



Marine  
Management  
Organisation

# Stage 2 Decision Document

## September 2023



...ambitious for our seas and coasts

## Executive summary

MMO held a call for evidence from 10 July to 14 May 2022 to seek views and additional evidence on a draft assessment on the impact of bottom towed fishing on rock and reef features in 13 marine protected areas (MPAs).

The assessment included site level assessments for the 13 MPAs and found that fishing using bottom towed gear poses considerable risks to the condition of these features and management measures are required to address these risks.

Following the call for evidence, MMO held a formal consultation from 17 January to 28 March 2023, seeking views on the draft Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023 and associated De Minimis Assessment (DMA), and the finalised Stage 2 MPA Fisheries Assessment.

MMO received 39 responses to the call for evidence and 69 responses to the formal consultation. This decision document details MMO's response to key themes raised by stakeholders through the call for evidence and formal consultation.

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## 1 Introduction

MMO has assessed, and where necessary proposed management to address, the impacts of bottom towed fishing on rock and reef features of 13 marine protected areas (MPAs) offshore of 6 nautical miles (nm) in English waters<sup>1</sup>(**Figure 1**). This forms Stage 2 of MMO's work to manage fishing in all of England's offshore MPAs. The MPAs considered in Stage 2 are:

- Cape Bank;
- East of Haig Fras;
- Farnes East;
- Foreland;
- Goodwin Sands;
- Haig Fras;
- Haisborough, Hammond and Winterton;
- Hartland Point to Tintagel;
- Land's End and Cape Bank;
- North Norfolk Sandbanks and Saturn Reef;
- Offshore Brighton;
- South of Celtic Deep; and
- Wight-Barfleur Reef.

These MPAs are a mixture of special areas of conservation (SACs) and marine conservation zones (MCZs). The designated features of these MPAs considered in Stage 2 are biogenic and rocky reef habitats including 'Annex I reefs' in SACs and 'circalittoral rock' and '*Sabellaria spinulosa* reefs' in MCZs.

Bottom towed fishing gears interactions with biogenic and rocky reef were selected for Stage 2 as these are among the most sensitive features to the impacts of bottom towed gear. The Stage 2 MPA Fisheries Assessment presents MMO's analysis of the impact of bottom towed fishing gear on biogenic and rocky reef features and includes site level assessments each of the MPAs. It found that fishing using bottom towed gear poses considerable risks to the condition of these features and management measures are required to address these risks.

MMO ran a call for evidence from 10 July to 14 May 2022 to seek views and gather additional evidence on a draft version of the Stage 2 MPA Fisheries Assessment. MMO used the information received during the call for evidence to finalise the Stage 2 MPA Fisheries Assessment and concluded that management measures are

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<sup>1</sup> For more information see: [www.gov.uk/government/publications/managing-fisheries-in-marine-protection-areas-call-for-evidence](https://www.gov.uk/government/publications/managing-fisheries-in-marine-protection-areas-call-for-evidence). Last accessed 02/06/2023

required across the sites. MMO developed management in the form of a byelaw to prohibit the use of bottom towed gear in specific areas of the sites. MMO ran a formal consultation from 17 January to 28 March 2023 to seek views on the draft Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023, DMA, and the finalised Stage 2 MPA Fisheries Assessment.

The questionnaire and documents were hosted on a platform called Citizen Space and organised into site level questions and all site questions. Further details on the call for evidence and formal consultation are provided [online](#)<sup>1</sup>. This document presents the responses received during the call for evidence and formal consultation, and how MMO has addressed those responses.



# Stage 2 Marine Protected Areas

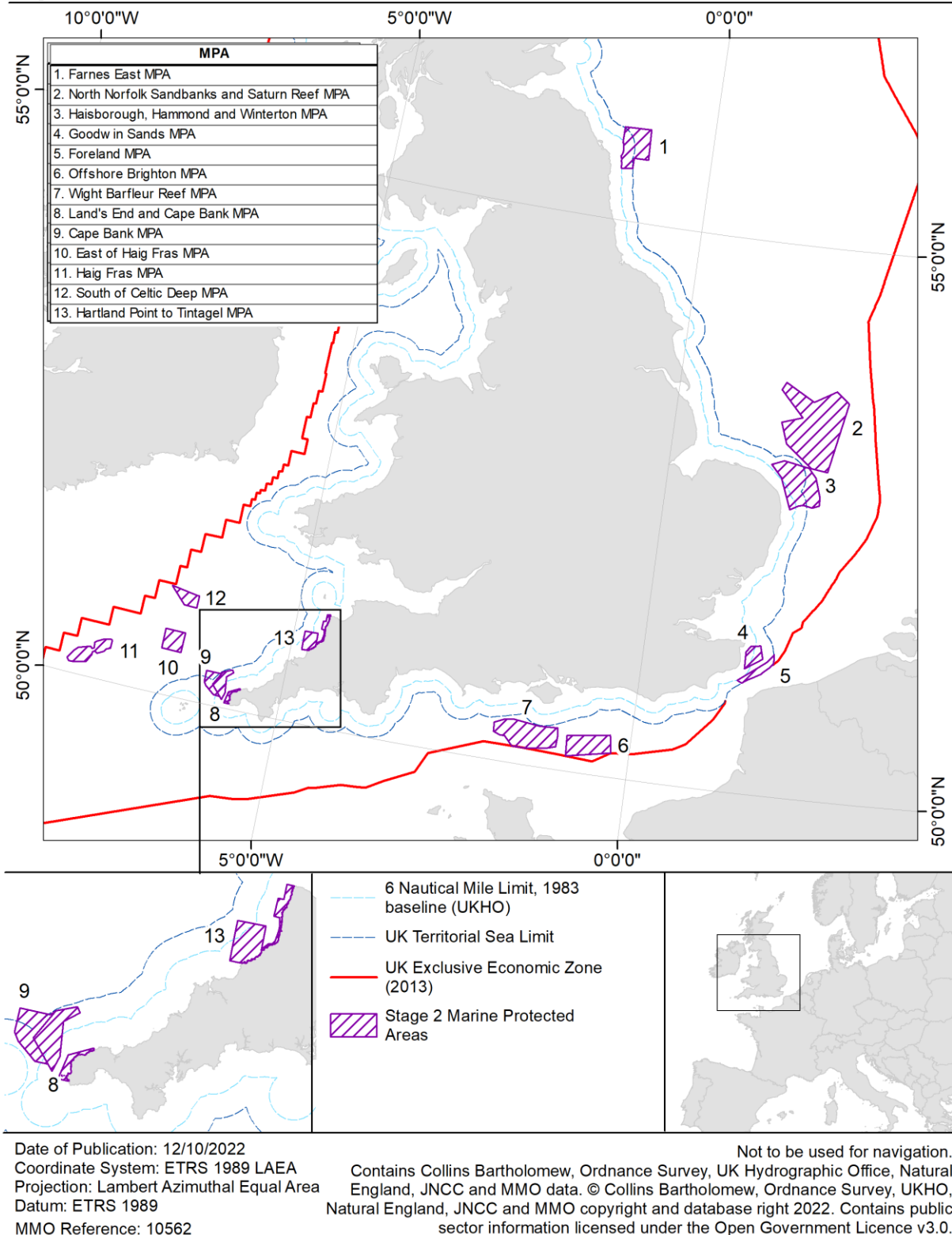


Figure 1. The 13 MPAs which are included in Stage 2.



## 2 Call for evidence

MMO held a call for evidence from 10 July to 14 May 2022 to seek views and additional evidence on a draft assessment on the impact of bottom towed fishing on biogenic and rocky reef features in 13 MPAs (**Figure 1**). The questionnaire and documents were hosted on Citizen Space and organised into site level questions and all site questions.

### 2.1 Methodology for collecting responses

The call for evidence included an online survey, which presented the draft MMO Stage 2 MPA Fisheries Assessment and a range of high-level management options.

Questions in the call for evidence sought additional information from stakeholders for each MPA, about the following:

- the location, condition, or sensitivity of the designated feature(s) assessed
- the level or nature of fishing activity within the site.

There was also the opportunity to upload further information outside these questions.

When providing responses, stakeholders could answer concerning specific MPAs or within an 'all sites' section if their response was relevant to all MPAs.

The call for evidence presented the following high-level management options which would inform development of management measures for the Stage 2 MPAs:

- **Option 1:** no fisheries restrictions. Introduce a monitoring and control plan for the site.
- **Option 2:** no statutory restrictions. Introduce a voluntary agreement.
- **Option 3:** reduction of pressures associated with bottom towed gear of concern, through zoned management (partial site prohibition of these gears over areas of highly sensitive designated features).
- **Option 4:** removal of pressures associated with bottom towed gear of concern through a whole site prohibition of these gears.

Stakeholders also had the option to answer questions via email. MMO received 11 emailed responses, these have been summarised in this document alongside the online survey responses.

### 2.2 Summary of responses

MMO would like to thank everyone who responded to the call for evidence. We have reviewed and considered all responses. For a detailed summary of all responses

received and the MMOs response please see **Annex 1 Call for evidence responses received and MMO response.**

During the call for evidence, 39 responses were received, 11 by email and 28 via Citizen Space. These included responses from individuals, academics, *fishers, non-governmental organisations, industry groups and other government departments.* The number of responses relating to specific sections of the survey are listed below in **Table 1.** Some responses related to several MPAs.

*Responses were categorised by MMO broadly as critical, neutral or supportive. Approximately 43 % of responses were neutral, 33 % critical and 24 % supportive.*

Most responses were submitted on behalf of organisations rather than individuals. The largest number of responses were from the fishing industry, followed by non-governmental organisations (NGOs) (**Table 2**). For a full list of organisations which responded please see **Annex 2 Organisational respondents to the call for evidence.**

**Table 1. List of sections of the Citizen Space survey and the number of responses received for each section.**

Specific section	Number of responses
All sites	13
Cape Bank	12
East of Haig Fras	6
Farnes East	7
Foreland	5
Goodwin Sands	13
Haig Fras	5
Haisborough, Hammond and Winterton	6
Hartland Point to Tintagel	10
Land's End and Cape Bank	11
North Norfolk Sandbanks and Saturn Reef	5
Offshore Brighton	8
South of Celtic Deep	5
Wight Barfleur Reef	7

**Table 2. Breakdown of responses by organisation.**

Type of organisation	Number of respondents	Percentage of respondents
Fishing Industry	11 including 4 non-UK fishing organisations	28
Non-governmental organisation	9	23
UK Government organisations	6	15
Academic	1	3
Individual	12	31
<b>Total</b>	<b>39</b>	<b>100</b>

The subjects raised during the call for evidence fall within the following overarching categories:

- MPA fisheries management;
- additional evidence;
- socio-economic impacts;
- displacement;
- highly protected marine area (HPMA) designation; whole site closures;
- in-combination effects;
- precautionary approach;
- wastewater and sewage impacts;
- impacts of lost or abandoned fishing gear;
- blue carbon;
- climate change;
- protected species; and
- natural disturbance, community composition and natural resilience.

### **2.3 MMO conclusion following the call for evidence**

Having analysed all responses received during the call for evidence and finalised the MMO Stage 2 MPA Fisheries Assessment, MMO has concluded that management measures are required. MMO has developed management in the form of a byelaw to prohibit the use of bottom towed gear over rocky and biogenic reef features through the 13 MPAs.

## **3 Formal Consultation**

MMO held a formal consultation from 17 January to 28 March 2023 to seek views on the draft Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023, to manage fishing using bottom towed gear in specified areas in 13 MPAs as well as the DMA, and the finalised Stage 2 MPA Fisheries Assessment. The questionnaire

and documents were hosted on Citizen Space and organised into site level questions and all site questions.

### 3.1 Methodology for collecting responses

The formal consultation included an online survey, which presented draft Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023, DMA, and the finalised Stage 2 MPA Fisheries Assessment.

Questions in the formal consultation sought additional information from stakeholders for each MPA about the following:

- the location, condition, or sensitivity of the designated feature(s) assessed
- the level or nature of fishing activity within the site.

MMO provided five questions for respondents to consider:

1. Do you have any additional information about the location, condition, or sensitivity of the designated feature(s)?
2. Do you have information about the level or nature of fishing activity within any of the MPAs?
3. Do you agree or disagree with the proposed management measures?
4. How would the proposed management option affect you? Please provide supporting evidence if possible.
5. What other effects could the proposed management measures have? Please provide supporting evidence if possible.

There was also the opportunity to upload further information outside these questions.

When providing responses, stakeholders could answer concerning specific MPAs or within an 'all sites' section if their response was relevant to all MPAs.

The DMA presented the management options considered for the Stage 2 MPAs:

- **Option 0:** no fisheries restrictions. Introduce a monitoring and control plan for the site.
- **Option 1:** no statutory restrictions. Introduce a voluntary agreement.
- **Option 2:** removal of pressures from specified areas of designated feature via prohibition of bottom towed fishing. This may include a whole site prohibition where sensitive designated features are distributed throughout the whole site.
- **Option 3:** removal of pressures via a whole site prohibition across all sites. The use of bottom towed gear will be prohibited throughout the MMO section of all sites considered in this assessment.

**Option 2 was the preferred option.** Stakeholders also had the option to answer questions via email. MMO received 27 emailed responses, these have been summarised in this document alongside the online survey responses.

### 3.2 Summary of responses

MMO would like to thank everyone who responded to the formal consultation. We have reviewed and considered all responses. For a detailed summary of all responses received and the MMOs response please see **Annex 3 Formal consultation responses received and MMO response.**

During the formal consultation, 68 responses were received, 27 by email, 41 via Citizen Space. These included responses from individuals, academics, *fishers*, *NGOs*, *industry groups* and *other government departments*. The number of responses relating to specific sections of the survey are listed below in **Table 3**. Some responses were in relation to several MPAs.

**Table 3 List of sections of the Citizen Space survey and the number of responses received for each section.**

Specific section	Number of responses
All sites	50
Cape Bank	16
East of Haig Fras	10
Farnes East	4
Foreland	16
Goodwin Sands	11
Haig Fras	9
Haisborough, Hammond and Winterton	8
Hartland Point to Tintagel	7
Land's End and Cape Bank	7
North Norfolk Sandbanks and Saturn Reef	6
Offshore Brighton	18
South of Celtic Deep	6
Wight Barfleur Reef	17

*Responses were categorised by MMO broadly as critical (40 %), neutral (35 %) or supportive (25 %).*

Most responses were submitted on behalf of organisations, 54 in total, in addition MMO received 12 responses from individuals and 2 anonymous responses (**Table 4**). For a full list of organisations which responded please see **Annex 4 Organisational respondents for the formal consultation.**

**Table 4. Breakdown of responses by organisation.**

Respondent	Count	Nationality	Count
Local group or charity	5	-	-
Recreational organisation	2	-	-
Fishing organisation	25	UK	11
		French	9
		Swedish	1
		Belgian	1
		Danish	1
		Dutch	2
		International	1
MP	1	UK	1
NGOs	11	-	-
Government departments	11	UK	9
		Dutch	1
		French	1

The subjects raised during the formal consultation fall within the following overarching categories:

- MPA fisheries management;
- additional evidence;
- public engagement;
- socio-economic impacts;
- displacement and spatial squeeze;
- MPA and highly protected marine area (HPMA) designations;
- precautionary approach;
- natural disturbance, community composition and natural resilience;
- blue carbon and natural capital approach;
- protected species; and
- monitoring and control.

## 4 Evidence quality assurance process

MMO always seek to use the best available evidence to inform our decisions. The Stage 2 formal consultation provided an opportunity for stakeholders to provide additional evidence to inform the draft Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023, DMA, and the finalised Stage 2 MPA Fisheries Assessment. Local fishers' and stakeholders' knowledge and data is an important

part of understanding the marine activities within a site. Other evidence sources, including information from the fishing industry and local experts, help strengthen our analysis when considering management options for each MPA.

It is important to understand the strengths and limitations of any evidence to understand how it can contribute to decision making. Upon receipt of new evidence provided at the call for evidence and formal consultation, MMO may analyse and verify through the MMO evidence quality assurance process (MMO, 2022). Where appropriate, (for example depending on the quality of the evidence submitted compared with that already used), new evidence can be used to update and improve the draft Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023, DMA, and the finalised Stage 2 MPA Fisheries Assessment.

## 5 Updates to documents

In the call for evidence, the information provided was not incorporated into the Stage 2 MPA Fisheries Assessment or the DMA. This was because the evidence provided was already included within these documents or stronger evidence was already included within the assessments, see **Additional evidence** in **A1.1.2**.

During and after the formal consultation, a number of changes were made to the byelaw and associated documents. These are described in sections **5.1** and **5.2** below.

### 5.1 Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023

#### 5.1.1 Amendment to spatial measures within Farnes East MPA

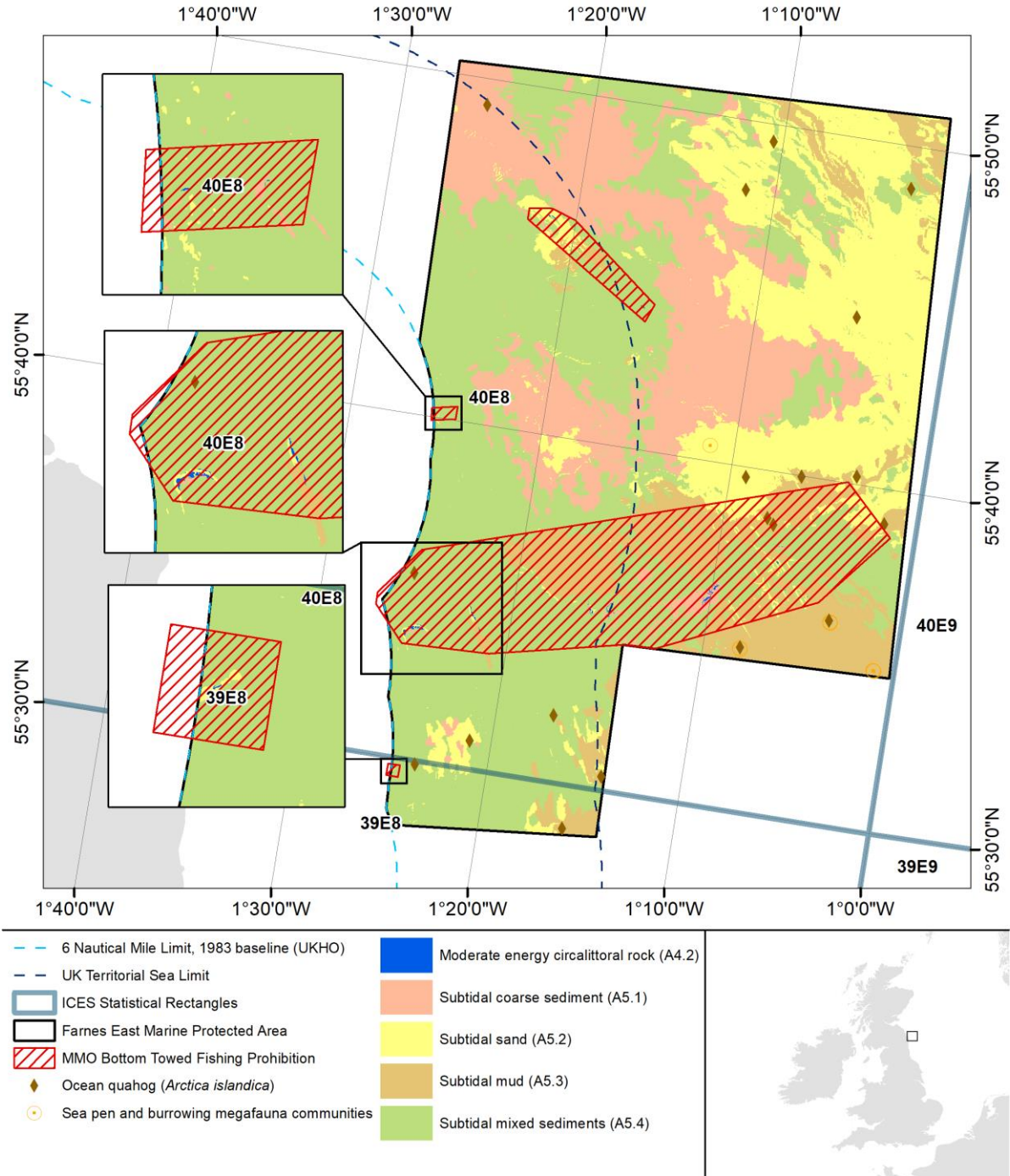
During the formal consultation, a response was received from Northumberland Inshore Fisheries and Conservation Authority (IFCA), noting that the largest proposed closure within the Farnes East MPA contained a significant area of habitat that was not the moderate energy circalittoral rock designated feature that the closure was proposed in order to protect (**Figure 2**). Additionally, the response stated that the port of North Shields is reliant on visiting vessels over the winter months, and that any further closures to deter this could be significant for the port.

Following further discussion with the Northumberland IFCA, MMO has identified that reducing the spatial extent of the largest closure within Farnes East MPA by splitting it into two smaller zones will provide a channel to allow transit of vessels without having to lash and stow their bottom towed gear, whilst maintaining a minimum 300 metre buffer zone around the entirety of the moderate energy circalittoral rock designated feature within the site, therefore maintaining the same level of protection for the moderate energy circalittoral rock feature (**Figure 3**).



# Farnes East Marine Protected Area

MMO Prohibition of Bottom Towed Fishing



Date of Publication: 21/11/2022  
 Coordinate System: ETRS 1989 LAEA  
 Projection: Lambert Azimuthal Equal Area  
 Datum: ETRS 1989  
 MMO Reference: 10562

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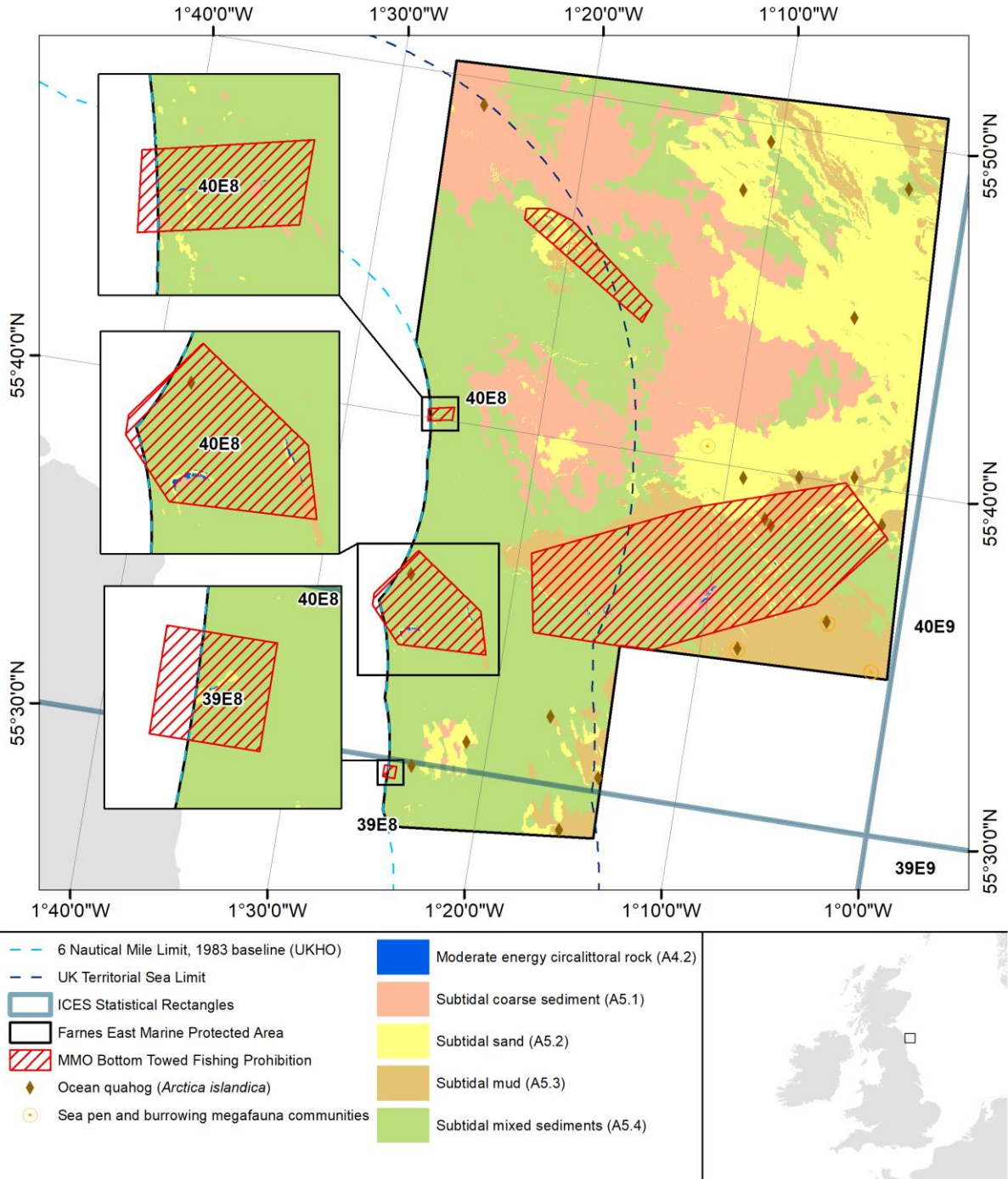
Figure 2. Original proposed bottom towed gear restriction in Farnes East MPA.





# Farnes East Marine Protected Area

## MMO Prohibition of Bottom Towed Fishing



Date of Publication: 12/04/2023  
 Coordinate System: ETRS 1989 LAEA  
 Projection: Lambert Azimuthal Equal Area  
 Datum: ETRS 1989  
 MMO Reference: 10562

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**Figure 3. Final bottom towed gear restriction in Farnes East MPA.**

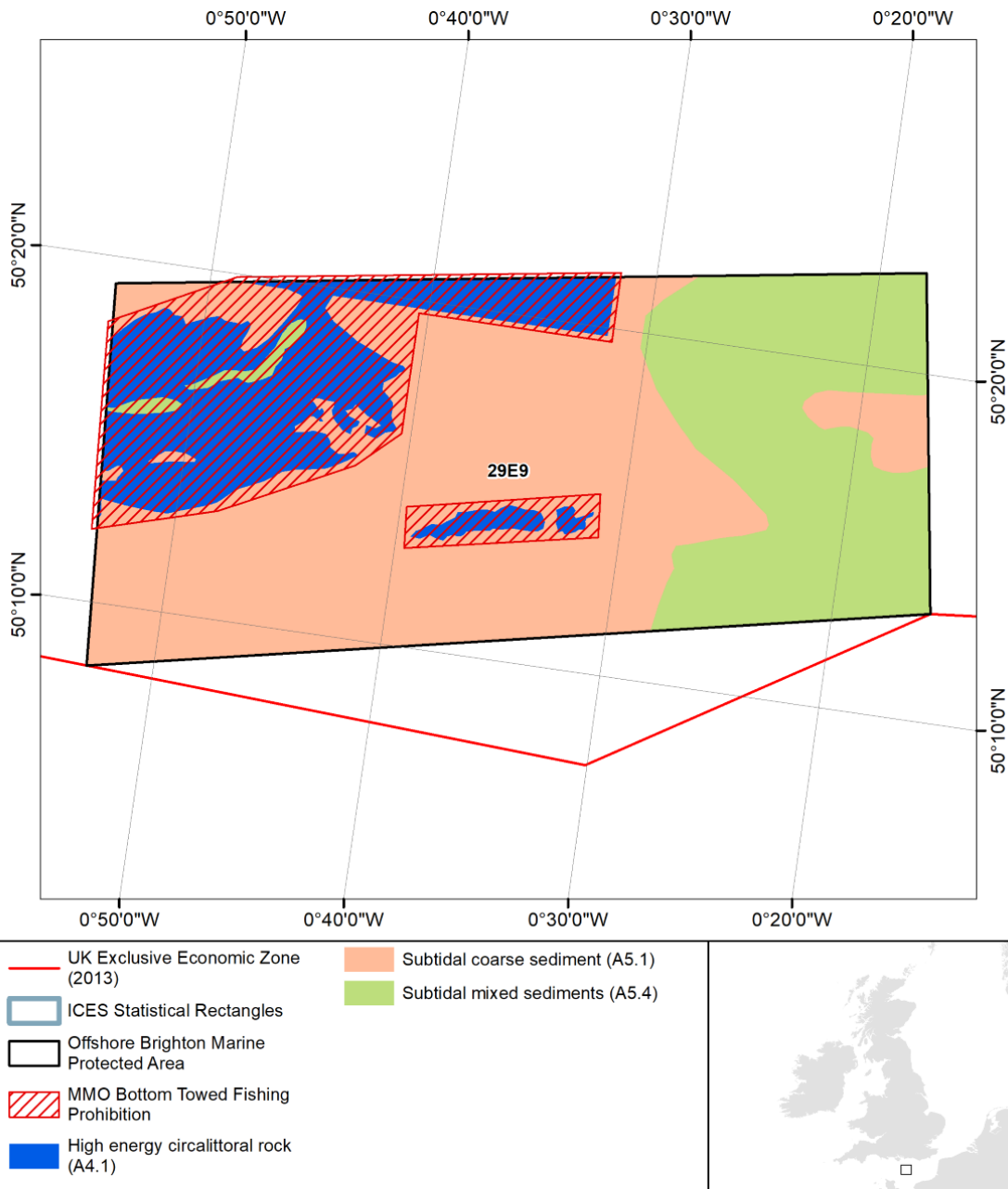
### 5.1.2 Amendment to spatial measures within Offshore Brighton MPA

In August 2023 JNCC re-examined the confidence scores associated with the datasets used to determine feature extent for Offshore Brighton MPA and identified an error relating to one area in the northern part of the site which had been displayed as circalittoral rock. JNCC advised MMO that the area should instead be treated as subtidal coarse sediment. The remainder of the features within the site remained unchanged.

Consequently, MMO has amended the larger of the two management zones for Offshore Brighton MPA to reflect the revised circalittoral rock feature extent. This has resulted in the total size of the managed zones for this MPA being reduced by 39.06 km<sup>2</sup> from 239.79 km<sup>2</sup> to 200.73 km<sup>2</sup>. The entirety of the mapped rock feature is still included within this management zone and remains buffered to a minimum of 240 metres. Figure 4 shows the proposed management zone as presented during formal consultation, while Figure 5 shows the final, updated, management zone.



## Offshore Brighton Marine Protected Area MMO Prohibition of Bottom Towed Fishing



Date of Publication: 21/11/2022  
 Coordinate System: ETRS 1989 LAEA  
 Projection: Lambert Azimuthal Equal Area  
 Datum: ETRS 1989  
 MMO Reference: 10562

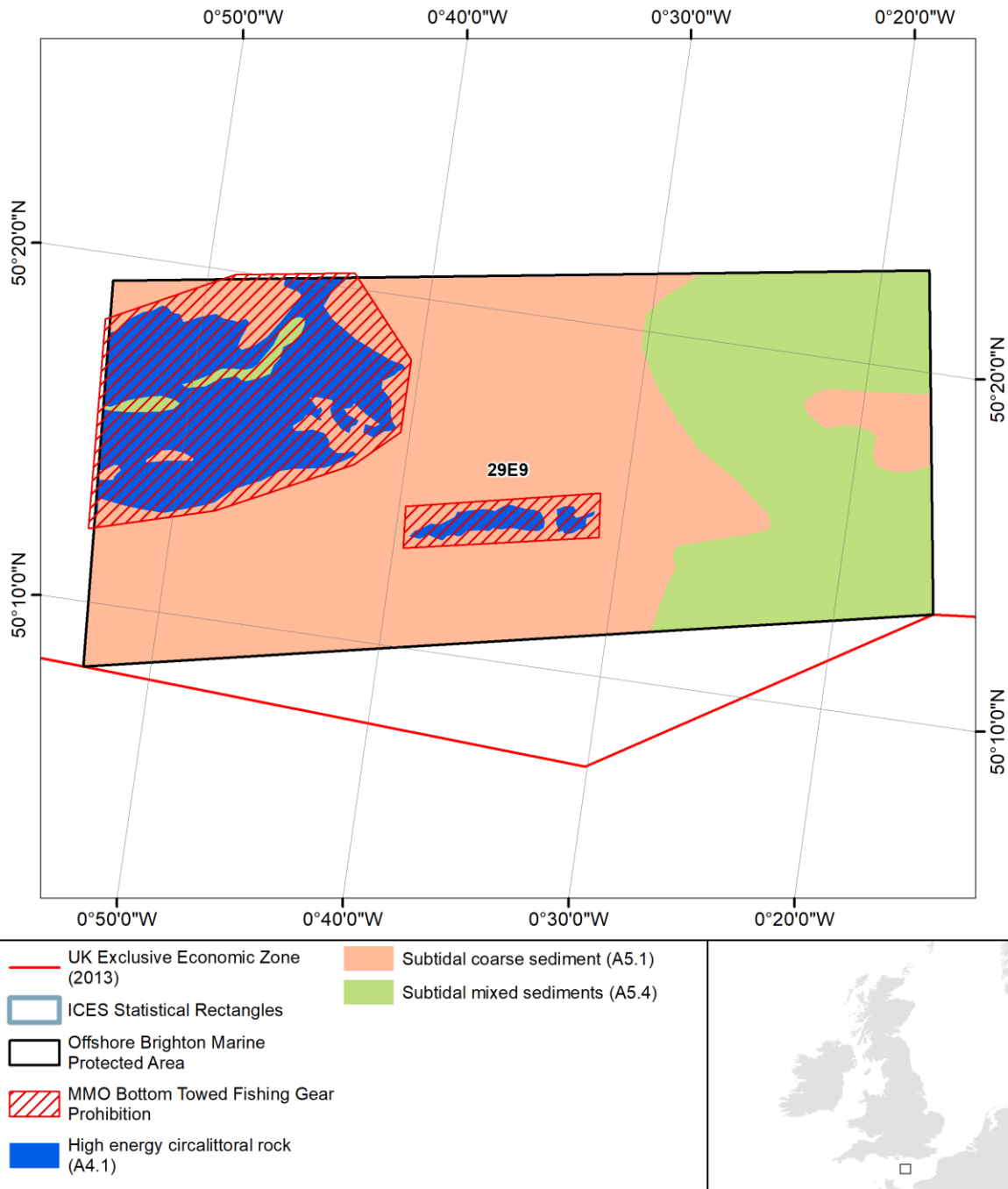
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**Figure 4. Original proposed bottom towed gear restriction in Offshore Brighton MPA.**



# Specified Area for the Prohibition of Bottom Towed Fishing Gear

## Offshore Brighton Marine Protected Area



Date of Publication: 31/08/2023  
 Coordinate System: ETRS 1989 LAEA  
 Projection: Lambert Azimuthal Equal Area  
 Datum: ETRS 1989  
 MMO Reference: 10562

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**Figure 5. Final bottom towed gear restriction in Offshore Brighton MPA.**

### 5.1.3 Update to exemption provision

During the formal consultation, the Offshore Petroleum Regulator for the Environment and Decommissioning (OPRED) contacted MMO to contribute updated wording for the exemption provision carried within the byelaw. This updated wording was provided to reflect updates to OPRED's legislative framework and operational parameters. Having reviewed the proposed wording for the exemption provided by OPRED, MMO have accepted this proposal and updated the exemption in the byelaw to read as follows:

- “6. Paragraphs 3 and 4 do not apply to a person performing an act which would otherwise constitute an offence under paragraph 5 of this Byelaw, if:
- a. the act was carried out in accordance with written permission issued by the Marine Management Organisation permitting that act for scientific, stocking or breeding purposes; or
  - b. the act was carried out in accordance with:
    - i. a licence or authorisation issued under the Petroleum Act 1998 or Part 1 of the Energy Act 2008;
    - ii. a consent issued pursuant to such a licence or authorisation; or
    - iii. a marine licence issued by the Secretary of State under Part 4 of the Act.”

## 5.2 Stage 2 De minimis Assessment

During the formal consultation, a number of responses were received that have resulted in updates to the DMA.

### 5.2.1 European Union Member State access within 12 nm limit

One response was received that stated that the DMA overestimated non UK landings values within the MPAs listed as fisheries access for non UK vessels between 6 and 12 nm from the baselines is restricted to certain EU member states and certain target species-specific fisheries.

In the updated DMA, the landings estimates provided now take into account differing fisheries access for EU member states in the 6 to 12 nm area.

### 5.2.2 Other data updates

A second response queried the tables displaying the number of vessels predicted to be impacted by the measures (Tables 3 and 4 in the DMA). Upon review, the total number of UK vessels using bottom towed fishing gears in the proposed management areas in 2020 has been corrected from 96 to 106. The total number of

over 12m vessels using bottom towed fishing gears in the proposed management areas between 2016 and 2019 has also been corrected to 83 from 112.

Additionally, activity-linked vessel monitoring system and landings data has become available for 2021 and this has been incorporated into the updated DMA.

## 6 Reviewing and updating MPA fisheries assessments

MMO will monitor every MPA by undertaking annual reports of fishing activities and pressures within MPAs, and by regularly reviewing and updating the MPA assessments to reflect any such changes that have been observed. We will continue to engage with fishers throughout the MPA fisheries management process, including monitoring and evaluation following implementation of management measures. MMO closely monitors fishing activity, through onboard vessel monitoring system (VMS) data, landings records and surface and aerial surveillance, and will respond to any threats to the marine environment because of displacement. Effective monitoring helps us balance risk and precaution appropriately.

MMO reviews the fisheries assessments for all MPAs every five years to ensure all assessments and management are appropriate and contain the best and most up to date evidence available. More regular reviews could occur if the circumstances related to a change in site status that may hinder the conservation objectives of the site. Reviews of fisheries assessments take into account any updates to conservation advice that change our understanding of the impacts of fishing on the achievement of the conservation objectives for the site.

## 7 Decision and next steps

Having analysed all evidence and stakeholder views received during the call for evidence and formal consultation and updated the Stage 2 MMO fisheries assessment, the DMA and the MMO byelaw, **MMO has concluded that bottom towed fishing should be prohibited across the rocky and biogenic reef features of the 13 MPAs considered in Stage 2 (option 2).**

MMO has consulted on proposed management measures to protect the rocky and biogenic reef features of the sites and has considered each of the points raised through consultation when making our decision, and is satisfied that all points have been addressed. The final management areas can be viewed within the [webapp](#) (MMO, 2023b) or within the Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023.

Having considered all of the above information and best available evidence, MMO has made the Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023 and will submit this byelaw to the Secretary of State for confirmation.

## 8 References

ASCOBANS (2009). *Conservation Plan for Harbour Porpoises (Phocoena phocoena L.) in the North Sea*. ASCOBANS Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas. Available online at: <https://www.ascobans.org/en/documents/action-plans/North-Sea-Conservation-Plan> (Accessed on: 30 November 2022)

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## A1. Annex 1 Call for evidence responses received and MMO response

### A1.1 All site responses

MMO received consultation responses which relate to many or all of the Stage 2 MPAs. There were also overarching common themes from each of the named site sections of the survey which have been combined in this section. MMO has summarised these consultation responses in the section below together with MMO's response to the comments.

#### A1.1.1 MPA fisheries management

The following responses were received:

1. What is being assessed when, through MMO's offshore MPA fisheries assessment work?
2. There is a lack of speed and scale in MMO's approach, and it should include a whole site, all gear, or ecosystem approach.
3. MMO should first prohibit bottom towed gears inside all MPAs through licence conditions, and then undertake assessments to introduce byelaws as a second step.
4. Why is MMO putting in management for bottom towed gear if there is no vessel activity of this kind in the MPA, or when habitats continue to be present, or recent improvements in gear have been adopted to increase sustainability?
5. Appropriate management for the MPA network is essential for enabling marine environment recovery and resilience to the infrastructure development expected by 2050 to meet the net zero target.
6. Monitoring and enforcement are essential for Good Environmental Status (GES) descriptors and an ecologically coherent MPA network.
7. Protection from negative activities is essential for MPAs to achieve conservation objectives, especially important for offshore sites as 11 out of 15 GES descriptors are failing to meet targets.
8. Figure 1 of the call for evidence document refers to old legislation for the 6 and 12 nm limits (citing 1983 baselines, as opposed to The Territorial Sea (Baselines) Order 2014).
9. The 12 nm limit appears incorrect (most noticeably off the Suffolk/Norfolk coast where the 12 nm limit should extend out further due to the Haisborough Sand).

**MMO response:** in response to points 1 to 3, MMO is assessing, and where necessary, introducing management to address, the impacts of fishing in MPAs in England offshore of 6 nm. This work is taking place over four stages (**Figure A1.1**).

Stage 1 assessed all fishing in the following four sites:

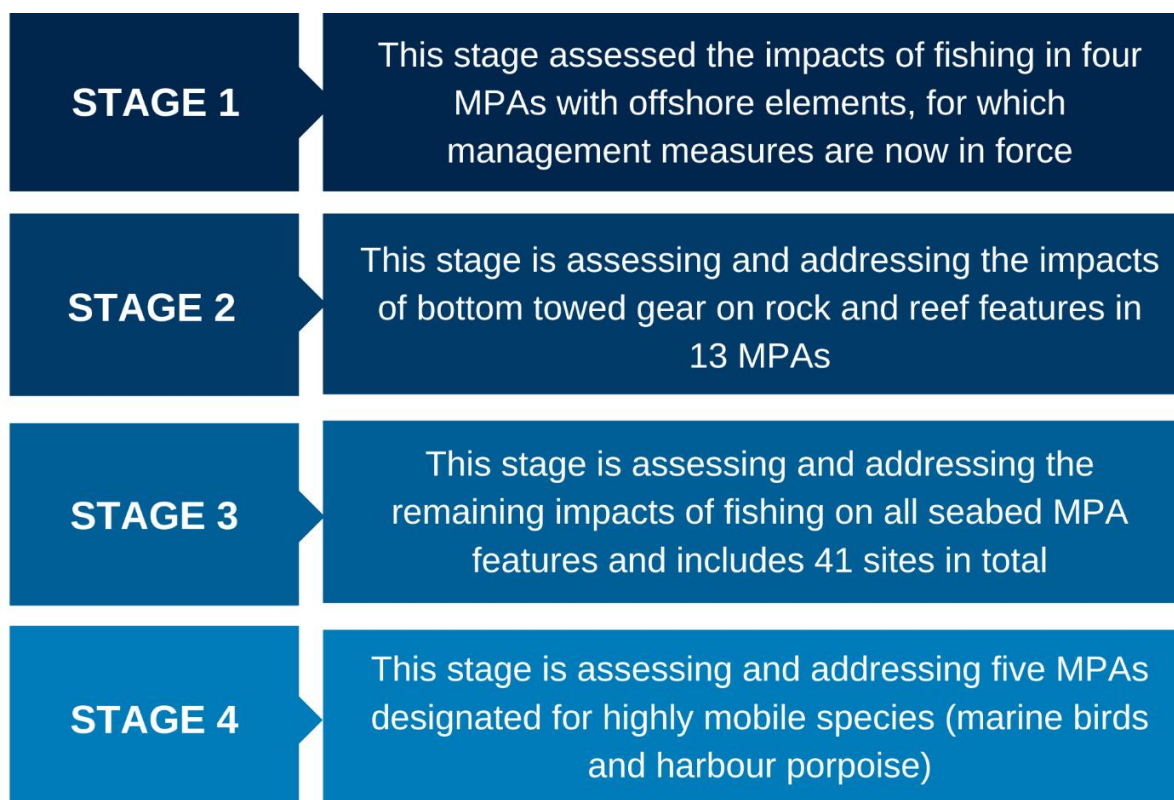
- Dogger Bank;
- Inner Dowsing, Race Bank and North Ridge;
- South Dorset; and
- The Canyons.

MMO introduced byelaws for each site to manage certain fishing activities. These byelaws came into force in June 2022.

Stage 2 assesses the impacts of fishing using bottom towed gear on subtidal rock, and rocky and biogenic reef in 13 MPAs. These features were chosen as they are some of the most sensitive features to impacts of bottom towed gear. Using advice from JNCC and Natural England, MMO produced a detailed assessment of the impacts of bottom towed fishing on the rock and reef features of these MPAs. The purpose of the Stage 2 call for evidence was to gather additional evidence and stakeholder views on the draft Stage 2 MPA Fisheries Assessment. Following the Stage 2 call for evidence, MMO has finalised the assessment and created a draft MMO byelaw for bottom towed fishing in these sites which is now subject to public consultation through the Stage 2 formal consultation.

Stage 3 MMO will complete the assessment of all remaining fishing in MMO led sites, except for MPAs designated for highly mobile species (birds and harbour porpoise) which will be assessed in Stage 4. A series of documents setting out the available evidence and MMO analysis of the impacts of different gear groups on MPA features are being made available for the Stage 3 call for evidence.

All required management measures will be introduced no later than the end of 2024.



**Figure A1.14. The four stages of the MMOs plan to assess the impacts of fishing in MPAs in England.**

In response to point 3, MMO byelaws are the most appropriate mechanism to deliver fisheries management measures for MPAs and the MMO byelaw making powers were created specifically for this purpose. The current legal framework underpinning MPA protection is feature based, and management interventions will be determined by an evidence-based assessment of each feature and activity. The chosen approach also allows for consultation and engagement, allowing all relevant stakeholders to input to management decisions.

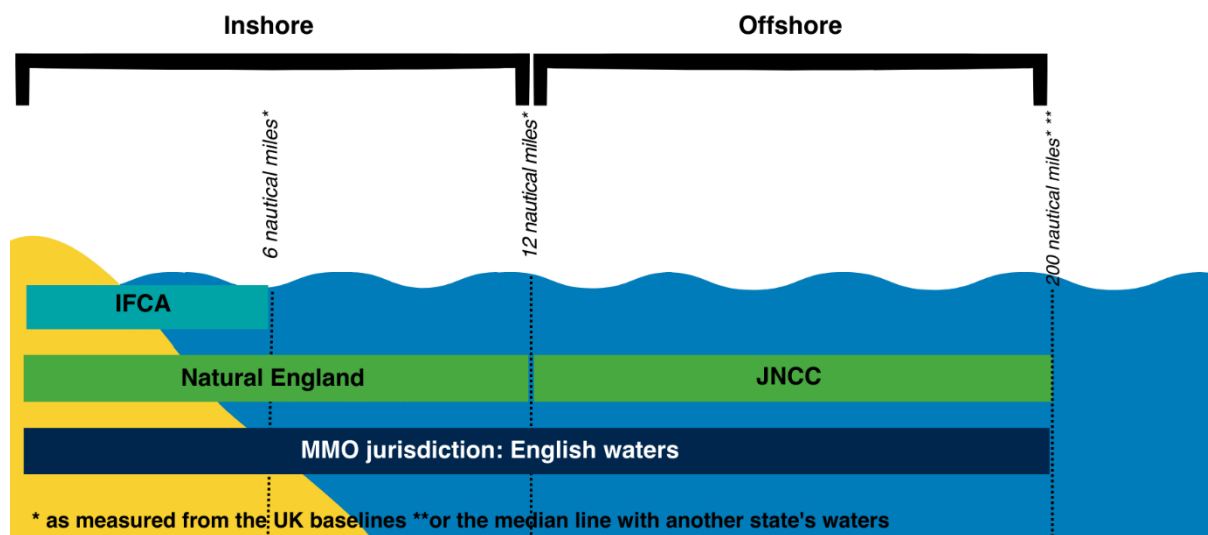
In response to point 4, the purpose of this call for evidence and any subsequent consultations is to gather additional information and evidence from stakeholders on activities and management options of MPAs. MMO will only implement management or prohibit fishing where an MMO MPA fisheries assessment cannot rule out that it is causing an adverse effect on site integrity. For certain features, even a very low level of activity could cause damage, and therefore in some cases it is appropriate to protect features where there is little or no evidence of recent fishing activity.

The Stage 2 MPA Fisheries Assessment has determined that the use of bottom towed gear poses considerable risks to the condition of the rock and reef features, even at very low levels. Protected areas with currently very low levels of activity also protects them from future increases in activity.

In response to points 5 to 7, MMO agrees that effective MPA management, including monitoring and enforcement is important to help meet the government’s ambition for nature recovery, including the achievement of GES.

In response to points 8 and 9, the 6 nm limit used is based on the 1983 baseline (UKHO) and aligns with the inshore fisheries and conservation district boundaries as set out in Article 3 in each of the IFCA designation orders<sup>2,3</sup> (**Figure A1.2**). The 12 nm limit used in the Stage 2 MPA Fisheries Assessment has been updated to show the current territorial waters limit, which is based on the 2014 baselines order<sup>4</sup>.

## MMO fisheries management jurisdiction



**Figure A1.2.** The fisheries jurisdiction of the MMO extends from the UK baselines out to the median line or 200 nm limit. For MPA fisheries management, IFCA is the lead within 6 nm.

### A1.1.2 Additional evidence

The following responses were received:

1. The data used for the MPA fisheries assessment underestimates effort from under 15 metre vessels.
2. A respondent provided additional information on fishing activity including fishing hours from Global Fishing Watch data for each of the MPAs.

<sup>2</sup> For more information see: [www.legislation.gov.uk/ukxi/2010/2189/article/3/made](http://www.legislation.gov.uk/ukxi/2010/2189/article/3/made)

<sup>3</sup> For more information see: [www.legislation.gov.uk/ukxi/2010/2198/made](http://www.legislation.gov.uk/ukxi/2010/2198/made)

<sup>4</sup> For more information see: [www.legislation.gov.uk/ukxi/2014/1353/contents/made](http://www.legislation.gov.uk/ukxi/2014/1353/contents/made)

3. A percentage and total area breakdown of the sediment composition of each MPA summarised to European Nature Information System (EUNIS) habitat classification level 3. This was provided alongside a corresponding calculation of sediment carbon content for each site.

**MMO response:** in response to point 1, the Stage 2 MPA Fisheries Assessment sets out the strengths and limitations of the different evidence sources used. While it is possible that the fisheries activity data used has led to an under estimation of fishing effort from under 15 metre vessels, the assessment concluded that that fishing using bottom towed gears poses considerable risks to the condition of the features considered, and management measures are required to address these risks.

In response to point 2, the Global Fishing Watch data is an analysis of automatic identification system (AIS) information, however, not all fishing vessels currently use AIS. The data source provided therefore does not provide full insight to the activity levels occurring to assess interactions with site features. MMO uses data from VMS, which is required from all vessels over 12 metres in length, alongside landings data to create a picture of the fishing activity in the area. In response to additional data received, see section 4.

In response to point 3, MMO are using the best available evidence, including habitat data to EUNIS level 3 where available. JNCC and Natural England are responsible for monitoring MPAs and maintaining up to date designated feature data, including assessing the condition of habitats and species designated through MPAs. This is carried out using an agreed approach for assessing the condition of statutory sites designated through UK and international legislation (JNCC, 2019a). For MMO's response regarding blue carbon please see **A1.1.9**.

### **A1.1.3 Socio-economic impacts and displacement**

The following responses were received:

1. The Eastern English Channel is one of the most congested sea areas in the world, with UK and EU fishing fleets sharing the area with shipping lanes, anchorage areas, ferries, dredge spoil areas, aggregate extraction areas, and offshore windfarms and their associated cables. This development has significantly reduced fishing areas for those who have historically fished the area, and potential fishing restrictions will further reduce available fishing grounds in and around the MPAs.
2. The proximity of the MPAs in the Eastern Channel, alongside the proposed expansion of Rampion offshore wind farm, aggregate extraction sites and the IFCA management measures, restrict UK fishing activities in this area. Further restrictions would result in increased pressure on nearby grounds and create

potential gear conflict issues between sectors, as well as impacting the marine environment by increasing pressure on fisheries.

3. Displacement of fishing further offshore will result in increased fuel costs (both in terms of increased distance to travel and the rising prices of fuel) and safety concerns for vessels.
4. There is limited fishing activity from Belgian vessels within the North Sea MPAs, therefore fishing restrictions may have limited impact on the fleet. However, seasonal activity at the beginning and end of the year (1st and 4th quarter) is essential.

**MMO response:** in response to points 1 to 3, MMO aims to continue protecting and improving the health of the marine environment to help support a diverse, profitable, and sustainable UK fishing industry into the future. While developing MPA management measures, MMO strives to avoid any unnecessary costs to the fishing industry, financial or otherwise. However, we have duties to ensure MPAs receive the protection they require and the potential for management to have a socio-economic impact does not override this duty.

Introducing management measures within MPAs alongside for example, the expansion of offshore wind, poses a huge spatial challenge. MMO is currently undertaking work alongside Defra to better understand the impacts of displacement and spatial squeeze, and how to address these. MMO must also have regard to marine plan policies, including the requirement that proposals which may have significant adverse impacts on access for fishing activities demonstrate that they will, in order of preference: a) avoid, b) minimise, or c) mitigate adverse impacts so they are no longer significant.

These considerations have been compiled into an DMA for both site level considerations and wider cumulative effects. This includes considering displacement issues during the decision-making process for fisheries management measures within MPAs. MMO consider impacts on businesses and individuals, including safety issues. As we consult on potential measures during formal consultation, we will maintain engagement with stakeholders, working with them to incorporate their knowledge and to minimise any negative impacts. We are keen to work with and learn from stakeholders to gain a deeper understanding of socio-economic impacts of proposed fisheries management measures to ensure that any byelaws introduced are effective.

Although displacement resulting from any management measures put in place may result in higher levels of fishing pressure on areas outside of MPAs, the location (and thus the associated environmental costs) of displaced fishing activity is unclear. The Stage 2 MMO Fisheries Assessment found that fishing using bottom towed gear poses considerable risks to the condition of these features and management measures are required to address these risks.



MMO recognises the severe impacts that COVID-19, fuel costs and the rising costs of living are having on the UK fishing industry. MMO has been at the forefront of supporting the fishing industry, including setting up and administering the [Fisheries Response Fund](#) which provided £10 million of support to England's fishing industry, and administering a £23 million support fund for seafood exporters across the UK (MMO, 2020). We also recently relaunched the [Fisheries and Seafood Scheme \(FaSS\)](#) which will provide at least £6 million to support the long-term sustainability, resilience, and prosperity of the seafood sector across England (MMO and Defra, 2021). Fishers will not receive compensation for any changes in income because of management measures. This is in line with how other marine industries are regulated.

In response to point 4, the estimated impact of the proposed management measures on non-UK fishing fleets is presented in the DMA. MMO will maintain engagement with a broad range of stakeholders to incorporate their knowledge and to minimise any negative impacts resulting from management measures. We are keen to work with and learn from stakeholders to gain a deeper understanding of socio-economic impacts of proposed fisheries management measures to ensure that any management introduced is effective, for additional information see section **A1.1.3**.

#### **A1.1.4 HPMA designation and whole site closures**

The following responses were received:

1. There were requests from some respondents for designation of specific MPAs to be HPMA's.
2. Full site closures will increase fish populations and biodiversity, and there will be greater retention of juvenile and some adult commercial fish populations if habitat, species and prey abundance is also allowed to recover.
3. Some respondents stated preference for a whole site prohibition of bottom towed gear to achieve the conservation objectives, for the purpose of carbon storage and for movement of species outside of feature areas. Some also endorse that specific sites should be HPMA's and that this would increase fisheries and biodiversity benefits to the eastern channel.

**MMO response:** Defra is leading the project to pilot HPMA's in English waters. The process for identifying five pilot HPMA's is described in the HPMA consultation documents (Defra, 2022b). Defra, using data from Cefas, MMO, IFCAs, Natural England and JNCC, applied social and economic criteria to narrow down the list of potential pilot sites (see Annex B document, Defra, 2022b). The ecological criteria are based on the principles outlined in the Benyon Review (Defra, 2022a).

A public consultation on five candidate HPMA's was open from 6 July until 28 September 2022.

Offshore Brighton MPA overlaps partially with the Dolphin Head candidate HPMA, and there is overlap with the area covered by the Stage 2 Byelaw. For additional information on management preferences see sections **A1.1.1** and **A1.1.2**.

Full site closures were considered for all MPAs, and in some cases have been proposed to protect the rocky and biogenic reef features. In other cases, the rocky and biogenic reef features only form part of the MPA, and therefore a whole site closure is not required. The impacts of fishing on other features in these MPAs will be considered in Stage 3.

#### **A1.1.5 In-combination effects**

The following responses were received:

1. Implications for the lucrative, high effort nephrops fishery were raised alongside the proposed plans to route the Scotland-England GreenLink interconnector cable down the western side of the site, spanning 26 km.
2. A range of other activities occur within each of the MPAs, including oil and gas development, telecommunication cables, aggregate extraction (along the site boundary), shipping, recreational activities (such as sailing) and heritage assets (such as shipwrecks).
3. The Norfolk Boreas offshore windfarm position paper sets out the position of the Norfolk Boreas Limited on the Habitats Regulations Assessments for Norfolk Boreas Windfarm Farm in Haisborough, Hammond and Winterton MPA (Royal HaskoningDHV, 2020)
4. There was concern raised for a lack of consideration of cumulative or in-combination impacts in the MMO Stage 2 MPA fisheries assessment.

**MMO response:** Regarding licensable activities and heritage assets within the sites, the environmental impacts of these activities are considered in the marine licence application process by MMO or through the Development Consent Order granted by the Planning Inspectorate, depending on whether the development is deemed a nationally significant infrastructure project (NSIP). Statutory duties under the Marine and Coastal Access Act 2009<sup>5</sup> or the Planning Act 2008<sup>6</sup> will be discharged by the regulatory body accordingly.

In response to point 4, during the process of implementing management for an MPA, MMO considers other activities and fisheries which may have a cumulative impact on the management of the site, assessing which ongoing activities may hinder the site's conservation objectives. However, the rocky and biogenic reef features considered in

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<sup>5</sup> For more information see: <https://www.legislation.gov.uk/ukpga/2009/23/contents>

<sup>6</sup> For more information see: <https://www.legislation.gov.uk/ukpga/2008/29/contents>

Stage 2 require management due to their sensitivity, regardless of any cumulative impact with other activities and/or fishing gear.

#### **A1.1.6 Precautionary approach**

The following response was received: MMO's approach was either too precautionary or not precautionary enough.

**MMO response:** 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'.

MMO decision making is taken in accordance with the precautionary principle. In addition, MMO completes assessments to ensure the fullest possible scientific evaluation of the potential impacts of marine non-licensable or fishing activities on the designated features of MPAs.

#### **A1.1.7 Wastewater and sewage impacts**

The following response was received: there is a need to stop water companies dumping effluent within the marine environment.

**MMO response:** Effluent discharges in the form of wastewater and sewage are regulated and monitored by the Environment Agency. The scope of the call for evidence was the impact of bottom towed fishing on rocky and biogenic reef features.

#### **A1.1.8 Impacts of lost or abandoned fishing gear**

The following response was received: the potential impacts of lost or abandoned fishing gear were highlighted, and the lack of consideration in the Stage 2 MPA Fisheries Assessment was raised.

**MMO response:** MMO acknowledges the impacts of marine litter, lost and discarded gear and 'ghost fishing'. This is a diffuse problem in the marine environment and site based management is unlikely to be an effective way of dealing with this issue. International legislation, however, is in place, such as Annex V of the International Convention for the Prevention of Pollution from Ships (1973) (International Maritime Organization, 2019).

### A1.1.9 Blue carbon

The following response was received: information was provided on carbon storage in marine sediments (blue carbon). Estimates were provided for a number of sites, stating that this was further evidence for full site closures.

**MMO response:** Within the MMO Stage 2 MPA Fisheries Assessment, the potential for fisheries restrictions to protect vital ecosystem services such as carbon storage are explored. Protection of MPAs may result in additional benefits such as the protection of blue carbon stores. The non-monetary benefits of the proposed byelaw, including potential blue carbon storage, are considered in the DMA.

### A1.1.10 Climate change

The following response was received: mitigation of the effects of climate change is needed, including enabling the adaptation of designated species and adjustments in relation to shifting species ranges as a result of climate change.

**MMO response:** The Stage 2 MPA Fisheries Assessment states that ‘prohibiting the use of damaging activities may enhance the level of certain ecosystem services provided by MPA features and sub-features, such as climate regulation (Fletcher et al., 2012)’. By providing areas closed off to damaging activities, space is being provided for refuge of species, and negative impacts minimised, thereby promoting increased resilience against impacts including those felt from climate change.

### A1.1.11 Protected species

The following response was received: information was provided concerning cetacean deaths and proposed links to ghost fishing and accidental bycatch within a number of the sites. There was also a link to fishing impacts on marine mammals, and concerns raised regarding gear switch, resulting from restrictions on bottom towed gear, and subsequent increased risk of bycatch with other gear.

**MMO response:** Harbour porpoise are a designated feature of two offshore MPAs in English waters. MMO will assess and manage the impacts of fishing on these sites in Stage 4 of the MMO’s MPA fisheries management work (section A1.1.1). Seals, sharks, and other species of cetaceans, although protected species, are not designated features of the MPAs under consideration in Stage 2, therefore neither the assessment nor management proposals have been developed specifically for the protection of those species. MMO recognises, however, that management of bottom towed gear may have a wide range of ancillary benefits such as enhanced fish stocks, marine biodiversity and ecosystem recovery which is likely to subsequently benefit animals such as seals, sharks and cetaceans through, for example, habitat recovery and increased prey availability.

### A1.1.12 Natural disturbance, community composition and natural resilience

The following response was received: a paper by van Denderen et al. (2015) was provided in support of the suggestion of using community composition and natural resilience to guide management requirements for trawling activities.

**MMO response:** As set out in the Stage 2 MPA Fisheries Assessment, the impacts of bottom towed gear on the seabed may vary with several factors, including potentially the levels of natural disturbance (Lambert et al., 2014), sediment type (Rijnsdorp et al., 2018) and exposure to previous fishing activity (Sciberras et al., 2018). For example, in areas of high natural disturbance, benthic communities may recover faster from bottom towed gear (Lambert et al., 2014). Meanwhile, as they contain large proportions of long-lived sessile epifauna, communities in gravel habitats may be more sensitive to bottom towed gear (Rijnsdorp et al., 2018). The impacts of bottom towed gear on lightly fished areas may also be greater (Sciberras et al., 2018); however, this could be because historic trawling in core fishing grounds has removed sensitive species (Hiddink et al., 2017). Delineating variation in habitat sensitivity (for example by levels of natural disturbance, sediment type and previous fishing exposure) does not, however, consider species-specific sensitivities, for example fragile species will be more vulnerable (Hiddink et al., 2006). Studies on how the impacts of bottom towed gear vary with sediment type can, at times, also provide conflicting results (Stewart and Howarth, 2016; Hiddink et al., 2017). While some information is available detailing how bottom towed gear impacts vary, the intensity and extent of bottom towed gear that is sustainable, even in more resilient habitats, remains unclear (Stewart and Howarth, 2016). Although the impacts may vary, trawling can have large negative effects on the biomass and production of benthic communities (Hiddink et al., 2006).

## A1.2 Site specific responses

This section provides a summary of site level responses, alongside MMO's response, including how these have been addressed, in relation to specific MPAs.

### A1.2.1 Cape Bank MPA and Land's End and Cape Bank MPA

#### ***Additional evidence***

The following responses were received:

1. The site is important for French trawlers and Belgian fishing vessels including smaller (under 24 m) beam trawlers (Eurocutter fleet) inside of 12 nm and larger vessels outside of 12 nm.
2. Belgian beam trawl fleet has evolved towards sumwings and ecorolls and are therefore less damaging.
3. Negative impacts of beam trawls have been overstated.

4. Displacement of activity is likely increasing fishing pressure. High value seasonal trawling activity occurs.
5. The interaction of bottom towed gears on rocky reef will lead to a significant risk of hindering the conservation objectives of the MPA.

**MMO response:** in response to point 1, this data has already been included in the MMO Stage 2 MPA Fisheries Assessment via VMS. VMS is required from all vessels (of all nationalities) over 12 metres length. MMO recognises the importance of the site to French and Belgian fishing vessels. While the nationality of a fishing vessel does not influence the impact of its fishing operations, the impact of proposed management measures on fishing vessels from different states is captured in the DMA produced alongside the proposed management measures. MMO strives to avoid any unnecessary costs to the fishing industry, financial or otherwise in the development of management measures. However, we have duties to ensure MPAs receive the protection they require and the potential for management to have a socio-economic impact does not override this duty. For more detail on socio-economic impacts, please see section **A1.1.3**.

In response to points 2 and 3, the evidence set out in the MMO Stage 2 MPA Fisheries Assessment demonstrates the potential for beam trawl activity to negatively impact sensitive habitats such as the designated reef feature within Cape Bank. Although the overall environmental impacts may be reduced by sumwing and ecoroll beam trawl design, MMO has not seen evidence to demonstrate that this reduction would be sufficient to rule out a significant risk of beam trawling hindering the achievement of the site's conservation objectives.

In response to point 4, although displacement resulting from any management measures put in place may result in higher levels of fishing pressure on areas outside of MPAs, the location (and thus the associated environmental costs) of displaced fishing activity is unclear, see section **A1.1.2**.

Point 5 supports the conclusion of the assessment that a significant risk of beam trawling hindering the achievement of the site's conservation objectives cannot be ruled out.

### ***Management options***

The following responses were received:

1. Bottom towed gear will risk the conservation objectives of the sites, Option 4 (whole site prohibition) must be taken, as it will deliver conservation objectives for the designated features of the sites.
2. Feature based approach would not adequately protect features. A whole site ecosystem approach would be more effective.

3. The northwest portion of the Cape Bank is important as a sole fishery and vessels using bottom towed gear have operated there for decades. Fishers believe that the less sensitive features are in the western parts of the site. The respondent noted that for the industry, a voluntary/zoned approach would be the preferred approach for this site.
4. It was queried whether management measures would apply to ring netting, and whether netting was included and is to be managed alongside bottom towed gear.
5. There should be a temporal open season to allow for fishing as part of scientific studies within Cape Bank.
6. A full closure of Cape Bank to all types of fishing is required, as well as jet skis and boats travelling at high speed to protect whales and dolphins.
7. 103 egg cases and 35 shark sightings have been collected from citizen science projects for Land's End and Cape Bank, and though these are not necessarily assessed designated features, these occurrences may be associated.
8. Socio-economic consequences should be taken into account and in the future the same level of income should be guaranteed to Belgian fishermen.

**MMO response:** MMO agrees that the features currently under consideration are sensitive to interaction with bottom towed gear, and such fishing activity has the potential to result in an adverse effect on site integrity irrespective of current feature condition. In response to points 1 to 4 please see sections **A1.1.1** and **A1.1.2**.

In response to point 5, proposed management measures will include an exemption for scientific purposes. Therefore, subject to permission, bottom towed gear surveys for scientific purposes can still occur within Cape Bank MPA, provided that it can be demonstrated that these surveys will not result in a significant risk to the achievement of the site's conservation objectives.

In response to points 6 and 7, please see section **A1.1.11**. In response to point 8, MMO has proposed management measures to meet its legal duties, please see section **A1.1.1**.

### ***Other responses***

MMO received responses calling for this site to be added to the HPMA network and afforded the same protections, a response to this has been included in section **A1.1.4**.

Several responses provided information on the blue carbon estimates within the sites and the potential impact of bottom towed gears on these stores, a response to this has been included in section **A1.1.9**.

## A1.2.2 East of Haig Fras

### **Additional evidence**

The following responses were received:

1. The site is important to vessels using bottom towed gear, particularly for mixed fishery species such as sole, monkfish and megrim, which is already spatially restricted. These grounds have been fished for many years and continue to produce a diverse range of species that are important to the fleet and supply chain to produce the diverse range of species into the south-west markets.
2. In 2021, 19 French fishing boats have worked in this MPA, catching 1,886 tonnes of fish for €6,607,920 of benefits. This area is important to the respondent's fleet, with over 20 % of our effort focussed on this area.
3. The gill and trammel nets have just one rope on the seabed, and because they both have floats on the headlines, this rope does not affect the benthic substrate. There is gill netting activity in this area (shown by a plotter picture attached). Gill netters target hake year-round.
4. Reference to the Biodiversity Action Plan for fan mussel (*Atrina fragilis*) (JNCC, 2007). There are only 20 populations recorded throughout the UK, and sponge and sea-pen communities form habitats for other organisms. Thus persistent, or even occasional, bottom trawling will damage or kill these species and reduce their associated ecosystem services.

**MMO response:** In response to points 1 and 2, MMO recognises that the site is important for mixed fishery species for multiple fleets. While the nationality of a fishing vessel does not influence the impact of its fishing operations, the impact of proposed management measures on fishing vessels from different states is captured in the DMA produced alongside the proposed management measures. MMO strives to avoid any unnecessary costs to the fishing industry, financial or otherwise in the development of management measures. However, we have duties to ensure MPAs receive the protection they require and the potential for management to have a socio-economic impact does not override this duty. For more detail on socio-economic impacts, please see section **A1.1.3**.

In response to points 3 and 4, this call for evidence is part of Stage 2 which is focussed on the impacts of bottom towed fishing gear on subtidal rock, and rocky and biogenic reef. The impacts of gill and trammel nets on designated seabed features, and the impacts of all fishing gears on fan mussel (*Atrina fragilis*) and sea-pen and burrowing megafauna communities will be assessed at Stage 3. For more detailed information on each stage see section **A1.1.1**.



## ***Management options***

The following responses were received:

1. Option 2 (voluntary agreement) or option 3 (zoned closure) should be considered for bottom towed gear due to the omnipresence of vessels using these gear types across the site. This would allow industry and fisheries management to understand the range of impacts on the seabed from bottom towed gears through to natural disturbance.
2. Coupling options 2 and 3 with a monitoring and evaluation study to understand the impacts of bottom towed gear and the effectiveness of MPA's would offer valuable data and evidence to further inform future management of the site and the MPA network.

**MMO response:** MMO agrees that, as set out in the Stage 2 MPA Fisheries Assessment, the impacts of bottom towed gear on the seabed vary with several factors, including the levels of natural disturbance (Lambert et al., 2014) and exposure to previous fishing activity (Sciberras et al., 2018). While some information is available detailing how bottom towed gear impacts vary, the intensity and extent of bottom towed gear that is sustainable, even in more resilient habitats, remains unclear (Stewart and Howarth, 2016). It would not be appropriate to allow bottom towed fishing gear to operate in areas where there is a significant risk of hindering the achievement of the site's conservation objectives. Please also see section **A1.1.2**.

## ***Other responses***

Several responses provided information on the blue carbon estimates within the site and the potential impact of bottom towed gears on these stores. A response to this has been included in section **A1.1.9**.

MMO received information on cetacean bycatch throughout the Celtic Sea area, reported as a link to fishing within the area, a response to this has been included in section **A1.1.11**.

## **A1.2.3 Farnes East**

### ***Additional evidence***

The following responses were received:

1. The nephrops fishery is commercially important at a local and international scale, restrictions to the nephrops grounds would have significant impacts on the local industry and would likely cause some significant displacement of this effort elsewhere.

2. Northumberland Inshore Fisheries and Conservation Authority (IFCA) is currently in the process of amending its dredging byelaw, which would prohibit dredging within the entirety of the Northumberland Inshore Fisheries and Conservation (IFC) District (0 – 6 nm). Further dredging restrictions would add further pressure to this industry and would remove commercially important local grounds.
3. VMS data for scalloping vessels in the vicinity of the Northumberland IFC District, using data from 2016 to 2019, indicates high activity within the Farnes East MPA. It was recommended that more contemporary VMS data be analysed to best understand the levels of both trawling and dredging within the site.
4. VMS data for scalloping vessels were provided within the Northumberland IFC District
5. Scallop dredging is not occurring within the site at present.
6. Scallop dredging should be a regional fishery managed by the IFCA during poor weather periods.
7. Fisheries which are not under pressure should remain open especially with other pressures impacting on entry into fishing careers.
8. Management of the fishery should be based on timings or bag limits rather than full site closure.
9. Closure of the site to bottom towed gears will result in additional potting activity occurring in the site.

**MMO response:** in response to points 1 and 2, MMO strives to avoid undue pressure on fisheries through restriction of fishing grounds, however, we have duties to ensure MPAs receive the protection they require and the potential for management to have a socio-economic impact does not override this duty. For additional information section **A1.1.1** and **A1.1.3**.

In response to points 3 and 4, the evidence presented in the Stage 2 MPA Fisheries Assessment meant it was not possible to exclude a significant risk of hindering the achievement of the conservation objective of the MPA. Additional information on evidence used is presented in section **4** and for additional information on use of VMS see **A1.1.1** and **A1.1.2**.

In response to point 5, there is evidence of bottom towed gears operating within the site as detailed in the MMO Stage 2 MPA Fisheries Assessment. In response to point 6, the IFCA jurisdiction to manage fisheries extends out to 6 nm (**Figure A1.2**), therefore Farnes East falls within the MMOs jurisdiction to assess and if required, identify and implement any management.

In response to points 7 and 8, MMO strives to implement appropriate management based on accurate and up to date evidence, management will only be implemented

whereby the evidence suggest that the fishing activity taking place will hinder the conservation objectives of the MPA, please see sections **A1.1.2** and **A1.1.3**.

In response to point 9, although displacement and gear changes resulting from management measures may result in higher levels of fishing pressure on areas outside of MPAs, it is not possible to accurately predict the location (and thus the associated environmental costs) of displaced fishing activity. Please see section **A1.1.1**.

### ***Management options***

The following responses were received:

1. A whole site approach should be undertaken.
2. All fishing activity is harmful to the ocean floor and its habitats. Farnes East MPA's seven designated features are sensitive and should be protected by a complete ban on fishing of all types, to ensure full recovery. A byelaw prohibiting all fishing must be the way forward for a good outcome to enable this site to recover.
3. Assessing the impact of bottom towed gear alone, separate to all other fishing methods and activities, does not consider combined and cumulative impacts.
4. With features already in unfavourable condition, recovery isn't possible without assessing all activities which may impact on the features.
5. The feature covered in this consultation is also found within the Coquet to St Mary's MPA, found within the Northumberland IFC District with the same conservation objectives (to maintain in favourable condition). Under the Northumberland IFCA byelaw, it is now prohibited to fish with any trawl, unless using gear which has been modified, in order to eliminate the impact on the seafloor when trawling over hard substrates. This has been viewed as a success by the industry, who supported this above a total prohibition of activity on the designated features. This is a good example of how management can be in place to afford protection to the features, whilst still allowing the activity to occur.
6. Additional buffers around the feature would stretch into the Northumberland IFC District, putting further pressure on the inshore trawling fleet inside of the 6 nm boundary.
7. Buffers around the designated features would likely result in a vast network of prohibited areas which would be difficult to police and enforce and put undue pressure on the fishing industry.

**MMO response:** In response to point 1 please see section **A1.1.2**. In response to points 2, 3 and 4, please see sections **A1.1.1** and **A1.1.5**.

In response to point 5, there is uncertainty and conflicting evidence regarding the impact of bottom towed gear on different types of sediment. MMO undertakes assessments of each MPA on a site-by-site basis and whilst an approach may be sufficient for one MPA, it may not be appropriate for a similar MPA nearby. MMO will only implement management or prohibit fishing in parts of a site where an MPA fisheries assessment cannot rule out that fishing activities are hindering the conservation objectives of that site. In this case the Northumberland IFCA byelaw requirement of an adapted otter trawl is based on shallower reefs which are exposed to higher levels of natural disturbance and therefore likely to host biological communities which are more resistant to physical impacts. Based on the available evidence, the Stage 2 MPA Fisheries Assessment concluded that a significant risk of hindering the achievement of the site's conservation objectives could not be excluded from any interaction between bottom towed gears and the moderate energy circalittoral rock within the site, and therefore the potential for this interaction to occur must be removed by prohibiting the use of bottom towed gear over these features (and within a minimum 300 m buffer around the edge of the features). MMO remain open to any further evidence and will regularly review the measures in line with our monitoring and control strategy.

In response to points 6 and 7, a depth-based buffer applied around the edge of management areas is necessary to account for fishing gear warp length (the length of the lines, rope or wires that connect the gear to the seabed and to the towing vessel) and to ensure that fishing activities taking place adjacent to the feature, do not negatively impact it. Whilst buffers may extend into the neighbouring Northumberland IFC District and may further restrict fishing activities, these can be adapted on a site-by-site basis. Where a designated feature of an MPA straddles the 6 nm limit, MMO work closely with the relevant IFCA to ensure appropriate management is in place for the straddling feature. This may be in the form of spatial restrictions within both the MMO and the IFCA section of the site or a monitoring and control plan where it has been concluded that a statutory restriction is not required. Farnes East MPA sits adjacent to the 6 nm limit, and therefore the designated feature occurs along the outer edge of the limit, but not within the Northumberland IFC District. As a result, there is no designated feature for Northumberland IFCA to assess and consider management for, thus requiring MMO to include a buffer into the Northumberland IFC District to ensure the appropriate level of protection for features that adjoin it. The MMO Stage 2 MPA Fisheries Assessment, section 2.4 'management options' discusses the use of buffer zones which are an adopted MMO approach following guidance from JNCC and Natural England to ensure appropriate protection of relevant features.

### ***Other responses***

MMO received information on the cumulative impacts of activities within the MPA, a response to this has been included in section **A1.1.5**.

Several responses provided information on the blue carbon estimates within the site and the potential impact of bottom towed gears on these stores, a response to this has been included in section **A1.1.9**.

MMO received information on cetacean bycatch throughout the area, detailing the importance of the site for white beaked dolphins and stating the issue of bycatch from ghost fishing gears and netting, a response to this has been included in section **A1.1.11**.

#### **A1.2.4 Foreland**

##### ***Additional evidence***

The following responses were received:

1. The site is important for commercial fishing for the Belgian fleet. The site has been highlighted by respondents for its importance for the growing squid fishery.
2. Fishing pressure does not allow the site to recover. A whole site approach should be taken to protect the entirety of the MPA to include protected features and associated species as well as to maintain carbon storage at the site.
3. 2022/2023 economic data was provided for a small number of vessels for fishing activity within ICES rectangle 31F1, indicating the emergence of a high value squid fishery.

**MMO response:** In response to point 1, MMO recognises the importance of the site to Belgian fishing vessels. While the nationality of a fishing vessel does not influence the impact of its fishing operations, the impact of proposed management measures on fishing vessels from different states is captured in the DMA produced alongside the proposed management measures. MMO strives to avoid any unnecessary costs to the fishing industry, financial or otherwise in the development of management measures. However, we have duties to ensure MPAs receive the protection they require and the potential for management to have a socio-economic impact does not override this duty. For more detail on socio-economic impacts, please see section **A1.1.3**.

In response to point 2, please see sections **A1.1.4** and **A1.1.9**.

MMO received responses calling for this site to be added to the HPMA network and afforded the same protections, a response to this has been included in section **A1.1.4**.

In response to point 3, the data provided has not been considered within the DMA and therefore may present an underestimate, however the vessels do not appear to be fishing significantly within the management area, and therefore the vast majority of this activity would not be directly effected by the proposal and should not be considered within the DMA.

### **A1.2.5 Goodwin Sands**

#### ***Additional evidence***

The following responses were received:

1. Concerns were expressed regarding the socio-economic impact on the national fishing industry. Respondents questioned the need for further restrictions on important fisheries sites, while expressing that they would prefer that non-UK fleets be restricted, not UK ones that already struggle.
2. Bottom towed gears might disturb seals, as they use the site for breeding.
3. 2022/2023 economic data was provided for a small number of vessels for fishing activity within ICES rectangle 31F1, indicating the emergence of a high value squid fishery.

**MMO response:** In response to point 1, MMO will only introduce management measures that are non-discriminatory and apply equally to vessels regardless of the country conducting the fishing activity. However, due to varying levels of activity in Goodwin Sands MPA, some countries may be impacted more than others. Please see sections 4, **A1.1.1**, **A1.1.2** and **A1.1.3**.

In response to point 2 regarding protected species such as seals, which are not features of a particular MPA, please see section **A1.1.11**.

In response to point 3, the data provided has not been considered within the DMA and therefore may present an underestimate, however the vessels do not appear to be fishing significantly within the management area, and therefore the vast majority of this activity would not be directly effected by the proposal and should not be considered within the DMA.

#### ***Management options***

The following responses were received:

1. Dredging and any form of aggregate extraction should be banned. The aggregated impacts from these activities disturb sensitive bottom fauna, such as mussels and Ross worms.
2. Option 4 (whole site prohibition) is the only way to ensure the site is properly protected.

**MMO response:** in response to point 1, marine licensable activities such as aggregate dredging are not being considered as part of this call for evidence. Marine licensable activities are subject to an in-depth, technical assessment of their impacts on relevant MPAs as part of the marine licensing determination process.

In terms of aggregate dredging in the area of Goodwin Sands MPA, a condition of the marine licence for aggregate dredging at this site states that ‘all dredging within the licensed area under this marine licence must cease by 31 December 2021 or once the total quantity of material licensed to be extracted has been removed, whichever occurs first.’ No aggregate dredging within Goodwin Sands MPA took place before 31 December 2021.

Further information regarding the licence for aggregate dredging at the site and the environmental considerations of this activity can be found on the [MMO marine licensing public register](#) (licence reference L/2018/00311/1)<sup>7</sup>.

In response to point 2, please see section **A1.1.2**.

#### **A1.2.6 Haig Fras**

##### ***Additional evidence***

The following responses were received:

1. There is limited to no bottom towed gears operating here but there is netting and potting in the area.
2. There are recorded incidents of bottom trawling and seining in the site, which is damaging to upright sensitive demersal species.
3. Netters have operated within this area since before the introduction of VMS, however, there has not been much activity there in the last two years due to the crayfish market and the coronavirus pandemic, although this is now increasing.
4. Using Global Fishing Watch analysis that the site was subject to 40.67 hours demersal towed fishing in 2021. This equates to 0.09 hours per kilometre square.
5. Trawlers do not work this area because the ground is too hard.

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<sup>7</sup> For information see:

[https://marinelicensing.marinemanagement.org.uk/mmofox5/fox/live/?thread\\_id=un9b20krotqj82siosnqcd8gg29knb482tti36eo68ofhkbrd9tk8d2ejd6o18da16df1ran37ebfokn6guhik1icblliu5upp0&resume=1](https://marinelicensing.marinemanagement.org.uk/mmofox5/fox/live/?thread_id=un9b20krotqj82siosnqcd8gg29knb482tti36eo68ofhkbrd9tk8d2ejd6o18da16df1ran37ebfokn6guhik1icblliu5upp0&resume=1). Last accessed 08/06/2023

**MMO response:** in response to points 1 to 5, please see sections **4** and **A1.1.2**. For Haig Fras MPA, there is evidence of bottom towed gear within the site as detailed in the MMO call for evidence within the MMO Stage 2 MPA Fisheries Assessment.

### ***Management options***

The following responses were received:

1. A full site closure (option 4) for all bottom towed gear.
2. Due to the importance of the corridor between the reefs for John Dory fisheries, it is important to consider a zoned or voluntary approach (option 2).

**MMO response:** in response to points 1 and 2 please see sections **A1.1.1** and **A1.1.2**.

### ***Feature information***

The following responses were received:

1. The evidence document only lists one habitat and recommended that JNCC and MMO consider the site to be effectively a 'one feature site' and as such all bottom towed gear should be prohibited.
2. Areas of coral present in the site which are believed to be intact due to the lack of trawling in the area. Fishermen are unsure of whether the coral is alive or dead because they only sometimes bring up small pieces of dead broken coral.
3. The distribution of the rocky and sediment features creating a mosaic of habitats, highlighting the potential for beneficial spill over from the site to surrounding fisheries outside of the site.

**MMO response:** In response to point 1, the Stage 2 call for evidence focussed on gathering information on bottom towed gear impacts on rocky reef, the one designated feature of Haig Fras MPA. MMO will only implement management or prohibit fishing in parts of the site where the Stage 2 MPA Fisheries Assessment cannot rule out that it is causing an adverse effect on site integrity.

In response to point 2, the purpose of the Stage 2 call for evidence is to gather information on the site, including the features and potential activity occurring within that site. Information on the location of coral will be compared with known feature data to further the evidence base when considering management measures.

In response to point 3, please see section **A1.1.1**.



## ***Other responses***

MMO received responses calling for this site to be added to the HPMA network and afforded the same protections, a response to this has been included in section **A1.1.4**.

Several responses provided information on the blue carbon estimates within the site and the potential impact of bottom towed gears on these stores. a response to this has been included in section **A1.1.9**.

MMO received information on cetacean bycatch throughout the area, reported as a link to fishing within the area, a response to this has been included in section **A1.1.11**.

## **A1.2.7 Haisborough, Hammond and Winterton**

### ***Additional evidence***

The following responses were received:

1. Belgian activity in the site is most frequent just outside of 12 nm. The site is very important to the Belgian fishing fleet and will become more so in future due to decreased fishing grounds.
2. Fishing takes place mostly in the south east of the MPA (including dredging, bottom otter trawling and beam trawling by UK and non-UK vessels), and as well as in a small part of the north-west corner of the MPA.
3. Due to containing flatfish and sandeels, biodiverse rich troughs are likely targeted for fishing.
4. Fishing hours were provided for the site for 2019 to 2021 based on Global Fishing Watch data, with total fishing hours ranging from 587 – 1,555 hours per year.

**MMO response:** in response to point 1 to 4, please see sections **4** and **A1.1.1**. For Haisborough, Hammond and Winterton, there is evidence of bottom towed gears operating within the site, particularly in the southeast, as detailed in the MMO Stage 2 MPA Fisheries Assessment.

### ***Management options***

The following responses were received:

1. A whole site (option 4) would allow increases in biodiversity beyond the individual features including sandbank troughs, where the majority of the ecological and carbon richness can be found.
2. The sandbank feature of the site should also be closed to bottom towed gear as all features within the site are interlinked; the sandbank is in unfavourable

condition; and is sensitive to bottom towed gears as per the conservation advice.

3. Disadvantages of a feature-based approach include the increased cost to fishers to manage fishing activities around each feature.
4. A whole-site approach must be considered due to the size and significance of the site, and its carbon storage potential.
5. A feature-based approach is against global best practice for managing bottom towed gear in MPAs, and against multiple legislative commitments and MMO legal duties.
6. Whole-site management would better implement the ecosystem approach.
7. The MMO fisheries assessments for Dogger Bank and Inner Dowsing, Race Bank and North Ridge concluded that bottom towed gears were not compatible with restoring the biological communities; therefore, by extension such activity would be similarly damaging to the sandbanks of Haisborough, Hammond and Winterton MPA.
8. Spatial closures are needed for all sensitive sub-features as per the DMA for the Eastern IFCA MPA byelaw (Eastern IFCA, 2019b).
9. Protecting the MPA habitats from bottom towed gear allows ecosystem recovery, and also benefits cetaceans via habitat recovery and increased prey availability, which in turn supports the Agreement on the Conservation of Small Cetaceans of the Baltic, Northeast Atlantic, Irish and North Seas (ASCOBANS) conservation plan for harbour porpoise in North Sea (ASCOBANS, 2009).
10. Strong agreement with the assessment's conclusion that the use of bottom towed gears poses considerable risks to the condition of the features considered and may lead to an adverse effect on site integrity of the MPA.

**MMO response:** in response to points 1 to 7, please see sections **A1.1.1** and **A1.1.2**. In response to point 4, please see section **A1.1.9**.

In response to point 8, the DMA for the Eastern IFCA MPA Byelaw 2019 (Eastern IFCA, 2019a) considered three MPAs: The Wash and North Norfolk Coast MPA, Haisborough, Hammond and Winterton MPA, and Cromer Shoal Chalk Bed MPA (Eastern IFCA, 2019b). For Haisborough, Hammond and Winterton MPA, the preferred management option for bottom towed gear related solely to *Sabellaria spinulosa* reef. The byelaw as such provided protection for the sub-feature 'subtidal biogenic reef: *Sabellaria* spp. (Ross worm)' (Eastern IFCA, 2019b). The MMO Stage 2 MPA Fisheries Assessment similarly concluded that management of bottom towed gear is required in relation to the *Sabellaria* reef feature.

In response to point 9, please see section **A1.1.11**. The MMO Stage 2 MPA Fisheries Assessment concluded that bottom towed gear has the potential to have significant impacts on the protected reef feature of Haisborough, Hammond and Winterton MPA and thus management measures will be required.

In response to point 10, MMO acknowledges the respondent's agreement with the conclusion in the Stage 2 MPA Fisheries Assessment for Haisborough, Hammond and Winterton MPA that the impact of bottom towed gears on the features may have an adverse effect on site integrity. MMO has therefore proposed a prohibition of bottom towed gears where Annex I reef is known to occur within the Haisborough, Hammond and Winterton MPA.

### **Feature information**

The following responses were received:

1. Information was provided on the location of Sabellaria reef within the site: Ross worm reef is widespread throughout the troughs of the sandbanks, and in some instances on the flanks. The most extensive reef is at Haisborough Gat, with smaller reefs occurring in the southwest of the site, between the Middle Cross Sand and Newarp Banks.
2. Information was provided on the ecological role of Sabellaria reef, including that the reefs stabilise the shifting sands and provide structural complexity, and create a biodiversity hotspot by providing habitats, food, support and/or attachment points for numerous species, including infauna, reef-forming epifauna, polychaetes, bivalve species and mobile species, such as brittlestars and crustaceans.
3. Haisborough, Hammond and Winterton MPA is one of only 12 sites in the UK that contain Ross worm reef.
4. In the UK, 23 % of 'reefs' (Habitat 1170) habitat is thought to be in unfavourable (not good) condition, whilst 68 % is in favourable condition and 10 % in unknown condition (JNCC, 2019b).
5. As part of the 2021 MMO MPA fisheries assessment for Inner Dowsing, Race Bank and North Ridge MPA, the features were reassessed and found to be in unfavourable condition. The conservation objectives were also revised to 'restore' for both the reef and sandbank features. Given the revised conservation objectives for Inner Dowsing, Race Bank and North Ridge MPA, and the national conservation status of this feature, a similar change in the fisheries assessment for this site is suggested.
6. Harbour porpoise are listed as a 'D' feature ('non-significant presence') in the site.
7. Information was provided regarding the sensitivity of *Sabellaria spinulosa* reef to abrasion via physical disturbance and the role of fisheries in the decline of *Sabellaria spinulosa* reef across the North Sea (Last et al., 2012; OSPAR Commission, 2013; Gibb et al., 2014; Van Der Reijden et al., 2019).
8. Trawl scars provide evidence that part of the Haisborough Gat reef had been damaged by benthic trawling and that demersal fishing poses a high risk to the features of interest (JNCC and Natural England, 2013).

**MMO response:** in response to point 1, MMO notes the additional information on reef location. MMO is using the most recent feature data provided by JNCC and Natural England to define the area to be managed as reef. This is based on a 'core reef approach' where areas to be managed as reef are those where reef has been present at a certain frequency over a series of surveys.

In response to points 2 to 4, MMO acknowledges the ecological information provided. This information is consistent with the conclusions of the MMO Stage 2 MPA Fisheries Assessment.

In response to points 4 and 5, JNCC and Natural England are responsible for monitoring MPAs, including assessing the condition of habitats and species designated through MPAs. This is carried out using an agreed approach for assessing the condition of statutory sites designated through UK and international legislation (JNCC, 2019a). The most recent assessment of H1170 reefs in the site was in 2018 and concluded that the feature was in unfavourable condition with no change (Natural England, 2016).

In response to point 5, JNCC and Natural England are responsible for providing conservation advice for individual MPAs, including determining the ecological aims (conservation objectives) for the protected habitats. The conservation objectives for the reef feature of Haisborough, Hammond and Winterton MPA are to restore the extent and distribution, structure and function, and supporting processes of the reef habitat. Given that the feature currently under consideration (Annex I reef) is sensitive to interaction with bottom towed gears, MMO has proposed a prohibition of bottom towed gear fishing over areas identified as potentially supporting reef formation.

In response to point 6, please see section **A1.1.11**.

In response to points 7 and 8, evidence shows that biogenic reefs are highly sensitive to bottom towed gears which may damage and reduce the extent of biogenic reefs; consequently, this pressure must be removed to allow sustained recovery, please see section **A1.1.4**.

### ***Other responses***

MMO received responses calling for this site to be added to the HPMA network and afforded the same protections, a response to this has been included in section **A1.1.4**.

MMO received information on the cumulative impacts of activities within the MPA, a response to this has been included in section **A1.1.5**.

Several responses provided information on the blue carbon estimates within the site and the potential impact of bottom towed gears on these stores. a response to this has been included in section **A1.1.9**.

MMO received information on cetacean bycatch throughout the area, detailing prohibition of bottom towed gear is likely to lead to risk of gear switching and increased gillnetting, which would increase bycatch risk for cetaceans, a response to this has been included in section **A1.1.11**.

## **A1.2.8 Hartland Point to Tintagel**

### **Additional evidence**

The following responses were received:

1. Data has shown that either minimal or no bottom towed gear activity takes place within the 12 nm limit of the MPA.
2. A bottom towed gear prohibition will lead to an increase in static gear use that will impact to anthozoan and sponge communities.
3. Sandy, non-sensitive areas of the site are of significant economic importance for ray and dover sole for smaller inshore trawlers and are towed 10 to 20 times per year with expected minimal impact.
4. Restrictions would push vessels further offshore which would incur higher running costs from fuel use.
5. Access to specific areas of the site for safety; being able to operate close to shore for inshore trawlers when strong easterly winds are present making fishing further offshore dangerous.

**MMO response:** in response to point 1, two designated features within the MMO portion (6 to 12 nm limit) of Hartland Point to Tintagel MPA are currently in unfavourable condition: fragile sponge and anthozoan communities on subtidal rocky habitats, and pink sea-fan (*Eunicella verrucosa*). While there is very limited evidence of bottom towed fishing activity in this area, these features are extremely sensitive to even very low levels of bottom towed gear. Closing these areas to bottom towed gear fishing will help to ensure the site can recover and will protect these features from any future increases in fishing activity. Please also see sections **A1.1.1** and **A1.1.3**.

In response to point 2, please see section **A1.1.1**.

In response to point 3, the sandy/coarse sediments in the MMO portion of the site (6 to 12 nm limit) are interspersed with the presence of the designated feature, fragile sponge and anthozoan communities on subtidal rocky habitats, which is highly vulnerable to the impacts of bottom towed gear. There are no records of pink sea-fan in the MMO portion of the site, but due to presence of this species within the IFCA

portion of the site on the same habitats and at similar depths as the MMO portion, this species has been considered in the impact pathway assessment. Natural England's conservation advice considers these features to be highly sensitive to even low levels of bottom towed gear fishing activity. The conservation objectives are to recover these features to favourable condition/status. Therefore, MMO must consider management options to further the conservation objectives of this site.

In response to points 4 and 5, MMO takes safety of life at sea extremely seriously and we strive to avoid any unnecessary impacts to the fishing industry in the development of management measures **A1.1.1**.

### ***Management options***

The following responses were received:

1. Preferred voluntary or zoned management (option 2) with a plan for detailed consultation with local boats to allow research to be conducted on any restrictions and the effectiveness of MPAs.
2. The suggested management (options 2 and 3) is precautionary, based on vulnerability rather than risk. A monitoring and control plan with trigger points would be more appropriate than a ban of this activity and consistent with usual byelaw making processes.
3. Site should be managed on a site based, rather than feature-based approach due to the importance of the area (inside and outside of the MPA) for grey seals in the Celtic Sea.
4. Whole site should be closed to all forms of bottom towed gear due to the potential impacts of speculative trawling. The Cornish section of the site is rarely fished due to strong tides, swell and rough ground. As a result, any speculative trawling in the area is likely to result in high ecological damage and low return in the form of catch. Non-trawled areas of the site are shown through research to be richer in upright benthic fauna than adjacent fished sediment areas.

**MMO response:** in response to point 2 please see section **A1.1.1**. In response to point 3 and 4, please see section **A1.1.11**.

### ***Feature information***

The following responses were received:

1. Disturbance of grey seals from fishing activity has been observed within the MPA and five sensitive grey seal haul out sites found within Tintagel to Widemouth Site of Special Scientific Importance (SSSI) bordering the MPA. Seals in this SSSI have been linked to 24 other sites along the Celtic Sea

coastline. It is really important that fishing activities just offshore from these seal sites are not impacting resting or pupping activities.

2. The site is significant for its higher-than-average species and habitat diversity, especially for sharks and cetaceans.
3. A precautionary approach to pink sea-fan is important due to the known presence of this species in the Cornwall IFCA portion of the site with same habitats and similar depths.

**MMO response:** in response to points 1 and 2, please see sections **A1.1.11** and **A1.1.1**.

In response to point 3, MMO uses the best available data for the presence and absence of designated features, whilst also drawing on advice from JNCC and Natural England where appropriate. For more information on the precautionary approach please see section **A1.1.6**.

### ***Other responses***

MMO received information on cetacean bycatch throughout the Celtic Sea area, reported as a link to fishing within the area, a response to this has been included in section **A1.1.11**.

## **A1.2.9 North Norfolk Sandbanks and Saturn Reef**

### ***Additional evidence***

The following responses were received:

1. Belgian activity within the site is most frequent within the north east section of the site. It was noted that the area was historically a very important site for Belgian fisheries and may one day become important again.
2. The area has become an important area for Danish vessels targeting sand eels following the closure of Dogger Bank MPA to bottom towed gear and that fishing occurs in the areas where the sand is most dynamic, and as a result, fishing impacts are minimal. The respondent stated that bycatch in the fishery is currently very low. A map was provided of fishing records from Danish vessels.
3. The east and central part of site is fished, and biodiverse troughs are likely targeted as this is where target species can be found.
4. Global Fishing Watch data was provided for 2019 to 2021 indicating the location of apparent fishing activity within the site. North Norfolk Sandbanks and Saturn Reef MPA was among the most heavily bottom-fished of all UK offshore MPAs, with over 1,000 fishing hours in a year with towed gear.

**MMO response:** in response to points 1 to 4, MMO acknowledges the information provided, see sections 4, **A1.1.1** and **A1.1.2**. For North Norfolk Sandbanks and Saturn Reef MPA, there is evidence of bottom towed gears operating within the site as detailed in the MMO call for evidence within the Stage 2 MPA Fisheries Assessment.

### ***Management options***

The following responses were received:

1. To enable reefs to recover, all sediments that are suitable to support reef feature should also be protected.
2. The whole site be closed to bottom towed gears, including the troughs between the sandbanks as this is where the majority of the ecological and carbon richness can be found.
3. If management was to be implemented, further reef building species will emerge in troughs between sandbanks, particularly if the if whole site were to be protected. The respondent provided a paper to support this (Ellis et al., 2011).

**MMO response:** In response to point 1 please see section **A1.1.1**. In response to point 2 and 3, please see sections **A1.1.1** and **A1.1.2**.

### ***Feature information***

The following responses were received:

1. The distribution of Sabellaria reef within the site is likely to be greater than currently displayed in the feature map presented for the site if the whole site had been surveyed.
2. Information was provided on the sediment composition of the site and the estimated carbon content of this sediment.
3. Survey information was provided for the site wherein species detected at three survey locations were provided attached to spatial data for the survey location.
4. A report by Cefas and JNCC detailing the extent and distribution of Sabellaria reef throughout the site was also provided (Jenkins et al., 2015).
5. Respondents provided information regarding the sensitivity of Sabellaria reef to abrasion via physical disturbance and the role of fisheries in the decline of *Sabellaria spinulosa* reef across the North Sea.
6. The use of bottom towed gears poses considerable risks to the condition of the features considered.

**MMO response:** in response to point 1, MMO is using the most recent feature data provided by JNCC and Natural England to define the area to be managed as reef.



In response to point 2, please see section **A1.1.2**. In response to points 2 to 4, MMO notes the additional information provided by respondents. This has been considered by MMO whilst checking we have the best available data for this site. Please see section **4**.

In response to point 5, MMO agrees that biogenic reefs are highly sensitive to bottom towed gear and fishing using these gears may reduce the extent of biogenic reefs, meaning this pressure must be removed to allow sustained recovery. MMO has therefore proposed a prohibition of bottom towed gear where biogenic reef is known to occur within the North Norfolk Sandbanks and Saturn Reef MPA.

In response to point 6, MMO acknowledge the respondent's agreement with the conclusion in the Stage 2 MPA Fisheries Assessment for North Norfolk Sandbanks and Saturn Reef MPA that the impact of bottom towed gears on the features may have an adverse effect on site integrity. MMO has therefore proposed a prohibition of bottom towed gears where biogenic reef is known to occur within the North Norfolk Sandbanks and Saturn Reef MPA. Please see section **A1.1.1**.

### ***Other responses***

MMO received responses calling for this site to be added to the HPMA network and afforded the same protections, a response to this has been included in section **A1.1.4**.

### **A1.2.10 Offshore Brighton**

#### ***Additional evidence***

The following responses were received:

1. The bottom towed gear VMS activity map provided in the call for evidence (Figure 24) gives the impression that towed gear is used throughout the site, and that this may be the case if the EU fleet is incorporated into this data.
2. The bottom towed gear activity seen throughout the site in Figure 24 must be from EU vessels, as UK towed gear vessels only have an interest in the eastern part of the site, in the vicinity of the least vulnerable features to bottom towed gears.
3. The proportion of fishing activity identified as non-UK seems very high. There may be considerably more UK fishing activity undertaken by the under 15 m fleet within the site.
4. Do all fishing vessels in the site have to supply VMS data to British authorities?
5. A respondent provided demersal fishing activity information in hours per km of demersal trawls from global fishing watch from 2015 to 2020.
6. Some respondents stated that they fish regularly within this area using bottom towed gear but focus on the eastern part of the site (subtidal mixed sediments)

and avoid the rocky reef in the northwest and central areas of the site. Vessel plotter data was also provided.

7. Over the last twenty years, there has been a decrease in mid-water pair trawlers, an increase in large industrial trawlers and more demersal French trawlers (particularly since EU Exit). They have also observed demersal trawlers and, in the winter, industrial mid-water ships.

**MMO response:** In response to points 1 and 2, Figure 24 in the MMO Stage 2 MPA Fisheries Assessment shows all bottom towed gear VMS activity from all vessels over 12 metres length (UK and non-UK) in the area from 2016 to 2020, 2021 was added for the final document version. VMS records show that bottom towed gear activity within the site consists mainly of non-UK activity (97 %). The majority of the non-UK activity is from French vessels using mostly otter trawls followed by dredges and then demersal seines. The limited fishing activity from UK vessels is split evenly between dredging and seining. Bottom towed gear activity occurs throughout the site. Vessels under 12 metres in length are not required to have VMS. MMO would expect more UK than non-UK vessels under 12 metres in length fishing in this site given the location.

In response to points 3 and 4, all fishing vessels (UK and non-UK) that are 12 m and greater in overall length must have VMS installed and transmitting data to the MMO when they are at sea in English waters. Legislation is due to come into force which will make it a legal requirement for all vessels under 12 m in length to have an inshore vessel monitoring system (iVMS) installed and transmitting data to the MMO when they are at sea in English waters.

In response to point 5 and 6, VMS records show that bottom towed gear activity within the site consists mainly of non-UK activity (97 %). MMO is grateful for the provision of the fishing vessel activity data, the data included in the assessment is high confidence VMS data which contains gear information as well as verified location data as a result the data provided is already contained within the evidence base. The location of designated features and their sensitivities to different gears will be considered when proposing management areas, see sections 4 and A1.1.1.

In response to additional data provided, in points 4 and 7, see section 4.

### ***Feature information***

The following responses were received:

1. All features should be considered at this stage, namely subtidal coarse sediment and subtidal mixed sediment.
2. The call for evidence stressed that towed gear is not compatible with rocky reef, this site is predominantly sand and gravel, especially in the eastern area of the site, with identified areas of rocky reef predominantly in the west of the site.

3. High energy sand/gravel seabed types, which are affected by natural wave/tide/storm action, are far more appropriate for the use of towed gears as they are continually modified by nature and the species that occupy these habitats are therefore adapted to the continual flux.
4. There was a lack of scientific rationale during the site's designation and the site was designated due to a perceived lack of subtidal sand or gravel in the southeast area, and it was not demonstrated that there was circalittoral rock in the area.

**MMO response:** in response to point 1, please see section **A1.1.1**.

In response to points 2 and 3, MMO use the best available evidence, alongside advice from JNCC and Natural England to determine the location of each designated feature as well as compatibility of these features with gear types and the resistance to natural disturbance, for additional information please see section **4**.

In response to point 4, JNCC and Natural England advise on site designation queries, but high energy circalittoral rock is listed as a protected feature in the designation order from 2016<sup>8</sup> and high energy circalittoral rock data from January 2015 can be viewed via [JNCC's Mapper](#)<sup>9</sup>.

### ***Management options***

The following responses were received:

1. Based on the designated features of the site, a zonal management structure whereby bottom towed gear is inappropriate and therefore banned in the western section of the site (west of the 0°40'00" line) but allowed to continue in the eastern section (east of the 0°40'00" line).
2. The most vulnerable features within the site are not heavily fished, and the less vulnerable features (sand/gravel) are fished by several UK vessels. Therefore, a zonal approach be adopted to site management, focussing on reducing fishing pressures on the most vulnerable features and monitoring pressures on other features.

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<sup>8</sup> For more information see:

[www.legislation.gov.uk/ukmo/2016/15/pdfs/ukmo\\_20160015\\_en.pdf](http://www.legislation.gov.uk/ukmo/2016/15/pdfs/ukmo_20160015_en.pdf)

<sup>9</sup> For information see: <https://mapper.mpa.jncc.gov.uk/?zoom=11&center=-0.650,50.251&layerIds=45,54,55,56,74,67&baseLayerId=-2&activeFilters=> Last accessed 08/06/2023

3. Using bottom towed gear over rocky reef damages the gear and these habitats are also void of king scallops. A full closure of the site (option 4) to bottom trawling would unnecessarily displace [their] activity.

**MMO response:** in response to point 1 and 2, please see sections **A1.1.1**, **A1.1.2** and **A1.1.12**. In response to point 3, see section **A1.1.3**.

### ***Other responses***

Several responses provided information on the blue carbon estimates within the site and the potential impact of bottom towed gears on these stores, a response to this has been included in section **A1.1.9**.

### **A1.2.11 South of Celtic Deep**

#### **8.1.1.1 Additional evidence**

The following responses were received:

1. Gills nets and trammel nets have a single rope on the seabed due to floats on headlines. There is therefore no effect to the benthic substrate.
2. There is a consistent effort of fishing throughout the whole site, but particularly on the eastern side of the site where it is largely soft ground. This area is of higher importance to the fleet. This area is formed of predominantly soft ground and targeted using bottom towed gears for valuable mixed fisheries species (sole, monkfish, megrim).
3. 10 fishing vessels are on average 16.93 % dependent on this site for their income to a value of over €2.5 million.
4. 128 hours of fishing used demersal bottom towed gears (dredges seines and trawls) in 2021 equating to 0.46 hours per km<sup>2</sup> representing a minimal amount of fishing in UK continental shelf waters.

**MMO response:** in response to point 1, please see section **A1.1.1**. In response to point 2 and 4, please see section **4**. In response to point 3 see sections **A1.1.2** and **A1.1.3**.

### ***Management options***

The following responses were received:

1. Voluntary (option 2) or zonal management (avoiding rocky reef) is preferred and should be complemented by monitoring and evaluation to understand the effectiveness of MPAs and inform future management of the site and other MPAs.
2. Zonal management would be a useful exercise with industry and fisheries management given the knowledge of the range of impacts of the seabed from bottom towed gear and natural tidal and storm impacts.

3. A whole-site approach to managing fishing within the site is needed. The site is host to a range of soft sediment communities and is likely to host sponge and anthozoan communities and species of conservation concern (eg fanshells). Biogenic crust forming species may accrue in future. Preventing abrasion of the seabed will help towards recovery. Many of these species support life that sequesters and stores carbon.

**MMO response:** in response to points 1 and 2, please see sections **A1.1.1** and **A1.1.2**.

In response to point 3, whilst not a designated feature of South of Celtic Deep MPA, fragile sponge and anthozoan communities are a component community of the circalittoral rock feature. As a result, there may be benefits to these communities through the introduction of management.

### ***Other responses***

MMO received responses calling for this site to be added to the HPMA network and afforded the same protections, a response to this has been included in section **A1.1.4**.

Several responses provided information on the blue carbon estimates within the site and the potential impact of bottom towed gears on these stores, a response to this has been included in section **A1.1.9**.

### **A1.2.12 Wight-Barfleur Reef**

#### ***Additional evidence***

The following responses were received:

1. The site has experienced increased fishing activity since EU exit, with greater numbers of industrial trawlers and French demersal trawlers. However, the number of French pair trawlers has decreased since changes in rules for bass.
2. Increased fishing activity was noted in the north and west of the site.
3. A report was provided on analysis of fishing activity within the site between 1 January 2020 and 31 December 2021 using AIS and Synthetic Aperture Radar (SAR) data. This report concluded that:
  - fishing activity is evenly distributed throughout the site
  - the main fishing methods were potting, beam trawling and dredging
  - most fishing and especially foreign flagged vessels within the site are primarily transiting through
  - it is likely that there are 'dark vessels' operating within the site (those vessels which do not transmit on AIS).

4. While currently Wight Barfleur Reef MPA experiences limited fishing activity from the Belgian fleet, the site may become more important for these fishers if the area of other fishing grounds is decreased by conservation measures.

**MMO response:** in response to points 1 to 3, MMO acknowledges the information provided. There is evidence of bottom towed gears operating within the site, with demersal trawling activity concentrated primarily around the edges, and dredging activity occurring throughout, but mainly in the eastern section, as detailed in the Stage 2 MPA Fisheries Assessment. Please see sections 4 and **A1.1.1**.

In response to point 4, for additional information on spatial squeeze and displacement see section **A1.1.3**.

### ***Feature information***

The following responses were received:

1. The reef features of this site hosts associated species which are likely to be damaged by the abrasion of bottom towed gears.
2. Information was provided regarding a shark egg case that was collected as part of a citizen science project, which may be associated with the site's designated features.
3. Harbour porpoise and bottlenose dolphins are listed as 'D' features ('non-significant presence') in the site; protecting MPA habitats from damaging bottom towed gear allows ecosystem recovery, benefiting cetaceans via habitat recovery and increased prey availability.

**MMO response:** in response to points 1 to 3, see sections 4, **A1.1.1**, **A1.1.2** and **A1.1.11**.

### ***Other responses***

Several responses provided information on the blue carbon estimates within the site and the potential impact of bottom towed gears on these stores. A response to this has been included in section **A1.1.9**.

MMO received information on cetacean bycatch throughout the area, reported as a link to fishing within the area, a response to this has been included in section **A1.1.11**.

## **A2 Annex 2 Organisational respondents to the call for evidence**

### **NGOs**

- Seal Research Trust
- Goodwin Sands Conservation Trust
- Marine Conservation Society
- The Shark Trust
- Blue Marine Foundation

### **Government bodies**

- Cornish Sardine Management Association
- Cornwall IFCA
- Devon and Severn IFCA
- Northumberland IFCA

### **Fishing Industry**

- Macduff Shellfish Ltd
- North Atlantic Fishing Holdings Ltd
- Southwestern Fish Producer Organisation (PO) Ltd
- Western Fish PO

### **Non-UK Fishing Industry**

- Rederscentrale, Belgian PO
- COBRENORD PO
- Danish Fishermen PO
- Les Pêcheurs de Bretagne (French fishery organisation)

### **Academic**

- University of Plymouth

## **A3 Annex 3 Formal consultation responses received and MMO response**

### **A3.1 All site responses**

MMO received some consultation responses which relate to many or all of the Stage 2 MPAs. There were also overarching common themes from each of the named site sections of the survey which have been combined in this section. MMO has summarised these consultation responses in the section below together with MMO's response to the comments.

#### **A3.1.1 MPA fisheries management**

##### ***Increased management required or a whole site approach***

The following responses were received:

1. MMO should also address and limit the use of 'supertrawlers' and 'fly shooters' and give information about their effects.
2. There should be increased management for non-UK vessels who operate gears which are more destructive.
3. MMO's assessment considers only past fishing rather than potential future fishing.
4. There have been improved stocks from a ban of scallop dredging, further expansion of this would improve the marine environment.
5. It is essential that appropriate bottom towed gear management be implemented into sites with rocky and biogenic reef designated features.
6. Sediment features may have a lower sensitivity to bottom towed gear impacts; however they provide a key habitat for commercially important species and therefore should be implemented into the bottom towed gear prohibition zone.
7. MMO's assessment warrants a whole site approach for integrity, resilience and more comprehensive management and monitoring. All MPA's should be closed to bottom towed gears to allow for restoration and rewilding of seas.
8. Conservation benefits are significantly greater and easier to manage in larger continuous areas compared to spatially fragmented protection. One way to address this is to extend the areas of protection.
9. Concerns with the feature based approach to management measures, including that it is too slow, does not consider ecosystem level planning or the benefits of ensuring protection of a representative mosaic of marine habitats around the UK. It limits potential benefits and doesn't allow for expansion, for example the core reef approach does not consider all reef, which seems out of date in terms of current thinking on marine habitat protection which stresses the benefit of the seascape approach. This approach contravenes a



variety of legislation and the 25 Year Environment Plan (Defra, 2021); therefore a whole site approach is required by law and UK policy.

**MMO response:** in response to points 1 and 2, the Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023 will remove interactions between bottom towed gear (including the use of demersal seines, sometimes referred to as fly shooting) and rock and reef features from within the Stage 2 MPAs, in accordance with the conservation objectives of those sites. The byelaw will apply to all vessels operating bottom towed gear, regardless of nationality. There is no single definition of 'supertrawlers' but it is generally used to refer to larger fishing vessels (eg over 100m length) which often practice pelagic trawling. The Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023 will prohibit any vessel, regardless of size, from using bottom towed fishing gears in the management areas. It does not apply to vessels operating fully pelagic gears, as these gears do not interact with the seabed reef features.

In response to point 3, the Stage 2 MPA Fisheries Assessment sets out the strengths and limitations of the different evidence sources used, and is based on past fishing activities as these are the best available source of information on fishing patterns. The assessment has determined that the use of bottom towed gear poses considerable risks to the condition of the reef features, even at very low levels. As all areas of reef are included in the management areas, there is no risk from future changes in patterns of bottom towed fishing activity.

In response to point 4, whilst the Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023 is likely to have a wide range of ancillary benefits, including the protection of fish stocks, the decision to implement the byelaw is based on furthering the conservation objectives of each MPA.

In response to point 5, MMO has introduced management that will prohibit bottom towed fishing over all reef features.

In response to points 6 to 9, fishing impacts on other features of these MPAs, including sediment features, will be assessed and managed during Stage 3 of the MMO's work (**see Figure A1.1**). The legal and policy framework for the MPAs considered in Stage 2 is based on protecting the designated features of each site. Applying a blanket 'whole site approach' to fishing would lead to inconsistent regulation of fishing compared to other marine activities. The 25 Year Environment Plan commits to "move to a whole site approach to protect sites of greatest biodiversity interest" but does not require a whole-site approach across all MPAs.

In some cases the feature based approach results in a single management measure across the whole of the site. In other cases, the rock and reef features form only part of the MPA, and therefore the conservation objectives can be furthered by prohibiting

bottom towed gears within discrete areas, dictated by the extent and distribution of the designated features and therefore a zoned approach has been adopted.

Management areas have been developed taking into consideration the extent and distribution of the designated features, as well as the practicalities of monitoring and enforcement. Beyond ensuring that all areas of reef feature are within a management area, MMO has sought to strike a balance between ensuring any measures implemented are robust and enforceable, and minimising the socio-economic impact to affected stakeholders.

### ***Proposed management is too precautionary***

The following responses were received:

1. Fishing will be unrealistically restricted.
2. Bottom towed gears has been around for over 150 years, the features are still standing and only recently need protection.
3. Trials should be conducted on the effects of gear to help inform the evidence base. Baseline surveys should be conducted before closures implemented.
4. MMO will never reopen areas which have been managed. Where bottom towed gear is being banned, other gear types such as pots and netting are likely to follow.
5. MMO should separate small and large trawls in terms of management. There is no distinguishing between bottom towed gear types. French trawlers use less damaging gear.
6. Responses advocating gear innovations around the beam trawl and other bottom gears in place of prohibitions. A transition period with adequate measures allowing only adapted gears could reduce financial loss and motivate the necessary changes to reduce impact of bottom gear.
7. Certain gears such as the Belgian beam trawl are modified to reduce the impact on the seabed. More sustainable fishing techniques and lighter material and profiles with less resistance, such as the Sumwing and Ecoroll beam, are not considered in the byelaw.
8. Questions validity of consultation and concerns that MMO is going against the commitment in the Fisheries Act 2020<sup>10</sup> to make evidence-based decisions by implementing precautionary rather than adaptive, risk based MPA management without consideration of evidence sources such as effort and displacement data, economic impacts on fishing businesses and baseline environmental data.

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<sup>10</sup> For more information see:

[www.legislation.gov.uk/ukpga/2020/22/contents/enacted](http://www.legislation.gov.uk/ukpga/2020/22/contents/enacted)

9. Evidence is out of date and does not reflect current fishing activity. A Dutch trawler decommissioning scheme has approximately a 50 % acceptance rate so will reduce impacts in future. How will MMO take this into account when estimating future impact?

**MMO response:** in response to points 1 and 2, the Stage 2 MPA Fisheries Assessment sets out the evidence and MMO analysis which concludes that bottom towed fishing poses a considerable risk to reef features' conservation objectives. It is likely that many decades of fishing has resulted in profound changes to marine ecosystems, but the MMO assessment, based on the current reef habitats, concluded that bottom towed fishing is not compatible with the achievement of favourable condition. Please see section **A1.1.6**.

In response to point 3, please see section **A1.1.1** for a summary of the four stages of MMO's plan to assess and manage the impacts of fishing in English MPAs. Decisions on whether to prohibit certain gear types within MPAs will be determined using an evidence-based assessment of each gear-feature interaction, taking into account fishing activity levels and the sensitivity of the feature to fishing impacts. Any decision taken to implement a byelaw following the conclusion of the assessment will be subject to public consultation before implementation.

In response to points 5 to 8, please see section **A1.1.1**, MMO response to point 4. MMO did not find or receive any evidence demonstrating beyond reasonable scientific doubt that any type of bottom towed gear is compatible with the conservation objectives of reef features. MMO regularly reviews byelaw measures (see section **6**) – should any new evidence become available that proves that the use of modified gear such as Sumwing or Ecoroll trawls do not pose a significant risk of hindering the conservation objectives of English offshore MPAs, then MMO will consider this when reviewing measures. Please see section **A1.2.1** for additional information.

Please see section **A3.1.4** and **A3.1.5** for the MMO's response on socio-economic impacts and displacement and spatial squeeze respectively.

In response to point 8, the Environmental principles policy statement include a commitment to the precautionary principle a central part of the government's environmental approach (Defra, 2023). MMO has considered a range of fishing activity data, including considering the financial impacts of the proposed management measures in the draft DMA. The Stage 2 MPA Fisheries Assessment concludes that any level of bottom towed fishing over the designated features poses a considerable risk to the condition of the rock and reef features and therefore management of bottom towed gear over these features is required regardless of the level of fishing effort using bottom towed gear.

In response to point 9, the Stage 2 DMA has been updated to recognise the Dutch trawler decommissioning scheme. The data tables within the DMA, and the maps within the Stage 2 MPA Fisheries Assessment display best estimates of historical activity rather than predictions of future activity, and as a result may not be reflective of future activity. However, as per section **A1.1.1**, any level of bottom towed gear over the designated features poses a significant risk to the condition of the rock and reef features and therefore management of bottom towed gear over these features is required regardless of the level of Dutch trawling activity within the Stage 2 MPAs.

### **A3.1.2 Additional queries and evidence**

The following responses were received:

1. The 'spillover effect' is an unproved concept that has been subject to significant challenge amongst the marine science community.
2. Responses referencing uncertainty about the definition of reef, and the location of the features. Suggestion that the date of the survey data should be shown to better understand the uncertainty.
3. Responses regarding the extent of the spatial prohibitions beyond the designated feature, including that some restrictions are tightly drawn around the predicted/observed location of the features, risking accidental encroachment and impact of activities operating close to the boundary.
4. Disturbances from towed gear extend beyond the immediate area, physical disturbance can occur from the production of sediment clouds and affect benthic organisms.
5. Gathering data for enforcement is based on vessel location rather than gear location, this leaves small patches of protected area that closely align with designated features vulnerable to accidental or deliberate encroachment. Towed gear can be tens to hundreds of metres away from fishing vessels and extend much wider than the width of the vessel.
6. Fishers using bottom towed gear avoid reefs as it isn't feasible to fish there.
7. Habitats such as reef habitats have been shown to be highly sensitive to bottom towed gear and to have a low rate of recovery from a single pass.
8. Fishing activity in UK waters contributes to overall national and global food security. There is a risk that the pursuit of speculative marine environment natural capital improvements will hazard the production of low carbon, high benefit source of human consumption.
9. Activities on the sea surface such as jet skis and recreational boats should also be addressed and excluded from some MPAs.
10. MMO should use new legislative powers such as those gained through the Fisheries Act 2020 to apply license conditions to all industrial fishing vessels so that they are not permitted to fish in any offshore English MPA.

**MMO response:** in response to point 1, please see the MMO response to point 3 in section **A3.1.1**.

In response to point 2, please see the MMO response to point 3 in section **A1.1.2**.

In response to point 3 to 5, please see section **A1.2.3**, MMO response to points 6 and 7. Section 2.4 of the Stage 2 MPA Fisheries Assessment and section 3 of the Stage 2 DMA discuss the use of buffer zones which are an adopted MMO approach following guidance from JNCC and Natural England to ensure appropriate protection of relevant features, based on the maximum depth of a relevant MPA to account for fishing gear warp length (the length of the lines, rope or wires that connect the gear to the seabed and to the towing vessel) and to ensure that fishing activities taking place adjacent to the feature do not negatively impact it.

In response to point 6, please see section **A1.1.1**, MMO response to point 4, and section **A3.1.1**, (Proposed management is too precautionary), MMO response to points 5 to 7.

In response to point 7, please see section **A1.2.1**, MMO response to points 1 to 4, and section **A1.2.9**, MMO response to point 5.

In response to point 8, please see section **A1.1.1**, MMO response to points 1 and 2, and **A3.1.1**.

In response to point 9, the scope of Stage 2 is to assess and manage the impact of bottom towed gears on rock and reef MPA features. The impacts of marine non-licensable activities are therefore out of scope.

In response to point 10, please see section **A1.1.1**, MMO response to point 3.

### **A3.1.3 Public engagement and awareness**

The following responses were received:

1. There should be better public awareness of MPA management.
2. Communication with the towed gear industry is needed to share accurate and verifiable data on where true 'rock and reef' exists in these sites and only then designate no towed gear areas within these stated sites.
3. Fishers need to be better engaged from the start of the process and decisions need to be made more holistically, considering the whole seascape.
4. A survey should be undertaken as to what MPAs and their management mean to the public.

**MMO response:** MMO are working with stakeholders including fishers, government organisations and NGOs to raise awareness of this our work and to better understand the impact of the management measures, as well as gathering evidence

on the MPAs in our waters. During the call for evidence and formal consultation, MMO met local, regional and national UK fisheries groups, and non-UK fisheries representatives. MMO has also engaged through traditional communications such as press releases, as well as social media and blogs. MMO strives to use best available evidence and feature data to underpin the decision making process when proposing management please see section **A1.1.2** for more information of feature data.

#### **A3.1.4 Socio-economic impacts**

The following responses were received:

1. Is there a trade-off between socio-economics and environment? Do we need to strike a balance to limit impact on food production.
2. Risks to food production capacity and to business production capacity and to business viability.
3. Concerns about economic impact as these will also have repercussions across a wider sector of committees, producers and organisations.
4. There will need to be a balance between the loss of socio-economic benefits from the restrictions and the environmental benefits of the restrictions.
5. This approach does not support the stated policy objective of minimising socio-economic impact as no effort has been expended to understand the impact.
6. Social and economic impacts have not been considered and the environment is being prioritised in singularity without considering wider implications of increased effort outside the MPA and the impact this has on the inshore fleet.
7. The cost for the fishing industry could be reduced through slight movements of some of the proposed closed areas.

**MMO response:** in response to points 1 to 3, MMO recognises the social and economic impacts that prohibitions on bottom towed fishing can have, and has recorded estimates of these impacts in the draft DMA. However, the social and economic impacts of management cannot be used as a justification not to introduce the required level of environmental protection. The social and economic impacts of any management measures have been analysed and considered as part of the process of developing and introducing management measures, provided the necessary level of environmental protection can still be assured. Please see the Stage 2 DMA for further details. MMO strives to avoid any unnecessary costs to the fishing industry, financial or otherwise in the development of management measures.

In response to points 4 to 7, see sections **A1.1.3** and **A1.1.5**

8. Concerns over gear and conflict between UK and EU vessels.
9. The UK is managing areas where fishing is done mainly by the EU fleet.

10. A bottom fishing ban in all or some of seven sites in the Channel and Celtic Sea heavily penalise French vessels whose activity mainly consists of bottom fishing. The figures set out by MMO precisely concern the activity of vessels equipped with VMS. It is hard to describe the precise activity of the smaller vessels not equipped with VMS in these areas. For all these areas trawling accounts for an average of 90 % of total activity.
11. Requests financial recompense to guarantee (as done in EU) or for the socio-economic issues to be considered (as MMO currently only account for UK landings in a specific way, EU landings are boxed off).
12. These measures will have a negative socio-economic impact on specific non-UK fishers causing a financial loss of around €480,000 up to €600,000 annually. MMO should take these effects into account or reconsider the possibility of economic compensation for the loss of these fishing grounds for stages 1,2,3 and also for future MPAs.
13. Bottom towed gear restrictions are essential to protect shipwrecks and possible archaeological finds as these can also be shelter and safe breeding grounds.

**MMO response:** in response to points 8 to 12, MMO recognises that many of the MPAs assessed at Stage 2 are important for multiple fleets. While the nationality of a fishing vessel does not necessarily influence the impact of its fishing operations, and so does not influence the management measures required, the impact of proposed management measures on fishing vessels from different states is captured in the DMA produced alongside the proposed management measures. For more detail on socio-economic impacts, please see section **A1.1.3**.

Additional, in response to points 11 and 12, the UK government will not provide financial compensation for the introduction of management measures required to protect the marine environment. This is in line with how other marine industries are regulated, see **A1.1.3** and the polluter pays principle (Defra, 2023). The estimated impact of the proposed management measures on non-UK fishing fleets is presented in the DMA. MMO will maintain engagement with a broad range of stakeholders, (both UK and non-UK) to incorporate their knowledge and to minimise any negative impacts resulting from management measures. We are keen to work with and learn from stakeholders to gain a deeper understanding of socio-economic impacts of proposed fisheries management measures to ensure that any management introduced is effective, for additional information see **A1.1.1**.

In response to point 13, there may be some additional benefits from the Stage 2 management measures such as the protection of heritage features and refuge for certain species, some of these are explored within the Stage 2 DMA as non-monetised benefits.

### A3.1.5 Displacement and spatial squeeze

The following responses were received:

1. Lacks context of further Marine Spatial Prioritisation (MSPri). MSPri should be at the forefront in delivering objectives of the Joint Fisheries Statement (JFS).
2. Concerns that certain areas of these bottom towed fishing grounds represents up to 70 % of annual production for French vessels, making 50 % of annual turnover. Closure will contribute to spatial squeeze in the Channel and increasing pressure on the surrounding ecosystem.
3. Concerns about the environmental impact of displacement as static fishing gears may impact areas where bottom towed gears are prohibited.
4. Lack of evidence for closures, fuel is expensive, displacement offshore increases this.
5. No attempt to quantify displacement which will have a cumulative effect on profitability.
6. Fishers are worried about the displacement of those affected by stage 2 and if this has been accounted for in any of the literature for the increased pressure in other areas.
7. These actions have slow implementation and scope, the spatial squeeze may mean there is not enough space to achieve all goals.
8. Spatial squeeze is a big concern due to restricted ability to safely diversify or relocate.

**MMO response:** in response to point 1, the MMO recognises the issues of spatial squeeze in the marine environment and is supporting government in developing its approach to marine spatial prioritisation. The Joint Fisheries Statement (Defra et al., 2022) recognises that fisheries measures are necessary to support the conservation objectives of MPAs: “The fisheries policy authorities will ensure that fishing activities are managed to enable MPAs, and any future Highly Protected Marine Areas, to achieve their conservation objectives and to maintain the ecological coherence of the network”.

In response to points 2 to 8, MMO strives to avoid undue pressure on fisheries through restriction of fishing grounds, and acknowledges that diversification or relocation are not options that can be undertaken easily, however, we have duties to ensure MPAs receive the protection they require and the potential for management to have a socio-economic impact does not override this duty. For additional information sections **A1.1.1** and **A1.1.3**.

9. Proposed management will cause fishers to be displaced, and cause spatial squeeze between oil development, Irish MPA's and offshore wind.
10. Fisheries and fisheries management measures and the effects of management are considered in silo from other activities, including marine planning and offshore wind.



11. Infrastructure projects such as wind farms have been licensed by MMO to be constructed on sea beds of the same type as being proposed for closure for towed gear.
12. Fish are not coming back to the largest nursery ground around Margate Sands due to development. There is a worry that MPA's and other developments are not being considered holistically, adding another hurdle to spatial squeeze.
13. There will be disparity between management measures applied in the MMO portion of MPAs, compared to the IFCA portion of MPAs for sites which straddle the 6 nm boundary. This could cause unintended consequences such as displacement.
14. Increased join up with IFCAs is required when proposing management.

**MMO response:** In response to points 9 to 12, see sections **A1.1.3** and **A1.1.5**.

In response to points 13 and 14, the scope of the MPA management measures included within the Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023 manage the area outside of 6 nm (**Figure A1.2**). For every site which straddles the 6 nm boundary, MMO works closely with the relevant IFCA to ensure appropriate management is in place for the site, this is done on a site-by-site basis. This may be in the form of spatial restrictions within both the MMO and the IFCA section of the site or a monitoring and control plan where it has been concluded that a statutory restriction is not required, please also see section **A1.1.3**.

### **A3.1.6 MPA and HPMA designations**

The following responses were received:

1. Disappointed by the reduction in HMPA numbers.
2. Fishers would like to be involved at the stage when Natural England look at designating sites and believe that earlier involvement would go a long way to being able to feed in their expertise and experience earlier.

**MMO response:** in response to point 1, HPMA designation is led by Defra and is outside of the scope of MMO Stage 2 work. For additional information, please see **section A1.1.4**. In response to point 2, MMO have passed this response to Natural England.

### **A3.1.7 Precautionary approach**

The following responses were received in relation to the use of the precautionary principle:

1. How is the precautionary approach being applied in this instance?
2. Government must pre-emptively stop damaging fishing and should therefore base assessments on potential future fishing and not past fishing.

**MMO response:** for more information on the precautionary approach, please see section **A1.1.6**. In response to point 2, please see section **A3.1.1**, response 2.

### **A3.1.8 Natural disturbance, community composition and natural resilience**

The following responses were received:

1. Movement of these features is possible driven by mobile sediment, MMO should incorporate buffer areas around the target features to create resilience to small scale changes in habitat location and take shifting baselines into account as well as understand the natural extent of the ecological features.
2. Strong hydrodynamic action in certain areas means greater benthic resistance and communities present currently are able to withstand strong fishing pressure.
3. Feel as if witnessing a race for protected areas without real justification for their usefulness and the strong hydrodynamics of this sea may confer a strong resistance to the benthic communities present. The communities present therefore reflect the species assemblages that have been able to withstand this high fishing pressure.
4. Hydrodynamic conditions increase the resilience of benthic communities to fishing disturbances.

**MMO response:** In response to point 1, a depth based buffer is applied around management areas for a number of reasons; MMO Stage 2 MPA Fisheries Assessment, section 2.4 and section 3 of the Stage 2 DMA discuss the use of buffer zones which are an adopted MMO approach following guidance from JNCC and Natural England to ensure appropriate protection of relevant features, based on the maximum depth of a relevant MPA to account for fishing gear warp length (the length of the lines, rope or wires that connect the gear to the seabed and to the towing vessel) and to ensure that fishing activities taking place adjacent to the feature do not negatively impact it. For more information see section **A1.2.3**, MMO response to points 6 and 7.

In response to point 2 to 4, as set out in the Stage 2 MPA Fisheries Assessment, bottom towed gear impacts may vary with several factors including hydrodynamics of the seabed. Please see section **A1.1.12**.

### **A3.1.9 Blue carbon and natural capital approach**

The following responses were received:

1. Welcomes the inclusion of natural capital and emphasises the blue carbon ecosystem service.
2. Lack of consideration for blue carbon.

3. There should be a trawling and dredging ban to promote biodiversity and protect captured carbon to fight climate change and move towards being carbon neutral.
4. Concern that calls for bans on bottom towed gear as a result of blue carbon are gaining tract with government despite uncertainty around the evidence base supporting this. Call to avoid unnecessary fishing restrictions in the name of blue carbon that are ineffective measures to reduce carbon emissions as they redirect food production to land based agriculture.

**MMO response:** in response to points 1 to 4, please see section **A1.1.9**. The MMO Stage 2 MPA Fisheries Assessment, and the Stage 2 DMA explore the potential for fisheries restrictions to provide a range of benefits including protecting ecosystem services such as carbon storage

### **A3.1.10 Protected species**

The following responses were received:

1. Concerns that gear switching caused by the removal of bottom towed gears and the effects on cetacean bycatch.
2. Lack of consideration of forage fish for birds.
3. Cetaceans are prominent in several sites and provide important information on the health and functioning of the overall ecosystem. They should be considered when looking at management measures for benthic features, even if they are not the main feature.

**MMO response:** marine mammals and birds are not a designated feature of any of the sites considered in Stage 2. However cetaceans and birds are a designated feature of a number of MPAs in English waters. MMO will assess and manage the impacts of fishing on these sites in Stage 4 of the MMO's MPA fisheries management work (see section **A1.1.1**). For further information of protect species please see section **A1.1.11**.

### **A3.1.11 Monitoring and control**

The following responses were received:

1. There is no detail as to how the sites will be monitored to assess whether the conservation objectives are being achieved or not, how the boundaries of the sites will be amended or removed.
2. There is a lack of detail on the monitoring of MPAs and whether the conservation objectives are being met, further to this if the conservation objectives aren't met how measures may be amended.
3. Advocates improvement of how fishing data is collected and greater commitment to monitoring. For example, remote electronic monitoring (REM)

as VMS being used to enforce is not enough. Questions how MMO will monitor the success of these measures?

**MMO response:** In response to points 1 to 3, please see section 6.

## A3.2 Site specific responses

This section provides a summary of site level responses, alongside MMO's response, including how these have been addressed, in relation to specific MPAs.

### A3.2.1 Cape Bank MPA and Land's End to Cape Bank MPA

#### ***Additional evidence***

The following responses were received:

1. Each year between 4 and 6 bottom trawlers exploit this area, representing around 300 hours of fishing area between 2017 and 2021. During this period the fishers achieved a turnover of €210,000 (£185,000) per vessel. For some of the boats fishing most of this area, the prohibition of bottom trawls represents a loss of 1.6 % of their annual turnover, a loss of more than €20,000 (£18,000) per year per vessel.
2. Data shows the important economic impact of the Bristol Channel and Cape Bank to the Belgian eurocutter fleet.
3. Disagree with whole site ban of bottom towed gear. The financial loss for closing the proposed area will be around €315,000 annually for the Belgian fleet. The displacement caused by a whole site closure will damage the environment elsewhere and would lead to concentrations of activity in the Western Channel.
4. On average over the past 6 years, 16 bottom trawling vessels have transmitted data on their presence in the area, fishing mainly for elasmobranchs and haddock for an annual production value of £65,889. For some vessels the ban in this area could represent a loss of more than £17,570 per year in turnover. In 2021 work in the Cape Bank area involved 64 fishermen.
5. There is a concern for displacement as fishermen fish through this area when they go north, with the proposed management, they would likely stay concentrated in the Channel instead.
6. The space here, is a thin corridor between the Isles of Scilly and the coast land of Cornwall. Fishermen have no possibility to report their activities stuck between territorial sea limits.

**MMO response:** in response to points 1 to 4, MMO recognises the importance of the site to UK and non-UK fleets, data for all vessels over 12 m for both UK and non-UK fleets has been included in the MMO Stage 2 MPA Fisheries Assessment via VMS.

The DMA also provides information on the numbers of vessels affected in tables 3 and 4. The impact of proposed management measures on fishing vessels from different states is captured in the DMA produced alongside the proposed management measures. MMO strives to avoid any unnecessary costs to the fishing industry, financial or otherwise in the development of management measures. However, we have duties to ensure MPAs receive the protection they require and the potential for management to have a socio-economic impact does not override this duty. For more detail on socio-economic impacts, please see sections **A1.1.1**, **A1.1.3** and **A3.1.4**.

In response to points 5 and 6, displacement is discussed in sections **A1.1.3** and **A3.1.4**.

### ***Feature information***

The following responses were received:

1. There are wrecks in Cape Bank and/or signs of early life that need to be preserved for recreational diving and for the marine life. Welcomes any measures to ban bottom towed gears in these sites and protect maritime heritage.
2. The site contains sandbars where Danish vessels fish for sandeels and vessels should have full access since fishing doesn't affect the area.
3. The western edge of the site is important, and the reef feature is very sparse, so fishers avoid it, the site is already exposed to swell and wave energy.

**MMO response:** in response to point 1 and 2, Stage 2 is focussed specifically on the rock and reef features. The impacts of fishing on other designated features in English MPAs will be considered in later stages.

In response to point 3, MMO acknowledges the information provided, for further information on hydrodynamics and natural disturbance see section **A1.1.12**.

### ***Management options***

The following responses were received:

1. The proposed closure to bottom towed gear in Cornwall IFCA's north east corner of MPA's isn't logical as they fish over sand and the closure is meant to be to protect rock and reef.
2. Concerns about seabed destruction, long term damage from trawling and the extinction of sea species from our shores, believes crab and lobster fishing would benefit from a trawling ban as it would increase seagrass and kelp forests. Environmentally responsible fishing methods is not a problem.
3. Agree with whole site ban of bottom towed gear.

4. MMO should consider zoned management for this site.

**MMO response:** in response to point 1 and 2, see section **A1.1.1**.

In response to point 3, see **Increased management required or a whole site approach** in section **A3.1.1**.

In response to point 4, see **Proposed management is too precautionary** in section **A3.1.1**.

### **A3.2.2 East of Haig Fras**

#### ***Additional evidence***

The following responses were received:

1. This area is important due to its proximity to Greater Haig Fras. Fishers mainly use bottom trawlers on the SO/NE axis.
2. Fishermen work mainly with bottom trawlers following a SO/NE axis, and fish mainly for haddock. In 2022 at least 20 French vessels worked in the area, corresponding to 2001 working hours and 75 t tonnes of production for an annual value of £247,014. On average, the vessels work in the area for 2.2 months of the year. For 5 % of them, their presence in the area is between 7 and 9 months. Over the year 2021, work in the East Haig Fras area involved 114 fishermen.
3. Mainly fished on west of site, an important area for supply chain and provides diverse species into the market.
4. Coupling a voluntary and/or zonal approach with a monitoring and evaluation study to understand the impacts of bottom towed gears and the effectiveness of MPAs would offer valuable data and evidence to further inform future management of the site and development of other MPAs.
5. Agree with the whole site ban of bottom towed gear, particularly for fan mussel protection.
6. The site contains sandbars where Danish vessels fish for sandeels and vessels should have full access since fishing doesn't affect the area.

**MMO response:** in response to points 1 to 3, MMO acknowledges the information provided and the importance of the site as a mixed fishery. There is evidence of bottom towed gears operating within the site, as detailed in the Stage 2 MPA Fisheries Assessment. Please see sections **4** and **A1.1.1**.

In response to point 4, for information on the options considered for management see section **3**. For information on a partial or zones closure see sections **A1.1.1** and **A3.1.1**.

In response to point 5, for information on whole site closures see section **A1.1.1** and **Increased management required or a whole site approach** in section **A3.1.1**.

In response to point 6, see additional evidence in **A3.2.1**.

### ***Other responses***

MMO received responses calling for this site to be added to the HPMA network and afforded the same protections a response to this has been included in sections **A1.1.4** and **A3.1.6**.

### **A3.2.3 Farnes East**

#### ***Additional evidence***

The following responses were received:

1. Cumulative impacts of closed areas may affect the scallop dredging fleet. Both Northumberland and North Eastern IFCAs have significant closed areas to scallop dredging.
2. Anecdotal evidence suggests that no local vessels that hold permit to trawl within the Northumberland IFC District fish in the proposed closed areas regularly. However, the port of North Shields is reliant on visiting vessels over the winter months, anything to deter this could be significant.

**MMO response:** in response to point 1, the MMO Stage 2 DMA considers the impacts of introducing management for the sites detailed. MMO recognise that management of other nearby sites may have additional and cumulative impacts to industry, this information is referenced within the supporting information such as the DMA and Stage 2 MPA Fisheries Assessment, however the management being introduced has been deemed necessary to achieve the conservation objectives of the sites.

In response to point 2, please see section **5.1.1**.

#### ***Feature information***

The following responses were received:

1. Ocean quahog and sea pen and burrowing megafauna community features have not been included in the bottom towed gears prohibition boundary and justification should be provided as to why they are not.
2. Closures may not be proportionate in relation to 'subtidal rock', particularly the largest proposed closure, which contains a lot of other habitats in addition to the moderate energy circalittoral rock.

**MMO response:** Stage 2 assesses the impacts of fishing using bottom towed gear on subtidal rock, rocky and biogenic reef in 13 MPAs. These features were chosen as they are some of the most sensitive features to impacts of bottom towed gear. For additional information on the MMOs approach to other designated features such as ocean quahog and sea pen, please see section **A1.1.1**.

### ***Management options***

The following responses were received:

1. Disagrees with partial closure and proposed whole site ban of bottom towed gear. the area of the site has already been modified from the original proposal with the south-eastern section removed in order to accommodate mud habitat trawled over by nephrops boats. This intervention and modification of the MPA happened during the 2010 to 2012 MCZ designation process.
2. In the call for evidence summary, it states: 'Under the Northumberland IFCA byelaw, it is now prohibited to fish with any trawl, unless using gear which has been modified to reduce the impact on the seabed when trawling over hard substrates.' Would like to clarify that the management measures in place restrict trawling gear such that the interaction between bottom towed gear and rock is eliminated, as gear types are incompatible with trawling over rock features.

**MMO response:** in response to point 1, MMO use the best available evidence, alongside advice from JNCC and Natural England to determine the location of each designated feature as well as compatibility of these features with gear types and the resistance to natural disturbance, for additional information see section **4**. The changes to the site boundaries during designation and the consultation process as undertaken by Defra. Farnes East is a designated MPA and as such MMO has sought to strike a balance between ensuring any measures implemented are robust and enforceable, and most critically, providing the necessary protection from bottom towed gear activities for highly sensitive rock and reef features in Stage 2 MPAs in order to best further conservation objectives, in order to fulfil MMO duties under section 125 of the Marine and Coastal Access Act 2009.

In response to point 2, the wording relating to the Northumberland IFCA byelaw in section **5.1.1** has been updated to reflect the clarification provided.

### **A3.2.4 Foreland**

#### ***Additional evidence***

The following responses were received:



1. Site worth approximately €170,000 per annum within closed areas and €350,000 as a whole.
2. Disagree with partial site closure to bottom towed gear. The financial loss for closing the proposed areas will be around €116,000 annually for the Belgian fleet. This would increase to €300,000 for the entire MPA.
3. Disagree with partial site closure to bottom towed gear. this area is fished all year round by the majority of Boulogne-Sur-Mer trawlers, vessels of 16 to 25 m, practicing bottom trawling (PTB and OTB) and demersal seining (SSC and SDN). They target nearly twenty different species, such as cuttlefish, mackerel, red mullet, squid and whiting. On average around 20 vessels have worked in this area over the past 5 years (up to 30 in 2018). For two of the vessels concerned, the production carried out in the area in 2022 is equivalent to 30 % of their annual production, for 35 % of their annual turnover.
4. Believes fishers need to be better engaged from the start of the process and decisions need to be made more holistically, considering the whole seascape.
5. Spatial squeeze is a big concern due to restricted ability to safely diversify or relocate.
6. Would like more information on how byelaws will be enforced, particularly in relation to having gear lashed and stowed in prohibition areas.
7. Concerns that sediment pollutants from the London gateway may reach MPA's. Fishers would like more clarity in the conditions of MPA's as to how marine licensing can prevent this occurring, and to what extent the pollutants would be considered as 'not harmful enough'.

**MMO response:** in response to points 1 to 3, MMO acknowledges the information provided and the value of the area for UK and non-UK fleets. There is evidence of fishing activity within the site, as detailed in the Stage 2 MPA Fisheries Assessment. Please see sections **4** and **A1.1.1**.

In response to point 4, see section **A3.1.3**.

In response to point 5, see sections **A1.1.3** and **A3.1.5**.

In response to point 6, monitoring and control will be undertaken in line with the MMO Compliance and Enforcement Strategy (MMO, 2014) for information can also be found in section **6**.

In response to point 7, as a major international port, London Gateway is an extremely busy port located within the greater Port of London. Activities such as dredging, or construction may require a marine licence. Licensable activities and the environmental impacts of these activities are considered in the marine licence application process by MMO with consultation by the Port of London Authority, or through the Development Consent Order granted by the Planning Inspectorate, depending on whether the development is deemed a nationally significant

infrastructure project (NSIP). Statutory duties under the Marine and Coastal Access Act 2009 or the Planning Act 2008 will be discharged by the regulatory body accordingly. MMO licenses disposing of dredged materials at sea and uses guidelines produced by OSPAR to regulate this activity. A marine licence to dispose of dredged materials to sea requires the sediments to be characterised to allow the potential adverse environmental effects of disposing of the material to be considered and mitigated against.

### ***Feature information***

The following responses were received:

1. There are either wrecks and/or signs of early life here aggregate extraction shouldn't be allowed and any measures to ban bottom towed gears are welcomed to protect maritime heritage. Important for recreational diving and marine life.
2. Hydrodynamic conditions increase the resilience of benthic communities to fishing disturbances.
3. The natural disturbance in the Eastern Channel is greater than fishing.

**MMO response:** in response to point 1, see section **A1.1.5**.

In response to points 2 and 3, see sections **A1.1.12** and **A3.1.8**.

### ***Management options***

The following responses were received:

1. Disagrees with partial closure and proposes whole site ban of bottom towed gear, particularly to protect stocks of flatfish, sole, plaice, red mullet, gurnard, cuttlefish and scallop.
2. Stage 2 measure is just one part of what is needed to manage this site.
3. The site will be difficult to enforce via VMS pings every 2 hours. It is only 4 km from north to south so tows in this orientation could pass through the site before being detected.
4. Wants to understand how non-powered mobile gear fit into the MPA's evidence base.

**MMO response:** in response to points 1 and 2, see section **A1.1.1** and **A3.1.1**.

In response to point 3, please see section **A1.2.3**, MMO response to points 6 and 7. Monitoring and control will be undertaken in line with the MMO Compliance and Enforcement Strategy more can also be found in section **6**.

In response to point 4, All gears designed to come into contact with the seabed are considered to have the potential to adversely impact the features of the site and are

therefore considered within scope of bottom towed gear. Gears such as drift nets are not covered by the Stage 2 byelaw. For further information on the gears included at Stage 2 please see the Stage 2 Fisheries Assessment and section **A1.1.1**.

### **A3.2.5 Goodwin Sands**

#### ***Additional evidence***

The following responses were received:

1. Supportive of byelaw to prohibit bottom towed gear, believes economic impacts will be limited and that the measures are based on evidence.
2. This area is important for squid fishing with increasing importance over time.
3. Disagree with partial site closure to bottom towed gear. the financial loss for closing the proposed areas will be around €20,000 annually for the Belgian fleet.
4. This site is heavily relied upon by the non-nomadic inshore fishers.
5. Proposals will have significant impact on French fleet, concerns about displacement, spatial squeeze, conflict with other sea users and impacts on habitats outside of the sites.
6. Concerns that sediment pollutants from the London gateway may reach MPA's. Fishers would like more clarity in the conditions of MPA's as to how marine licensing can prevent this occurring, and to what extent the pollutants would be considered as 'not harmful enough'.

**MMO response:** in response to point 1 to 4, MMO acknowledges the information provided. There is evidence of bottom towed gears operating within the site, as detailed in the Stage 2 MPA Fisheries Assessment. The Stage 2 MPA Fisheries Assessment sets out the strengths and limitations of the different evidence sources used. While it is possible that the fisheries activity data used has led to an under estimation of fishing effort from under 15 metre vessels, the assessment has determined that the use of bottom towed gear poses considerable risks to the condition of the rock and reef features, and therefore MMO must implement the Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023 to protect the site's features. For further information see sections **4** and **A1.1.1**.

In response to point 5, see section **A3.1.5**.

In response to point 6, see section **A3.2.4**

#### ***Feature information***

The following responses were received:

1. There is much less reef habitat in this assessment than charted in the consultation. This is due to a sediment veneer habitat being considerable in this site.
2. There are either wrecks and/or signs of early life here aggregate extraction shouldn't be allowed and any measures to ban bottom towed gear are welcomed to protect maritime heritage. Important for recreational diving and marine life.
3. Hugely mobile site, the natural disturbance is often worse for habitats than fishing.

**MMO response:** in response to point 1, MMO works closely with statutory nature conservation bodies and others to understand the extent and distribution of designated features. The feature data for Goowdin Sands has not altered from that which was provided during the call for evidence. Certain features may vary in their extent over time due to natural process such as natural build up/degradation (in the case of Sabellaria spp. reefs) or the movement of sediment (in the case of some rocky reefs). MMO assessments are reviewed at least once every five years, or sooner if significant new information, including on feature extent, is available.

In response to point 2, see **Feature information** in section **A3.2.1**.

In response to point 3, see sections **A1.1.12** and **A3.1.8**.

### ***Management options***

The following responses were received:

1. Disagree with partial closure, propose whole site ban of bottom towed gear.
2. Stage 2 measure is just one part of what is needed to manage this site.
3. Not concerned about losing bottom towed gear for Stage 2 sites but can't afford to lose other gear types.
4. Wants to understand how non-powered mobile gear fit into the MPA's evidence base and would like more of a say earlier on in the process.

**MMO response:** in response to point 1 to 4, MMO is assessing, and where necessary, introducing management to address the impacts of fishing in MPAs in England offshore of 6 nm. Stage 2 focuses on rock and reef features because these features are highly sensitive to interactions with bottom towed gears. Full site closures were considered for all Stage 2 MPAs, and in some cases will be implemented to protect the rock and reef features. In other cases, the rock and reef features form only part of the MPA, and therefore a whole site closure is not required. The impacts of fishing on other features in these MPAs will be considered in Stage 3. For more information please see section **A1.1.1**.

In response to point 3 and 4, see **Management Options** in section **A3.2.4**. Gears such as drift nets are not covered by the Stage 2 byelaw. For further information on the gears included at Stage 2 please see the Stage 2 Fisheries Assessment and section **A1.1.1**.

### **A3.2.6 Haig Fras**

#### ***Additional evidence***

The following responses were received:

1. Not fishing in an area will mean more predatory fish which will feed on the species we want to protect.
2. Fishers appear not to fish in Haig Fras as a part of the seabed is already protected with the SAC of Haig Fras. There is more concern about stage 3 restrictions that will come in for Greater Haig Fras. Tracks through the centre of Haig Fras are residual because of limits of the algorithm.
3. Vessels only occasionally fish this site; measures mean they would have to stow their gears to pass through this area when they land fish in a UK port.

**MMO response:** in response to point 1, the Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023 is likely to have a wide range of ancillary effects, including the ecological benefits including food web dependencies, population dynamics of fish (including the protection of fish stocks), marine mammals, turtles, and sea birds (including survival threats in extreme cases). There is no evidence provided that the introduction of fisheries restrictions leads to reductions in commercial fish populations.

In response to points 2 and 3, while there is limited bottom towed gear activity in this area, features of the site are considered sensitive to even very low levels of bottom towed gear activity. Closing these areas to bottom towed gear fishing will help to ensure the site can recover and will protect these features from any future increases in fishing activity. Please also see sections **A1.1.1** and **A1.1.3**.

#### ***Management options***

The following response was received: agree with whole site ban of bottom towed gear but state that extensive buffers are needed to protect the reef and associated species because of high surrounding fishing intensity.

**MMO response:** in response, see section **A1.2.3**, MMO response to points 6 and 7. Section 2.4 of the Stage 2 MPA Fisheries Assessment and section 3 of the Stage 2 DMA discuss the use of buffer zones which are an adopted MMO approach following guidance from JNCC and Natural England to ensure appropriate protection of relevant features, based on the maximum depth of a relevant MPA to account for

fishing gear warp length (the length of the lines, rope or wires that connect the gear to the seabed and to the towing vessel) and to ensure that fishing activities taking place adjacent to the feature do not negatively impact it.

### ***Other responses***

MMO received responses calling for this site to be added to the HPMA network and afforded the same protections a response to this has been included in sections **A1.1.4** and **A3.1.6**.

### **A3.2.7 Haisborough, Hammond and Winterton**

#### ***Additional evidence***

The following responses were received:

1. Expresses doubt about the number and value of fishing activity by the Dutch fleet. There is a risk that without the ground being regularly worked, sand accretion through natural tidal processes or man-made changes to natural tidal processes, introduced by other marine developments (OWF, aggregates dredging) may smother some features and thereby constrain the achievement of the conservation objectives.
2. MMO lack the correct funding to properly manage MPAs.

**MMO response:** in response to point 1, see section **A3.1.2** MMO response to point 9 as well as further information within section **5.2**. For information on hydrodynamic effects see sections **A1.1.12** and **A3.1.8**. Whilst evidence is provided within the draft Stage 3 Fishing Gear MPA Impacts Evidence: Bottom towed gear highlighting the impact of smothering as well as, an increase in both suspended solids and turbidity, due to bottom towed gears over sediment features (MMO, 2023a). There is no evidence to support the risk of sand accretion due to a lack of fishing activity.

In response to point 2, MMO is resourced and committed to ensuring all necessary fisheries management measures for English MPAs offshore of 6 nm are in place by 2024.

#### ***Feature information***

The following responses were received:

1. There are either wrecks and/or signs of early life here and any measures to ban bottom towed gears are welcomed to protect maritime heritage.
2. Sabellaria reef requires whole site approach to allow the reef to expand. Reef features are sensitive to and impacted by trawling and are in unfavourable condition. Trawling must be halted.

**MMO response:** in response to point 1, see **Feature information** in section **A3.2.1**.

In response to point 2, full site closures were considered for all Stage 2 MPAs, and in some cases will be implemented to protect the rock and reef features. In other cases, the rock and reef features form only part of the MPA, and therefore a whole site closure is not required. In all cases, all areas of reef are included in the management areas for all Stage 2 sites. Sabellaria spp. reefs are often ephemeral, with patches forming and breaking down over time in different areas. MMO works closely with the statutory nature conservation bodies to understand which areas should be treated as Sabellaria spp reef to support the reefs achieving favourable condition.

For more information please see section **A1.1.1**.

### **8.1.1.2 Management options**

The following responses were received:

1. Proposed management would curtail fishing activity in the area at best, will displace it elsewhere or worst case, will reduce the number of fishing days thereby impacting profit. The DMA states that 'fishing activity is exclusively (99.6 %) by non-UK vessels. Dutch beam trawlers are most prevalent.
2. It is highlighted that should MMO proceed to close one particular area in the south of the site beyond 6 nm that is co-located with a licensed aggregate dredging area, there will be a different approach taken by MMO to Eastern IFCA to protect Sabellaria reef in the site inshore of 6 nm, which could raise questions from stakeholders.
3. Why is MMO's proposed management area within the MPA are much greater than the extent of the 'areas to be managed as reef'?
4. Concerns cover the scope of proposed protections (which do not apply to the whole area of most of the sites), the lack of strategic approach which covers all our seas, the importance of buffer zones, particularly for ephemeral features, and the required monitoring of vessels which is essential to ensure compliance.
5. There must be protection from all activities which negatively impact protected features.

**MMO response:** in response to point 1, MMO recognises the financial implications of the proposed management, and these are captured in the DMA. For more information see the DMA and sections **A1.1.1** and **A3.1.1**.

In response to point 2, aggregate dredging is regulated via the marine licensing regime, which requires a Habitats Regulations Assessment to be carried out before activities can take place in an MPA. While a licensed aggregate dredging area overlaps with the spatial extent of the Marine Protected Areas Bottom Towed Fishing

Gear Byelaw 2023, exclusion zones are put in place within the licensed area to avoid any dredging activity occurring over reef features and a condition of the aggregates licence is that pre-dredge monitoring is required before moving to a new area within the wider licence area.

In response to points 2 to 5, around each of the designated features within the Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023 a buffer has been applied these buffers extend beyond the extent of the areas to be managed as reef and can be adapted on a site-by-site basis. Where a designated feature of an MPA straddles the 6 nm limit, MMO work closely with the relevant IFCA to ensure appropriate management is in place for the straddling feature. This may be in the form of spatial restrictions within both the MMO and the IFCA section of the site or the IFCA and MMO may introduce different approaches, taking into account local factors. The MMO Stage 2 MPA Fisheries Assessment, **section 2.4** 'management options' discusses the use of buffer zones which are an adopted MMO approach following guidance from JNCC and Natural England to ensure appropriate protection of relevant features.

### **A3.2.8 Hartland Point to Tintagel**

#### ***Additional evidence***

The following response was received: protection of surrounding habitats will assist seal population as a reduction of bottom towed gear would reduce risk of entanglement and bycatch.

**MMO response:** for further information on MPAs and seal populations see sections **A1.1.11** and **A3.1.10**.

#### ***Feature information***

The following response was received: there are either wrecks and/or signs of early life here aggregate extraction shouldn't be allowed and any measures to ban bottom towed gear are welcomed to protect maritime heritage. Important for recreational diving and marine life.

**MMO response:** see **Feature information** in section **A3.2.1**.

#### ***Management options***

MMO received responses that agreed with whole site prohibition and questioned the need for management.

**MMO response:** MMO is assessing, and where necessary, introducing management to address the impacts of fishing in MPAs in England offshore of 6 nm. Full site closures were considered for all Stage 2 MPAs, and in some cases, such as within



Hartland Point to Tintagel MPA, will be implemented to protect the rock and reef features. In other cases, the rock and reef features form only part of the MPA, and therefore a whole site closure is not required. Spatial restrictions have been developed taking into consideration the extent and distribution of the designated features MMO has sought to strike a balance between ensuring any measures implemented are robust and enforceable, and minimising the socio-economic impact to affected stakeholders whilst, most critically, providing the necessary protection from bottom towed gears for highly sensitive rock and reef features in Stage 2 MPAs in order to best further conservation objectives, in line with MMO's statutory duties. In sites where the conservation objectives can be best furthered by utilising a whole site approach because of the distribution of the features within that site, this approach has been adopted. For more information please see section **A1.1.1**.

### **A3.2.9 North Norfolk Sandbanks and Saturn Reef**

#### ***Additional evidence***

The following response was received: there is doubt about the number and value of fishing activity by the Dutch fleet. There is a risk that without the ground being regularly worked, sand accretion through natural tidal processes or man-made changes to natural tidal processes, introduced by other marine developments (OWF, aggregates dredging) may smother some features and thereby constrain the achievement of the conservation objectives.

**MMO response:** in response see **Additional Evidence** in section **A3.2.7**, MMO response 1.

#### ***Feature information***

The following response was received:

1. There are either wrecks and/or signs of early life here and any measures to ban bottom towed gears are welcomed to protect maritime heritage.
2. Area contains sandbars where Danish vessels fish for sandeels, these vessels should have full access since fishing doesn't affect the area.

**MMO response:** in response to point 1, see **Feature information** in section **A3.2.1**.

In response to point 2, see additional evidence in **A3.2.1**

### **A3.2.10 Offshore Brighton**

#### ***Additional evidence***

The following responses were received:

1. Trawling destroys the seabed and depletes the ecosystem and fish spawning/breeding grounds. There has been improvement in fish stocks in the past two years following West Sussex trawling restrictions and believes a ban would benefit smaller vessels.
2. Local fishermen are in favour of trawling and dredging ban, sustainable catches have doubled since the trawling ban. Protection will increase biodiversity including kelp bed recovery and associated effects of carbon to help reach carbon neutral targets.
3. Dived in Sussex Bay for 63 years and seen the devastation of trawling and the remarkable recovery following the trawling ban. Recently observed fauna not seen for years.
4. Believe ban on bottom towed gears would give a chance for recovery in shallow areas particularly encouraging filter feeding bivalves through clearer waters. Herring, ray and cuttlefish eggs will be more likely to bond to the seabed for fertilization.
5. Nothing should be towed within 6 miles of the shore, especially between and May as the trawlers are killing a whole ecosystem.
6. Disagree with partial closure, propose whole site ban of bottom towed gear.
7. No further protection is required, bottom towed gear has not damaged features to date.
8. Disagree with partial site closure to bottom towed gears. In Hauts de France, 2020, 3 trawlers of 20 – 25 m undertaking bottom trawling (OTB) or demersal seining (SDN, SSC). They are mainly present between April and June and mainly target sea bass, red mullet, squid or whiting. According to IFREMER data for the year 2021, the area totals 77 months of bottom trawling activity in total for 40 vessels concerns, representing an average of 2.1 months in the area per vessel. Specifically for vessels belonging to the FROM Nord PO, in 2022, major peaks of activity in the ICES area are to be noted which may account for up to 70 % of a vessels production and 47 % of its annual turnover. 15 from Normandy have a high dependency. Most vessels carry out between 1 % and 10 % of their annual production in the area for an annual turnover of between 1 % and 6 % of the year 2022.
9. Disagree with ban on bottom towed gears as the area already experiences spatial squeeze from aggregates, offshore wind developments, HPMA's etc. The inevitable displacement of fishing effort and the cumulative effects with other activities would have an ecological effect over a wider area and increase pressure on other areas.

**MMO response:** in response to points 1 to 6, MMO welcomes additional information relating to the Sussex IFCA Nearshore Trawling Byelaw 2019 which prohibits the use of towed gear within a specified area within the Sussex IFC District (Sussex IFCA, 2021). MMO strives to avoid undue pressure on fisheries through restriction of fishing grounds, however, we have duties to ensure MPAs receive the protection

they require and the potential for management to have a socio-economic impact does not override this duty. For additional information section **A1.1.1** and **A1.1.3**.

In response to point 7 and 8, MMO acknowledges the additional information provided. The Stage 2 MPA Fisheries Assessment has determined that the use of any bottom towed gear poses considerable risks to the condition of the rock and reef features and therefore statutory management measures are required in order to fulfil MMO duties under UK legislation (see section 7). The impacts of bottom towed fishing on the site's other features will be assessed during Stage 3 of the MMO's offshore MPA management work.

In response to point 9, see the following sections on displacement (**A1.1.3** and **A3.1.5**) and in combination effects (**A1.1.5**).

### ***Feature information***

The following responses were received:

1. The natural disturbance in the Eastern Channel is greater than fishing.
2. This area has been fished for centuries and there are uncertain impacts of fishing as the habitats are missing baseline data.

**MMO response:** in response to point 1, see sections **A1.1.12** and **A3.1.8**.

In response to point 2, see section **A1.1.1**.

### ***Management options***

The following response were received:

1. Believes management will increase carbon sequestration and help towards 'net zero'
2. Concerns about seabed destruction, long term damage from trawling and the extinction of sea species on our shore. Lobster and crab fishing would benefit from trawling ban due to increase in seagrass and kelp forests.

**MMO response:** in response to point 1, see sections **A1.1.9** and **A3.1.9**.

In response to point 2, see section **A1.1.1**.

## **A3.2.11 South of Celtic Deep**

### ***Additional evidence***

The following responses were received:

1. 90 % of the activity is from Normandy vessels, in 2020 25 Norman bottom trawlers and dredgers (OTB and DRB), 8 of which are highly dependent (in terms of the ratio of days at sea in the area to days at sea in total) worked in the area. Their production is concentrated on gilthead beam, curly ray, dogfish of all sizes and mackerel. For the Hautes-de-France, this area is worked by trawlers from Boulogne-Sur-Mer, 20 – 25 m long, using bottom trawls (OTB). They are present mainly between April and June and target mainly cuttlefish, squid and whiting.
2. Many fishing sequences cross the area and intersect with North East of Haig Fras or Greater Haig Fras. The main gear used in this area is the bottom trawl.

**MMO response:** MMO acknowledges the information provided, for more information on quality assurance and data used see section 4.

### ***Other responses***

MMO received responses calling for this site to be added to the HPMA network and afforded the same protections a response to this has been included in sections **A1.1.4** and **A3.1.6**.

### **A3.2.12 Wight-Barfleur Reef**

#### ***Additional evidence***

The following responses were received:

1. No significant bottom towed fishing is being undertaken in this site. Concerned that EU vessels displaced by the measures will impact the resident fishing opportunities.
2. Disagree with whole site ban of bottom towed gear. the financial loss for closing the area will be around €24,000 annually for the Belgian fleet.
3. Disagree with whole site closure to bottom towed gear. Trawlers from Boulogne-Sur-Mer (between 20 and 25 m), practicing bottom trawling (OTB). They are mainly present between April and June and mainly target cuttlefish, squid or whiting.
4. Environment taking priority over coastal communities.
5. This area has been fished for centuries and there are uncertain impacts of fishing as the habitats are missing baseline data

**MMO response:** in response to point 1 to 5, the evidence provided in the MMO Stage 2 MPA Fisheries Assessment meant it was not possible to exclude a significant risk of hindering the achievement of the conservation objective of the MPA. Additional information on evidence used is presented in section 4 and for additional information on use of VMS see **A1.1.1** and **A1.1.2**. MMO strives to avoid

undue pressure on fisheries through restriction of fishing grounds, however, we have duties to ensure MPAs receive the protection they require and the potential for management to have a socio-economic impact does not override this duty. Although displacement resulting from any management measures put in place may result in higher levels of fishing pressure on areas outside of MPAs, the location (and thus the associated environmental costs) of displaced fishing activity is unclear. For additional information sections **A1.1.3**, **A3.1.4** and **A3.1.5**.

### ***Feature information***

The following responses were received:

1. There are either wrecks and/or signs of early life here aggregate extraction shouldn't be allowed and any measures to ban bottom towed fishing are welcomed to protect maritime heritage. Important for recreational diving and marine life.
2. The natural disturbance in the Eastern Channel is greater than fishing.

**MMO response:** in response to point 1, see **Feature information** in section **A3.2.1**.

In response to point 2, see sections **A1.1.12** and **A3.1.8**.

### ***Management options***

The following responses were received:

1. Agree with whole site ban of bottom towed gear
2. Lindisfarne HPMA shows that socio-economics can be considered ahead of conservation so this should be repeated here.

**MMO response:** in response to point 1, see section **A1.1.1** and **A3.1.1**.

In response to point 2, for designation of MCZs (including HPMA), socio-economics can be considered alongside environmental factors by the Secretary of State when determining whether or not to designate an area. Lindisfarne candidate HPMA was not progressed to designation as evidence showed that there was a high level of dependency in the local area on employment opportunities provided by existing activities. Once an MPA is designated, regulators are required to ensure that the activities they regulate do not undermine the MPA's conservation objectives, and cannot use socio-economic impacts as a reason not to put in place the required environmental protections (except in specific cases, for example nationally important infrastructure, in which case the developer must ensure environmental compensation is put in place).

Wight-Barfleur Reef is a designated MPA and as such MMO is required to put in place the necessary protections, in this case prohibiting bottom towed fishing over the reef feature.

***Other responses***

MMO received responses calling for this site to be added to the HPMA network and afforded the same protections a response to this has been included in sections **A1.1.4** and **A3.1.6**.

## **A4 Annex 4 Organisational respondents for the formal consultation**

### **NGOs**

- Blue Marine Foundation
- Greenpeace
- Institute of Fisheries Management
- Oceana
- Marine Conservation Society
- Seal Research Trust
- Rewilding Britain
- RSPB
- The Wildlife Trusts
- Whale and Dolphin Conservation
- Wildlife and Countryside Link
- ZSL

### ***UK Government departments or bodies***

- A local MP
- Eastern Inshore Fisheries and Conservation Authority (IFCA)
- Historic England
- Kent County Council
- Maritime and Coastguard Agency
- Natural England
- Northumberland IFCA
- Offshore Petroleum Regulator for the Environment and Decommissioning (OPRED)
- Sussex IFCA
- UK Hydrographic Office

### ***Non-UK Government departments or bodies***

- Department of Agriculture and Fisheries of the Flemish government
- French Embassy in London

### ***Fishing Industry***

- North Atlantic Fishing Holdings Ltd
- Southwestern Fish Producer Organisation (PO) Ltd
- National Federation of Fishermen's Organisations (NFFO)
- NSFO

- Cornish Fish Producers Organisation (CFPO)
- Brighton and Newhaven Fish Sales (BNFS)
- Western Fish PO
- West Mersea Fishers
- Harwich Harbour Fishermen's Association
- Thanet Fishermen's Association
- WWCFPO

### ***Non-UK Fishing Industry***

- CNPMM (French fishery organisation)
- COBRENORD PO (French PO)
- Comite national des pêches maritimes et des élevages marins (French fishery organisation)
- Danish Fishermen PO
- Dutch Fishermen's Association (Dutch fishery organisation)
- FROM Nord (French fishery organisation)
- Hauts-de-France CRPMM (French fishery organisation)
- Les Pêcheurs De Bretagne (French fishery organisation)
- Op cme Manche mer du nord (French fishery organisation)
- Organisation des Pêcheurs Normands (French fishery organisation)
- Rederscentrale, (Belgian PO)
- Sweden's Fishermen's PO (SFPO)
- Visserbond (Dutch fishery organisation)

### ***Local groups – conservation and heritage interests***

- Honor Frost Foundation (heritage)
- Joint Nautical Archaeology Policy Committee (heritage)
- Sussex Underwater (conservation)
- WildFish (conservation)

### **Recreational organisations**

- British Sub Aqua Club
- Sub-Aqua Association



## A5 Annex 5 Glossary

**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.

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

**De minimis Assessment (DMA)** – is a financial impact assessment is an assessment which addresses the financial and socio economic impacts of management measures. The purpose of the De minimis Assessment in this case is show the financial impacts of the Stage 2 Bottom Towed Gear Marine Protected Area Byelaw 2023.

**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 or species. For example: nutrition, nutrient cycling, climate regulation or bird and whale watching.

**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 ten IFCAs in England, each one funded by local authorities (**Figure A1.2**).

**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 (**Figure A1.2**).

**Highly protected marine areas (HPMA)** - areas of the sea that allow the protection and recovery of marine ecosystems by prohibiting extractive, destructive and depositional uses and allowing only non-damaging levels of other activities to the extent permitted by international law. Defining non-damaging levels is complex and will likely be species, habitat and site specific.

**Marine conservation zone (MCZ)** – a type of MPA in English, Welsh and Northern Irish waters designated under the Marine and Coastal Access Act 2009<sup>5</sup> (for England and Wales) or the Marine Act (Northern Ireland) 2013<sup>11</sup> (for Northern Ireland).

**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 (**Figure A1.2**).

**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 (**Figure A1.2**).

**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. Individual pressures are broadly defined in [JNCC's Marine Pressures-Activities Database \(PAD\)](#) in the 'pressures' tab of the data tables (JNCC, 2022).

**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.

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<sup>11</sup> For more information see: [www.legislation.gov.uk/nia/2013/10/contents](http://www.legislation.gov.uk/nia/2013/10/contents)

**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>12</sup>, and The Conservation of Offshore Marine Habitats and Species Regulations 2017<sup>13</sup> to protect important habitats and species.

**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, and the Conservation of Offshore Marine Habitats and Species Regulations 2017.

**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.

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<sup>12</sup> For more information see: [www.legislation.gov.uk/ukxi/2017/1012/contents/made](http://www.legislation.gov.uk/ukxi/2017/1012/contents/made)

<sup>13</sup> For more information see: [www.legislation.gov.uk/ukxi/2017/1013/contents/made](http://www.legislation.gov.uk/ukxi/2017/1013/contents/made)