

Marine Management Organisation

Decision document:

South Dorset MCZ Call for Evidence

February 2021

...ambitious for our seas and coasts

1. Introduction

Between 28th October and 15th December 2020 the MMO ran a call for evidence to seek views on the draft assessments of the impacts of fishing and non-licensable activities in five 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;
- South Dorset MCZ.

Studland Bay MCZ is being assessed for the impact of marine non-licensable activities.

Further details on the call for evidence are provided here.

This document presents a summary of the call for evidence responses received and the decision for the next steps for South Dorset MCZ.

2. South Dorset Marine Conservation Zone

South Dorset MCZ was formally designated on 12 December 2013¹. Moderate energy circalittoral rock was added as a protected feature on 29 January 2016². High energy circalittoral rock was added as a protected feature on 31 May 2019³. The site has four designated features:

- Subtidal coarse sediment
- Subtidal chalk
- Moderate energy circalittoral rock
- High energy ciralittoral rock

The conservation objectives set for the features of South Dorset MCZ are set out in the sites' designation order as:

- are maintained in favourable condition if they are already in favourable condition; and
- be brought into favourable condition if they are not already in favourable condition.

www.legislation.gov.uk/ukmo/2013/20/pdfs/ukmo_20130020_en.pdf

³ Ministerial order 2019 No. 37. Available online at:

¹ Ministerial order 2013 No. 20. Available online at:

² Ministerial order 2016 No. 29. Available online at: www.legislation.gov.uk/ukmo/2016/29/pdfs/ukmo_20160029_en.pdf

www.legislation.gov.uk/ukmo/2019/37/pdfs/ukmo_20190037_en.pdf

Natural England has stated that the general management approach for subtidal coarse sediment is to 'maintain in favourable condition' whilst the approach for the other site features is to 'recover to favourable condition'⁴.

3. Assessment of the effects of fishing activities in South Dorset MCZ

The MMO assessment of fishing impacts at this site, taking into account advice from Natural England and JNCC and the matrix of fisheries gear types and European marine site protected features⁵, concluded that subtidal chalk, moderate energy circalittoral rock and high energy ciralittoral rock are sensitive to the impacts of bottom towed fishing. For these features the conservation objectives will not be achieved due to its sensitivity to bottom towed fishing – irrespective of feature condition, level of pressure or background environmental conditions⁶. Coarse sediment is also sensitive to the impacts of bottom towed fishing but to a lesser degree.

4. Call for evidence responses

4.1 Methodology for collecting responses

The call for evidence for South Dorset MCZ included an online survey which presented multiple management options fishing activities.

Questions sought evidence and views from stakeholders on management options for each 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.

Stakeholders also had the option to answer the questions to consider in the call for evidence letter via email. Several responses were received in this way and these have been summarised here alongside the online survey responses.

4.2 South Dorset MCZ Survey Responses

During call for evidence 25 responses were received related to South Dorset MCZ. These included responses from individuals, fishers, non-governmental organisations, industry groups and other government departments.

Responses have been collated and summarised below:

4.2.1 Do you have information about the location, condition or sensitivity of the designated features?

Respondents outlined information on the sensitivity of the designated features:

⁴ The South Dorset MCZ: factsheet. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/80 5629/mcz-south-dorset-2019.pdf

⁵ <u>www.gov.uk/government/publications/fisheries-in-european-marine-sites-matrix</u>

⁶<u>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/31</u> 0814/cefas_matrix_review.pdf

- Benthic habitats are sensitive to bottom towed gear which can adversely affect the integrity of sites and the species dependant on them. The features and sub-features of South Dorset MCZ are sensitive to such methods of fishing.
- There is a wide range of scientific literature and evidence showing the major impacts and degrading effects bottom trawling has on benthic habitats including reducing species diversity of infauna and epifauna communities and resulting in bycatch of non-target species. Some of these are referenced in the MMO assessment for this site and a literature review of the seabed impacts of bottom trawling was provided.

4.2.2 Do you have information about the level or nature of fishing activity within the site?

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

- Fishing with rod and line for bass, bream, cod, pollack, brill and turbot. The season runs from the start of April to the end of January. This activity has been operational in the area for approximately 25 years.
- Static gear fishing including pots primarily targeting crab and lobsters and more recently whelks. Approximately 1000 pots is worked by 2 fishing boats. The usual season is spring, subject to French trawler activity. Shellfish potting activity has been operational in the area for approximately 30 years.
- Trawling in the area using approximately 50cm nets. Oceana analyses found only a very limited number of fishing hours recorded in 2019 using bottom towed gear in South Dorset MCZ. The Marine Conservation Society have also mapped all offshore >15m vessel activity from 2015-2018 for fishing vessels using bottom towed gear (such as beam trawls, otter, Danish and Scottish Seine, scallop dredge) using the Global Fishing Watch data resource. They identified very low fishing effort at the site by UK large trawler vessels at only around 7 hours of effort overlapping with the site for the entirety of the 4 year period, with no member states with large trawlers or dredgers operating in the site. The Global Fishing Watch data only captures active fishing rather than steaming, transiting, by collating data on vessel speed and direction/change of direction.

4.2.3 How would each of the proposed management options affect you?

The following summarises the impacts people 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 by all respondents to be not acceptable. Some respondents provided reasons as to why it was unacceptable such as option 1 leading to the destruction of the environment and option 1 being counter to the Marine and Coastal Access Act, Marine Strategy Regulations and other national and international laws.

Option 2: Reduce/limit pressures. Due to the potential impacts of bottom towed gear 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.

Some respondents believed that this option was not sufficiently strong, providing reasons such as:

- Option 2 being counter to the Marine and Coastal Access Act, Marine Strategy Regulations and other national and international laws.
- Full protection of seabed habitats is required to enable blue carbon and biodiversity targets to be met, although a modicum (with set limits) of static gear could be set at the site that would enable some benefits.

Alternatively, this option was considered by some respondents to have a positive impact on other industries, with improved opportunities for recreational diving and a reduction in damage to static gear caused by bottom-towed gear vessels.

Option 3: Remove/avoid pressures (whole site prohibition). Demersal and semipelagic trawls, demersal seines and dredges will be prohibited in all areas of the site.

All respondents apart from one agreed that this option would be beneficial to the site, with respondents providing the following reasons:

- Necessary to conserve the integrity of the whole site as required by the Marine and Coastal Access Act, Marine Strategy Regulations and other national and international laws.
- Improved biodiversity which would lead to spill over. For example, in the Benyon Review (2019) research has shown "that the numbers of some species have increased by nearly 400% since this NTZ was established. It states that since protection has been in place, biodiversity has increased substantially, along with the size, age and density of species such as the king scallop and the European lobster"⁷.
- Improved opportunities for other industries, such as a reduction in damage on static gear due to bottom towed gear and less competition for fishing areas. This could also reduce fishing pressures on inshore grounds if static gear fishing could continue within the site.
- The Global Fishing Watch data (which is based on AIS records from fishing vessels greater than 15 m in length) showed limited bottom towed fishing occurs within the site, suggesting that there would be limited financial impacts on the fishing industry. 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.

⁷ https://www.wildlifetrusts.org/sites/default/files/2020-

^{06/}Benyon%20Review%20on%20Highly%20Protected%20Marine%20Areas Book.pdf

4.2.4. What other effects will each of the proposed management options have?

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

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.

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 suggestion that placing strong limits on static gears could enable recovery of the site to meet conservation and climate objectives.

Respondents thought this option is only likely to affect crab potters and foreign fishing vessels, with a reduction in bottom towed gear fishing positively impacting other fishing gear industries. However, there could be a displacement of fishing effort which could negatively affect habitats and species outside of the site.

Option 3: Remove/avoid pressures (whole site prohibition). Demersal and semipelagic trawls, demersal seines and dredges will be prohibited in all areas of the site.

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. 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.

From data based on Luisetti *et al.*, (2019), the Marine Conservation Society estimated the carbon assets of the site. The model in Luisetti *et al.*, (2019) estimates that there are approximately 205 megatonnes of stored organic carbon in shelf sediments. The MCS have assessed the modelled distribution of shelf sediment carbon at the site (EUNIS A5 sediment layer) as being 89% of the site. Extrapolating the data of carbon from the entire continental shelf to the 172 km square area of the site with (A5) sediments, suggests a potential stored carbon value of 71,532 tonnes. If bottom towed fishing activity was continued to be permitted in the site, the potential cost of mitigating the loss of this stored carbon could be £3.18 million up until 2040. As fishing is at such low effort, a cost-benefit-analysis using these data would suggest that there is a greater benefit to society of a permanent closure of the area to bottom trawling rather than keeping the site open for such minimal returns.

The Marine Conservation Society also outlined that there is multi-sectoral support for a 'whole site' management approach such as outlined in Solandt et al., 2020⁸ and Rees et al., 2020⁹. Two further scientific papers under review detail the benefits of protecting mosaic 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

⁸<u>https://www.researchgate.net/publication/336413838 Managing marine protected areas in Europe moving from 'feature-based' to 'whole-site' management of sites</u>

⁹https://www.researchgate.net/publication/339152267 Emerging themes to support ambitious UK marine biodiversity conservation

that the positive biodiversity, biomass and density responses within the South Dorset site would be replicated by similar strict and comprehensive management measures.

4.3.5 What proportion and/or which parts of the site should be subject to a prohibition of bottom towed gears?

All 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.

4.3.6. Any other comments not addressed within survey responses

- One respondent stated that the Natural England Commissioned Report, NECR33010 aimed to develop a novel DNA-based method for monitoring inshore fish communities using programmable inDepth eDNA samplers. During the course of undertaking this project, inDepth eDNA samplers were placed in or near the South Dorset MCZ and over the course of the programmed sampling period collected eDNA data covering the South Dorset MCZ. In this area, up to 55 species of fishes, including sharks and rays were characterised.
- One respondent noted that a reduction in the potential impacts of gears that directly impact the seabed could also cause an inadvertent reduction on the discovery of known or presently unknown archaeological materials. It is possible that the reporting of impacts or accidental recovery of new archaeological discoveries could diminish. For further detail about the interaction between the historic environment and commercial fishing activity please see Firth et. al., 2013¹¹.
- One respondent commented that in relation to the draft South Dorset MCZ fisheries assessment, with reference to the statement on p.37, section 4.2.1: "this can be especially damaging to soft substrates such as chalk reefs, with evidence of one pot scraping 200mm of chalk relief from the reef surface (Spray and Watson, 2011)", caution should be used with the following reference as no context to this claim is made and under what circumstances the damage occurred and is not derived from a scientific study. It is an anecdotal claim without peer review and therefore is therefore not clear what relevance it has to the assessment.

¹⁰ <u>http://publications.naturalengland.org.uk/publication/5189247108907008</u>

¹¹ <u>https://research.historicengland.org.uk/Report.aspx?i=15757</u>

- One respondent stated that potential levels of exposure given the operational nature of potting would provide further information on the potential for impacts to occur. Without the possibility for pots to be displaced in circumstances of high bed shear stress, our own calculations based on knowledge of fishing densities suggest that pots do not interact with the seabed more than one in 30 years¹².
- Natural England and JNCC jointly provided formal advice on 30/04/20 based on the Conservation Advice package for the site. Natural England support the MMO conclusions that there is a pathway for disturbance from bottom-towed gear, and the impacts alone are of significant risk to hinder the conservation objectives of the site, hence management will be required. Natural England agree with the conclusion that trap fishing alone is not of significant risk to hinder the conservation objectives of the site, however it is advised that this conclusion may need to be re-visited should fishing intensity changes in the future.

5. MMO response to site specific consultation responses

MMO would like to thank everyone who responded to the call for evidence. We have reviewed all responses and have updated our assessment accordingly.

A summary of specific evidence and comments, and how these have been addressed is set out below:

- The following documents were reviewed and additional evidence was included in the draft assessment where necessary: 'Review of impacts of bottom trawling on the seabed, with focus on Marine Protected Areas and sensitive coastal habitats in European waters', The Natural England Commissioned Report, NECR33013.
- An estimate of the average number of pots hauled per day (500) was used to update our calculations within the Pr-value model.
- A clarification regarding the limited fishing activity suggested to occur within the site based on Global Fishing Watch data. This data primarily uses automatic identification system (AIS) data, which can be turned off by vessels and is used by vessels larger than 15 m in length. In the MMO's assessment vessel monitoring system (VMS) data is used which provides high level confidence for the activity of vessels greater than 12m in length. This suggests that higher levels of fishing using bottom towed gear occur within the site, particularly from non-UK vessels. For example, from 2014-2019 there were 52 VMS reports at fishing speed from UK vessels using bottom towed gear compared to 369 VMS reports from non-UK vessels.
- A concern from respondents that the prohibition of bottom towed gears across South Dorset MCZ could lead to the displacement of these fishing activities increasing pressure on habitats outside of the site. The draft assessment indicates that bottom towed gears are adversely affecting the designated

¹² <u>http://nffo.org.uk/uploads/attachment/92/potting-intensity-calculations.pdf</u>

¹³ <u>http://publications.naturalengland.org.uk/publication/5189247108907008</u>

features. As such the potential impact of displacement to areas outside of South Dorset MCZ does not remove the requirement to ensure that fishing is managed to further the conservation objectives of South Dorset MCZ. Further, there appears to be relatively limited activity from both UK and non-UK vessels using bottom towed gears occurring across the site and therefore this impact may not be significant.

- A suggestion from respondents that static gear should be limited or prohibited entirely in the site. The draft MMO assessment concludes that trap fishing alone and in-combination is not of significant risk to hinder the conservation objectives of the site, and therefore management measures for static gear will be introduced at this time. However, the MMO will review this assessment every five years or earlier if significant new information is received, such as updated conservation advice or advice on the condition of the feature or a significant change in activity levels. To coordinate the collection and analysis of information regarding activity levels, and to ensure that any required management is implemented in a timely manner, a monitoring and control plan will also be implemented for this site.
- A concern from respondents that a reduction in bottom towed fishing within the site would cause an inadvertent reduction on the discovery of known or presently unknown archaeological materials. The draft assessment indicates that bottom towed gears are adversely affecting the designated features. 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.
- A suggestion from respondents that option 3 (prohibition of bottom towed gear across the whole site) is overly prescriptive for the area. The draft assessment indicates that bottom towed gears are adversely affecting the designated features. Due to the dispersed distribution and sensitivity of the designated features across the site options 1 and 2 are not viable to further the conservation objectives of the MCZ.
- A concern from respondents in relation to the draft assessment of the use of the reference Spray and Watson, 2011 in the statement on p.37, section 4.2.1: "this can be especially damaging to soft substrates such as chalk reefs, with evidence of one pot scraping 200mm of chalk relief from the reef surface (Spray and Watson, 2011)". Spray and Watson, 2011 is a report on marine surveys conducted by Seasearch East. On p.10 it includes a picture of a lobster pot on chalk relief with the caption 'This lost (unbuoyed) lobster pot off Sheringham has worn away 200mm of chalk relief from the reef surface as it has been scrubbed back and forth by the tide.' Therefore the MMO considers this evidence to be reliable although unlikely to be representative of potting on chalk reef. Therefore the MMO will include an amendment to the sentence to state that it is a 'lost' pot and an additional caveat 'although this amount of damage is not likely to be representative for potting due to the limited amount of time pots remain on the seabed when fishing.'
- A suggestion from respondents that that providing the potential levels of exposure from potting on the seabed would provide further information on the

potential for impacts to occur. The MMO has estimated the spatial footprint of pots within the MCZ based on VMS data in section 4.1.6. This indicates that the total area impacted by potting fishing gear is very low, due to the relatively small footprint of pots on the seabed and the little fishing activity occurring within the site.

6. General consultation responses

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

Respondent comment: It is not appropriate to discount fishing activities from the incombination assessment where the assessment has concluded the activities will have an adverse effect on the site alone, and this is not the normal approach. This is 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 aim to identify 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 Natural England, https://incc.gov.uk/our-work/marine-activities-and-pressures-evidence/#jncc-pressures-activities-database.

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.
- Fishing interactions assessed in Part B but not resulting in significant or adverse effect.
- 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, this impacts, 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 types within the site, most or all of the pressures from this activity would be removed from the site and it is not therefore considered during the incombination assessment.

The MMO assessment methodology is provided in Annex 1 of each assessment for full context.

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: The 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, the MMO will have regard to displacement and 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. See section 8 of the MMO MPA fisheries assessment for further details on the MMO process on reviewing assessments.

Respondent comment: The outcome of this call for evidence and any subsequent consultations will fall far short of providing the proper protection needed for the most ecologically important parts of our seas. The respondent highlighted that bottom trawling took place in 71 offshore MPAs in 2019 and advocate a ban on all destructive fishing gears starting with bottom trawlers and supertrawlers, across the entire MPA network. The respondent suggests these bans are introduced from 1st January 2021, by removing licenses for supertrawlers & bottom trawlers to fish in MPAs, via powers in the Fisheries Act 2020.

The respondent also stated that 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.

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 Special Area of Conservation (SAC), Inner Dowsing, Race Bank and North Ridge SAC, South Dorset Marine Conservation Zone (MCZ) and The Canyons MCZ. The MMO 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 Natural England and JNCC, have been

used to develop ambitious and proportionate draft management measures which are now subject to public consultation.

Respondent comment: The fisheries assessments would benefit from a glossary of terms and consistent use of them throughout the documentation, 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. We recognise it would be valuable to provide some supporting information to aid interpretation of the assessments for wider audiences and so will seek to develop such a glossary for future assessments. Annex 1 of each of the MMO MPA assessments fully details the methodology and aims of the assessment and well as referencing the need for assessment in a manner consistent with section 126 of the Marine and Coastal Access Act. Evidence sources and SNCB advice packages are referenced in our assessments where appropriate.

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 was also identified as lacking clarity and purpose.

MMO response: Mobile species are not a designated feature of any of the sites assessed within this call for evidence. Natural England 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 Natural England or JNCC conservation advice packages). Where fishing impacts (for example the removal of target and non-target species) has 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 NE (<u>https://jncc.gov.uk/our-work/marine-activities-and-pressures-evidence/#jncc-pressures-activities-database</u>).

Respondent comment: The respondent provided advice on the spatial footprint analysis (Pr-values) methodology and suggested applying a rule of using vessel speeds of 1-6 knots, rather than 0-6 knots currently used.

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 each of 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, strengths and limitations of fishing activity data provided in the assessments, that this may overestimate, or in some cases, underestimate the true level of fishing activity.

7. Decision and next steps

Having analysed all evidence and stakeholder views received during the call for evidence, and updated the MMO assessment of the impacts of fishing in the South Dorset MCZ, we have concluded that in order to further the conservation objectives

of the site, bottom towed fishing should be prohibited across the whole site (option 3).

The MMO is therefore launching formal consultation on 1 February 2021 for eight weeks on a draft byelaw which prohibits bottom towed gear fishing across the whole site. This will be accompanied by a regulatory triage assessment which examines the monetised and non-monetised costs and benefits of the draft byelaw and an updated fisheries assessment of South Dorset MCZ.