

# Blue Carbon Action Plan for Northern Ireland

## Consultation Document 2024



Department of

**Agriculture, Environment  
and Rural Affairs**

An Roinn

**Talmhaíochta, Comhshaoil  
agus Gnóthaí Tuaithe**

Department o'

**Fairmin, Environment  
an' Kintra Matthers**

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<https://daera-ni.gov.uk/BlueCarbonActionPlan>

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**Front cover image credit:** DAERA – Saltmarsh meadow at north Strangford Lough Marine Conservation Zone

## Ministerial Foreword



I am delighted to launch a public consultation into the creation of the first ever Blue Carbon Action Plan for Northern Ireland. The development of this Plan signifies a pivotal moment in our understanding of how marine ecosystems can help contribute to climate change mitigation and adaptation. It is recognised that if these habitats become degraded or damaged their ability to capture and store greenhouse gases declines. As well as recognising how Blue Carbon habitats provide nature-based solutions to climate change, it also acknowledges the wider environmental and societal benefits they provide. This Blue Carbon Action Plan outlines the steps required for these special habitats to be protected and managed appropriately. The development of the Plan has taken place in tandem with a Review of the Marine Protected Areas (MPA) Strategy offering a timely opportunity to consider the protection and restoration of blue carbon habitats within the existing Marine Protected Areas network.

Both the Blue Carbon Action Plan and the Review of the MPA Strategy have been developed using an innovative co-design approach with the Biodiversity and Climate Stakeholder Working Group. I would like to take this opportunity to thank the stakeholders that have been involved in the development of this Plan so far. I would also like to strongly encourage anyone who feels they can contribute, in words and also in actions, to respond to this consultation so that together we can produce a resilient Blue Carbon Action Plan that has the potential to bring wide-ranging benefits to our environment and society.

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## Introduction

We are currently facing twin crises of biodiversity loss and climate change, the latter resulting in increased temperatures, storm events, flooding and droughts, and having significant effects on ecosystems, infrastructures, economies and human populations<sup>1</sup>. Without immediate action to address these crises in conjunction, the impacts from biodiversity loss and climate change will accelerate. One such action is the use of Nature-based solutions to protect and restore marine ecosystems while mitigating against climate change through absorption of carbon dioxide.

Blue carbon is the term used to describe the atmospheric carbon dioxide, a greenhouse gas, that is captured and stored by coastal and marine ecosystems. As well as providing important habitats for biodiversity, blue carbon habitats can provide nature-based solutions to climate change, as well as wider environmental and societal benefits.

Recognising the importance of blue carbon habitats and the need for intervention, in February 2022, the DAERA Minister made an Oral Statement to the Northern Ireland Assembly outlining the need for a bespoke Blue Carbon Action Plan for Northern Ireland.

This consultation paper details the draft of the first Blue Carbon Action Plan for Northern Ireland. It has been developed using a co-design approach with the Biodiversity and Climate Stakeholder Working Group<sup>2</sup> through three facilitated workshops and on-to-one meetings that took place through 2022 and 2023.

## How to Respond to this Consultation

You are invited to respond to this consultation through an [online survey](#) that is quick and simple to complete. Please supplement your response with any relevant supporting information, evidence and/or analysis. If you are unable to complete the survey online, please contact the team by email: [marineconservation@daera-](mailto:marineconservation@daera-)

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<sup>1</sup> [Tackling the Twin Climate Change and Biodiversity Crises - events | IUCN](#)

<sup>2</sup> See [Annex 1](#) for a list of the Biodiversity and Climate Change Stakeholder Working Group members.



[ni.gov.uk](https://ni.gov.uk) or 028 7744 2191. The type of survey questions you will find in the online survey are described at relevant points throughout this document.

## What are Blue Carbon habitats?

Blue carbon habitats in temperate coastal and inshore environments include saltmarsh, seagrass beds, shellfish beds, kelp, and maerl beds. These habitats have the potential to be managed to protect and even increase their carbon sequestration. Not only do these habitats act as a nature-based solution to climate change, but they also offer wider high-value ecosystem services such as protection against coastal erosion and flooding and habitats to support wider biodiversity including nursery grounds for commercially important fish species. There are also wider societal benefits including opportunities for recreation, improved health, and improved water quality.

When blue carbon habitats become degraded or damaged, their climate change mitigation capacity is reduced, lost or even reversed as stored carbon may be released. Their wider environmental and societal benefits may also be adversely impacted, including their role in climate change adaptation.

## Why has Northern Ireland developed a Blue Carbon Action Plan?

The **Climate Change Act (Northern Ireland) 2022**<sup>3</sup> is a statutory instrument that creates a framework that will establish a pathway to achieving emission reduction targets which will ensure that Northern Ireland makes a contribution to the achievement of the UK 2050 Net Zero target. In addition, there are a set of interim targets for 2030 and 2040 for reducing greenhouse gas emissions in Northern Ireland. The Act introduces a requirement for the development of sectoral Climate Action Plans, which will set out the actions required to meet sector-specific greenhouse gas emission targets. Fisheries activities, including aquaculture, will require a Sectoral Plan.

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<sup>3</sup> [Climate Change Act \(Northern Ireland\) 2022](#)

Therefore, the Blue Carbon Action Plan for Northern Ireland (hereafter referred to as the 'Blue Carbon Action Plan') reflects the need to embed nature-based projects in plans and policies to meet the Net Zero target.

The development of the Blue Carbon Action Plan took place in tandem with a review of the Marine Protected Areas (MPA) Strategy for the Northern Ireland inshore region (within 12 nautical miles of the coast)<sup>4</sup>. The concurrent review of the 2014 MPA Strategy offered a timely opportunity to consider the protection and restoration of blue carbon habitats within the existing MPA network, where appropriate.

### **Northern Ireland's Existing Blue Carbon Habitats**

At present, Northern Ireland has no specific blue carbon monitoring programmes, however, a number of existing monitoring programmes are implemented to meet the requirements of the Water Environment<sup>5</sup> and Habitats Regulations<sup>6</sup> which provide useful evidence on Northern Ireland's blue carbon habitats.

DAERA currently monitors intertidal seagrass and saltmarsh in Lough Foyle, Larne Lough, Strangford Lough, Inner Dundrum Bay and Carlingford Lough. This monitoring measures spatial extent and community composition of these habitats. It has been undertaken since 2012 at least twice in a six-year rolling programme, or more frequently if any change is detected.

Although the Blue Carbon Action Plan is focussed on the marine environment, it is of note that DAERA commissioned research is ongoing in relation to assessing the carbon sequestration potential of freshwater systems. This separate, but complementary workstream, will also contribute towards climate mitigation.

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<sup>4</sup> [Strategy for Marine Protected Areas in the Northern Ireland inshore region | Department of Agriculture, Environment and Rural Affairs \(daera-ni.gov.uk\)](#)

<sup>5</sup> [The Water Environment \(Water Framework Directive\) Regulations \(Northern Ireland\) 2017](#)

<sup>6</sup> [The Conservation \(Natural Habitats, etc.\) Regulations \(Northern Ireland\) 1995 \(as amended\)](#)

## Northern Ireland's Blue Carbon Habitat and the Marine Protected Area (MPA) Network

The Northern Ireland MPA network is made up of 48 MPAs covering 38% of the inshore region<sup>7</sup>. They comprise 5 types of designation: Marine Special Areas of Conservation (SACs), Marine Special Protected Areas (SPAs), Coastal Areas of Special Scientific Interest (ASSIs), Marine Conservation Zones (MCZs) and Ramsar sites. The protected features in these areas have been identified as ecologically important and of conservation concern. Blue carbon habitats are features that can be protected by MPAs.

Waterfoot MCZ was designated in 2016 for the protection of its seagrass (a blue carbon habitat) which is currently the largest and best-known example of subtidal seagrass bed habitat in Northern Ireland. A condition assessment report concluded that the MCZ maintained favourable condition status in 2022.

Where blue carbon habitats' presence and condition is confirmed within the existing MPA network, an opportunity exists to protect these sites through available management measures. This is why the Blue Carbon Action Plan and review of the MPA Strategy have been co-developed in tandem.

In January 2023, legislation<sup>8</sup> was introduced to manage fishing activities in the inshore MPA network, which will help to provide additional protection for the seagrass habitat at Waterfoot MCZ, subtidal seagrass in Skerries and Causeway SPA, and other blue carbon habitats within the network, such as maerl beds in Red Bay and The Maidens SACs.

## Northern Ireland's Blue Carbon Potential

In 2021, Ulster Wildlife published a DAERA-commissioned feasibility study on Blue Carbon Restoration in Northern Ireland<sup>9</sup> which estimated that coastal blue carbon habitats are present in 658 km<sup>2</sup> of the Northern Ireland inshore region, with 56% of

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<sup>7</sup> [Marine Protected Areas | Department of Agriculture, Environment and Rural Affairs \(daera-ni.gov.uk\)](https://www.daera-ni.gov.uk/marine-protected-areas)

<sup>8</sup> [The Marine Protected Areas \(Prohibited Methods of Fishing\) \(Amendment\) Regulations \(Northern Ireland\) 2022](#)

<sup>9</sup> [Blue Carbon Restoration in Northern Ireland - Feasibility Study, 2021](#)



this habitat occurring within the existing MPA network. The study also estimated that there was an opportunity to significantly develop blue carbon potential in Northern Ireland waters via protection, restoration, and creation of habitat.

Focussed survey work to confirm the extent and condition of Northern Ireland's blue carbon habitats is required to establish an evidence baseline which will shape the delivery of the Blue Carbon Action Plan and inform those involved in its implementation. Without the establishment of this baseline, including the identification of gaps, the potential for blue carbon habitat protection, restoration and creation will not be fully realised.

## **A Co-Design Approach**

The Blue Carbon Action Plan has been developed using a co-design approach with stakeholders supported by DAERA. This approach, taking account of the views of a wide range of stakeholders and securing buy-in for proposed actions, represents a balanced model to deliver sustainable biodiversity and climate change policies for our marine environment. Stakeholder engagement in marine conservation creates potential opportunities for community led conservation initiatives and builds support for potential solutions to challenges as they emerge. This provides a foundation for successful and adaptive management approaches.

The co-design process began in September 2022 with the establishment of the Climate and Biodiversity Working Group and the appointment of facilitators from the Strategic Investment Board. A broad range of stakeholders with an interest in marine policy were included in the Working Group ([Annex 1](#)) and their purpose was to consider proposed draft objectives of the Blue Carbon Action Plan in tandem with a review of the 2014 MPA Strategy. The co-design process included three full day facilitated workshops and a series of one-to-one calls between facilitators and stakeholders.

## **Broader Strategic Context**

The co-design and development of the Blue Carbon Action Plan and the review of the MPA Strategy supports several high priority, high-level and interlinked policies

and strategies relating to climate change and biodiversity on a global, UK, and Northern Ireland level.

## Global and North-East Atlantic Region

### United Nations Convention on Biological Diversity

At an international level, the development of the Blue Carbon Action Plan will contribute towards a number of biodiversity targets within the Kunming-Montreal Global Biodiversity Framework (GBF), agreed at the Convention on Biological Diversity in 2022<sup>10</sup>, particularly:

- **Target 2** which aims to “*ensure that by 2030 at least 30% of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity.*”
- **Target 3** to “*ensure and enable that by 2030 at least 30% of terrestrial and inland water areas, and of marine and coastal areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas*”, and
- **Target 14.** *That the multiple values of biodiversity are integrated into decision-making at all levels.*

### United Nations Framework Convention on Climate Change

From a climate perspective, the Blue Carbon Action Plan will also deliver against the goals of the **United Nations Framework Convention on Climate Change Paris Agreement**, to reduce global greenhouse gas emissions, and to limit global temperature increase<sup>11</sup>.

### OSPAR Convention

The Blue Carbon Action Plan will contribute towards achieving the various strategic and operational objectives and targets that are included in the OSPAR (Oslo-Paris Convention for the Protection of the Marine Environment of the North-East Atlantic)

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<sup>10</sup> [Recommendation Adopted By The Working Group On The Post-2020 Global Biodiversity Framework \(cbd.int\)](#)

<sup>11</sup> [United Nations Framework Convention on Climate Change Paris Agreement](#)

particularly the **North-East Atlantic Environment Strategy 2030**<sup>12</sup>. These include targets relating to natural carbon stores, the achievement of biologically diverse and healthy seas, and restoration of degraded habitats while safeguarding ecosystem function and resilience to climate change.

## United Kingdom (UK)

### UK Marine Strategy

The overarching **UK Marine Strategy (2010)**<sup>13</sup> sets out a comprehensive framework for assessing, monitoring, and using our seas to achieve the UK's shared vision for clean, healthy, safe, productive and biologically diverse marine environment. The requirement to assess, monitor and put in place measures to achieve or maintain Good Environmental Status for UK seas is enshrined in legislation and demonstrates the combined commitments of the four administrations to work together to monitor and protect what are some of the most biologically diverse and productive seas in the North-East Atlantic. Within the updated UK Marine Strategy Part Three, DAERA has stated its commitment to the development of a new MPA Strategy and an action plan to protect and restore blue carbon habitats.

### UK Joint Fisheries Statement

The value of both climate resilient ecosystems and blue carbon habitats, are recognised within the **UK Joint Fisheries Statement (JFS)**<sup>14</sup>. The JFS sets out the ambition of the UK to continue delivering sustainable management of fisheries, recognising that a healthy and resilient marine environment is the foundation for a prosperous seafood sector and thriving coastal communities. The JFS also recognises the importance of protecting and restoring blue carbon habitats to support resilience to climate change.

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<sup>12</sup> [North-East Atlantic Environment Strategy 2030](#)

<sup>13</sup> [UK Marine Strategy \(2010\)](#)

<sup>14</sup> [Joint Fisheries Statement \(JFS\)](#)

## Northern Ireland

### The Climate Change Act (Northern Ireland) 2022

In addition to the Climate Change Act setting targets for net zero greenhouse gas emissions by 2050, it also requires biodiversity impact to be considered in setting the carbon budget. Plans and policies to achieve the budget (such as Climate Action Plans) should, where practicable, use nature-based solutions that enhance biodiversity; and illustrate responsibility to protect or restore ecosystems to aid carbon mitigation efforts. The Climate Action Plan sets out both how we get to net zero, and how we are enhancing biodiversity in the process.

The Blue Carbon Action Plan includes a draft objective and action to include Northern Ireland's blue carbon habitats in the UK Greenhouse Gas Inventory<sup>15</sup>. This contribution will be made via the Land Use, Land-Use Change and Forestry<sup>16</sup> sectoral input to the Northern Ireland Climate Action Plan.

### Draft Green Growth Strategy

The draft **Green Growth Strategy**<sup>17</sup> is the Northern Ireland Executive's multi-decade strategy, balancing climate, environment and the economy in Northern Ireland. It sets out the long-term vision and framework for addressing climate change in an ambitious and sustainable way.

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<sup>15</sup> [UK greenhouse gas emissions statistics - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/uk-greenhouse-gas-emissions-statistics)

<sup>16</sup> [Land Use, Land-Use Change and Forestry \(LULUCF\)](#)

<sup>17</sup> [A Green Growth Strategy for Northern Ireland – Balancing our climate, environment and economy](#)

## The draft Green Growth Strategy 2050 vision is that:

Northern Ireland has taken significant action for the climate and our environment, has placed nature and biodiversity on a path to recovery, and moved from a high to a low emissions society.

We have made this change fairly and have demonstrated a responsibility for each other and for the place in which we live.

As a result of all our efforts, we have a more resilient environment with a healthy ecosystem and a strong sustainable economy. More people are employed in green jobs and all generations benefit from improved wellbeing.

### [Northern Ireland Environmental Improvement Plan](#)

As part of the Northern Ireland Executive's Green Growth strategy, DAERA is progressing a new **Northern Ireland Environmental Improvement Plan**, which will form the basis for a coherent and effective set of interventions that can deliver real improvements in the quality of the environment, and thereby improve the health and well-being of all who live and work here. Legislative provisions contained within the Northern Ireland Environment Act 2021 place a statutory duty on DAERA to publish an Environmental Improvement Plan. The Blue Carbon Action Plan will contribute to the improvement of the environment.

### [Draft Marine Plan for Northern Ireland](#)

The draft **Marine Plan for Northern Ireland**<sup>18</sup> is being developed within the framework of the UK Marine Policy Statement to facilitate the sustainable development of the marine area. The draft Marine Plan has a number of objectives in common with the Blue Carbon Action Plan, such as contributing to climate change mitigation and adaptation measures, promoting healthy, resilient and adaptable marine ecosystems and promoting the marine resource, its recreational value and its wider economic, environmental and social benefits to all.

### [DAERA Draft Nature Recovery Strategy](#)

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<sup>18</sup> [Draft Marine Plan for Northern Ireland](#)



DAERA is currently developing a **Draft Nature Recovery Strategy** which has strong linkages to the development of the Blue Carbon Action Plan and review of the MPA Strategy. Protecting, restoring and, where possible, creating marine habitats, and maintaining these as healthy functioning ecosystems for the long-term is the principal goal of this combined exercise. It is essential that a balance is struck, ensuring the right measure is carried out in the most appropriate place so that carbon mitigation efforts do not undermine biodiversity, rather complement and enhance it. The draft Nature Recovery Strategy is also working to implement the targets of the Kunming-Montreal Global Biodiversity Framework<sup>19</sup>.

This Blue Carbon Action Plan represents a commitment to the protection, and where possible, restoration of Northern Ireland's blue carbon habitats and considers habitat creation where feasible.

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<sup>19</sup> [Kunming-Montreal Global Biodiversity Framework \(cbd.int\)](https://www.cbd.int/framework)

# A Blue Carbon Action Plan for Northern Ireland

## Proposed Vision

The vision for Northern Ireland outlines where we see ourselves within the next few decades. The vision of the Blue Carbon Action Plan is:

By 2050, Northern Ireland has protected, well-managed and enhanced blue carbon habitats, providing us with increased carbon storage alongside wider ecosystem service benefits, which help address the challenges presented by climate change and biodiversity loss.

We will achieve the vision by co-delivering aims, objectives and actions across a range of stakeholders and the public. Draft aims, objectives and actions have been discussed in workshops with stakeholders throughout 2022-2023, and the Biodiversity and Climate Stakeholder Working Group envisages that their adoption will maximise Northern Ireland's blue carbon capacity as a nature-based solution for delivering climate change mitigation and adaptation while supporting biodiversity recovery and providing wider societal benefits.

### Online questionnaire format:

**Do you agree with the proposed vision?**

	Yes	No
Do you agree with the proposed vision?	<input type="radio"/>	<input type="radio"/>

Please provide further comments to support your answer

## Proposed Aims

The aims of the Blue Carbon Action Plan are to:

1. Establish and maintain a framework that monitors and protects Northern Ireland's existing blue carbon habitats, supporting their active management, creation and restoration;
2. Promote blue carbon habitats as a nature-based solution for addressing the challenges presented by climate change and biodiversity loss, while highlighting wider societal benefits; and
3. Align the Blue Carbon Action Plan with cross-cutting policies relating to climate change, biodiversity and other environmental obligations, recognising the linkages between marine and terrestrial ecosystems.

Online questionnaire format:

For each of the proposed aims, you will be asked the following questions:

	Yes	No
Do you agree this aim?	<input type="radio"/>	<input type="radio"/>
Please provide further comments to support your answer		
<input type="text"/>		

## Proposed Objectives

Following discussion among the Biodiversity and Climate stakeholder working group during the co-design process, seven key SMART objectives were identified for the Blue Carbon Action Plan falling within six themes:

### Theme 1: Evidence

1. Continue to collate evidence and by 2025 publish a baseline for Northern Ireland's blue carbon habitats in terms of location, extent and condition, against which the monitoring and assessment can be carried out.
2. From 2024 undertake research projects in partnership with stakeholders to contribute to the evidence base for total blue carbon stocks and flows in Northern Ireland's marine environment, advancing the inclusion of Northern Ireland's blue carbon contribution to the UK Greenhouse Gas Emissions Inventory and the UK Climate Change Risk Assessments. This will also consider the impacts of human activities and climate change on these stocks.

### Theme 2: Prioritisation

3. By 2025 identify and agree a mechanism of prioritisation of Northern Ireland's blue carbon habitats for management, restoration and creation.

### Theme 3: Restoration And Creation

4. From 2024 continue to promote blue carbon pilot projects, leading to the initiation of demonstration and larger scale prioritised restoration and creation projects, delivered with stakeholders.

### Theme 4: Funding

5. From 2024 develop funding to support delivery of the Plan, to include exploring opportunities for green finance and other revenue streams.

### Theme 5: Governance

6. Establish an inclusive governance structure within the first three months of the Blue Carbon Action Plan being published and implement to deliver for climate action and biodiversity benefits.

### Theme 6: Communication

7. From 2024 promote blue carbon as a nature-based solution for climate action and wider biodiversity, societal and environmental benefits in support of the draft Green Growth Strategy, accompanied with an effective engagement, outreach and communications strategy.

#### Online questionnaire format:

For each of the proposed objectives, you will be asked the following questions:

	Yes	No
Do you agree with this objective?	<input type="radio"/>	<input type="radio"/>

Please provide further comments to support your answer

## Proposed Actions

The proposed SMART actions required to deliver against the objectives of the Blue Carbon Action Plan are presented in Tables 1-7 in [Annex 2](#). SMART actions are specific, measurable, achievable, relevant and time bound.

### Online questionnaire format:

For each of the proposed actions, you will be asked to consider if they are sufficient to meet the relevant objective.

	Yes	No
Are actions numbered 1.1 – 1.5 sufficient to meet objective 1?	<input type="radio"/>	<input type="radio"/>

You will also have the opportunity to add comments as below

Please outline which action(s) your organisation may be able to contribute to.

Comments:

Thank you for taking the time to respond to this consultation. Having reviewed the Blue Carbon Action Plan is there anything else that you wish to add?

Please provide further comments to support your answer



## **Proposed Governance, Monitoring and Evaluation**

### **Governance**

The establishment of a governance structure to effectively deliver the outcomes of the Blue Carbon Action Plan within three months of its publication is a key objective. Governance has been discussed with stakeholders during the Action Plan's development and it is a shared aspiration that this be accountable and inclusive, utilising existing arrangements and linkages to achieve efficiency and avoid replication. The governance structure will oversee the Action Plan as a whole, with sub-groups responsible for the oversight of projects in partnership with stakeholders. Furthermore, alignment between the governance structure for the Action Plan and that for the reviewed MPA Strategy is necessary to streamline progress against objectives for both areas where there are linked actions.

### **Monitoring and Reporting**

DAERA is committed to reporting environmental status under several statutory obligations summarised in Table 1 (below). The Blue Carbon Action Plan has been developed in tandem with a review of the MPA Strategy, with the latter recognising the need to develop and deliver a new monitoring and reporting framework to outline statutory requirements and policy drivers, ensure sufficient information is gathered for assessment purposes and to incorporate monitoring of discrete blue carbon habitats. The new framework will also take account of the need to assess the effectiveness of management measures; including measures adopted in the implementation the Blue Carbon Action Plan. Having timely and accurate information on the effectiveness of management measures will enable the implementation of the Blue Carbon Action Plan and allow for adaptive management approaches to habitat protection and restoration.

Blue carbon monitoring and reporting should, where possible, complement MPA reporting obligations (Table 1). Reporting under other priority work areas, such as the Northern Ireland Climate Change Act, may be incorporated into the monitoring and evaluation for the Blue Carbon Action Plan, once these requirements are established.

**Table 1:** DAERA Environmental Status Reporting Cycle

	International			UK				NI
	Convention on Biological Diversity	OSPAR Convention	Bern Convention	Habitats Regulations	Birds Directive	Marine Strategy	Water Framework Regulations	Marine Act (Northern Ireland) 2013
<b>Reporting cycle frequency / next due</b>	Intervals determined by Conference of the Parties (COPs)	Every 10 years	Every 6 years 2025	Every 6 years 2025	Every 6 years 2025	Every 6 years 2024	Every 6 years 2023	Every 6 years 2024

## **Annex 1: List of Co-Design Stakeholders**

### **Non-Governmental Organisations**

- Ulster Wildlife (UW)
- Royal Society for the Protection of Birds (RSPB)
- Northern Ireland Marine Task Force (NIMTF)
- National Trust
- Wildfowl & Wetlands Trust (WWT)
- Seasearch Northern Ireland

### **Industry**

- Northern Ireland Fishermen's Federation (NIFF)
- Anglo North Irish Fish Producers' Organisation (ANIFPO)
- Northern Ireland Fish Producers' Organisation (NIFPO)
- North Coast Shellfish Fishermen
- Islander Kelp
- Aquaculture Representatives Group (ARG)

### **Government and public bodies**

- Department for the Economy (DfE) - Renewables
- The Crown Estate
- Northern Ireland Local Government Association (NILGA)
- Newry Mourne and Down District Council
- Ards and North Down Borough Council
- Derry City and Strabane District Council
- Armagh City, Banbridge and Craigavon Borough Council
- Loughs Agency
- The Agri-Food and Biosciences Institute (AFBI)
- Seafish
- SportNI
- Rathlin Development Community Association

## **Universities**

- Queen's University Belfast (QUB)
- Ulster University (UU)

## **Cross-border**

- Department for Housing, Local Government and Heritage
- University College Dublin (UCD)
- University College Cork (UCC)
- Coastwatch and Sustainable Water Network (SWAN)

## **Correspondence only**

- Causeway Coast and Glens Borough Council
- Antrim and Newtownabbey Borough Council
- Belfast City Council
- Mid Ulster District Council
- County Down Rural Community Network
- Ulster Farmer's Union
- Fermanagh and Omagh District Council
- Northern Ireland Scallop Fishermen's Association
- North Eastern Lobster Fishermen's Co-operative (NELCO)
- Renewable NI
- Outdoor Recreation NI

## Annex 2: Blue Carbon Action Plan – Actions Table

**Table 1: Evidence theme objective and associated actions**

Theme	Objective No.	Objective	Action No.	Action – how will we achieve the objective?
Evidence	1	Continue to collate evidence and by 2025 publish a baseline for Northern Ireland’s blue carbon habitats in terms of location, extent and condition, against which the monitoring and assessment can be carried out.	1.1	In 2024 consolidate existing data on the location and spatial extent of Blue Carbon habitats in the Northern Ireland marine area. Include data on condition, pressures and threats where available. Identify data gaps.
			1.2	Utilise historical mapping and data to augment and supplement current extent data.
			1.3	DAERA will continue to implement monitoring and assessment options for blue carbon habitats as part of its annual MPA monitoring programme, building on existing assessments completed in previous monitoring programmes. Provide annual report on monitoring programme.
			1.4	By 2025, as Actions 1.1 - 1.3 have progressed, a gaps analysis report will be published.
			1.5	Data Management and Sharing - facilitate sharing of data and ensure metadata meets appropriate standard. Communicate developments through use of a Storymap.

			2.1	By 2025 complete an evidence literature review to look at marine management interventions globally, and evaluate their application within Northern Ireland (including e.g. restoration projects; best practice globally, regionally, nationally)
		From 2024 undertake research projects to contribute to the evidence base for total blue carbon stocks and flows in Northern Ireland's marine environment, in partnership with stakeholders, advancing the inclusion of Northern Ireland's blue carbon contribution to the UK Greenhouse Gas Emissions Inventory and the UK Climate Change Risk Assessments.	2.2	By 2025, the Biodiversity and Climate Working Group will review recommendations of the literature review from Action 2.1. and use these to inform which research projects to progress and the potential delivery partners.
	2		2.3	From 2024 - Project specific funding opportunities to be considered amongst Biodiversity and Climate Working Group.
			2.4	From 2024 resources (such as the Blue Carbon Evidence Partnership Evidence Needs Paper) will be shared as appropriate.
			2.5	Develop an evidence paper providing inventory tiered-emissions factors, applying to Northern Ireland's marine/ coastal habitats, including aquaculture contribution to the Northern Ireland Marine Sectoral Plan.
			2.6	Commission research and projects in partnership with stakeholders focussed on saltmarsh and seagrass restoration/creation.



**Table 2: Prioritisation theme objective and associated actions**

Theme	Objective No.	Objective	Action No.	Action – how will we achieve the objective?
Prioritisation	3	By 2025 identify and agree a mechanism of prioritisation of Northern Ireland’s blue carbon habitats for management, restoration and creation.	3.1	Consult on and agree prioritisation criteria and a mechanism for bespoke Northern Ireland application. Prioritisation includes a cost-benefit exercise to consider all of the services provided by the habitat/ecosystem.
			3.2	Apply prioritisation criteria to blue carbon habitats to develop business cases for management, restoration and creation projects.

**Table 3: Restoration and Creation theme objective and associated actions**

Theme	Objective No.	Objective	Action No.	Action – how will we achieve the objective?
Restoration and Creation	4	From 2024 continue to promote blue carbon pilot projects, leading to the initiation of demonstration and larger scale prioritised restoration and creation projects, delivered with stakeholders.	4.1	Agree appropriate criteria and processes for the selection of restoration and creation projects.
			4.2	Contribute to new Global Biodiversity Framework target (By 2030 at least 30% of degraded habitats are under effective restoration) when considering monitoring to demonstrate positive change from degraded to restored.
			4.3	Using the Saltmarsh handbook as a basis, develop a Northern Ireland framework for: <ul style="list-style-type: none"> <li>- Native oysters</li> <li>- Saltmarsh</li> </ul>

				<ul style="list-style-type: none"> <li>- Seagrass and</li> <li>- Other habitats that don't have handbooks and keep these up to date as new evidence arises.</li> </ul>
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**Table 4: Funding theme objective and associated actions**

Theme	Objective No.	Objective	Action No.	Action – how will we achieve the objective?
Funding	5	From 2024 develop funding to support delivery of the Plan, to include exploring opportunities for green finance and other revenue streams.	5.1	By 2025 create an accessible record of current and future funding options, and ascertain which partners are eligible to apply.
			5.2	Explore non-financial sources of assistance e.g. private sector access to resources/equipment (e.g. drones, novel equipment etc.), on an ongoing basis.
			5.3	Biodiversity and Climate Working Group to identify additional Government funding, to approach potential funders, and pitch for blue carbon project funding. Advantages, highlighting nature-based solutions to climate change and biodiversity, and disadvantages of not progressing actions must be outlined. Biodiversity and Climate Working Group to consider ethical investment options e.g. carbon credits.
			5.4	Collate demonstration project applications in line with agreed priorities of Objective 3

Theme	Objective No.	Objective	Action No.	Action – how will we achieve the objective?
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Governance	6	Establish an inclusive governance structure within the first three months of the Blue Carbon Action Plan being published and implement to deliver for climate action and biodiversity benefits.	6.1	Publish suggested governance structure. Agree final governance structure and implement accordingly.
			6.2	By 2024 explore the necessity of a North-South technical working group to share information and ensure a joined-up approach to meeting targets. Progress as required.

**Table 6 Communications theme objective and associated actions**

Theme	Objective No.	Objective	Action No.	Action – how will we achieve the objective?
Comms.	7	From 2024 promote blue carbon as a nature-based solution for climate action and wider biodiversity, societal and environmental benefits in support of the Green Growth Strategy, accompanied with an effective engagement, outreach and communications strategy.	7.1	From 2024 integrate and coordinate objectives across other departmental, local government, and public and arms-length body strategies.
			7.2	Develop a Communications Framework linking with existing communications group where appropriate and develop an integrated Community Engagement Strategy/Framework to maximise the social, economic, health and other benefits that blue carbon can bring to communities.
			7.3	From 2024 develop an Education, Outreach and Skills Retention and Enhancement Strategy/Framework.

## Annex 3: Glossary

**Areas of Special Scientific Interest (ASSIs)** are declared under *The Environment (Northern Ireland) Order 2002*<sup>20</sup> for their species, habitat and/or geological features.

**Biodiversity** – is the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they form part; this includes diversity within species, between species and of ecosystems.

**Carbon Sequestration** - used to describe when carbon dioxide is removed from the atmosphere and held in a solid or liquid form, can occur naturally or be technology driven.

**Ecological coherence** – refers to the representation and replication of biodiversity features, and the linkages between those features. It also refers to the resilience of the network as a whole, and how well the range and geographic variation of the biodiversity features are covered within the network.

**Ecosystem services** – provide benefits to people from the resources and processes supplied by natural ecosystems.

**Marine Conservation Zone (MCZ)** – used to refer to MCZs designated under section 13 of the Marine Act (Northern Ireland) 2013 in the Northern Ireland inshore region and in section 116 of the Marine and Coastal Access Act 2009 in the Northern Ireland offshore region. MCZs are designated to safeguard vulnerable or unique marine species and habitats of national importance.

**Marine Protected Area (MPA)** – Used to describe a geographic area of the marine environment which has been designated for specific conservation objectives in relation to the features present. The ultimate aim of these sites is for long-term management to achieve sustainable use, both for marine ecosystems and associated stakeholders.

**MPA Network** – used to describe a network of designated sites, often inter-connected by type (SACs, SPAs, MCZs), legislative drivers and devolved areas.

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<sup>20</sup> <https://www.legislation.gov.uk/nisi/2002/3153/part/IV>

**Nature-based Solution-** used to describe actions to protect, sustainably manage, and restore natural and modified ecosystems which play a role in preventing biodiversity loss. Such solutions benefit people and nature at the same by supporting adaptation, resilience, and mitigation against climate change.

**Net zero** - used to describe a target by which the Northern Ireland departments must ensure the net Northern Ireland emissions account for the year 2050 is at least 100% lower than the current baseline. This baseline is the aggregate amount of net Northern Ireland emissions of each greenhouse gas in the year specified in relation to that gas (1990 for Carbon dioxide, Methane and Nitrous oxide; 1995 for Hydrofluorocarbons, Perfluorocarbons, Sulphur hexafluoride and Nitrogen trifluoride).

**OSPAR** – refers to the **Oslo - Paris Convention for the Protection of the Marine Environment of the North-East Atlantic**. It is an agreement by relevant governments and the European Community to co-operate to protect the marine environment of the North-East Atlantic. <sup>21</sup>

**Ramsar**<sup>22</sup> sites are wetlands of international importance designated under the *Ramsar Convention* and are classified as MPAs.

**Restoration** - the process of improving or returning a marine ecosystem or habitat to a healthier and more natural state after it has been damaged or degraded by human activities or environment factors.

**Special Areas of Conservation**<sup>23</sup> (**SACs**) are designated under the *Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended)*<sup>24</sup> for the conservation of natural habitats and of wild flora and fauna.

**Special Protected Areas (SPAs)** are designated under the *Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended)* to select sites for bird species

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<sup>21</sup> [OSPAR](#)

<sup>22</sup> [https://www.ramsar.org/sites/default/files/documents/library/scan\\_certified\\_e.pdf](https://www.ramsar.org/sites/default/files/documents/library/scan_certified_e.pdf)

<sup>23</sup> <https://www.legislation.gov.uk/ukxi/2017/1012/part/2/crossheading/european-sites/made>

<sup>24</sup> [Conservation \(Natural Habitats, etc.\) Regulations \(Northern Ireland\) 1995 \(as amended\)](#)

included in Annex 1 of the Habitats Directive, and also for regularly occurring migratory species.

**Sustainable Development** – “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (Brundtland Report, 198730)

## Annex 4: Publication of Responses

### Confidentiality

The Department will publish a summary of responses following completion of the consultation process. Your response, and all other responses to the consultation may be disclosed on request. The Department can refuse to disclose information only in exceptional circumstances. Before you submit your response, please read the paragraphs below on the confidentiality of consultations as these provide guidance on the legal position of any information given by you in response to this consultation. Any confidentiality disclaimer generated by your IT system in e-mail responses will not be treated as such a request.

### Data Protection

Section 8 (e) of the Data Protection Act 2018 permits processing of personal data when necessary for an activity that supports or promotes democratic engagement. Information provided by respondents to this consultation exercise will be held and used for the purposes of the administration of this current exercise and subsequently disposed of in accordance with the provisions of the Data Protection Act 2018 and General Data Protection Regulation.

### Freedom of Information

The Freedom of Information Act 2000 gives the public a right of access to any information held by a public authority (the Department in this case). This right of access to information includes information provided in response to a consultation. The Department cannot automatically consider as confidential information supplied to it in response to a consultation. However, it does have the responsibility to decide whether any information provided by you in response to this consultation, including information about your identity, should be made public or treated as confidential. This means that information provided by you in response to the consultation is unlikely to be treated as confidential, except in very particular circumstances.

The Lord Chancellor's Code of Practice on the Freedom of Information Act provides that:

- The Department should only accept information from third parties in confidence if it is necessary to obtain that information in connection with the exercise of any of the Department's functions and it would not otherwise be provided.
- The Department should not agree to hold information received from third parties 'in confidence' which is not confidential in nature.
- Acceptance by the Department of confidentiality provisions must be for good reasons, capable of being justified to the Information Commissioner.

For further information about confidentiality of responses, please contact the Information Commissioner's Office:

Telephone: 0303 123 1113

Email: [ni@ico.org.uk](mailto:ni@ico.org.uk)

Website [www.ico.org.uk](http://www.ico.org.uk)



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