term viability of recreational angling facilities it is anticipated that there will be positive cultural impact for service-users in both the preservation of recreational activities and the ecosystems within which they take place.
Landscape and seascape	0	It is not anticipated that this policy proposal will have an impact on the overall quality of the landscape.

Management of Inland Commercial Fishing

Table 6 (C) Policy Proposal: Management of Inland Commercial Fishing

SEA Theme	Rating	Description
Biodiversity, flora, and fauna	+	The sustainability objective under the terms of the UK Fisheries Act 2020 seeks to ensure fishing activity is environmentally sustainable in the long term, and managed to achieve economic, social and employment benefits, and contribute to the availability of food supplies. The ecosystem objective seeks to ensure fishing activities are managed using an ecosystem-based approach so as to ensure that the negative impacts on ecosystems are minimised and, where possible, reversed. It is anticipated that, in place of current management techniques for commercial inland fisheries, this policy could lead to a positive environmental outcome for biodiversity, flora and fauna. Implementation of a system of licensing and catch reporting could support application of the scientific objective, ensuring the management of commercial inland fishing activities is based on the best available scientific advice, allowing for dynamic management in response to changing environmental pressures.
Population and human health	+	The policy for management of inland commercial fishing outlines Departmental intentions to manage fisheries in accordance with the fisheries objectives to ensure that current and future generations fish at sustainable levels, providing high quality food and socio-economic benefits for rural communities. It is anticipated that implementation of the objectives of the UK Fisheries Act 2020, in particular the national benefit objective, would enable sustainable management of fisheries

		to bring social or economic benefits. Successful application of this policy has the opportunity to support provision of jobs and high-quality food within Northern Ireland.
Soil	0	It is not anticipated that this policy proposal will have an impact on the overall quality of soil.
Water	+	It is anticipated that the application of an updated management framework for commercial inland fisheries could have a net positive result for water quality within the aquatic environment. Adoption of an ecosystem-based approach to management of inland fisheries provides an opportunity for the Department to ensure that the collective pressure of fishing activities is kept within levels compatible with the achievement of overarching environmental commitments such as the commitment to achieving Good Ecological Status in The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017.
Air	0	It is not anticipated that this policy proposal will have an impact on the overall quality of air.
Climate Factors	+	Integration of the objectives of the UK Fisheries Act 2020 into the management techniques for inland commercial fisheries is anticipated to have a positive environmental impact in relation to climate factors within inland waters. Applying an ecosystem-based approach to inland waters could ensure fishing activity does not compromise the capacity of marine ecosystems to respond to human-induced changes, such as climate change. Sustainable management of fisheries, achieved through reducing bycatch, reducing overfishing, and adopting an ecosystem-focused approach to restocking, has an opportunity to preserve, and restore, the ability of aquatic ecosystems to respond to climate change. Adoption of a licensing and

		catch reporting system would give the Department the opportunity to monitor, and respond to, the impacts climate change within inland commercial fisheries.
Material Assets	+	Through this proposal the Department seeks to apply an ecosystem-based management approach to commercial inland fisheries management, so as to ensure the long-term viability of the fisheries. By applying objectives which align with the UK Fisheries Act 2020, such as the sustainability objective and the climate change objective, the Fisheries and Water Environment Bill has the opportunity to ensure the economic future of relevant material assets in Northern Ireland.
Cultural Heritage	+	Adoption of the sustainability objective, in line with the UK Fisheries Act 2020, could result in enhanced management of inland commercial fishing so as to achieve economic, social and employment benefits. In ensuring the long-term viability of commercial fishing facilities it is anticipated that there will be positive cultural impact for service-users in both the preservation of culturally important food, fisheries, and jobs.
Landscape and seascape	0	It is not anticipated that this policy proposal will have an impact on the overall quality of the landscape.

Aquaculture – Update and Streamline Aquaculture Licensing

Table 6 (D) Policy Proposal: Aquaculture – Update and Streamline Licensing

SEA Theme	Rating	Description
Biodiversity, flora, and fauna	+	The Department wishes to streamline and modernise its current aquaculture licensing process to ensure a comprehensive, transparent licensing system, supporting the sustainable development of aquaculture. It is anticipated that an updated mechanism for licensing aquaculture activities within aquatic ecosystems, aligned with the objectives of the UK Fisheries Act 2020, could deliver a minor positive outcome for biodiversity, flora, and fauna. Implementation of the ecosystem objective would aim to manage activities using an ecosystem-based approach so as to ensure that their negative impacts on marine ecosystems are minimised and, where possible, reversed. Application of the full suite of fisheries objectives would ensure licensing decisions were made using an ecosystem-based approach, with the impacts on species and habitats considered as part of the licensing process.
Population and human health	+	Adoption of a comprehensive, transparent licensing system, with a view to achieving the fisheries objectives, could result in positive effects in relation to population and human health through delivery of sustainable aquaculture that minimises negative effects on host ecosystems. Furthermore, the fisheries objectives aim to deliver environmentally sustainable aquaculture in the long term, managed to achieve economic, social, and employment benefits, and to contribute to the availability of food supplies. Achievement of these objectives could support an aquaculture industry

		that provides jobs and a source of high-quality food, whilst minimising risk to the water environment and public health.
Soil	0	It is not anticipated that this policy proposal will have an impact on the overall quality of the soil.
Water	+	This policy seeks to manage aquaculture licensing with a view to supporting sustainable development of all aquaculture sub-sectors in Northern Ireland. It is anticipated that commitments to sustainable development within aquaculture could bring about improved water quality outcomes when compared to the current licensing system. Furthermore, implementation of a comprehensive licensing system administered by DAERA would ensure relevant environmental assessments are required, and impacts on the environment considered, as part of the initial licensing consultation process.
Air	0	It is not anticipated that this policy proposal will have an impact on the overall quality of the air.
Climate Factors	+	The policy to update and streamline aquaculture licensing is to align with the Departments strategic objectives. These relate to enhancement of Northern Ireland's fishery sectors using sustainable models which support economic growth, whilst protecting the natural environment. Implementation of this policy has potential to ensure the future development of the aquaculture industry is conducted sustainably, with an ecosystem-based approach. Ensuring the protection of the natural environment provides an opportunity to prevent potential adverse environmental impacts and support the ability of habitats and species to respond to the effects of climate change.
Material Assets	+	This policy proposes the sustainable development of the aquaculture sector, updating and streamlining the licensing process. This policy aligns with Departmental strategic objectives relating

		to enhancement of fishery sectors using sustainable models which support economic growth whilst protecting the natural environment. Implementation of the policy has potential to enforce a licensing scheme for aquaculture in accordance with overarching environmental objectives, encouraging adoption of activities which support Northern Ireland's material assets and the environments within which they exist.
Cultural Heritage	+	By ensuring the Northern Ireland aquaculture sector is developed in line with the Departmental strategic objectives, this Department has the opportunity to support a safe, sustainable aquaculture industry which can provide culturally significant jobs and sources of high-quality food. Sustainable aquaculture, licensed using an ecosystem-based approach, may also reduce the pressure on native stocks through supply of popular commercial fish, shellfish, and algae.
Landscape and seascape	0	It is not anticipated that this policy proposal will have an impact on the overall quality of the landscape/seascape.

Permitting of Sea Fishing Activities in the Northern Ireland Zone

Table 6 (E) Policy Proposal: Permitting of Sea Fishing Activities in the Northern Ireland Zone

SEA Theme	Rating	Description
Biodiversity, flora, and fauna	+	Implementation of this policy proposal would grant the Department powers to restrict fishing activity in specific areas or for a specific species, such as may be necessary for conservation purposes. This has potential to contribute to the overall status of important habitats and species within the Northern Ireland marine area.
Population and human health	+	Application of permitting could lead to beneficial outcomes for habitats and species that contribute to the wider marine food-web. This, in turn, could potentially support a more sustainable and profitable fishing industry supporting jobs and providing a high-quality food source.
Soil	+	Strategic implementation of this policy could potentially lead to improved condition in marine sediments by way of preventing harmful fishing practices within vulnerable or ecologically significant benthic habitats.
Water	+	Implementation of a permitting system may be used to restrict certain fishing activities. Application in relation to fishing and hand-gathering shellfish could potentially result in beneficial outcomes for water quality, by way of preventing loss of important filter feeding organisms.
Air	0	It is not anticipated that this policy proposal will have an impact on the overall quality of the air.
Climate Factors	+	Provision of powers to permit sea fishing would give the Department an option to introduce permit schemes in the NI Zone, in-shore waters, specific areas or for specific species. This could

		potentially have beneficial outcomes for marine food-webs, improving the ability of habitats and species to respond to climate change.
Material Assets	+	A permitting system could be employed to prevent harmful fishing practices in specific areas or for specific species. This could be beneficial in preventing activities which undermine the integrity of marine food webs which support a number of material assets in Northern Ireland.
Cultural Heritage	+	Application of permitting could lead to beneficial outcomes for habitats and species that contribute to the wider marine food-web. This, in turn, could potentially promote a more sustainable and profitable fishing industry, supporting culturally significant jobs and foods.
Landscape and seascape	0	It is not anticipated that this policy proposal will have an impact on the overall quality of the landscape/seascape.

Enforcement – Common Enforcement Powers (Introduction of new fines and penalties)

Table 6 (F) Policy Proposal: Enforcement – Common Enforcement Powers

SEA Theme	Rating	Description
Biodiversity, flora, and fauna	+	Provision of common enforcement powers in relation to all sea fisheries legislation for Enforcement Officers could result in positive environmental outcomes for biodiversity, flora, and fauna. These common enforcement powers would enable comprehensive regulation and enforcement measures that can be implemented to deter, prevent, and intercept illegal activities within aquatic ecosystems. Interventions such as these could be used to prevent harmful fishing practices that have negative

		impacts on species and habitats. This policy could also provide comprehensive enforcement powers to protect anadromous and catadromous species throughout their lifecycles by enabling continuity of enforcement across marine and freshwater environments.
Population and human health	+	It is anticipated that implementation of this policy could have positive outcomes for population and human health through the potential to deter and prevent illegal activities which can have destructive impacts on aquatic ecosystems. The policy aims for a consistent enforcement regime that supports ecosystem health and sustainable fish stocks, supporting safe jobs and food sources into the future.
Soil	0	It is not anticipated that this policy proposal will have an impact on the overall quality of the soil.
Water	+	This policy seeks to ensure fisheries officers in Northern Ireland have access to all enforcement powers currently set out in legislation under one framework. This could enable greater confidence in prosecution for offences and ensure an efficient enforcement regime. This provides the Department with equivalent powers to UK and ROI counterparts. It is anticipated that implementation of this policy, with a view to support ecosystem health, could have a positive impact on water quality through prevention of destructive illegal activity.
Air	0	It is not anticipated that this policy proposal will have an impact on the overall quality of the air.
Climate Factors	+	The aim of this policy is to ensure that DAERA staff can employ a consistent enforcement regime that supports ecosystem health and sustainable fish stocks within the Northern Ireland jurisdiction. Successful implementation of this policy has the potential to protect the aquatic environment through prosecution, interception and prevention of offences that could be destructive to habitats

		and species. This policy has potential to support climate resilience within habitats and species through prevention of activities that risk damaging ecosystems, and their ability to respond to the impacts of climate change.
Material Assets	+	Successful prosecution for offences, as a result of this policy, has potential to serve as a significant deterrent to would-be offenders. The policy provides an opportunity for consistent enforcement within the Northern Ireland jurisdiction, with a view to supporting ecosystem health and sustainable fish stocks. Effective implementation of the policy is expected to have a minor positive impact on the Northern Ireland fisheries, contributing to the long-term integrity of these assets, to support future exploitation by legitimate service users.
Cultural Heritage	+	Implementation of a consistent enforcement regime in Northern Ireland could prove beneficial in maintaining sustainable fish stocks whilst also supporting ecosystem health. In applying this policy, the Department has the potential to prevent and deter destructive illegal activities that could impact the long-term integrity of species and habitats. Preventing environmentally destructive practices could support long-term stability for the aquatic environments, as well as the communities that depend on them for recreation, jobs, and food.
Landscape and seascape	0	It is not anticipated that this policy proposal will have an impact on the overall quality of the landscape/seascape.

Potential Environmental Effects by SEA Topic

The following section discusses the recognised potential environmental effects, including secondary, cumulative and synergistic effects, by SEA topic area. It is recognised that, for the most part, the policy proposals of the Fisheries and Water Environment Bill will result in changes to behaviour (enforcement) and how activities are managed (regulation). In summary, the implementation of the Fisheries and Water Environment Bill is not expected to result in any significant adverse environmental effects. Across all SEA topics, the anticipated impacts are negligible, minor and positive, with potential for cumulative benefits resulting from long-term implantation. The Bill aligns with and supports the delivery of national and international environmental objectives, reinforcing Northern Ireland's commitment to sustainable environmental management.

Biodiversity, Flora and Fauna

Overall, it is anticipated that the implementation of the Fisheries and Water Environment Bill will lead to long-term, minor positive effects for biodiversity, flora and fauna. Through adoption of legislation to allow for stronger deterrents against environmental crime, and application of ecosystem-based management for fisheries and aquaculture, it is expected that secondary effects will be observed for a number of different aquatic habitats and species. In terms of culminative and synergistic effects it is likely that the policy could support delivery of ecological objectives such as those set out in the Marine Strategy Regulations 2010. Protection of habitats and species is also a key objective of the Northern Ireland Environmental Improvement Plan which sets an objective for 'thriving, resilient and connected nature and wildlife'.

Population and Human Health

Most of the recommendations in the Fisheries and Water Environment Bill are anticipated to result in minor positive outcomes in relation to population and human health, through a number of secondary effects resulting from implementation of the proposed legislation. It is possible that the collective impacts of these effects will result in improved water quality for service users, improved protections to support the recovery of fish stocks, improved job prospects, and the continued provision of a

high-quality food source into the future. These measures would likely support delivery of the objectives of the UK Fisheries Act 2020, and the resulting Fisheries Management Plans.

Soil

Whilst many of the proposals in the Fisheries and Water Environment Bill are anticipated to have little to no measurable impact on soil and sediments, those that do are expected to result in minor positive effects. Measures to introduce a permitting system for sea fishing could allow for targeted restrictions on the use of bottom-contacting gear within sensitive benthic environments. Improved soil/sediment quality may contribute to the Environmental Improvement Plan target to achieve the sustainable management and efficient use of natural resources including water & soils.

Water

Some of the proposed measures such as enhancement of how fisheries and aquaculture is managed, could potentially have secondary minor positive effects for water quality. In combination, the Fisheries and Water Environment Bill could lead to overall positive outcomes for water quality and possibly contribute to the achievement of national and international objectives over the long term. These water quality objectives include those set out in the Environmental Improvement Plan, the Marine Strategy Regulations 2010 and the Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017.

Air

Through thorough consideration of the policy proposals, it is not anticipated that there will be any significant positive or adverse environmental effects on this topic area.

Climate Factors

Though it is not anticipated that any of the policy proposals will have a direct impact on overall contribution to climate change, it is possible that wider improvements to

water quality, and management of fisheries and aquaculture, could lead to minor positive environmental effects in terms of climate mitigation. Improved environmental conditions may promote climate resilience within aquatic habitats and species, enhancing their ability to respond to a changing climate. Positive outcomes such as this could play a key role in Northern Ireland's overall ability to mitigate, and adapt to, the impacts of climate change.

Material Assets

Most of the recommended policies are expected to result in negligible, or minor positive environmental impacts on material assets. Measures to improve the management of fisheries and aquaculture, paired with increased deterrents to destructive environmental activities could lead to improved water quality and support recovery of fish stocks, features on which material asset such as fisheries and aquaculture depend.

Cultural Heritage

A majority of the proposed policies could result in minor positive effects for cultural heritage over the long term. The secondary impacts of protecting aquatic ecosystems and working to ensure sustainability within the fishing and aquaculture industries are likely to protect culturally significant jobs and food sources into the future.

Landscape and Seascape

Through thorough consideration of the policy proposals, it is not anticipated that there will be any significant positive or adverse environmental effects on this topic area.

Cumulative and Transboundary Effects

Cumulative effects are those that could occur as a result of implementation of the Fisheries and Water Environment Bill together with other plans or programmes. As set out in this document, the Bill has been developed to support, complement, or otherwise take into account the delivery of a number of national and international

environmental objectives. This is demonstrated in Chapter 2 which outlines the strategic, high-level policy proposals and their intent. The Bill is not expected to result in any significant cumulative effects.

Transboundary effects are effects that could occur in other jurisdictions as a result of the Fisheries and Water Environment Bill. The Northern Ireland marine area abuts the marine areas of Scotland, Wales, the Isle of Man, and the Republic of Ireland. As environmental effects of the Bill are predicted to be negligible, the effects on adjacent jurisdictions are also expected to be negligible.

In combination assessment of the effects of each of the scoped-in policies against SEA topics

Table 7 (a) Biodiversity, Flora and Fauna

Policy	Predicted Effect	In-Combination Assessment
Inland Fisheries and Aquaculture Objectives	Negligible	Considering all the relevant assessed policies, the effect on biodiversity, flora and fauna is still predicted to be negligible. Presented in combination, the policy proposals represent a suite of measures that can be taken to deter actions that may result in adverse environmental impacts and ensure environmental outcomes are considered during the decision-making process. Presenting the policies (including any specific provisions) in a written form, at a strategic level, may help to ensure that due consideration is given to biodiversity, flora and fauna in the carrying out of Departmental regulation and enforcement duties. This may help prevent or reduce any potential adverse effect on biodiversity, flora and fauna. The proposed policies in the Fisheries and Water Environment Bill fully reflect all existing commitments and required decision making processes. Overall, the change in baseline conditions for biodiversity, flora and fauna, as a result of the prosed policies, is still predicted to be negligible.
Management of Recreational Inland Angling	Negligible	
Management of Inland Commercial Fishing	Negligible	
Aquaculture – Update and Streamline Licensing	Negligible	
Permitting of Sea Fishing Activities in the Northern Ireland Zone	Negligible	
Enforcement – Common Enforcement Powers	*Negligible*	
Overall Assessment	**Negligible**	

Table 7 (b) Population and Human Health

Policy	Predicted Effect	In-Combination Assessment
Inland Fisheries – Adoption of management framework	Negligible	Considering all the relevant assessed policies, the effect on population and human health is still predicted to be negligible. Presented in combination, the policy proposals represent a suite of measures that can be taken to deter actions that may result in adverse environmental impacts and ensure environmental outcomes are considered during the decision-making process. Presenting the policies (including any specific provisions) in a written form, at a strategic level, may help to ensure that due consideration is given to population and human health in the carrying out of Departmental regulation and enforcement duties. This may help prevent or reduce any potential adverse effect on population and human health. The proposed policies in the Fisheries and Water Environment Bill fully reflect all existing commitments and required decision making processes. Overall, the change in baseline conditions for population and human health, as a result of the prosed policies, is still predicted to be negligible.
Management of Recreational Inland Angling	Negligible	
Management of Inland Commercial Fishing	Negligible	
Aquaculture – Update and Streamline Licensing	Negligible	
Permitting of Sea Fishing Activities in Northern Ireland Zone	Negligible	
Enforcement – Common Enforcement Powers	Negligible	
Overall Assessment	**Negligible**	

Table 7 (c) Soil

Policy	Predicted Effect	In-Combination Assessment
Inland Fisheries and Aquaculture Objectives	Scoped out	Considering all the relevant assessed policies, the effect on soil is still predicted to be negligible. Presented in combination, the policy proposals represent a suite of measures that can be taken to deter actions that may result in adverse environmental impacts and ensure environmental outcomes are considered during the decision-making process. Presenting the policies (including any specific provisions) in a written form, at a strategic level, may help to ensure that due consideration is given to soil in the carrying out of Departmental regulation and enforcement duties. This may help prevent or reduce any potential adverse effect on soil. The proposed policies in the Fisheries and Water Environment Bill fully reflect all existing commitments and required decision making processes. Overall, the change in baseline conditions for soil as a result of the prosed policies, is still predicted to be negligible.
Management of Recreational Inland Angling	Scoped out	
Management of Inland Commercial Fishing	Scoped out	
Aquaculture – Update and Streamline Licensing	Scoped out	
Permitting of Sea Fishing Activities in Northern Ireland Zone	Negligible	
Enforcement – Common Enforcement Powers	Scoped out	
Overall Assessment	**Negligible**	

Table 7 (d) Water

Policy	Predicted Effect	In-Combination Assessment
Inland Fisheries and Aquaculture Objectives	Negligible	Considering all the relevant assessed policies, the effect on water is still predicted to be negligible. Presented in combination, the policy proposals represent a suite of measures that can be taken to deter actions that may result in adverse environmental impacts and ensure environmental outcomes are considered during the decision-making process. Presenting the policies (including any specific provisions) in a written form, at a strategic level, may help to ensure that due consideration is given to water in the carrying out of Departmental regulation and enforcement duties. This may help prevent or reduce any potential adverse effect on water. The proposed policies in the Fisheries and Water Environment Bill fully reflect all existing commitments and required decision making processes. Overall, the change in baseline conditions for water as a result of the prosed policies, is still predicted to be negligible.
Management of Recreational Inland Angling	Negligible	
Management of Inland Commercial Fishing	Negligible	
Aquaculture – Update and Streamline Licensing	Negligible	
Permitting of Sea Fishing Activities in Northern Ireland Zone	Negligible	
Enforcement – Common Enforcement Powers	Negligible	
Overall Assessment	**Negligible**	

Table 7 (e) Climate Factors

Policy	Predicted Effect	In-Combination Assessment
Inland Fisheries and Aquaculture Objectives	Negligible	Considering all the relevant assessed policies, the effect on climate factors is still predicted to be negligible. Presented in combination, the policy proposals represent a suite of measures that can be taken to deter actions that may result in adverse environmental impacts and ensure environmental outcomes are considered during the decision-making process. Presenting the policies (including any specific provisions) in a written form, at a strategic level, may help to ensure that due consideration is given to climate factors in the carrying out of Departmental regulation and enforcement duties. This may help prevent or reduce any potential adverse effect on climate factors. The proposed policies in the Fisheries and Water Environment Bill fully reflect all existing commitments and required decision making processes. Overall, the change in baseline conditions for climate factors, as a result of the prosed policies, is still predicted to be negligible.
Management of Recreational Inland Angling	Negligible	
Management of Inland Commercial Fishing	Negligible	
Aquaculture – Update and Streamline Licensing	Negligible	
Permitting of Sea Fishing Activities in Northern Ireland Zone	Negligible	
Enforcement – Common Enforcement Powers	Negligible	
Overall Assessment	**Negligible**	

Table 7 (f) Material Assets

Policy	Predicted Effect	In-Combination Assessment
Inland Fisheries and Aquaculture Objectives	Negligible	Considering all the relevant assessed policies, the effect on material assets is still predicted to be negligible. Presented in combination, the policy proposals represent a suite of measures that can be taken to deter actions that may result in adverse environmental impacts and ensure environmental outcomes are considered during the decision-making process. Presenting the policies (including any specific provisions) in a written form, at a strategic level, may help to ensure that due consideration is given to material assets in the carrying out of Departmental regulation and enforcement duties. This may help prevent or reduce any potential adverse effect on material assets. The proposed policies in the Fisheries and Water Environment Bill fully reflect all existing commitments and required decision making processes. Overall, the change in baseline conditions for material assets, as a result of the prosed policies, is still predicted to be negligible.
Management of Recreational Inland Angling	Negligible	
Management of Inland Commercial Fishing	Negligible	
Aquaculture – Update and Streamline Licensing	Negligible	
Permitting of Sea Fishing Activities in Northern Ireland Zone	Negligible	
Enforcement – Common Enforcement Powers	Negligible	
Overall Assessment	**Negligible**	

Table 7 (g) Cultural Heritage

Policy	Predicted Effect	In-Combination Assessment
Inland Fisheries and Aquaculture Objectives	Negligible	Considering all the relevant assessed policies, the effect on cultural heritage is still predicted to be negligible. Presented in combination, the policy proposals represent a suite of measures that can be taken to deter actions that may result in adverse environmental impacts and ensure environmental outcomes are considered during the decision-making process. Presenting the policies (including any specific provisions) in a written form, at a strategic level, may help to ensure that due consideration is given to cultural heritage in the carrying out of Departmental regulation and enforcement duties. This may help prevent or reduce any potential adverse effect on cultural heritage. The proposed policies in the Fisheries and Water Environment Bill fully reflect all existing commitments and required decision making processes. Overall, the change in baseline conditions for cultural heritage, as a result of the prosed policies, is still predicted to be negligible.
Management of Recreational Inland Angling	Negligible	
Management of Inland Commercial Fishing	Negligible	
Aquaculture – Update and Streamline Licensing	Negligible	
Permitting of Sea Fishing Activities in Northern Ireland Zone	Negligible	
Enforcement – Common Enforcement Powers	Negligible	
Overall Assessment	**Negligible**	

9. Mitigation and Monitoring

The iterative development of the Fisheries and Water Environment Bill and SEA involved the consideration of a continued 'business as usual' approach and an assessment of the potential effects on the wider environment from the implementation of the high-level proposals. A scoping exercise was completed with expert input from Statutory Consultees to inform the further development of the Fisheries and Water Environment Bill and accompanying Environmental Report.

Mitigation

The proposed environmental effects of implementation of the strategic, high-level policies set out in the Fisheries and Water Environment Bill are included in the Assessment Results section of this document.

A new Bill is required to modernise and give effect to Northern Ireland's fisheries policies so that these are consistent with the fisheries management framework provided by the UK Fisheries Act 2020. In particular, new legislation is needed for the purpose of managing aquaculture and inland fisheries.

It is the overarching aim of the Fisheries and Water Environment Bill to ensure the fisheries policies aligned to the fisheries management framework are animated in legislative provision, and to include both the marine and freshwater environments within scope, allowing for development of policies to:

- Focus on improving water quality and ecosystem health,
- Promote sustainable fish stocks, and
- Ensure appropriate enforcement deterrents for breaches of legislation.

The assessment of the policies indicates that the potential effects on the environment from their implementation are positive, reflecting the nature of their development as protective measures. Generally, the proposed policies put forward in the Bill could largely be viewed as deliberately beneficial to the SEA topics, with potentially positive benefits for factors such as water quality over the long-term. A factor which could have knock-on effects on many key areas including biodiversity, population and human health, material assets, and cultural heritage.

Alignment with the UK Fisheries Act 2020 would provide scope for the Department to respond to environmental pressures in accordance with the fisheries objectives. In doing so, the Bill itself could be implemented so as to prevent or mitigate adverse environmental impacts typically observed within marine and freshwater environments.

The Fisheries and Water Environment Bill is comprised of high-level, strategic policy proposals that principally amount to a suite of mitigation measures designed to respond to current environmental pressures. It is therefore unlikely that feasible mitigation measures could be designed and adopted to mitigate for the Bill itself. No further mitigation is required.

With little scope to mitigate it is prudent to highlight that, as set out in the reasonable alternatives section of this report, implementation of these strategic policies is anticipated to result in net positive environmental outcomes, when compared with current regulatory and enforcement measures. The enforcement perspective is expected to pose a much more significant deterrent to illegal activities whilst regulatory policy seeks to ensure activities such as fishing and aquaculture are managed sustainably, with a focus on ecosystem health and water quality.

Monitoring

It is a requirement of the EAPP Regulations (Northern Ireland) 2004 to establish how the significant environmental effects of implementing the Fisheries and Water Environment Bill will be monitored with the purpose of identifying any unforeseen adverse effects. As set out in Government Guidance (September 2005) **A Practical Guide to the Strategic Environmental Assessment Directive** *it is not necessary to monitor everything or monitor an effect indefinitely. Instead, monitoring needs to be focused on significant sustainability* effects. Similarly, the EAPP Regs (NI) provide for the responsible authority's monitoring arrangements to comprise or include existing monitoring arrangements.

DAERA has determined that the Fisheries and Water Environment Bill is unlikely to create any adverse environmental effects. Accordingly, as no significant environmental effects have been predicted as part of this assessment DAERA, as

the Responsible Authority, is not required to specifically monitor for such effects under the EAPP Regs.

While DAERA recognises that monitoring and evaluation of progress towards the objectives, targets and policy intent of the Bill would be useful, it is acknowledged that realistically it would be extremely difficult to directly form a definitive causal link between:

- the initial policy areas under the proposed Fisheries and Water Environment Bill consultation
- the finished legislative Act; and
- the future actions of decision makers / wider public in terms of their contact / interaction with the finished Act.

Accordingly, any form of traditional monitoring of the outworkings of this stage of the Fisheries and Water Environment Bill is likely to be skewed by various tenuous assumptions to relate an effect (either positive or negative) back to the specifics of this assessment stage of the Bill. Various other specific marine / inland fisheries management plans and guidance will also be driving change in these sectors and are equally likely to be the potential cause of positive or negative environmental effects.

Any future strategic monitoring regime should endeavour to identify any unforeseen adverse effects at an early stage, however, due to the nature of the policies set out in the Fisheries and Water Environment Bill, it is expected that linking any resulting environmental effects to its implementation would be exceptionally complicated.

It is suggested than any form of monitoring of the Fisheries and Water Environment Bill and its progression in law in Northern Ireland should be set at a very strategic level and should draw from existing Departmental monitoring programmes to track progress towards national and international environmental targets. Due to the wide-ranging and long-term nature envisaged for the Bill and its overall objectives, it is expected that progress towards national and international objectives will be incremental in the short term. The Department is keen to develop a suitable form of legislative monitoring in due course.

Specifically, useful information could be gathered from monitoring any enhanced enforcement regime set in place by the finalised Act. Numbers of fines, the financial severity of fines, and the consideration and application of the enforcement regime by the relevant Courts will yield supporting evidence to demonstrate how the Act is being applied and its enforcement ability to function as a modern and suitable deterrent in such cases.

Annex 1

Policy Framework

The relevance of the below policies and objectives across several SEA topics is recognised, but for this report they have been listed under only one topic. The list cites key policies but, for the purposes of brevity and clarity, it is not exhaustive.

Biodiversity, Flora, and Fauna

Objective: *Conserve and protect aquatic biodiversity, including species and habitats.*

Policy:

Nature Conservation and Amenity Lands (Northern Ireland) Order 1985
Wildlife (Northern Ireland) Order 1985
Marine (Northern Ireland) Act 2013
Wildlife and Natural Environment Act (Northern Ireland) 2011
Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995
Environment (NI) Order 2002
The Marine Strategy Regulations 2010
The Fisheries Act 2020
Fisheries Act (Northern Ireland) 1966
The Environment (NI) Order 2002
Biodiversity Strategy for NI
UK Joint Fisheries Statement 2022
United Nations Convention on the Law of the Sea (UNCLOS)
Legislation

Water and Soils

Objective: *Achieve and maintain high water quality and sustainable soil management.*

Policy:

Water Framework Directive (2000/60/EC)

The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017
The Water (Amendment) (Northern Ireland) (EU Exit) Regulations 2019
Water Resources Act 1991
The Marine Strategy Regulations 2010
Environmental Liability (Prevention and Remediation) Regulations (Northern Ireland) 2009
Sustainable Agricultural Land Management Strategy
Nutrient Action Programme Regulations (Northern Ireland) 2019
The Water (Northern Ireland) Order 1999
UK Marine Policy Statement and Draft Marine Plan for Northern Ireland
The Draft NI peatland policy
Northern Ireland River Basin Management Plans

Air

Objective: *Improve air quality to protect both human health and the aquatic environment.*

Policy:

Clean Air (Emission of Dark Smoke) Regulations 1981
Clean Neighbourhoods and Environment Act (Northern Ireland) 2011
Climate Change Act (Northern Ireland) 2022
Climate Change Agreements (Eligible Facilities) Regulations 2001 & 2006

Climate Factors

Objective: *Mitigate climate change impacts, enhancing resilience of aquatic ecosystems.*

Policy:

Climate Change Act (Northern Ireland) 2022
Blue Carbon Action Plan
Northern Ireland Climate Change Adaptation Programme
Northern Ireland Climate Action Plan (draft)
Environmental Improvement Plan for Northern Ireland

Socio-Demographics

Objective: *Promote environmental justice and equitable access to clean aquatic resources.*

Policy:

Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 1999

Environmental Uses and Activities

Objective: *Regulate and manage human activities to prevent aquatic environmental degradation.*

Policy:

Marine and Coastal Access Act 2009
Marine (Northern Ireland) Act 2013
Sea Fisheries (International Commission for the Conservation of Atlantic Tunas) (Amendment) (No. 2) Regulations 2024
Draft Environment Strategy
NI Executive Sustainable Development Strategy
The Draft Green Growth Strategy

Material Assets

Objective: *Ensure sustainable use of aquatic resources and infrastructure.*

Policy:

Water Resources Act 1991
Conservation and protection enforcement programme

Cultural Heritage

Objective: *Protect and preserve marine and freshwater cultural heritage.*

Policy:

Protection of Wrecks Act 1973
Historic Monuments and Archaeological Objects (Northern Ireland) Order 1995
Protection of Military Remains Act 1986
Merchant Shipping Act 1995
Treasure Act 1996
Planning (Northern Ireland) Act 2011
Convention for the Protection of the Architectural Heritage of Europe (Granada, 1985)
Convention for the Protection of the Archaeological Heritage of Europe (revised) (Valletta, 1992)
Regional Development Strategy 2035
Archaeology 2030 - A Strategic Approach for Northern Ireland
The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017

Landscape and Seascape

Objective: *Conserve and enhance the visual and ecological integrity of aquatic landscapes.*

Policy:

Nature Conservation and Amenity Lands (Northern Ireland) Order 1985

Nature Conservation and Amenity Lands Order (NI) 1985 (NCALO)

Draft Marine Plan for Northern Ireland

The Strategic Planning Policy Statement (SPPS) for Northern Ireland

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