



Marine
Management
Organisation

**Decision
document:**

The Canyons Marine Conservation Zone

April 2022



...ambitious for our seas and coasts

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Executive Summary

MMO has a duty under the Marine and Coastal Access Act 2009 to exercise all relevant functions in a way which furthers the conservation objectives of marine conservation zones (MCZs). This includes using the MMO's byelaw making powers to ensure that fishing does not hinder the conservation objectives of an MCZ. MMO ran a call for evidence and formal consultation to seek views on draft marine protected area (MPA) fisheries assessments and proposed management measures for The Canyons MCZ.

MMO received a number of responses to both public consultations and has considered and reviewed all submissions and updated assessments and associated documents accordingly.

This decision document details MMO's response to key themes raised by stakeholders through both public consultations.

MMO has considered the best available evidence, including that submitted through stakeholder consultations, to inform its decision on the management required for The Canyons MCZ. MMO concludes that, in order to comply with its duties outlined above, we will make, and seek confirmation from the Secretary of State, 'The Canyons Marine Conservation Zone (Specified Areas) Prohibited Fishing Gears Byelaw 2022' to prohibit bottom towed fishing gears and anchored nets and lines from specified areas of the site.

1. Introduction

Between 1 February and 28 March 2021, MMO ran a formal consultation to seek views on the draft assessments of the impacts of fishing in four marine protected areas (MPAs).

The four MPAs which are being assessed for the impact of fishing are:

- The Canyons Marine Conservation Zone (MCZ);
- Dogger Bank Special Area of Conservation (SAC);
- Inner Dowsing, Race Bank, North Ridge SAC; and
- South Dorset MCZ.

Further details on the formal consultation are provided [here](#).

This document presents the conclusions from the call for evidence and formal consultation held between 28 October and 15 December 2020 and the decision for the next steps for The Canyons MCZ.

2. The Canyons Marine Conservation Zone

The Canyons MCZ was formally designated on 21 November 2013¹. Two additional features: 'coral gardens' and 'sea-pen and burrowing megafauna communities' were added on 31 May 2019². Following this amendment, the site has four designated features (Figure 1):

- Sea-pen and burrowing megafauna communities
- Coral gardens
- Cold-water coral reefs
- Deep-sea bed

The conservation objectives for The Canyons MCZ are set out in the designation order as:

The habitats, so far as:

- already in favourable condition, remain in such condition; and
- not already in favourable condition, be brought into such condition, and remain in such condition.

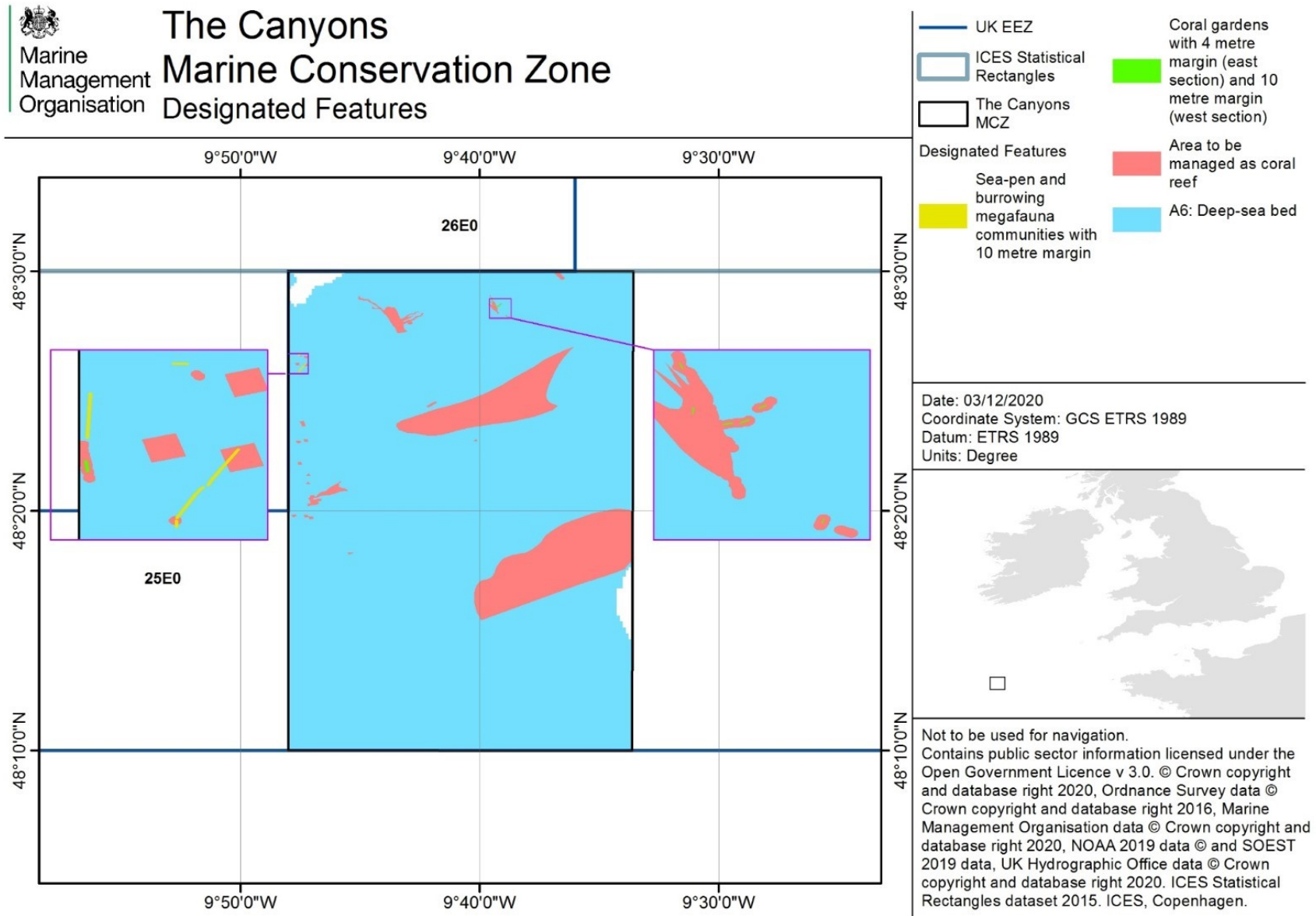
The Joint Nature Conservation Committee (JNCC) advises a general management approach of 'maintain in favourable condition' for the sea-pen and burrowing megafauna communities feature, and 'recover to favourable condition' for the remaining features of The Canyons MCZ³.

¹ Ministerial order 2013 No. 4. Available online at: <https://www.legislation.gov.uk/ukmo/2013/4/created>

² Ministerial order 2019 No. 7. Available online at: <https://www.legislation.gov.uk/ukmo/2019/7/created>

³ The Canyons MCZ: factsheet. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/805607/mcz-the-canyons-2019.pdf

Figure 1 - The Canyons MCZ designated features



3. Assessment of the effects of fishing in The Canyons MCZ

The MMO MPA fisheries assessment of fishing impacts at this site, taking into account advice from JNCC and scientific literature, concluded that coral gardens, cold-water coral reefs and sea-pen and burrowing megafauna communities and deep-sea bed are sensitive to the impacts of demersal fishing activities, including demersal trawls, demersal seines and anchored nets and lines. For these features, we cannot rule out a significant risk that these fishing activities are hindering the site's conservation objectives. Therefore, the conservation objectives are currently unlikely to be achieved without management of these activities.

4. Call for evidence

4.1. Methodology for collecting responses

The call for evidence for The Canyons MCZ included a survey which presented multiple management options for fishing activities.

Questions sought evidence and views from stakeholders on management options for fishing activities and asked for information about the location, condition and sensitivity of designated features as well as the level or nature of fishing within the site.

Three management options were presented:

Option 1: No fisheries restrictions. Introduce a monitoring and control plan within the site.

Option 2: Reduce/limit pressures. Due to the potential impacts of demersal gears (bottom towed gears, including demersal trawls and demersal seines, and anchored nets and lines) on the features of the site, management would be introduced to reduce the risk of the conservation objectives not being achieved. This may be through a zoned management approach and/or limiting the activity/intensity of these activity types.

Option 3: Remove/avoid pressures (whole site prohibition). Demersal fishing activities (bottom towed gears, including demersal trawls and demersal seines, and anchored nets and lines) will be prohibited in all areas of the site.

Stakeholders also had the option to answer the questions to consider in the call for evidence letter via email. A number of responses were received in this way.

Please note, some stakeholders responded to the surveys and via email. In these cases, email responses have been considered alongside the survey responses.

4.2. MMO conclusion following call for evidence

During the call for evidence 20 responses were received relating specifically to The Canyons MCZ. These included responses from individuals, fishers, non-governmental organisations, industry groups and other government departments. Of

these responses 18 were in support of management being introduced, and two responses were neither in favour nor opposed to the introduction of management.

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

- species sensitivity, designated features;
- fishing activity and location;
- options analysis;
- archaeological assets and cultural heritage;
- marine litter;
- cumulative effects;
- activity displacement effects;
- full MPA network bottom gear ban; and
- glossary of terms.

MMO would like to thank everyone who responded to the call for evidence. We have reviewed all responses and have used these responses to update our assessment. Please see Annex 1 for detailed MMO responses to site specific consultation responses received through the call for evidence.

Based on the updated assessment, MMO has concluded that option 2 (reduce/limit pressures (zoned closure for bottom towed gears and anchored nets and lines)) is the preferred option. MMO has developed a byelaw to prohibit these gears over sensitive parts of the site.

5. Formal consultation

5.1. Methodology for collecting responses

The formal consultation consisted of a survey presenting the preferred management option rather than multiple options. The preferred management option was option 2 - reduce/limit pressures (zoned closures). The proposed MMO byelaw prohibited bottom towed gears and anchored nets and lines in a specified area of the site. A depth-based buffer was applied around the edge of the site, within English waters, in order to account for fishing gear warp length (i.e. the length of the lines, rope or wires that connect the gear on the seabed to the towing vessel) and to ensure that fishing activities taking place adjacent to the marine habitats do not negatively impact them.

Questions sought evidence and views from stakeholders on the preferred management option and asked for information about the location, condition, and sensitivity of designated features as well as the level or nature of fishing within the site.

Stakeholders also had the option to answer the questions under consideration in the formal consultation letter via email. A number of responses were received in this way.

5.2. MMO conclusion following formal consultation

During the formal consultation 34 responses were received relating to The Canyons MCZ. These included responses from individuals, fishers, non-governmental organisations, industry groups and other government departments. Of these responses, 28 were in support of management being introduced, and 6 were neither in favour nor opposed to the introduction of management.

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

- activity displacement;
- non-licensable activity management;
- assessment and consultation timing;
- process timing;
- UK-EU Trade and Cooperation Agreement;
- highly protected marine areas;
- automatic identification system (AIS) data;
- technological advances; and
- additional fishing activities outside bottom gear.

MMO would like to thank everyone who responded to the formal consultation. We have considered all responses and taken these into account in our management decision for this site. Please see Annex 2 for detailed MMO responses to site specific consultation responses received through formal consultation.

6. Decision and next steps

Having analysed all evidence and stakeholder views received during the call for evidence and formal consultation and updated the MMO assessment of the impacts of fishing in The Canyons MCZ, **MMO has concluded that in order to further the conservation objectives of the site, the use of bottom towed fishing gears and anchored nets and lines must be prohibited within a specified area of the site (Option 2).**

The proposed area has been designed to reduce pressures on the deepest elements of the deep-sea bed feature, with a section in the south east of the site and a small section in the north west which will be left open to fishing. The area to be left open occurs in the shallowest parts of the site along the edge of the continental shelf. Although classified as deep-sea bed, these areas are likely to be more representative of the surrounding shelf sediment systems within which they sit compared to the larger deep-water off-shelf portion of the site. As such the biotopes

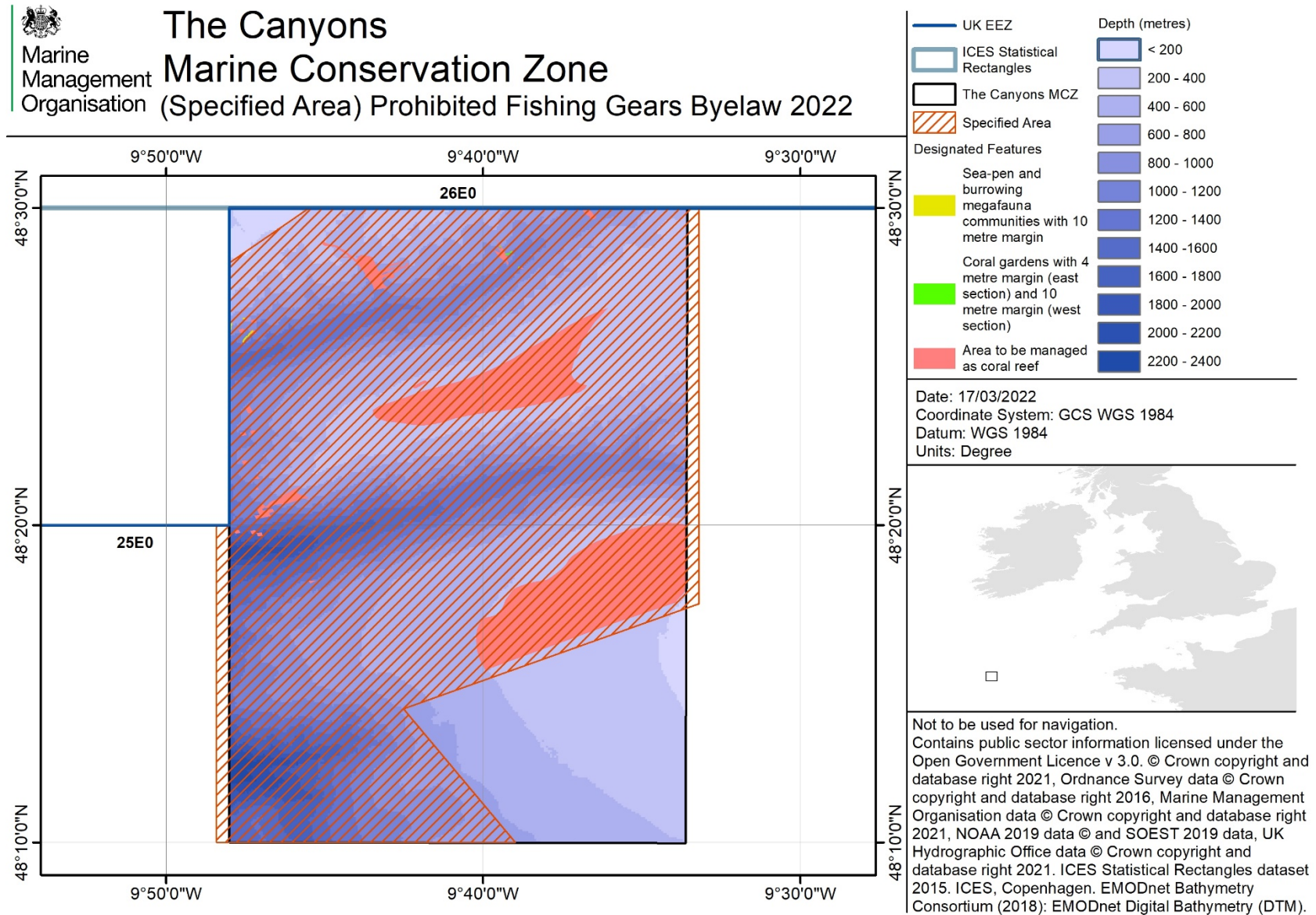
found in these shelf sediments are likely to be less sensitive to fishing activities than those off the shelf edge.

The proposed measures will allow fishing with bottom towed gear and anchored nets and lines to continue in part of the site, but MMO has concluded that there is not a significant risk of ongoing fishing in this area hindering the site's conservation objectives.

MMO has completed a comprehensive assessment of the impacts of commercial fishing within The Canyons MCZ and consulted widely upon a required byelaw to protect the designated features of the site. We have considered each of the points raised through consultation when making our decision and are satisfied that all points have been addressed. Figure 2 shows the final management area.

Having considered all of the above information and best available evidence, MMO has now made The Canyons Marine Conservation Zone (Specified Area) Prohibited Fishing Gears Byelaw 2022 and will seek confirmation of the byelaw to the Secretary of State.

Figure 2: The Canyons MCZ management area.



Annex 1: MMO responses to site specific consultation responses received through call for evidence – The Canyons MCZ

1. Site specific consultation responses

The responses have been collated and summarised below:

1.1 Respondents outlined information on the sensitivity of the designated features:

- Respondents cited benthic research focused on similar geomorphological features and habitats that has shown, due to their unique geomorphology, submarine canyons are prone to a series of processes that may be less common along the rest of the continental margin, but that will have a direct influence on benthic communities and how they are impacted by fishing practices. The presence of submarine canyons causes enhanced bottom currents (e.g. as a result of internal waves) and enhanced sediment transport (e.g. through turbidity currents), influencing organic matter transport and ultimately affecting benthic fauna.

MMO response:

- The following documents were reviewed, and additional evidence was included in the draft assessment where necessary:
 - Brewin, Paul & Farrugia, Thomas & Jenkins, Chris & Brickle, Paul. (2020), 'Straddling the line: high potential impact on vulnerable marine ecosystems by bottom-set longline fishing in unregulated areas beyond national jurisdiction', *ICES Journal of Marine Science*, Volume 78, Issue 6, September 2021, Pp.2132–2145, <https://doi-org.eres.qnl.qa/10.1093/icesjms/fsaa106>
 - Durán Muñoz, P., Murillo, F., Sayago-Gil, M., Serrano, A., Laporta, M., Otero, I., & Gómez, C. (2011), 'Effects of deep-sea bottom longlining on the Hatton Bank fish communities and benthic ecosystem, north-east Atlantic', *Journal of the Marine Biological Association of the United Kingdom*, 91(4), pp.939-952. doi:10.1017/S0025315410001773.

1.2 Respondents outlined several different activities occurring in the area including:

- Evidence of potential bottom trawling impacts on an area of small cold-water coral mounds on the interfluvium south of Dangaard Canyon. This evidence consists of sidescan sonar data from 2015 which show a large number of linear scars in the seabed, interpreted as trawl scars; and video/photographic data that illustrate the status of the seabed and benthic communities in 2018.

- Calculations of the organic carbon stored within shelf sediments of the site (from EMODNET modelled data: Eunis A5 sediment layer) that could be damaged by bottom towed fishing from the site is in the region of 1913 tonnes, leading to £85,114.21 loss of carbon storage potential from between 2016 to 2040 with continued fishing pressure (based on Luisetti *et al.*, 2019).
- Analysis of data from Global Fishing Watch on hours fished in the site and examining fishing activity in hours (2015-2018 combined) for different member states:
 - Area of MPA fished using bottom towed fishing: 100%
 - Total hours fished using demersal towed fishing gears: 1086.96.
 - France: 984.21 hours (91%)
 - Ireland: 57.04 hours (5)
 - Spain: 35.45 hours (3)
 - UK: 10.26 hours (1)

MMO response:

- The evidence of trawling impacts is consistent with the analysis and conclusions of the MMO MPA fisheries assessment.
- The purpose of the MMO MPA fisheries assessment (and eventual management) for The Canyons MCZ is to further the site's conservation objectives. There may also be ancillary benefits of this, such as carbon sequestration, but these have not been analysed in detail.
- Global Fishing Watch data primarily uses automatic identification system (AIS) data, which can be turned off by vessels and is used by vessels larger than 15 metres (m) in length. In MMO's assessment vessel monitoring system (VMS) data is used which provides high level confidence for the activity of vessels greater than 12 m in length. This suggests that higher levels of fishing using bottom towed gear occur within the site, particularly from non-UK vessels.

1.3 The following summarises the impacts respondents stated for each of the options. These are either impacts to themselves or other impacts.

Option 1: No fisheries restrictions. Introduce a monitoring and control plan within the site.

- This option was considered the preferred management option by one respondent.
- Other responses indicated this option would not be in keeping with the aims of the sites conservation objectives as it would lead to the destruction of the environment and would be contrary to the Marine and Coastal Access Act 2009, the Marine Strategy Regulations 2010 and other national and international laws.

- Some respondents stated that there will be no change in fishing activities, and this would be insufficient to have any positive impact on the site.

Option 2: Reduce/limit pressures. Due to the potential impacts of demersal gears (bottom towed gears, including demersal trawls and demersal seines) and anchored nets and lines, on the features of the site, management would be introduced to reduce the risk of the conservation objectives not being achieved. This may be through a zoned management approach and/or limiting the activity/intensity of these activity types.

- This option was preferred by three respondents, with others indicating this option would have a positive impact on other industries, with improved opportunities for fishing activities, as well as providing a chance to develop monitoring and scientific surveys.
- Some respondents stated that this option is insufficient for the site's protection and a zoned approach would not meet biodiversity targets. There was also a suggestion that placing strong limits on demersal gears could enable recovery of the site and meet conservation objectives.
- One respondent noted that a reduction in the potential impacts of gears that directly impact the seabed could also cause an inadvertent reduction of known or discovery of presently unknown archaeological materials. It is possible that the reporting of impacts or accidental recovery of new archaeological discoveries could diminish.
- One respondent stated this option will have minimal effect compared to the current baseline and will not help meet the ambitions of its climate and biodiversity goals.
- However, some respondents also believed that this option was not sufficiently strong, as full protection of seabed habitats is required to enable blue carbon and biodiversity targets to be met and the option would also still be contrary to the Marine and Coastal Access Act 2009, the Marine Strategy Regulations 2010 and other national and international laws.

Option 3: Remove/avoid pressures (whole site prohibition). Demersal fishing activities (bottom towed gears (including demersal trawls and demersal seines) and anchored nets and lines) will be prohibited in all areas of the site.

- All respondents apart from one highlighted that this option would be beneficial to the site, providing reasons including:
- Increased biodiversity protection and opportunities for recovery since bottom trawling will have damaged many of the slow-growing deep seabed community species already.
- The natural carbon capture potential for the site will be enhanced.

- It is necessary to conserve the integrity of the whole site as required by the Marine and Coastal Access Act 2009, the Marine Strategy Regulations 2010 and other national and international laws.
- As there is very limited bottom towed fishing occurring within the site there will be little to no significant impact from a prohibition on such fishing activity. However, as the site is fished to a small degree, this may have a greater impact than if the site were regularly trawled or dredged. Therefore, a whole site prohibition is necessary to prevent the severe impact of infrequent use of bottom towed gear.
- Respondents stated that option 3, as well as option 2, could lead to positive impacts for other fishing gear industries, although there could also be a displacement of fishing effort. There could also be an inadvertent reduction on known or presently unknown archaeological materials.
- Some respondents thought this would be the most beneficial option for species within the site, although one respondent thought the option was overly prescriptive for the area.
- One respondent cited evidence that this option will recover biodiversity and protect and enhance the carbon storage capacity for the site, avoiding over £100,000 of lost carbon storage potential over 25 years, and protect seabed species in deep waters that are evolutionarily maladapted to the impact of bottom towed fishing gears. Both biodiversity and carbon capture and storage will benefit. Also, as the site is large (>100 km square), & isolated it meets at least 2 of the 5 criteria of effective MPAs in that the site is large and surrounded by deep water.
- One respondent reported that there was multi-sectoral support for a 'whole site' management approach and that two scientific papers under review detail the benefits of protecting mosaics habitats, which provide benefits to benthic biodiversity and fish populations beyond discrete designated features. The papers' findings are from Southern England, principally around the Lyme Bay area, so it could be assumed that the positive biodiversity, biomass and density responses within The Canyons MCZ site would be replicated by similar strict and comprehensive management measures.

MMO response:

MMO notes the broad support for prohibition of bottom towed gears and anchored nets and lines throughout much or all of the site. These responses on were taken into account when developing management measures to further the site's conservation objectives.

1.4 Most respondents believed that 100% of the site should be subject to a prohibition of bottom towed gears.

- Some respondents expanded on this, stating that bottom towed fishing is highly damaging to seabed habitats and benthic communities and is not compatible with the site's conservation objectives. Prohibiting these fishing

gears across the entire site would protect the features from further damage and foster their recovery as soon as possible. This would also result in more benefits to the wider society such as an improvement in essential fish habitat, an increase in biodiversity, species richness and carbon capture and storage potential.

MMO response:

- The MMO MPA fisheries assessment concluded that there is a significant risk that bottom towed gears and anchored nets and lines are hindering the site's conservation objectives. The responses on bottom towed fishing gear were taken into account when developing management measures to further the site's conservation objectives.

1.5 Other comments not addressed within survey responses included:

- There could be other environmental effects from the use of certain types of gear. In particular the direct impact which could occur between mobile seabed impacting fishing gear and archaeological materials on and exposed through the seabed. It is appreciated that mutual avoidance is the preferred strategy, but the risk may still exist that presently unknown cultural heritage sites might be encountered.

MMO response:

- The draft assessment indicates that there is a significant risk that bottom towed gears and anchored nets and lines are hindering the site's conservation objectives. As such the potential for an inadvertent reduction on archaeological materials does not remove the requirement to ensure that fishing is managed to further the conservation objectives of the MCZ.

1.6 One respondent provided information on marine litter found within the site.

- The information and survey material provided was reviewed and the assessment document has been updated accordingly.

MMO response:

- The following documents provided by respondents were reviewed, and additional evidence included in the draft assessment where appropriate:
 - Brewin, P., Farrugia, T., Jenkins, C, and Brickle, P. (2020), 'Straddling the line: high potential impact on vulnerable marine ecosystems by bottom-set longline fishing in unregulated areas beyond national jurisdiction', *ICES Journal of Marine Science*, Volume 78, Issue 6, September 2021, pp.2132–2145. [https://doi-org.eres.qnl.qa/10.1093/icesjms/fsaa106](https://doi.org.eres.qnl.qa/10.1093/icesjms/fsaa106)
 - Durán Muñoz, P., Murillo, F., Sayago-Gil, M., Serrano, A., Laporta, M., Otero, I., & Gómez, C. (2011), 'Effects of deep-sea bottom longlining on the Hatton Bank fish communities and benthic ecosystem, north-east Atlantic', *Journal of the Marine Biological Association of the*

United Kingdom, 91(4), pp.939-952.
<https://doi.org/10.1017/S0025315410001773>

- Hernandez, I. (2020), 'Marine litter in submarine canyons: A case study of the SW Approaches'.
<https://www.youtube.com/watch?v=jl4uUAYBu0>
- Puig, P., Canals, M., Company, J. (2012), 'Ploughing the deep sea floor', *Nature*, 489, pp.286–289. <https://doi.org/10.1038/nature11410>

2. General call for evidence responses

MMO received consultation responses which apply to the general assessment process which do not relate to specific MPAs. Therefore, MMO has summarised these consultation responses in the section below together with MMO's response to the comments.

2.1 Assessment format

Respondent comment: It is not appropriate to discount fishing activities from the in-combination assessment where it is concluded the activities will have an adverse effect on the site alone. Due to the uncertainty around the management measures being put in place for fishing activities which are causing an adverse effect, the respondent has no confidence that management will be effective and therefore suggest these activities must also be included in the in-combination assessment.

MMO response: The MMO MPA fisheries assessments aims to assess whether there are adverse effects on designated features from fishing pressures and suggest appropriate management measures to ensure the site's conservation objectives are met, in accordance with scientific advice provided by JNCC and NE⁴.

The assessment is completed in several parts: Part A provides a coarse sensitivity assessment to identify which fishing activities can be discounted from further assessment (Part B) as they are not taking place or are not a significant concern. Part B provides an in-depth analysis to assess the pressures of fishing activities relevant for the site. Part C considers the effects of activities in-combination with other relevant activities taking place. These can include:

- Fishing activity/pressure combinations which were excluded in Part A due to not having a significant effect on features alone but could have an in-combination affect.

⁴ <https://jncc.gov.uk/our-work/marine-activities-and-pressures-evidence/>

- Fishing interactions assessed in Part B but not resulting in a significant risk to the site's conservation objectives or an adverse effect on site integrity.
- Plans or projects such as marine development works requiring a marine licence.

Where activities have been identified in Part B to result in an adverse effect/significant risk alone, their consideration during Part C depends on the mitigation identified as a result of impacts identified in Part B. Where an activity is identified in Part B as having an adverse effect/significant risk alone, and mitigation is introduced to reduce, but not entirely remove the impacts of this activity, the residual impact will be considered in Part C to ensure all in-combination impacts are captured.

Where mitigation will be introduced to entirely remove a pathway for a pressure from the activity to affect the feature, this pressure from this activity will not be considered in Part C. For example, where the identified mitigation is a prohibition of use of a certain fishing gear type within the site, all of the pressures from this activity would be removed from the site and it is not therefore considered during the in-combination assessment, the methodology is Annex 1 of each assessment.

Respondent comment: The fisheries assessments would benefit from a glossary of terms and consistent use of them throughout the documents, and that an overarching assessment methodological conceptualisation would help communicate how the assessments are undertaken.

MMO response: The MMO MPA assessments aim to use clear accessible language and provide explanation where required for use of non-standard terminology. MMO recognises it would be valuable to provide some supporting information to aid interpretation of the assessments for wider audiences and so have developed a glossary for the current and future assessments. Annex 1 of the MMO MPA assessment fully details the methodology and aims of the assessment as well as referencing the need for assessment in a manner consistent with section 126 of the Marine and Coastal Access Act, 2009. Evidence sources and SNCB advice packages are referenced in our assessments where appropriate.

2.2 Displacement of fishing effort

Respondent comment: Any spatial management measure to reduce fishing pressure must also consider the potential displacement effects, and the wider impacts this could have on the benthic communities and mobile species associated with them.

MMO response: MMO MPA assessments use the best available evidence to fully consider all impacts against the conservation objectives, as identified by scientific evidence. If the assessment concludes that use of certain fishing gear types are not

compatible with the site's conservation objectives, management measures may be put in place which could cause displacement of this fishing to other areas. This potential impact of displacement to areas outside of the MPAs or management areas does not remove the requirement to ensure that fishing is managed to further the conservation objectives of the site. However, MMO has regard to displacement and monitor every MPA by undertaking annual reports of fishing activities and pressures within MPAs in our jurisdiction, and by regularly reviewing and updating the MPA assessments to reflect any such changes that have been observed. See section 8 of the MMO MPA fisheries assessment for further details on the MMO process on reviewing assessments.

2.3 Additional management required

Respondent comment: The outcome of this call for evidence and any subsequent consultations will not provide the proper protection needed for the most ecologically important parts of our seas. The process lacks ambition, both in the number of MPAs included and the management options proposed. It is also unnecessarily slow and cumbersome as a process for delivering the scale and extent of ambition required to protect our oceans.

The respondent highlighted that bottom trawling took place in 71 offshore MPAs in 2019 and advocated a ban on all destructive fishing gears starting with bottom trawlers and supertrawlers, across the entire MPA network. The respondent suggests these bans should be introduced from 1 January 2021, by removing licenses for supertrawlers and bottom trawlers to fish in MPAs, via powers in the Fisheries Act 2020.

MMO response: The purpose of the call for evidence was to gather additional evidence and stakeholder views on the draft MMO assessments and management options for fishing in four offshore MPAs: Dogger Bank SAC, Inner Dowsing, Race Bank and North Ridge SAC, South Dorset MCZ and The Canyons MCZ. MMO MPA fisheries assessments contain detailed assessments of the impacts of fishing in these sites and set out a range of management options. The outcomes of updated MMO assessments, taking into account evidence received and advice from NE and JNCC, were used to develop ambitious and proportionate draft management measures which were subject to public consultation.

2.4 Statutory Nature Conservation Body (SNCB) advice

Respondent comment: More explicit reference to SNCB advice within Part B would provide greater transparency on how the assessment is drawing its conclusions. The management objectives for mobile species were also identified as lacking clarity and purpose.

MMO response: Mobile species are not a designated feature of any of the sites assessed within the call for evidence or formal consultation. NE and JNCC conservation advice packages may include species (including mobile species) as a component part of a feature and impacts on certain species may influence a target attribute for a site feature (feature target attributes are set out in NE or JNCC conservation advice packages). Where fishing impacts (for example the removal of target and non-target species) have the potential to impact a sites' conservation objectives, we have used the best available evidence to assess this, in accordance with the pressures activities database published by JNCC and NE⁵.

2.5 Data analysis

Respondent comment: The spatial footprint analysis (Pr-values) methodology uses vessel speeds of than 0 to 6 knots. The respondent suggested applying a rule of using vessel speeds of 1-6 knots instead.

MMO response: The Pr-values presented incorporate gear specific fishing speeds which are used to identify relevant vessel pings to be included within the values presented. Annex 2 in the MMO MPA assessments provides information regarding the speeds that have been included for each of the fishing gears included. It is acknowledged in the description, that there are strengths and limitations of fishing activity data provided in the assessments, and that this may overestimate, or in some cases, underestimate the true level of fishing activity.

⁵ <https://jncc.gov.uk/our-work/marine-activities-and-pressures-evidence/#jncc-pressures-activities-database>

Annex 2: MMO responses to site specific consultation responses received through formal consultation – The Canyons MCZ

1. Site specific formal consultation responses

1.1. Fishing activity data and displacement

Some respondents provided data concerning economic impacts to the fishing industry and commented that the prohibition of fishing activity across The Canyons MCZ could lead to the displacement of these fishing activities increasing pressure on habitats outside of the site. A proposed change to The Canyons MCZ management area was submitted to reduce economic impact and potential for displacement.

MMO response – MMO acknowledges that these measures are likely to have an economic impact and displace fishing activity to other areas which may have environmental impacts in those areas. MMO strives to avoid any unnecessary costs to the fishing industry, financial or otherwise in the development of management measures. However, MMO has a duty under the Marine and Coastal Access Act 2009 to exercise all relevant functions in a way which best furthers the conservation objectives for marine conservation zones (MCZ). The potential for management to have a socio-economic impact does not override this duty. The proposed boundary changes are not deemed appropriate to sufficiently protect the site and therefore in this instance MMO have deemed the management measure outlined is necessary to meet its duties as detailed above.

Accurately predicting where fishing effort will be displaced to, and what the environmental impacts will be is not currently possible. In addition, the MMO MPA fisheries assessment could not rule out that there is a significant risk that bottom towed gears and anchored nets and lines are hindering the conservation objectives of the site. The potential impact of displacement to areas outside of The Canyons MCZ does not remove the requirement to ensure that fishing is managed to further the conservation objectives of The Canyons MCZ.

1.2. Discovery of archaeological materials

One respondent commented that a reduction in bottom towed fishing within the site would cause an inadvertent reduction in the discovery of known or presently unknown archaeological materials.

MMO response - The MMO MPA fisheries assessment could not rule out that there is a significant risk that bottom towed gears and anchored nets and lines are hindering the conservation objectives of the site. As such the potential for an inadvertent reduction in the discovery of archaeological materials does not remove the requirement to ensure that fishing is managed to further the conservation objectives of the MCZ.

2. General formal consultation responses

MMO received consultation responses during formal consultation which do not relate to specific MPAs and concern fishing activity data or the general assessment process. Therefore, MMO has summarised these consultation responses in the below section together with MMO's response to the comments.

2.1 Respondent data: One respondent provided fishing activity data including landings figures for ICES rectangles which intersect the management areas.

MMO response – MMO have estimated impacts to UK and non-UK fishing fleets in the regulatory triage assessment (RTA) provided for each site. The data submitted has been considered in the development of these assessments.

2.2 Respondent comment: One respondent commented it was insensitive to impose management on fisheries activities when activities such as anchoring over sensitive areas is unmanaged.

MMO response – MMO is currently considering management options for the first site for marine non-licensable activities. MMO appreciate that activities such as anchoring of large vessels can damage sensitive habitats and is fully considering appropriate action regarding such activities within MPAs.

2.3 Respondent comment: One respondent commented that the timing of the formal consultation on proposed management could be giving weight to recent unlicensed boulder deposits within MPAs.

MMO response – The unlicensed boulder deposits in MPAs occurred between the call for evidence and formal consultation periods, the proposed management of the four sites assessed is coincidental to this occurrence.

2.4 Respondent comment: Some respondents commented that proposing management following EU exit and COVID-19 was unfair when impacts of both on the fishing industry are not yet fully understood.

MMO response – MMO must consider appropriate management in MPAs to achieve conservation goals in accordance with its legal obligations in relation to MCZs and European marine sites (EMS) under the Conservation of Habitats Regulations 2017, Conservation of Offshore Marine Habitats and Species Regulations 2017 and Marine and Coastal Access Act 2009. The RTA provided for each site fully explore the impacts of management within these sites on the UK fishing industry.

2.5 Respondent comment: Some respondents commented that the scope of proposed management is insufficient and the speed of MPA management processes is too slow for the Government to reach its conservation goals.

MMO response – MMO has followed the process as detailed in section 8 of each assessment to fully consider appropriate management in accordance with the site's conservation objectives. Whilst MMO has followed this process for these sites, MMO will continue to review procedures and processes in order to aim to reach its conservation goals.

2.6 Respondent comment: Some respondents commented that in proposing management in the English offshore waters for four MPAs, MMO has acted

against the principles of the Trade and Cooperation Agreement following EU exit. The respondent also commented the development of any proposed management should be done so in consultation with EU member states with mutual interest within the site.

MMO response – MMO has followed article FISH.4(3) of the UK-EU Trade and Cooperation Agreement and has notified the EU of new measures that are likely to affect the vessels from the EU. By running the call for evidence and formal consultation periods as detailed above we have allowed additional opportunities for EU bodies and stakeholders to provide comments or seek clarification.

2.7 Respondent comment: One respondent commented that ‘supertrawlers’ should be banned from all MPAs.

MMO response – MMO has presented management options in relation to four MPAs, which show considerations of gear feature interactions in accordance with the conservation objectives of the sites. Pelagic gear has minimal impact on the benthos. MMO will continue to assess activities within MPAs under MMO’s remit on this basis and consider appropriate management in due course.

2.8 Respondent comment: One respondent commented on the importance of a well-established network of MPAs in its importance to protection and recovery of marine ecosystems, as detailed in the Benyon Review for the introduction of highly protected marine areas.

MMO response – MMO acknowledge the importance of a well-protected network of MPAs and welcomes further information on the introduction of highly protected marine areas and the benefits these may bring to the delivery of government’s ambitions.

2.9 Respondent comment: One respondent commented to give support to proposed management whilst providing additional information in the form of AIS data for each of the sites.

MMO response – MMO welcome the additional evidence provided, however we have used VMS as the principal source of data for vessel activity within each of the sites. This is because not all fishing vessels currently use AIS, therefore it does not provide full insight to the activity levels occurring to assess interactions with site features.

2.10 Respondent comment: One respondent commented to say it was regrettable that MMO had chosen to implement management without consideration of technological advancements. The respondent suggested areas of the sites should remain open to allow for use of modified gear to monitor impacts on protected habitats.

MMO response – MMO has concluded that bottom towed gears are required to be managed within the four sites, this is based on the evidence currently provided, in accordance with the conservation objectives of the sites. MMO will review its assessments for the sites as detailed in section 8 of the assessments provided, at such points we will fully consider impacts from gears at that time including

technological advancement when considering appropriate measures for the sites at that time.

2.11 Respondent comment: One respondent commented that although they supported the proposed management, they felt that the use of gill nets should also be managed due to the impacts of bycatch on cetaceans.

MMO response – MMO has fully considered the fishing activities taking place in accordance with the conservation objectives of the site. Although bycatch of such species remains a concern, cetaceans are not a feature of the sites assessed and therefore management of gillnets due to bycatch has not been considered further as it is deemed to be compatible with the site's conservation objectives. Where cetaceans are not a feature of an MPA, consideration of bycatch of fishing activities will be considered separately to MPA management.

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