



Marine
Management
Organisation

Stage 3 Call for Evidence: Introduction

January 2023



...ambitious for our seas and coasts

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Executive summary

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

This document introduces Stage 3 of this work, which is focussed on the assessment and management of the impacts of fishing on seabed features in 41 MPAs.

This document also provides information on the call for evidence on three documents which bring together and analyses the best available evidence on the impacts of fishing on seabed MPA features. The purpose of the call for evidence is to seek additional evidence and views on these documents.

Following the call for evidence, MMO will finalise these evidence documents and use them to undertake site level assessments on the impacts of fishing on each Stage 3 MPA. Where required, management measures will be developed by MMO, based on the outcome of the site level assessments.

1 Introduction

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

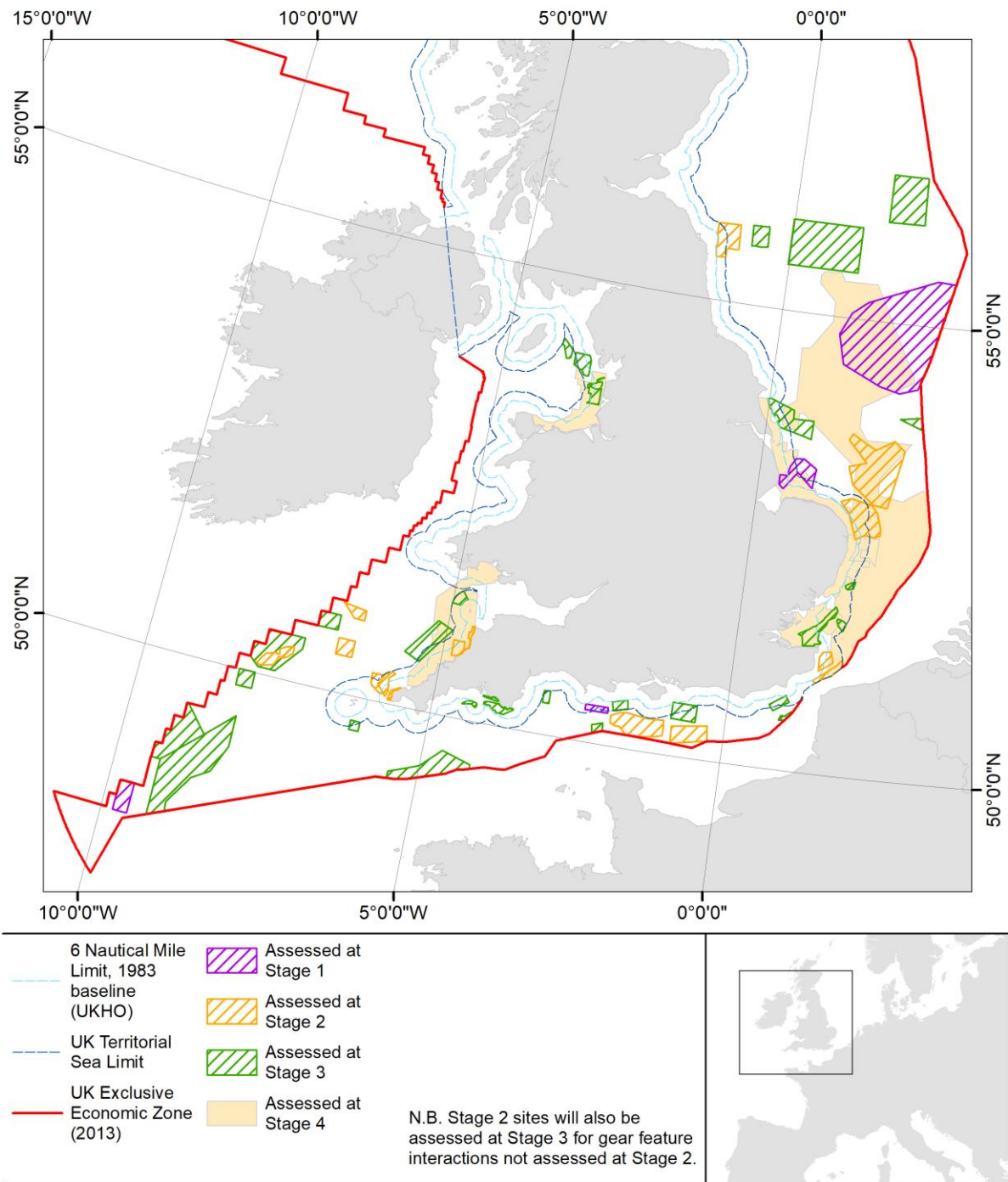
Stage 1 of this work resulted in the implementation of MMO byelaws for four offshore MPAs¹. As part of Stage 2, a draft byelaw to manage the use of bottom towed gear over rock and reef MPA features has been made available as part of a formal consultation running alongside this call for evidence.

Stage 3 covers the impacts of fishing on seabed features not already considered at Stages 1 or 2. Impacts on harbour porpoise and bird MPA features will be considered at Stage 4. [Figure 1](#) displays the MPAs considered at each stage.

¹ [Dogger Bank SAC](#), [South Dorset MCZ](#), [The Canyons MCZ](#) and [Inner Dowsing, Race Bank and North Ridge SAC](#)



MMO Offshore Marine Protected Area Fisheries Management Stages



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

To inform our assessment and management of fishing impacts for Stage 3, we have gathered and analysed the best available evidence on fishing impacts. This information has been captured in three draft 'fishing gear MPA impacts evidence' documents, one for each gear group: bottom towed gears, traps, and anchored nets and lines.

We are now seeking views and additional evidence through a call for evidence on these three documents.

This document introduces Stage 3 of the MMO's work to manage fishing for the protection of MPAs, including the methodology for collecting evidence and the purpose, format and content of key documents.

This document also provides information on the call for evidence on the draft fishing gear MPA impacts evidence documents, how you can respond and our intended next steps.

[Section 3](#) below provides further information on the other documents produced as part of the call for evidence. These are also summarised in [Figure 2](#).

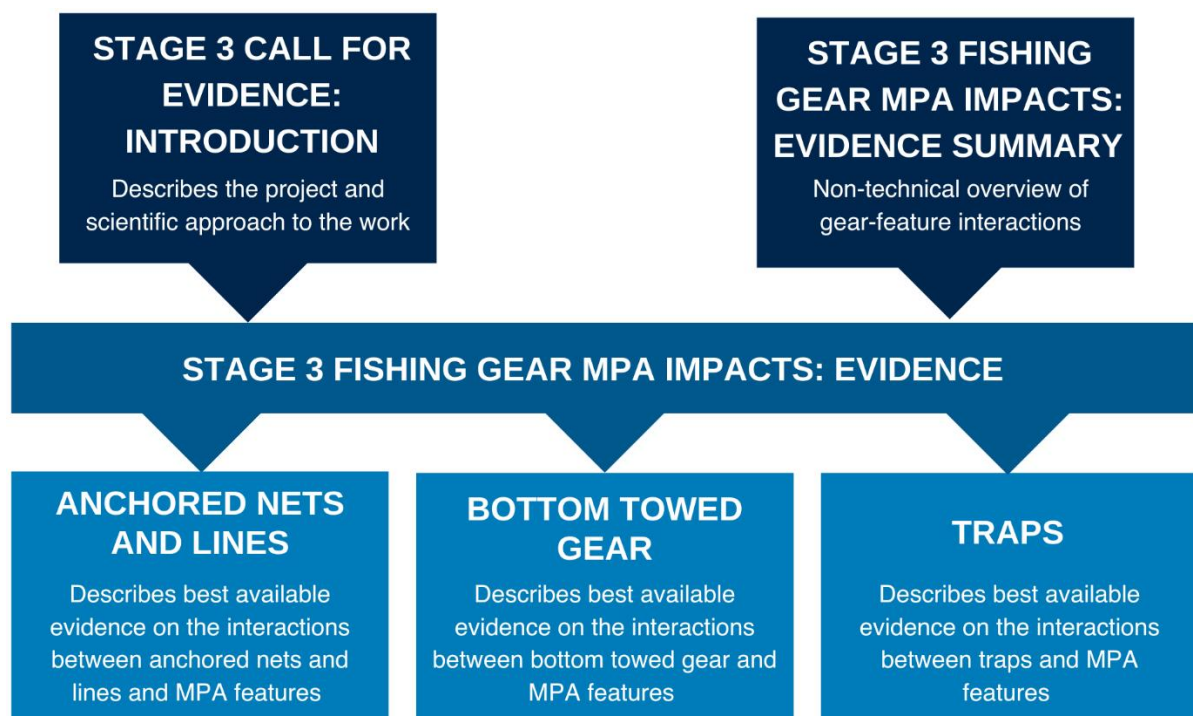


Figure 2. Diagram showing the documents drafted and available to review as part of the Stage 3 call for evidence.

The evidence gathered during the call for evidence will be used to inform site level assessments. If required, we can consider measures (such as byelaws) to manage fishing activities in order to further the conservation objectives of marine conservation zones (MCZ) and/or European marine sites (EMS), in consultation with our advisors, stakeholders and the public, with final decisions confirmed by the Secretary of State.

Further information on potential management options that may be considered during site level assessments is also outlined in [section 3.5](#). We intend to assess, and where appropriate, put in place necessary management measures by the end of 2024.

2 Roles and responsibilities

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

MMO fisheries management jurisdiction

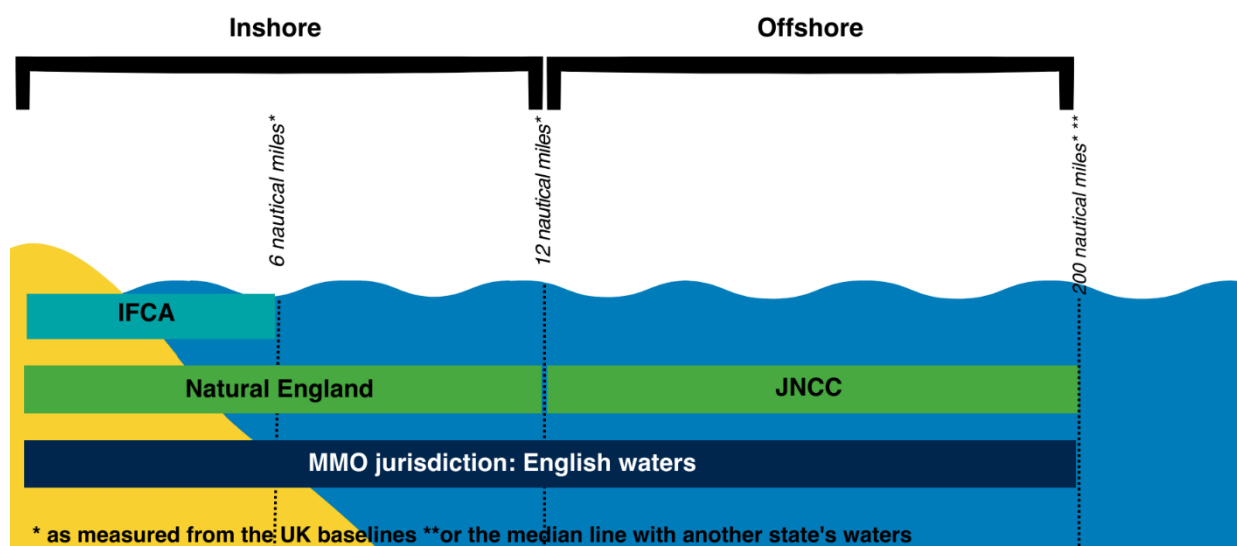


Figure 3. Diagram showing the jurisdiction of MMO, JNCC, Natural England and IFCA.

MMO

We are responsible for assessing and managing the impacts of fishing on the designated features (protected habitats and species) of MPAs in English waters offshore of 6 nm. These assessments aid the delivery against legal obligations for

MCZs and EMS (which include special areas of conservation ‘SAC’ and special protection areas ‘SPA’).

IFCA

There are ten IFCA in England, with jurisdictions for the 0 to 6 nm area. IFCA are responsible for assessing fishing impacts and where necessary, introducing management to protect MPAs. Where MPAs straddle the 6 nm limit, MMO works closely with IFCA to ensure a consistent and clear management approach.

JNCC and Natural England

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

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

Conservation objectives set out the broad ecological aims for MPAs. MMO and other regulators are responsible for ensuring that our decisions help further these conservation objectives. To produce the Stage 3 fishing gear MPA impacts evidence documents we have used the conservation advice packages and conducted direct consultation with both JNCC and Natural England. Further information on conservation advice packages is available online via JNCC and Natural England webpages.

3 Stage 3 - methodology

The following section outlines the steps taken for Stage 3 (from site selection, the call for evidence and intended next steps). [Figure 4](#) provides a step-by-step flow diagram to illustrate the process.

3.1. Step 1: analyse impacts of fishing on MPA

As introduced in earlier sections, gear-feature interactions for Stage 3 have been identified by reviewing all of the remaining offshore MPAs (listed in [Annex 1](#); shown in [Figure 1](#)) and gear-feature interactions not already assessed for the 13 sites considered during Stage 2 ([Table A1.1](#)); excluding mobile species (to be considered at Stage 4). This totals 41 sites, meaning we have taken a stepped approach to collating the best available evidence for gear-feature interactions before looking at site level assessments.

We reviewed and clarified the existing evidence base on which our gear reviews and later site level assessments can be based.

These were identified using an agreed list of key terms for literature searches that described the gear-feature interactions. Vessel monitoring system (VMS) activity data in Stage 3 sites was used to indicate the initial search terms. Further search terms for additional gear-feature interactions were also used in some cases as they could not be excluded until the site level assessment phase (step 3; for example, vessels under 12 metres 'm' that do not have VMS) and following advice from JNCC and Natural England. The Natural England 'Fisheries Impact Evidence Database' (FIED) was also used to identify relevant literature available (Natural England, 2022).

From the initial search results, gear-feature interactions that had enough evidence (for example, scientific literature) were identified. These results could be used to base a more focused literature search and drafting of review documents.

The list of gear-feature interactions with a sufficient evidence base were focused on; with a synthesis of the best available evidence being compiled for each gear-feature interaction. We used this to draft a number of reviews in consultation with JNCC, Natural England and IFCAs. The information has been presented by fishing gear type, forming three draft fishing gear MPA impacts evidence documents (anchored nets and lines, bottom towed gear and traps).

[Table 1](#) provides a summary of the different fishing gear review documents and the features contained within each of these gear documents. [Annex 2](#) provides a detailed list of fishing gears considered for each gear document and brief descriptions of each gear type.

Table 1. Gear-feature interactions considered at Stage 3 and the corresponding gear review document.

Fishing Gears	Features	Review document
Anchored nets and lines	<ul style="list-style-type: none"> • biogenic reef (<i>Sabellaria spp.</i>) • rocky reef (includes high/moderate energy circalittoral rock, pink sea fans, and fragile sponge and anthozoan communities on rocky habits) • sandbanks and subtidal sediments (includes coarse sediment, sand, mixed sediments and subtidal mud) • ocean quahog • sea-pen and burrowing megafauna communities • fan mussel 	Stage 3 Fishing Gear MPA Impacts Evidence: anchored nets and lines
Bottom towed gears (including seines)	<ul style="list-style-type: none"> • sandbanks and mixed sediments (includes subtidal coarse sediment, subtidal sand, subtidal mixed sediments, subtidal mud) • ocean quahog • sea-pen and burrowing megafauna communities • fan mussel 	Stage 3 Fishing Gear MPA Impacts Evidence: bottom towed gears
Traps	<ul style="list-style-type: none"> • biogenic reef (<i>Sabellaria spp.</i>) • rocky reef (includes high/moderate energy circalittoral/infralittoral rock, pink sea fans, and fragile sponge and anthozoan communities on rocky habits) • sandbanks and subtidal sediments (includes coarse sediment, sand, mixed sediments and mud) • ocean quahog • sea-pen and burrowing megafauna communities • fan mussel 	Stage 3 Fishing Gear MPA Impacts Evidence: traps

3.2. Step 2: call for evidence

As part of step 2, we are presenting the documents produced during step 1 as part of a public call for evidence. We would like to receive evidence and feedback to ensure that we have the best available evidence to inform our next steps for Stage 3; site level assessments (step 3).

3.3. Step 3: site level assessments

We will use the outputs from steps 1 and 2 to finalise the Stage 3 fishing gear MPA impacts evidence documents and to draft site level assessments, in liaison with JNCC, Natural England and IFCAs.

The assessments will consider site characteristics (feature sensitivity, location and distribution information), fishing activity data and review of potential in-combination impacts with other relevant activities to determine if management is required.

3.4. Step 4: develop draft management measures

Potential management could include a range of options including (but not limited to): seasonal restrictions, spatial restrictions (such as partial site prohibition of fishing gear(s) over specified areas, or prohibition of fishing gear(s) over the entire site), and monitoring and control plans.

3.5. Step 5: formal consultation

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

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

3.6. Step 6: finalise management measures

Final documentation for any sites requiring management (where options 3 or 4 are selected) will be submitted to the Secretary of State for approval, with any byelaws likely coming into force one month after confirmation.

3.7. Step 7: management measures come into force

If MMO byelaw is confirmed by Secretary of State then the byelaw comes into force then the byelaw comes into force on an agreed date.

3.8. Step 8: monitoring and control

When our management decisions have been made, then monitoring and control activities will commence, with management being reviewed every 5 years. Any significant changes in the site (for example, to fishing activity levels) and/or new evidence becoming available, may trigger this review to take place earlier than scheduled. Alternatively, if we believe there to be an urgent need to protect a feature, then an emergency byelaw can be considered (these can last 12 months).

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

Monitoring will be recorded through annual MPA-specific reports produced by the MMO. These reports will include VMS data for fishing activity over the reporting period and a 5-year period, as well as information on inspected/observed activities, intelligence and non-compliant activity (if applicable). Coastal questionnaires are completed annually by local MMO officers regarding any changes in activity within the site. This will act as an early warning system for potential negative impacts on the site. If a report determines that a change in fishing activity is a risk to the conservation objectives of the site, an assessment of the site will be triggered regardless of whether a review is due. An increase in activity above that identified in this assessment, will initiate discussion with JNCC and Natural England (depending on the location of the site one or both of these bodies may be involved) following the annual MPA report.

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

3.9. Step 9: review

Review the need for and effectiveness of the MMO byelaw.

Step 1: analyse impacts of fishing on MPA	Gather and analyse best available evidence on the impacts of fishing on MPA features
Step 2: call for evidence	Seek views from interested parties and update assessments using the evidence collected and update analysis using the evidence collected
Step 3: site level assessments	Impacts of fishing at site level assessed
Step 4: develop draft management measures	Where necessary, develop draft byelaw and impact assessment to address negative impacts of fishing identified
Step 5: formal consultation	Consultation on site level assessment, draft byelaw and impact assessment
Step 6: finalise management measures	Finalise site level assessment, byelaw, and impact assessment, make byelaw and submit to Secretary of State for confirmation
Step 7: management measures come into force	If MMO Byelaw is confirmed by Secretary of State then byelaw comes into force on agreed date
Step 8: monitoring and control	Monitoring and control activities begin, with review every five years (subject to substantive site changes or new evidence)
Step 9: review	Review the need for and effectiveness of the MMO byelaw

Figure 4. Flow chart showing the steps taken for Stage 3 call for evidence.

4 Call for evidence: How to respond

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

Questions to consider:

1. Do you have any additional evidence about the interactions of fishing gear and MPA seabed features?
2. Do you agree with the MMO analysis of the available evidence provided in each gear document? If not, please provide details.

Please respond no later than **28 March 2023**.

You can respond by completing our online survey by visiting the website link below:
<https://consult.defra.gov.uk/mmo/call-for-evidence-stage-3>

If you are not able to access the above survey, you can respond via the details below. We are asking all stakeholders to use email rather than post if possible.

By email: conservation@marinemanagement.org.uk

By telephone: **0300 123 1032**

In writing: **Stage 3 MPA Call for Evidence
Marine Conservation Team
Marine Management Organisation
Lancaster House
Newcastle upon Tyne
NE4 7YH**

5 Next Steps

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

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

Further information on our byelaw making process can be found at:

www.gov.uk/guidance/marine-conservation-byelaws

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

Email: conservation@marinemanagement.org.uk

MMO helpline: **0300 123 1032**

6 References

JNCC (2022). *The Marine Habitat Classification for Britain and Ireland Version 22.04*. Available online at: <https://mhc.jncc.gov.uk/> (Accessed on: 21 November 2022)

Montgomerie, M. (2022). *Basic fishing methods: A comprehensive guide to commercial fishing methods*. Seafish. Available online at: <https://www.seafish.org/document/?id=9f2fcd97-8bef-4c28-9185-b219b8eedf8a> (Accessed on: 23 November 2022)

Natural England (2022). *Fisheries Impacts Evidence Database. Draft impacts of benthic trawls on sediments. In publication*. Available from Natural England upon request: Marine.Industries@naturalengland.org.uk

Annex 1 List of MPAs by stage

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

Table A1.12. The location of MPAs (inshore, straddling, offshore) and their relevant stage.

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

Annex 2 Fishing gears overview

Table A3.1 below provides a brief description of different fishing gears and how these have been categorised into ‘anchored nets and lines’, ‘bottom towed gear’ and ‘traps’. These descriptions have been collated from previous MMO fisheries assessments, Montgomerie (2022), [FAO](#) and the [Seafish website](#). Please be aware that the list below is not exhaustive. Further detailed information and illustrations are available using the external resources above.

Table A3.13. Provides a brief description of different fishing gears and gear categories/documents that may consider these gear-feature interactions.

Gear document	Gear name	Description
Anchored nets and lines	Gillnets (set/anchored)	A gillnet is a wall of netting that hangs in the water column. Set (fixed) gillnets are anchored in the seabed and held down by the heavy rope line. They can be either vertical (with a float line) or flat (without a float line). Targets coastal species
	Longlines (set/anchored)	Longlining can be set at different positions in the water column to target different species. This gear consists of a long length of line. Regular branches of hooks come from this line. The length of the line and number of branches/hooks depends on the size of vessel being used.
	Tangle nets (set/anchored)	These nets are made up of a single wall of netting (like gill nets). Unlike gill net the netting is hung on the ropes, allowing a greater amount of slack netting, making it more effective for catching species on the bottom of the seabed (for example flatfish and shellfish).
	Trammel nets (set/anchored)	These nets are like gill net but instead are made up of three layers of netting. The two outer layers have a large mesh size with a smaller mesh layer in the centre.
Bottom towed gear (including seines)	Beam trawls	Mouth of trawl is permanently held open by a beam with guides/skids attached. This disturbs bottom fish which rise up and get caught.
	Boat dredges	Two types; one that is dragged along seabed, another that is like a benthic scoop that penetrates the sea bottom. Targets mussels, clams, scallops, crab etc.
	Demersal seine (Danish/anchor seine)	A net shot in the open sea using very long ropes to lay out the net and ropes on the seabed prior to hauling from a boat at anchor.
	Demersal seine (Scottish/fly seine)	Gear is shot on the seabed in a rounded triangle shape with very long weighted ropes attached to each end of the net. The net is gradually hauled in with the vessel maintaining station using its engine power rather than an anchor as in anchor seining.
	Mechanized dredges	Hydraulic dredges dig and wash out mussels from the seabed. It is considered a harvesting machine when the same gear collects the mussels and hauls them on board.

Gear document	Gear name	Description
	Nephrops trawls	Adapted to be selective for Nephrops with mall holed mesh. Some have devices to allow the inevitable larger bycatch to escape.
	Otter trawls (bottom)	Dragged along bottom and has an extended top panel to stop fish escaping upwards. Targets bottom and demersal species.
	Otter twin trawls (bottom)	Two identical trawls fixed together to increase the fishing area. Two otter boards to hold mouths open, one at each far end. The connection between the two trawls is a rope which joins the connection between the two pulling. Usually targets shrimp.
	Pair seines (bottom)	The gear is shot by one vessel (as with a single seine). The other vessel picks up the shot Dhan/ropes. Then the pair of vessels tow the gear, allowing the gear to remain open for longer and increased time.
	Pair trawl (bottom)	Gear is towed between two boats, either on the seabed or in midwater – for stage 3 we are considering those on the seabed. The trawl is kept open by the distance between the two vessels.
Traps	Creel	Creels are a common style of trap used to target crabs and lobsters. The creel uses bait and has a sloped entrance to catch the target species. Originally a wooden base and net covered frame (with a weight), now likely steel covered by plastic covered in netting.
	Pots	Cages/baskets made from various materials and come in various sizes. Mainly set on the bottom, sometimes designed for midwater use. Pots target fish, crustacea and cephalopods.
	Traps	Traps are large stationary nets, cages or baskets in which species are retained or enter voluntarily and will be hampered from escaping. There are many different variations (for example, whelk pots, cuttlefish traps and inkwell pots) – please refer to Montgomerie (2022) for further details and illustrations.

Annex 3 Glossary of terms used in Stage 3

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.

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

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

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

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

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

Marine conservation zone (MCZ) – a type of MPA in English, Welsh and Northern Irish waters designated under the Marine and Coastal Access Act 2009² (for England and Wales) or the Marine Act (Northern Ireland) 2013³ (for Northern Ireland).

² www.legislation.gov.uk/ukpga/2009/23/contents

³ www.legislation.gov.uk/nia/2013/10/contents

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

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

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

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

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.

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

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

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

Special area of conservation (SAC) – SACs are MPAs designated under the Conservation of Habitats and Species Regulations 2017⁴, and the Conservation of Offshore Marine Habitats and Species Regulations 2017⁵ 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 2017⁴, and the Conservation of Offshore Marine Habitats and Species Regulations 2017⁵.

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

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

⁴ www.legislation.gov.uk/ukxi/2017/1012/contents

⁵ www.legislation.gov.uk/ukxi/2017/1013/contents