



Marine  
Management  
Organisation

# Stage 4 Call for Evidence: Introduction

December 2023



...ambitious for our seas and coasts

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## Executive summary

The Marine Management Organisation (MMO) is responsible for managing fishing to protect marine protected areas (MPAs) in English waters beyond 6 nautical miles (nm) from the coast. MMO is delivering fisheries management measures to protect all English MPAs in this area by the end of 2024. This work is taking place over four stages.

This document introduces Stage 4 of this work, which is focussed on the assessment and management of the impacts of fishing on marine bird and harbour porpoise features in five MPAs.

This document also provides information on the Stage 4 call for evidence. The call for evidence is split into sections for harbour porpoise and marine birds and includes questions on Impacts Evidence documents, pressures of interest and potential management options. The purpose of the call for evidence is to seek additional evidence and views on the information provided. Management decisions have not been made yet for Stage 4 MPAs, the information gathered from this call for evidence will be considered in these decisions.

Following the call for evidence, MMO will finalise the Impacts Evidence documents and use them, alongside information received on pressures of interest and management options, to inform site level assessments on the impacts of fishing on each Stage 4 MPA. Where required, management measures will be developed by MMO, based on the outcome of the site level assessments and further stakeholder engagement.

# 1 Introduction

MMO is responsible for assessing and managing fishing activities for the protection of MPAs offshore of 6 nm from the coast in English waters. We are carrying out this work in four stages.

Stage 1 of this work resulted in the implementation of MMO byelaws for four offshore MPAs<sup>1</sup>. Stage 2 of this work will manage bottom towed gear over rock and reef features in specified areas of 13 MPAs<sup>2</sup>. Stage 3 will manage the impacts of fishing on seabed features not already considered at Stages 1 or 2.

Stage 4 considers the impacts of fishing on offshore MPAs designated for highly mobile species: harbour porpoise and marine birds. Figure 2 displays the five MPAs considered at Stage 4. Figure A2.1 in Annex 2 Map of MPAs for all stages displays all the MPAs considered in the whole project from Stage 1 to 4.

There are two MPAs designated to protect harbour porpoise within MMO's jurisdiction:

- Southern North Sea MPA; and
- Bristol Channel Approaches MPA.

There are three MPAs designated to protect marine birds within MMO's jurisdiction (Table 1 displays the marine bird features for each MPA):

- Greater Wash MPA;
- Liverpool Bay MPA; and
- Outer Thames Estuary MPA.

MMO is considering impacts of fishing on these MPAs offshore of 6 nm in English waters. **Section 2** of this document outlines the roles and responsibilities of MMO and other organisations with responsibilities for the marine environment.

**Section 3** of this document provides detailed information on the Stage 4 methodology. To inform our assessment and management of fishing impacts for Stage 4, we have gathered and analysed the best available evidence on fishing impacts. This information has been captured in two draft 'Stage 4 Fishing Gear MPA Impacts Evidence' documents<sup>3</sup>, one for marine bird features and one for harbour

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<sup>1</sup> Stage 1 byelaws: [Dogger Bank MPA](#), [South Dorset MPA](#), [The Canyons MPA](#) and [Inner Dowsing, Race Bank and North Ridge MPA](#) (last accessed 21 August 2023).

<sup>2</sup> Stage 2: [Understand MMO marine conservation byelaws - GOV.UK \(www.gov.uk\)](#)

<sup>3</sup> Stage 4 Fishing Gear MPA Impacts Evidence: Marine Birds, Harbour Porpoise and Impacts Evidence Summary documents – [www.gov.uk/government/publications/marine-protected-areas-stage-4-impacts-evidence](http://www.gov.uk/government/publications/marine-protected-areas-stage-4-impacts-evidence) (last accessed 30 August 2023).

porpoise. Through drafting the Impacts Evidence documents, pressures of interest from certain fishing activities in harbour porpoise and marine bird MPAs have been identified. Alongside this, MMO has identified some potential management options for the pressures of interest.







MMO is now holding a call for evidence to seek evidence and views on the Impacts Evidence documents, pressures of interest and potential management options. Figure 1 provides a summary of the documents to be considered. **Sections 4 and 5** of this document provide detailed information related to each part of the call for evidence. **Section 6** provides information on how to access and respond to the call for evidence.

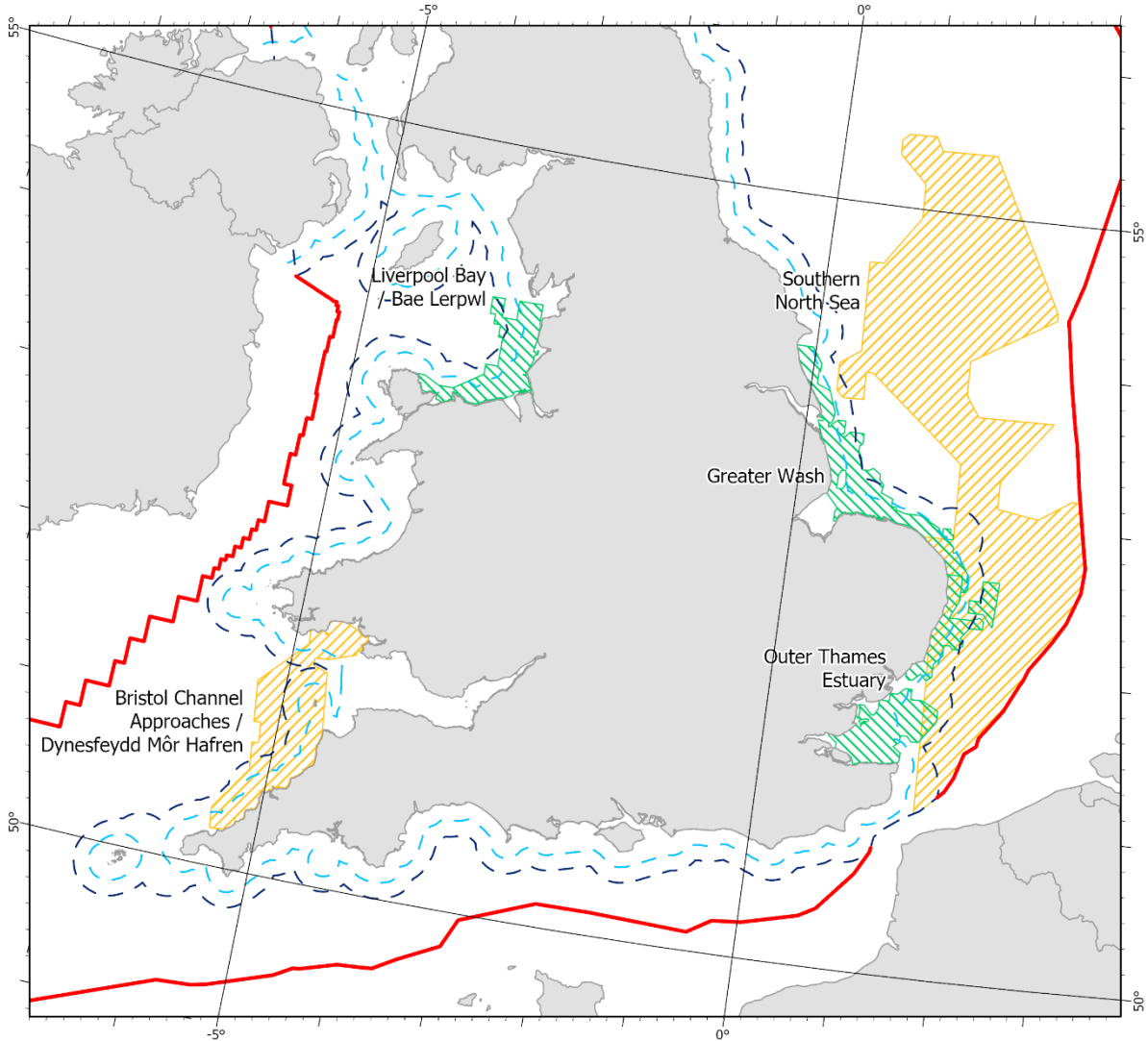
**Section 7** includes information on the next steps following the call for evidence. This includes using the evidence gathered to update our existing documents and inform site level assessments. If required, we can consider measures (such as byelaws) to manage fishing activities in order to further the conservation objectives of MPAs, in consultation with our advisors, stakeholders and the public. We intend to assess, and where appropriate, put in place necessary management measures by the end of 2024.



**Figure 1. Diagram showing the documents drafted and available to review as part of the Stage 4 call for evidence.**

**Table 1. Summary of marine bird MPA features.**

MPA feature		Greater Wash MPA	Liverpool Bay MPA	Outer Thames Estuary MPA
	<i>Image: Red-throated diver © 1186291699 Shutterstock.</i>	✓	✓	✓
<b>Red-throated diver</b>				
	<i>Image: Sandwich tern with sandeel © Natural England/ Allan Drewitt 15 June 2016.</i>	✓		
<b>Sandwich tern</b>				
	<i>Image: Male common scoter © Natural England/ JNCC.</i>	✓	✓	
<b>Common scoter</b>				
	<i>Image: Little gull in flight © MMO/Ronan McLaughlin.</i>	✓	✓	
<b>Little gull</b>				
	<i>Image: Little tern feeding young © 1986930695 Shutterstock.</i>	✓	✓	✓
<b>Little tern</b>				
	<i>Image: Common tern © Natural England/ Rebecca Walker August 2014.</i>	✓	✓	✓
<b>Common tern</b>				
<b>Waterbird assemblage</b>			✓	



**Admin Maritime Limits**

- UK Exclusive Economic Zone (2013)
- - UK Territorial Sea Limits
- - - 6 Nautical Mile Limit, 1983 baseline (UKHO)

**Marine Protected Areas**

- Stage 4 Harbour Porpoise Sites
- Stage 4 Marine Birds Sites



Date of Publication: 23/08/2023  
 Coordinate System: ETRS 1989 LAEA  
 Projection: Lambert Azimuthal Equal Area  
 Datum: ETRS 1989  
 MMO Reference: 10760

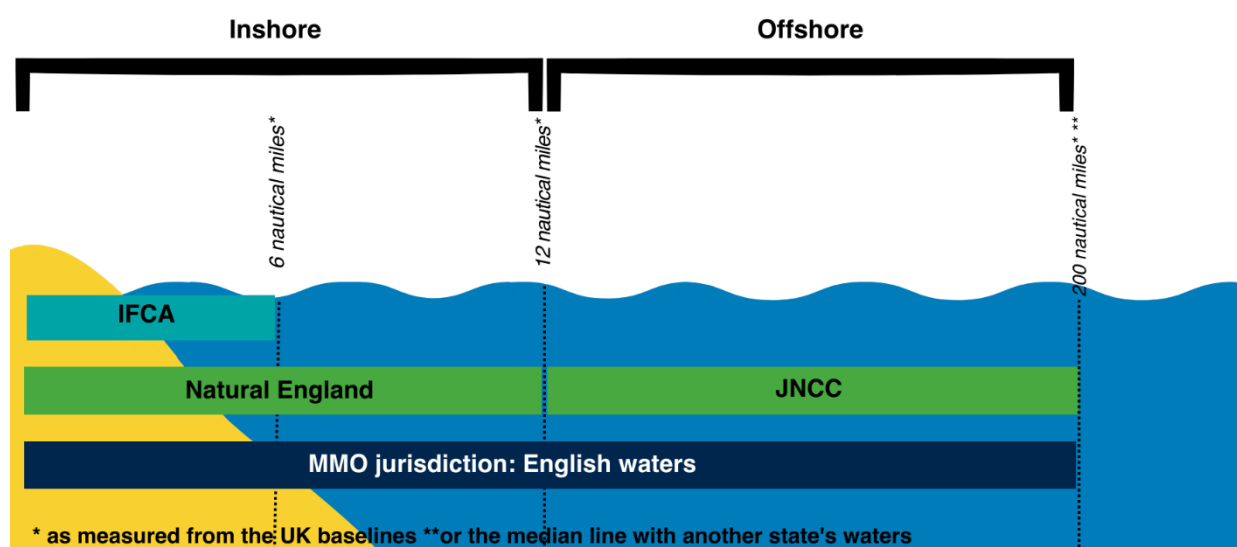
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**Figure 2. Map showing the location of MPAs considered at Stage 4.**

## 2 Roles and responsibilities

There are a number of organisations with responsibilities for the marine environment and with roles in reviewing the potential impacts of fishing activity. This section provides a brief overview of some of these organisations, their jurisdictions and how they are engaged with for this work. This is also summarised in Figure 3.

### MMO fisheries management jurisdiction



**Figure 3. Diagram showing the jurisdiction of MMO, Joint Nature Conservation Committee (JNCC), Natural England and Inshore Fisheries and Conservation Authorities (IFCAs).**

#### MMO

MMO has powers to manage fishing across English waters and leads on assessing and managing the impacts of fishing on the designated features (protected habitats and species) of MPAs in English waters offshore of 6 nm. These assessments aid the delivery against legal obligations for marine conservation zones (MCZs) and European marine sites (EMS), which include special areas of conservation (SAC) and special protection areas (SPA). These are collectively referred to as MPAs. Figure 4 displays the MMO remit waters of the sites being considered in Stage 4.

#### Inshore Fisheries and Conservation Authorities (IFCAs)

There are ten IFCAs in England, with jurisdictions inshore of 6 nm. IFCAs are responsible for assessing fishing impacts and where necessary, introducing management to protect MPAs. Where MPAs straddle the 6 nm limit, MMO works closely with IFCAs to ensure a consistent and clear management approach.



### JNCC and Natural England

The Joint Nature Conservation Committee (JNCC) and Natural England are the government's statutory nature advisors for England, and provide conservation advice for MPAs, and report on the condition of protected features. In English waters, Natural England is responsible for inshore MPAs (up to 12 nm limit) and JNCC for offshore MPAs (between 12 nm to 200 nm).

JNCC and Natural England outline conservation objectives in their conservation advice packages (Natural England via the [Designated Sites System](#)<sup>4</sup>; JNCC through [Site Information Centres](#)<sup>5</sup>).

Conservation objectives set out the broad ecological aims for MPAs. MMO and other regulators are responsible for ensuring that our decisions help further these conservation objectives. To produce the Stage 4 fishing gear MPA impacts evidence documents we have used the conservation advice packages and conducted direct consultation with both JNCC and Natural England. Further information on conservation advice packages is available online via JNCC and Natural England webpages.

### The Welsh Government

The Welsh Government are responsible for managing the impacts of fishing on the features of MPAs in Welsh waters, including the inshore region. In cases where Stage 4 MPAs are also located within Welsh waters, MMO liaises with the Welsh Government.

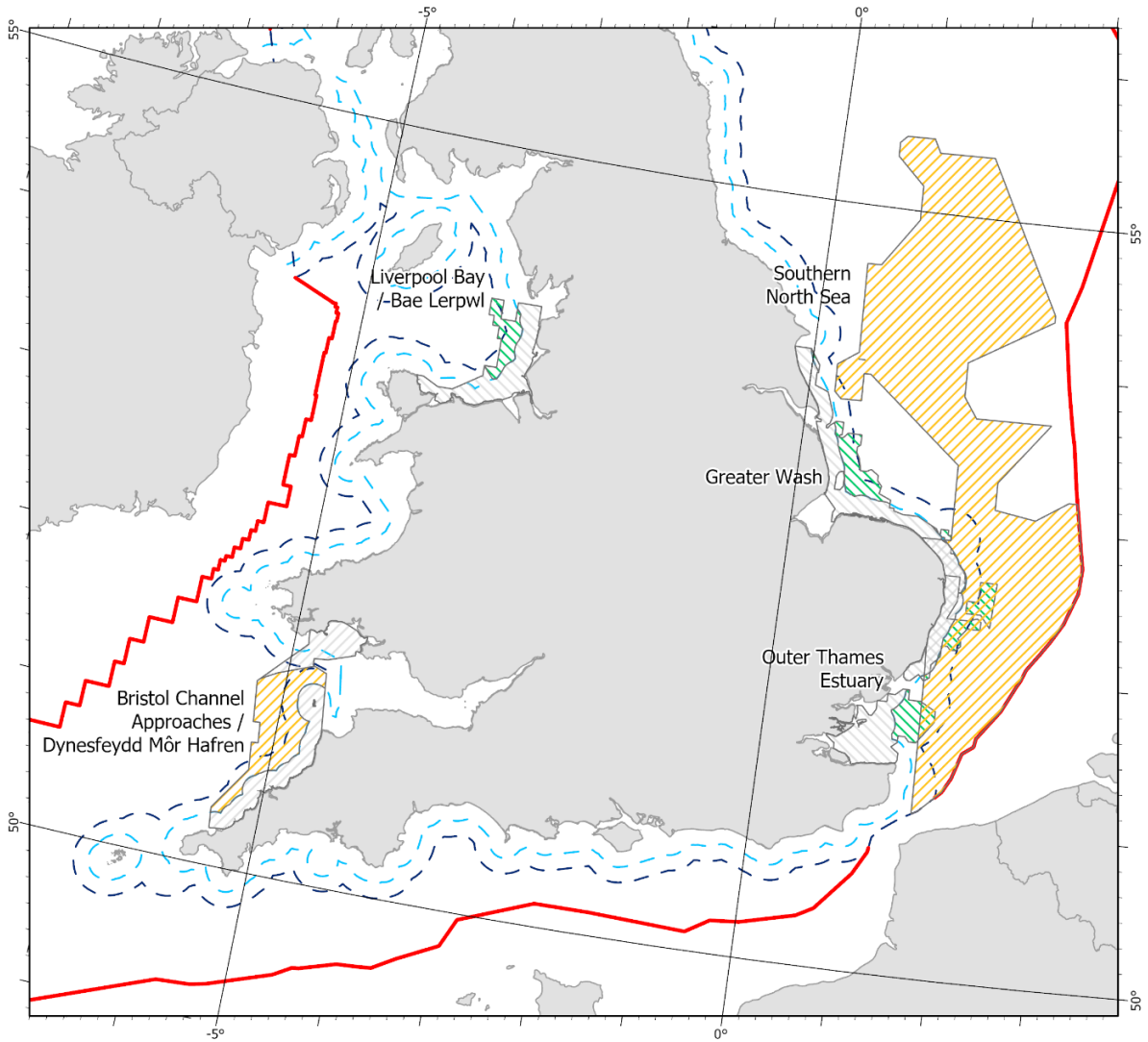
### Natural Resources Wales

Natural Resources Wales (NRW) are the statutory nature advisors for Wales. In cases where Stage 4 MPAs are also located within Welsh waters, MMO liaises with and considers advice from NRW.

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<sup>4</sup> Natural England Designated Sites System - [designatedsites.naturalengland.org.uk/](https://designatedsites.naturalengland.org.uk/) (last accessed 28/07/2023)

<sup>5</sup> JNCC Offshore Marine Protected Area Site Information Centre - [jncc.gov.uk/our-work/offshore-mpas/](https://jncc.gov.uk/our-work/offshore-mpas/) (last accessed 28/07/2023)



<b>Admin Maritime Limits</b>	<b>Stage 4 MPAs (MMO remit)</b>
UK Exclusive Economic Zone (2013)	Harbour Porpoise Sites
UK Territorial Sea Limits	Marine Birds Sites
6 Nautical Mile Limit, 1983 baseline (UKHO)	<b>Stage 4 MPAs (IFCA or Welsh remit)</b>
	Harbour Porpoise Sites
	Marine Birds Sites



Date of Publication: 23/08/2023  
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 MMO Reference: 10760

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**Figure 4. Map showing the MMO remit of each MPA considered at Stage 4.**

### 3 Stage 4 - methodology

This section outlines the steps taken for Stage 4. Figure 5 provides a step-by-step flow diagram summarising the process.

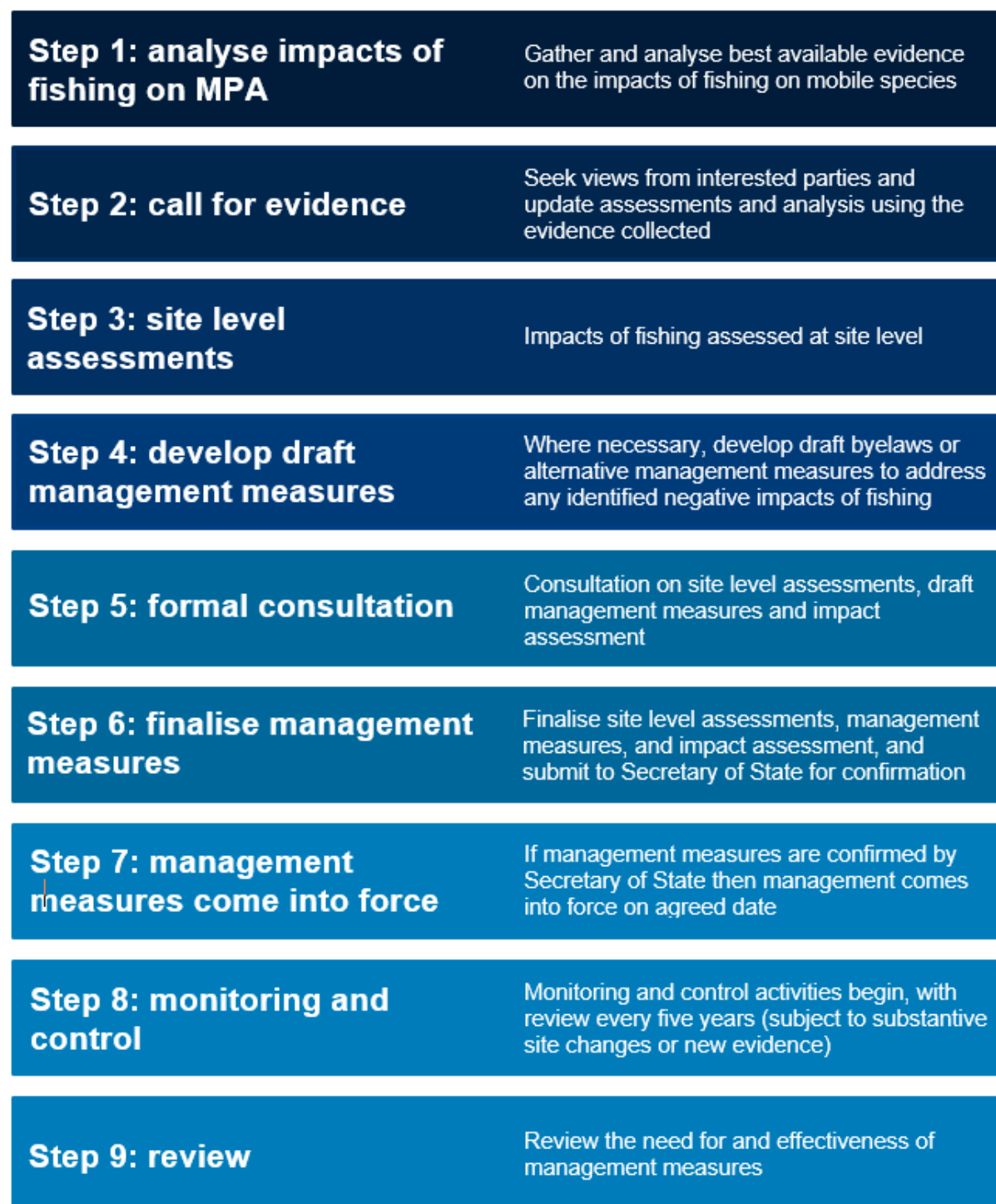


Figure 5. Flow chart showing the steps taken for Stage 4.

### 3.1. Step 1: analyse impacts of fishing on MPA

To identify the interactions between marine bird and harbour porpoise features and fishing gears, we reviewed our existing evidence base and carried out a literature search to create a synthesis of the best available evidence for each gear-feature interaction. We used this to draft two documents in consultation with JNCC and Natural England. The information has been presented by feature, forming [two draft documents](#)<sup>3</sup>:

- Stage 4 Fishing Gear MPA Impacts Evidence: Marine Birds; and
- Stage 4 Fishing Gear MPA Impacts Evidence: Harbour Porpoise.

Literature covering the gear-feature interactions for supporting habitats are covered in [three fishing gear MPA Impacts Evidence documents](#) used at Stage 3<sup>6</sup>. Annex 3 Fishing gears overview provides a detailed list of fishing gears considered for each Impacts Evidence document and brief descriptions of each gear type.

### 3.2. Step 2: call for evidence

In step 2, we are presenting the documents produced during step 1 as part of a public call for evidence. This call for evidence will also include information on the pressures of interest impacting marine birds and harbour porpoise, and present high-level management options to address these pressures. This information is included in **Sections 4 and 5** of this document. We would like to receive evidence and feedback to ensure that we have the best available evidence to inform our next steps for Stage 4 site level assessments (step 3). Following this process, it is important to note that evidence gaps may still exist and some sources utilised may involve caveats and limitations.

### 3.3. Step 3: site level assessments

We will use the outputs from steps 1 and 2 to finalise the Stage 4 Fishing Gear MPA Impacts Evidence documents<sup>3</sup> to inform draft site level assessments, in liaison with JNCC, Natural England, IFCA, as well as the Welsh Government and NRW (for MPAs which are also in Welsh waters).

The assessments will consider site characteristics (feature sensitivity, abundance and distribution information), fishing activity data, including bycatch, fishing vessel presence and supporting habitat information, and assess the potential in-combination impacts with other relevant activities to determine if management is required.

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<sup>6</sup> Stage 3 Fishing Gear MPA Impacts Evidence documents – [www.gov.uk/government/publications/marine-protected-areas-stage-3-impacts-evidence](http://www.gov.uk/government/publications/marine-protected-areas-stage-3-impacts-evidence) (last accessed 21 August 2023).

### **3.4. Step 4: develop draft management measures**

Potential management could include a range of options including (but not limited to): seasonal restrictions, spatial restrictions (such as partial site prohibition of fishing gear(s) over specified areas, or prohibition of fishing gear(s) over the entire site), mitigation measures, and monitoring and control plans. Development of any management measures will consider how they can be integrated with wider relevant policies.

[Fisheries Management Plans](#)<sup>7</sup> (FMPs) are being developed which are evidence-based action plans to deliver sustainable fisheries. FMPs will help deliver Fisheries Objectives set out in the [Joint Fisheries Statement](#)<sup>8</sup>. Stage 4 MPA work will continue to engage with FMP development to understand areas of overlap.

### **3.5. Step 5: formal consultation**

Impact assessment(s) will be drafted for sites where management is recommended (step 4) to capture the impacts of the proposed management measures. These assessments will be used to ensure that the most appropriate and proportionate management decision is selected. Site level assessments and other supporting documentation such as the impact assessment(s) will then be provided to our stakeholders as part of a formal consultation.

All responses to the formal consultation will be considered and amendments made to the draft documentation where required. If changes are substantive or more information is required, then a further consultation may need to be undertaken before final decisions can be recommended. Certain documentation will be finalised in consultation with Defra, JNCC, Natural England, IFCA's, the Welsh Government and NRW (for example, site level assessments and impact assessments).

### **3.6. Step 6: finalise management measures**

Required management measures will be finalised. If MMO byelaws are used to implement management, these will be submitted to the Secretary of State for confirmation.

### **3.7. Step 7: management measures come into effect**

Management measures will come into effect on an agreed date which will provide a suitable period of time for stakeholders to prepare for the measure coming into effect. If management is introduced through an MMO byelaw the byelaw comes into effect on an agreed date and after confirmation by the Secretary of State.

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<sup>7</sup> Fisheries Management Plans - [www.gov.uk/government/collections/fisheries-management-plans](http://www.gov.uk/government/collections/fisheries-management-plans) (last accessed 13 September 2023).

<sup>8</sup> Joint Fisheries Statement - [www.gov.uk/government/publications/joint-fisheries-statement-jfs](http://www.gov.uk/government/publications/joint-fisheries-statement-jfs) (last accessed 13 September 2023).

### **3.8. Step 8: monitoring and control**

Once management measures have come into effect, monitoring and control activities will commence, with management measures being reviewed at least once every five years. Monitoring will be recorded through annual MPA-specific reports produced by MMO. These reports will include VMS data for fishing activity over the reporting period and a 5-year period, as well as information on inspected/observed activities, intelligence and non-compliant activity (if applicable) collected from annual coastal questionnaires. This will act as an early warning system for potential negative impacts on the site. If a report determines that a change in fishing activity is a risk to the conservation objectives of the site, an assessment of the site will be triggered regardless of whether a review is due. An increase in activity above that identified in this assessment, will initiate discussion with JNCC and Natural England following the annual MPA report.

MMO develops generic monitoring and control plans for all MPAs. Each MPA is provided with a tier category 1 to 3 based on the gear-feature interactions occurring and the level of risk identified from activity data within the MPA fisheries assessments.

Possible management measures include an MMO emergency byelaw, which can be implemented immediately for up to 12 months, or a (non-emergency) MMO byelaw which would be subject to public consultation before implementation.

### **3.9. Step 9: review**

Review the need for and effectiveness of the MMO byelaw or alternative management measures.

## 4 Call for evidence: Harbour porpoise

### 4.1. Stage 4 MPA Fishing Gear Impacts Evidence: Harbour Porpoise

The [Stage 4 Fishing Gear MPA Impacts Evidence Harbour Porpoise document](#)<sup>3</sup> outlines the best available evidence for the impacts of fishing on harbour porpoise MPA features at the time of drafting. This also includes consideration of the supporting habitat and prey species of harbour porpoise. The [Stage 4 Fishing Gear MPA Impacts Evidence Summary](#)<sup>3</sup> provides a high-level summary of this document.

The Harbour Porpoise Impacts Evidence document will be used to inform site level assessments of the impact of fishing on MPAs as part of Stage 4 of the MMO's work to manage fishing in MPAs. The Impacts Evidence document will be used alongside site level evidence and data.

Through this call for evidence, we aim to gather further evidence and views related to the Harbour Porpoise Impacts Evidence document. This will ensure we are using the best available evidence.

Evidence submitted will be considered in line with the [MMO quality assurance process](#). For questions which ask for **evidence**, please provide scientific literature where possible. Other evidence types such as personal observations or photos are also welcome. Interactions between fishing gear and harbour porpoise include both interactions with the harbour porpoise themselves and their supporting habitat.

#### Call for evidence questions:

**HP-1. Do you have any additional evidence about the interactions between fishing and harbour porpoise?**

If yes, please provide details of the evidence source (for example: title, author, journal, website link, location). Please provide the sections of the impacts evidence document where you think each of the evidence sources provided should be considered.

**HP-2. Do you have any comments on the evidence and analysis currently included in the Harbour Porpoise Impacts Evidence document?**

If yes, please provide the section and page number of the harbour porpoise document, alongside your comment.

**HP-3. Further information and files**

Please provide any files related to your answers above or any further information.

## 4.2. Pressures of interest

Through drafting the Harbour Porpoise Impacts Evidence document, pressures of interest from certain fishing activities in harbour porpoise MPAs have been identified and are displayed in Table 2. Pressures in **bold** have been identified as ‘important pressures of interest’, these are pressures that the evidence and data considered so far is leading us to focus on. All Stage 4 MPAs will undergo a thorough site level assessment which will consider all relevant pressures. The particular pressures of interest identified at call for evidence stage are presented to help guide stakeholder input to the call for evidence.

Through this call for evidence, we aim to gather evidence about fishing pressures in the Stage 4 harbour porpoise MPAs. The information received will be considered whilst drafting site level assessments.

It is important to note that information is welcomed both to demonstrate that the pressures of interest are occurring and/or impacting harbour porpoise as well as to demonstrate that they are not occurring and/or not impacting harbour porpoise.

Evidence submitted will be considered in line with the [MMO quality assurance process](#). For questions which ask for **evidence**, please provide scientific literature where possible. Other evidence types such as personal observations or photos are also welcome.

**Table 2. Pressures of interest for harbour porpoise MPAs.**

Pressure	Activity	Pressure description
Harbour porpoise bycatch	<b>Anchored nets</b>	<b>Evidence indicates that unintended catch of harbour porpoise in fishing gear, principally from anchored nets, may be taking place at unsustainable levels for the population in the long term.</b>
Impacts to prey availability through removal of prey species	<b>Bottom towed gear, midwater towed gear</b>	<b>The species caught by bottom towed gear (dredges, demersal seines and bottom trawls, including semi-pelagic gears) and midwater towed gear could overlap with the prey species of harbour porpoise and reduce their availability.</b>
Noise disturbance	Fishing vessel presence (all gears)	Vessel noise (e.g. from engine and propeller noise) has the potential to impact harbour porpoise (e.g. through interrupting feeding behaviour) alongside in-combination impacts from other noise-emitting activities.
Death or injury by collision	Fishing vessel presence (all gears)	Collision of harbour porpoise with fishing vessels can result in death or injury, which can later lead to death (for example, strandings).



Pressure	Activity	Pressure description
Impacts to prey availability through impacts to supporting habitat	Bottom towed gear	Bottom towed gears can cause physical loss, change or damage to supporting habitats of harbour porpoise, in particular, spawning and nursery grounds of their prey species.

#### Call for evidence questions:

##### **HP-4. Do you have any evidence for any of the listed pressures in relation to fishing in Southern North Sea MPA?**

If yes, please provide the name of the pressure alongside the evidence.

##### **HP-5. Do you have any evidence for any of the listed pressures in relation to fishing in Bristol Channel Approaches MPA?**

If yes, please provide the name of the pressure alongside the evidence.

##### **HP-6. Further information and files**

Please provide any files related to your answers above or any further information.

### 4.3. Potential management options

MMO has listed possible options to manage or mitigate the impacts of the pressures of interest identified. Table 3 outlines these options.

It is important to note that site level assessments for Stage 4 MPAs have not been completed and no decisions have been made regarding management. The inclusion of pressures and management options in this call for evidence does not mean they will be taken forward. Any management concluded necessary through site level assessments will be shared for comment in a public formal consultation. **Note that subject to site level assessments there is also the option that no measures are required and a monitoring and control plan is introduced.**

Through this call for evidence, we aim to gather ideas about other management options, effectiveness of the listed options and examples of management being used. Information received will be considered and inform the approach once site assessments are complete.

Evidence submitted will be considered in line with the [MMO quality assurance process](#). For questions which ask for **evidence**, please provide scientific literature where possible. Other evidence types such as personal observations or photos are also welcome.

**Table 3. Potential management options for harbour porpoise MPAs.**

Pressure	Potential management options
Harbour porpoise bycatch	<ul style="list-style-type: none"> <li>• Spatial and/or seasonal closures to fishing.</li> <li>• Reduce fishing effort in specified areas and/or seasons.</li> <li>• Mitigation measures (gear modifications, technique change, and gear devices such as acoustic deterrent devices).</li> </ul>
Impacts to prey availability through removal of prey species	<ul style="list-style-type: none"> <li>• Restrict gear types taking important prey species as target species or bycatch.</li> <li>• Reduce fishing effort for important prey species.</li> </ul>
Noise disturbance	<ul style="list-style-type: none"> <li>• Spatial and/or seasonal closures to fishing.</li> <li>• Reduce fishing effort in specified areas and/or seasons.</li> <li>• Mitigation measures (such as restricting vessel speed or vessel course)</li> </ul>
Death or injury by collision	<ul style="list-style-type: none"> <li>• Spatial and/or seasonal closures to fishing.</li> <li>• Reduce fishing effort in specified areas and/or seasons.</li> <li>• Mitigation measures (such as restricting vessel speed or vessel course)</li> <li>•</li> </ul>
Impacts to prey availability through impacts to supporting habitat	<ul style="list-style-type: none"> <li>• Spatial and/or seasonal closures to fishing to protect spawning or nursery grounds of important prey species.</li> <li>• Reduce fishing effort in specified areas and/or seasons to protect spawning or nursery grounds of important prey species.</li> </ul>

**Call for evidence questions:**

**HP-7. Are you aware of any other management options for any of the pressures?**

If yes, please provide the name of the pressure alongside the management option.

**HP-8. Do you have examples of any of the management options being used?** (For any of the listed options or those you have provided)

If yes, please provide any examples of the options being used inside the harbour porpoise MPAs.

Please provide any examples of the options being used outside the harbour porpoise MPAs.

**HP-9. Do you have any evidence on the effectiveness of any of the management options?** (For any of the listed options or those you have provided)

**HP-10. Further information and files**

Please provide any files related to your answers above or any further information.

## 5 Call for evidence: Marine birds

### 5.1. Stage 4 MPA Fishing Gear Impacts Evidence: Marine Birds

The [Stage 4 Fishing Gear MPA Impacts Evidence Marine Birds document](#)<sup>3</sup> outlines the best available evidence for the impacts of fishing on marine bird MPA features at the time of drafting. This also includes consideration of the supporting habitat and prey species of marine birds. The [Stage 4 Fishing Gear MPA Impacts Evidence Summary](#)<sup>3</sup> provides a high-level summary of this document.

The Marine Birds Impacts Evidence document will be used to inform site level assessments of the impact of fishing on MPAs as part of Stage 4 of the MMO's work to manage fishing in MPAs. The Impacts Evidence document will be used alongside site level evidence and data.

Through this call for evidence, we aim to gather further evidence and views related to the Marine Birds Impacts Evidence document. This will ensure we are using the best available evidence.

Evidence submitted will be considered in line with the [MMO quality assurance process](#). For questions which ask for **evidence**, please provide scientific literature where possible. Other evidence types such as personal observations or photos are also welcome. Interactions between fishing gear and marine birds include both interactions with the birds themselves and their supporting habitats.

#### Call for evidence questions:

**MB-1. Do you have any additional evidence about the interactions between fishing and marine birds?**

If yes, please provide details of the evidence source (for example: title, author, journal, website link, location). Please provide the sections of the impacts evidence document where you think each of the evidence sources provided should be considered.

**MB-2. Do you have any comments on the evidence and analysis currently included in the Marine Birds Impacts Evidence document?**

If yes, please provide the section and page number of the marine birds document, alongside your comment.

**MB-3. Further information and files**

Please provide any files related to your answers above or any further information.

## 5.2. Pressures of interest

Through drafting the Marine Birds Impacts Evidence document, pressures of interest from certain fishing activities in marine bird MPAs have been identified and are displayed in Table 4. Pressures in **bold** have been identified as ‘important pressures of interest’, these are pressures that the evidence and data considered so far is leading us to focus on. All Stage 4 MPAs will undergo a thorough site level assessment which will consider all relevant pressures. The particular pressures of interest identified at call for evidence stage are presented to help guide stakeholder input to the call for evidence.

Through this call for evidence, we aim to gather evidence about fishing pressures in the Stage 4 marine bird MPAs. The information received will be considered whilst drafting site level assessments.

It is important to note that information is welcomed both to demonstrate that the pressures of interest are occurring and/or impacting marine birds as well as to demonstrate that they are not occurring and/or not impacting marine birds.

Evidence submitted will be considered in line with the [MMO quality assurance process](#). For questions which ask for **evidence**, please provide scientific literature where possible. Other evidence types such as personal observations or photos are also welcome.

**Table 4. Pressures of interest for marine bird MPAs.**

<b>Pressure</b>	<b>Activity</b>	<b>Pressure description</b>
<b>Noise and visual disturbance (non-physical disturbance)</b>	<b>Fishing vessel presence (all gears)</b>	<b>Evidence indicates that underwater noise from fishing vessels (e.g. engine noise) and visual disturbance may prevent marine birds from feeding in an area or cause displacement to a less preferred area to feed, which can reduce survival of marine birds.</b>
<b>Impacts to prey availability through impacts to supporting habitat</b>	<b>Bottom towed gear</b>	<b>Bottom towed gears (dredges, demersal seines and bottom trawls, including semi-pelagic gears) can cause physical loss, change or damage to supporting habitats of marine birds, in particular, spawning and nursery grounds of their prey species.</b>
Marine bird bycatch	Anchored nets and lines	Marine birds are susceptible to unintended bycatch, particularly from anchored nets and lines as they forage for demersal prey.

Pressure	Activity	Pressure description
Death or injury by collision	Fishing vessel presence (all gears)	Marine birds may be attracted to or disorientated by light and other visual stimuli from fishing vessels, resulting in collision.
Impacts to prey availability through removal of prey species	Bottom towed gear, midwater towed gear, purse seines	The species caught by bottom towed gear (dredges, demersal seines and bottom trawls, including semi-pelagic gears) and midwater towed gear, and purse seines, could overlap with the prey species of marine birds and reduce their availability.

#### Call for evidence questions:

##### **MB-4. Do you have any evidence for any of the listed pressures in relation to fishing in Greater Wash MPA?**

The marine bird species to consider for Liverpool Bay MPA are: red-throated diver, common scoter, little gull, little tern, common tern and waterbird assemblage. If yes, please provide the name of the pressure alongside the evidence.

##### **MB-5. Do you have any evidence for any of the listed pressures in relation to fishing in Liverpool Bay MPA?**

The marine bird species to consider for Greater Wash MPA are: red-throated diver, Sandwich tern, common scoter, little gull, little tern and common tern. If yes, please provide the name of the pressure alongside the evidence.

##### **MB-6. Do you have any evidence for any of the listed pressures in relation to fishing in Outer Thames Estuary MPA?**

The marine bird species to consider for Greater Wash MPA are: red-throated diver, little tern and common tern. If yes, please provide the name of the pressure alongside the evidence.

##### **MB-7. Further information and files**

Please provide any files related to your answers above or any further information.

### 5.3. Potential management options

MMO has listed possible options to manage or mitigate the impacts of the pressures of interest identified. Table 5 outlines these options.

It is important to note that site level assessments for Stage 4 MPAs have not been completed and no decisions have been made regarding management. The inclusion of pressures and management options in this call for evidence does not mean they will be taken forward. Any management concluded necessary through site level assessments will be shared for comment in a public formal consultation. **Note that subject to site level assessments, there is also the option that no measures are required and a monitoring and control plan is introduced.**

Through this call for evidence, we aim to gather ideas about other management options, effectiveness of the listed options and examples of management being used. Information received will be considered and inform the approach once site assessments are complete.

Evidence submitted will be considered in line with the [MMO quality assurance process](#). For questions which ask for **evidence**, please provide scientific literature where possible. Other evidence types such as personal observations or photos are also welcome.

**Table 5. Potential management options for marine bird MPAs.**

Pressure	Potential management options
Noise and visual disturbance (non-physical disturbance)	<ul style="list-style-type: none"> <li>• Spatial closures and /or seasonal closures to fishing.</li> <li>• Reduce fishing effort in specified areas and/or seasons</li> <li>• Mitigation measures (such as restricting vessel speed or vessel course)</li> </ul>
Impacts to prey availability through impacts to supporting habitat	<ul style="list-style-type: none"> <li>• Spatial and/or seasonal closures to fishing to protect spawning or nursery grounds of important prey species.</li> <li>• Reduce fishing effort in specified areas and/or seasons to protect spawning or nursery grounds of important prey species.</li> </ul>
Marine bird bycatch	<ul style="list-style-type: none"> <li>• Spatial closures and /or seasonal closures to fishing.</li> <li>• Reduce fishing effort in specified areas and/or seasons.</li> <li>• Mitigation measures (gear modifications, technique change and gear devices such as acoustic deterrent devices)</li> </ul>
Death or injury by collision	<ul style="list-style-type: none"> <li>• Spatial and/or seasonal closures to fishing.</li> <li>• Reduce fishing effort in specified areas and/or seasons.</li> <li>• Mitigation measures (such as restricting vessel speed or vessel course)</li> </ul>
Impacts to prey availability through removal of prey species	<ul style="list-style-type: none"> <li>• Restrict gear types taking important prey species as target species or bycatch.</li> <li>• Reduce fishing effort for important prey species.</li> </ul>

### Call for evidence questions:

**MB-8. Are you aware of any other management options for any of the pressures?**

If yes, please provide the name of the pressure alongside the management option.

**MB-9. Do you have examples of any of the management options being used?** (For any of the listed options or those you have provided)

If yes, please provide any examples of the options being used inside the marine bird MPAs.

Please provide any examples of the options being used outside the marine bird MPAs.

**MB-10. Do you have any evidence on the effectiveness of any of the management options?** (For any of the listed options or those you have provided)

**MB-11. Further information and files**

Please provide any files related to your answers above or any further information.

## 6 Call for evidence: How to respond

We would like to hear any feedback or additional evidence you can provide so that we can have the best available evidence to inform our next steps.

Sections 4 and 5 include the call for evidence questions for harbour porpoise and marine birds.

You can respond by completing our online survey by visiting the website link below:  
<https://consult.defra.gov.uk/mmo/stage-4-call-for-evidence>

Please respond no later than **13 February 2024**.

If you are not able to access the above survey, you can respond via the details below. We are asking all stakeholders to use email rather than post if possible. However, if you are only able to respond via email or post, please set out your response following the questions in Section 4 and 5.

By email: [conservation@marinemanagement.org.uk](mailto:conservation@marinemanagement.org.uk)

By telephone: **0300 123 1032**

In writing: **Stage 4 MPA Call for Evidence  
Marine Conservation Team  
Marine Management Organisation  
Lancaster House  
Newcastle upon Tyne  
NE4 7YH**



## 7 Next Steps

We will review the information received during this call for evidence to update and finalise the [Stage 4 Fishing Gear MPA Impacts Evidence documents](#)<sup>3</sup> and inform our understanding of pressures of interest and potential management options.

As detailed in section 4 above, the information received during this call for evidence (step 2) will be used, alongside other information (including site characteristics and fishing activity data) to inform site level assessments.

Site level assessments will consider if fisheries management is required (step 3). If we believe that management measures are required, we will identify the most appropriate and proportionate way to implement these and take steps, including further formal consultation(s) with our stakeholders and advisors, prior to any management measures being decided and submitted to the Secretary of State for approval (steps 4 to 6).

Further information on our byelaw making process can be found at:  
[www.gov.uk/guidance/marine-conservation-byelaws](http://www.gov.uk/guidance/marine-conservation-byelaws)

If you have any further questions or queries, please email or call our helpline (using the details provided):

Email: [conservation@marinemanagement.org.uk](mailto:conservation@marinemanagement.org.uk)

MMO helpline: **0300 123 1032**

## 8 References

Food and Agriculture Organisation of the United Nations (2023). *Fishing Gear Types: Technology Fact Sheets*. Available online at: [www.fao.org/fishery/en/geartype/search](http://www.fao.org/fishery/en/geartype/search) (Accessed on: 26 July 2023)

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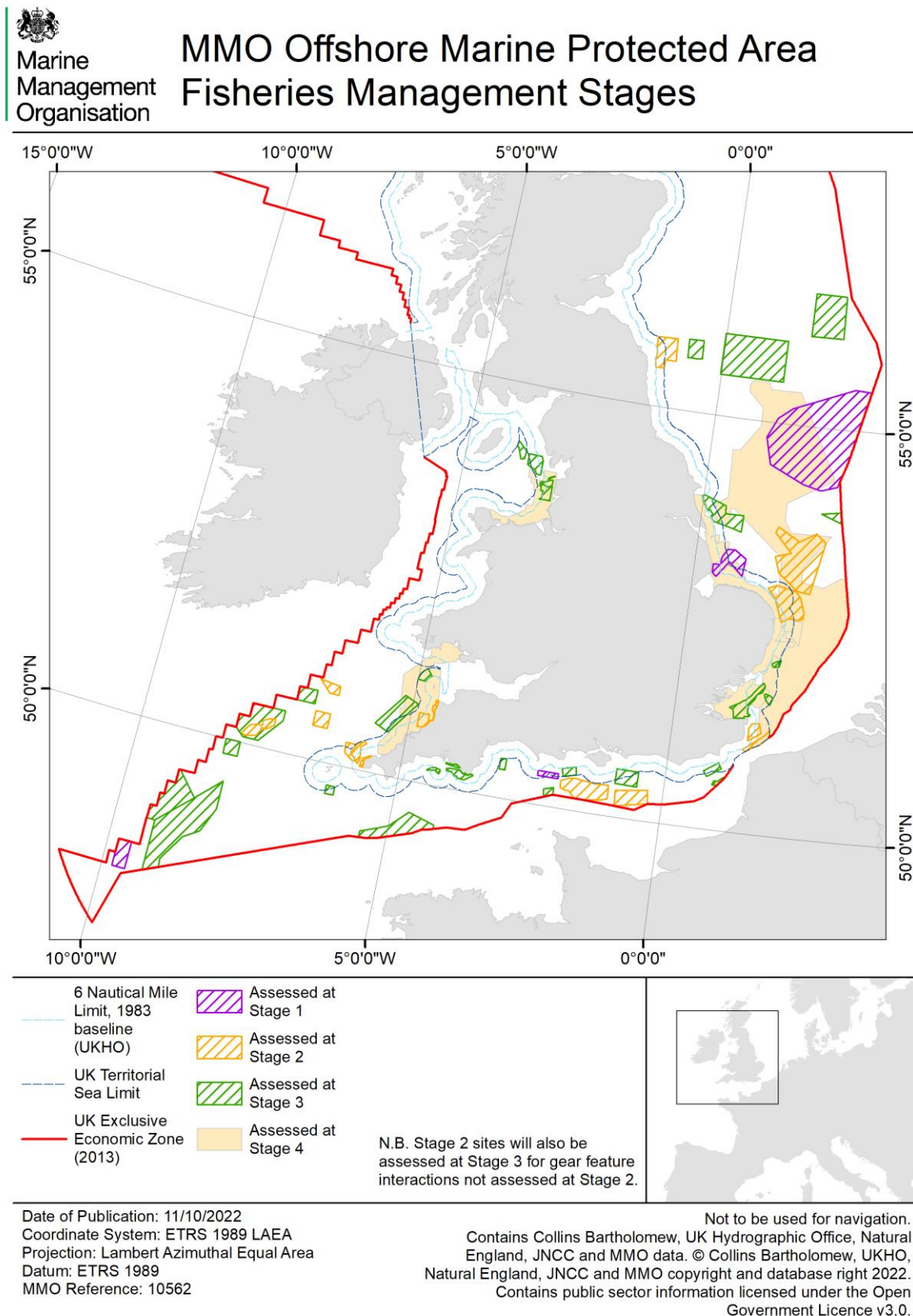
## Annex 1 List of MPAs by stage

- **Stage 1 sites (blue)**: these sites have been assessed and undergone public consultation.
- **Stage 2 sites (orange)**: these sites have been assessed for highly sensitive designated features to fishing gear interactions and undergone public consultation.
- **Stage 3 sites (black and orange)**: these sites include all remaining MPAs (excluding highly mobile species sites) listed below, and designated feature-gear interactions not already assessed within the Stage 2 sites. Sites will be assessed, and management options identified no later than end of 2024.
- **Stage 4 sites (green)**: these sites contain highly mobile species (harbour porpoise or marine birds) as designated features. The gear interactions with these mobile species will be assessed, with management options considered by the end of 2024.

**Table A1.1. The location of MPAs (inshore, straddling, offshore) and their relevant stage.**

Inshore (6-12 nm from coast)	Straddling 12 nm limit (6- 200 nm)	Offshore (12-200 nm)
1. Land's End and Cape Bank	11. Inner Dowsing, Race Bank, and North Ridge	30. Dogger Bank
2. Foreland	12. South Dorset	31. The Canyons
3. Hartland Point to Tintagel	13. Haisborough, Hammond and Winterton	32. North Norfolk Sandbanks and Saturn Reef
4. Goodwin Sands	14. Cape Bank	33. Offshore Brighton
5. Start Point to Plymouth Sound and Eddystone	15. Farnes East	34. Wight-Barfleur Reef
6. Fylde	16. Outer Thames Estuary	35. Haig Fras
7. Shell Flat and Lune Deep	17. Liverpool Bay	36. East of Haig Fras
8. Albert Field	18. Holderness Offshore	37. South of Celtic Deep
9. North West of Lundy	19. Orford Inshore	38. North East of Farnes Deep
10. Margate and Long Sands	20. Kentish Knock (East)	39. Fulmar
	21. Inner Bank	40. South West Deeps (East)
	22. Offshore Overfalls	41. South West Deeps (West)
	23. East of Start Point	42. North West of Jones Bank
	24. South West Approaches to Bristol Channel	43. Greater Haig Fras
	25. West of Walney	44. Swallow Sand
	26. Greater Wash	45. West of Copeland
	27. Southern North Sea	46. Markham's Triangle
	28. Bristol Channel Approaches	47. Bassurelle Sandbank
	29. South of the Isles of Scilly	48. West of Wight-Barfleur
		49. Western Channel
		50. North East of Haig Fras

## Annex 2 Map of MPAs for all stages



**Figure A2.1. Map showing the location of MPAs considered at each fisheries management stage.**

## Annex 3 Fishing gears overview

**Table A3.1. Provides a brief description of different fishing gears and gear categories/documents that may consider these gear-feature interactions.** Table A3.1 provides a brief description of different fishing gears and how these have been categorised into ‘nets and lines’, ‘bottom towed gear’, ‘midwater gear’ and ‘traps’. Due to the different impacts of these gears on marine bird and harbour porpoise MPA features, these gear groups have been categorised differently in the two fishing gear MPA Impacts Evidence documents. These descriptions have been collated from previous MMO fisheries assessments, Montgomerie (2022), FAO (2023) and the Seafish website (2023). Please be aware that the list below is not exhaustive. Further detailed information and illustrations are available using the external resources above.

**Table A3.1. Provides a brief description of different fishing gears and gear categories/documents that may consider these gear-feature interactions.**

Gear group	Gear type	Gear name	Description
Nets and lines	Anchored	Gillnets (set/anchored)	Gillnets can be a generic name for different types of nets that use a wall of netting that hangs in the water column or can refer to a specific style of net consisting of single layers of netting weighted to the seabed. Set (fixed) gillnets are anchored in the seabed and held down by the heavy rope line. They can be either vertical (with a float line) or flat (without a float line). Targets coastal species.
		Gillnets and entangling nets	Curtains of netting that are hung in the water in which fish swim into and become gilled (i.e., it's gills become caught in the net) or entangled (where part or the whole of the body become entangled).
		Fixed gillnets (on stakes)	Gillnets stretched between two or more stakes driven into the seabed. These are typically used in along the coast in the intertidal area.
		Longlines (set/anchored)	Longlining can be set at different positions in the water column to target different species. This gear consists of a long length of line set on the seabed. Regular branches of hooks come from this line. The length of the line and number of branches/hooks depends on the size of vessel being used.
		Tangle nets (set/anchored)	These nets are made up of a single wall of netting that is hung on the ropes, allowing a greater amount of slack netting, making it more effective for catching species on the bottom of the seabed (for example flatfish and shellfish).

Gear group	Gear type	Gear name	Description
		Trammel nets (set/anchored)	These nets are made up of three layers of netting. The two outer layers have a large mesh size with a smaller mesh layer in the centre.
		Combined gillnets and trammel nets	Bottom-set gear with two nets: an upper standard gillnet to catch semi-demersal or pelagic fish, and a lower trammel net to entangle bottom fish. These nets are maintained by floats on the upper line and weights on the ground line.
	Not anchored	Encircling gillnets	Gillnets set vertically in shallow waters. The net encircles the fish, and noise is used to force them to gill or entangle in the netting.
		Drifting longlines	Longlining can be set at different positions in the water column to target different species. This gear consists of a long length of line with a Dhan buoy at either end. Regular branches of hooks come from this line. The length of the line and number of branches/hooks depends on the size of vessel being used.
		Mechanised lines and pole-and-lines	Hook-and-line gears that are operated mechanically using powered reels or drums.
		Trolling lines	A line or lines with one or more hooks with either natural or artificial bait are towed near the surface or in the upper layers water column.
		Hand-operated pole-and-line	Basic rod and line fishery using barbless hooks and live bait.
<b>Bottom towed gear (including seines)</b>	Dredges	Boat dredges	Two types; one that is dragged along seabed, another that is like a benthic scoop that penetrates the sea bottom. Targets mussels, clams, scallops, crab etc.
		Mechanized dredges	Hydraulic dredges dig and wash out mussels from the seabed. It is considered a harvesting machine when the same gear collects the mussels and hauls them on board.
	Demersal seines	Danish/anchor seine	A net shot in the open sea using very long ropes to lay out the net and ropes on the seabed prior to hauling from a boat at anchor.
		Scottish/fly seine	Gear is shot on the seabed in a rounded triangle shape with very long weighted ropes attached to each end of the net. The net is gradually hauled in with the vessel maintaining station using its engine power rather than an anchor as in anchor seining.
		Pair seines	The gear is shot by one vessel (as with a single seine). The other vessel picks up the shot Dhan/ropes. Then the pair of vessels tow the gear, allowing the gear to remain open for longer and increased time.

Gear group	Gear type	Gear name	Description
	Demersal trawls	Beam trawls	Mouth of trawl is permanently held open by a beam with guides/skids attached. This disturbs bottom fish which rise up and get caught.
		Nephrops trawls	Adapted to be selective for Nephrops with mall holed mesh. Some have devices to allow the inevitable larger bycatch to escape.
		Otter trawls	Dragged along bottom and has an extended top panel to stop fish escaping upwards. Targets bottom and demersal species.
		Otter twin trawls	Two identical trawls fixed together to increase the fishing area. Two otter boards to hold mouths open, one at each far end. The connection between the two trawls is a rope which joins the connection between the two pulling. Usually targets shrimp.
		Pair trawl	Gear is towed between two boats on the seabed. The trawl is kept open by the distance between the two vessels.
<b>Midwater towed gear and midwater seines</b>	Midwater seines	Purse seines	A net shot in a circle around a shoal of fish, forming a deep vertical curtain of netting in the water. A strong cable is run through rings at the bottom of the net, allowing the net to close from the bottom during hauling.
	Midwater trawls	Midwater trawl (non-specific)	Trawl towed through the water column that is held open by otter boards. Midwater trawls are usually larger than demersal trawls, and typically target shoaling species.
		Pair trawl	Gear is towed between two boats in midwater. The trawl is kept open by the distance between the two vessels.
<b>Traps</b>	Traps	Creel	Creels are a common style of trap used to target crabs and lobsters. The creel uses bait and has a sloped entrance to catch the target species. Originally a wooden base and net covered frame (with a weight), now likely steel covered by plastic covered in netting.
		Pots	Cages/baskets made from various materials and come in various sizes. Mainly set on the bottom, sometimes designed for midwater use. Pots target fish, crustacea and cephalopods.
		Traps	Traps are large stationary nets, cages or baskets in which species are retained or enter voluntarily and will be hampered from escaping. There are many different variations (for example, whelk pots, cuttlefish traps and inkwell pots) – please refer to Montgomerie (2022) for further details and illustrations.

## Annex 4 Glossary of terms used in Stage 4

**Bycatch** – the removal of species not targeted by the fishery, in this case, the incidental killing and capture of marine birds and harbour porpoise. The pathways for bycatch may include capture in fishing gear and collision or entanglement with deployed gear or gear that is being deployed/hailed.

**Call for evidence** – informal consultation conducted by MMO during byelaw process. The purpose of this is to collect evidence from stakeholders. This allows the best available evidence to be used for the drafting of site level assessments and recommended management options (if required).

**Conservation objectives** – conservation objectives are set for each designated feature of an MPA, to either maintain or restore a designated feature of the protected site.

**Department for Environment, Food and Rural Affairs (Defra)** – the ministerial department in England responsible for improving and protecting the environment.

**Designated feature ('feature')** – a species, habitat, geological or geomorphological entity for which an MPA is identified and managed.

**Direct impacts** – the impacts caused by direct interaction between marine birds and the fishing gear/activity (e.g., physical injury through vessel collision and entanglement in fishing gear, or behaviourally mediated impacts, such as changes in foraging/breeding behaviour in response to a pressure might occur through acoustic or visual disturbance from vessel operations).

**Ecosystem services** – the benefits provided by ecosystems that contribute to making human life both possible and worth living. Ecosystem services is the term used in conservation advice to describe the service provided by the habitat / species. For example; nutrition, nutrient cycling, climate regulation or bird and whale watching.

**European marine site (EMS)** – any special protection areas (SPAs) and special areas of conservation (SACs) consisting of marine areas.

**Habitat** – the place in nature where a plant or animal normally lives and grows.

**Indirect impacts** – the impacts caused to marine birds by the interaction of the fishing gear/activity having a direct impact upon another connected habitat and/or associated species.



**Impact** – the consequence of pressures (such as habitat degradation) where a change occurs that is different to that expected under natural conditions.

**Inshore Fisheries and Conservation Authorities (IFCAs)** – [IFCAs](#) are responsible for fisheries management from 0 to 6 nautical miles (nm). There are 10 IFCAs in England, each one funded by local authorities. Please see Figure 3.

**Joint Nature Conservation Committee (JNCC)** – a public body that advises the government on UK and international nature conservation. This includes aspects related to the marine environment from 12 nm to 200 nm and have a statutory responsibility to provide conservation advice for MPAs and report on the condition of protected features. Please see Figure 3.

**Management units (MUs)** – geographical areas in which particular species are found and to which the management of human activities is applied (IAMMWG, 2023). The boundaries of harbour porpoise MUs are based on the presence of known populations as well as divisions (e.g., political boundaries) used for management of human activities (IAMMWG, 2023).

**Marine Management Organisation (MMO)** – [MMO](#) is an executive non-departmental public body, sponsored by the Department for Environment, Food and Rural Affairs and is the manager and independent regulator of England's seas. Please see Figure 3.

**Marine plans** – MMO marine plans have been designed to help manage the seas around England.

**Marine protected area (MPA)** – a generic term to cover all marine areas that are a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values. This includes special areas of conservation (SAC), special protection areas (SPA) and marine conservation zones (MCZ).

**Natural England** – government advisor for the environment in England. This includes aspects of the marine environment of 0 to 12 nm. This organisation has a statutory responsibility to provide conservation advice for MPAs and report on the condition of protected features. Please see Figure 3.

**Natural Resources Wales** – statutory nature conservation advisor to the Welsh Government for the Welsh inshore region (0-12 nm), whose responsibilities include development of advice on conservation objectives and operations/activities in MPAs.

**Precautionary principle** – the precautionary principle is defined in the 1992 Rio Declaration, to which the UK government is a signatory, and states: ‘In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation’.

**Pressure** – the mechanisms through which an activity has an effect on a feature.

**Physical loss, change or damage to supporting habitat** – impacts to the habitat of the species focused on, in this case marine birds and harbour porpoise. This may include the following pressures caused by fishing:

- abrasion/disturbance of the substrate on the surface of the seabed;
- penetration and/or disturbance of the substratum below the surface of the seabed, including abrasion;
- physical change (to another sediment type); and
- smothering and siltation rate changes (light).

**Removal of non-target species** – the unintended removal of a designated feature or species directly related to the integrity of the feature, in this case, marine bird species and harbour porpoise.

**Removal of target and non-target prey species** – both the intended and unintended removal of a designated feature or species directly related to the integrity of the feature, in this case marine bird species and harbour porpoise.

**Resilience** – the ability of a species or habitat to recover from disturbance or stress.

**Resistance** – the ability of a species or habitat to absorb disturbance or stress without changing in character.

**Sensitivity** – the sensitivity of a feature (species or habitat) is a measure that is dependent on the ability of the feature (species or habitat) to resist change and its ability (time taken) to recover from change.

**Special area of conservation (SAC)** – SACs are MPAs designated under the Conservation of Habitats and Species Regulations 2017<sup>9</sup>, and the Conservation of Offshore Marine Habitats and Species Regulations 2017<sup>10</sup> to protect important habitats and species.

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<sup>9</sup> For more information: [www.legislation.gov.uk/ukxi/2017/1012/contents](http://www.legislation.gov.uk/ukxi/2017/1012/contents)

<sup>10</sup> For more information: [www.legislation.gov.uk/ukxi/2017/1013/contents](http://www.legislation.gov.uk/ukxi/2017/1013/contents)

**Special protection areas (SPA)** – SPAs are MPAs put into place to protect threatened bird species, classified under the Conservation of Habitats and Species Regulations 2017<sup>9</sup>, and the Conservation of Offshore Marine Habitats and Species Regulations 2017<sup>10</sup>.

**Species** – a set of animals or plants in which members have similar characteristics to each other.

**Sublittoral zone** – extending from the lowest limit of the intertidal to the outer edge of the continental slope. This can be divided into the infralittoral zone (characterised by algae) and the circalittoral zone (the subzone below the infralittoral dominated by animals) (JNCC, 2022).

**Vessel monitoring system (VMS)** – all commercial fishing vessels over 12 metres in length in UK waters must report their position via VMS when at sea. VMS devices on the vessels send regular reports of position and vector.

**Waterbird assemblage** – includes all of the non-breeding qualifying features of the MPA, as well as an additional two species present in numbers exceeding 1% of the GB total or 2,000 individuals. In the case of Liverpool Bay, these species are: red-breasted merganser (*Mergus serrator*) and great cormorant (*Phalacrocorax carbo*) (JNCC, 2020; Natural England et al., 2022).

**Welsh Government** – the devolved government for Wales whose responsibilities include managing fisheries and improving the marine environment.