



Marine  
Management  
Organisation

# Decision document:

# Inner Dowsing, Race Bank and North Ridge SAC

April 2022



...ambitious for our seas and coasts

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## Executive Summary

MMO has legal obligations in relation to European marine sites (EMS) which include Special Areas of Conservation (SAC), specifically the Conservation of Habitats and Species Regulations 2017, Regulation 9, and the Conservation of Offshore Marine Habitats and Species Regulations 2017, Regulation 6, to secure compliance with the requirements of the Habitats Directive<sup>1</sup>. Of particular relevance to marine conservation is section 6(2): to avoid the deterioration of habitats and disturbance of designated species. This includes a requirement to introduce appropriate management measures where fishing activity is deemed likely to have an adverse effect on site integrity.

MMO ran a call for evidence and formal consultation to seek views on draft fisheries assessments and proposed management measures for Inner Dowsing, Race Bank and North Ridge SAC.

MMO received a number of responses to both public consultations and have 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 Inner Dowsing, Race Bank and North Ridge SAC. MMO conclude that in order to comply with its duties outlined above we are required to create and seek confirmation from the Secretary of State on, 'The Inner Dowsing, Race Bank and North Ridge Special Area of Conservation (Specified Areas) Prohibited Fishing Gears Byelaw 2022' to prohibit bottom towed fishing gears over the sandbank feature, and the use of static fishing gear over the reef features.

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<sup>1</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043>

## 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 were 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](#).

Prior to the formal consultation, MMO ran a [call for evidence](#) between 28 October and 15 December. This document presents the conclusions from the call for evidence and the formal consultation and the decision for the next steps for Inner Dowsing, Race Bank and North Ridge SAC.

## 2. Inner Dowsing, Race Bank and North Ridge SAC

Inner Dowsing, Race Bank and North Ridge SAC was formally designated as a site of Community importance (SCI) in November 2011. The site was formally designated as a SAC on 29 September 2017. The site has two designated features (Figure 1):

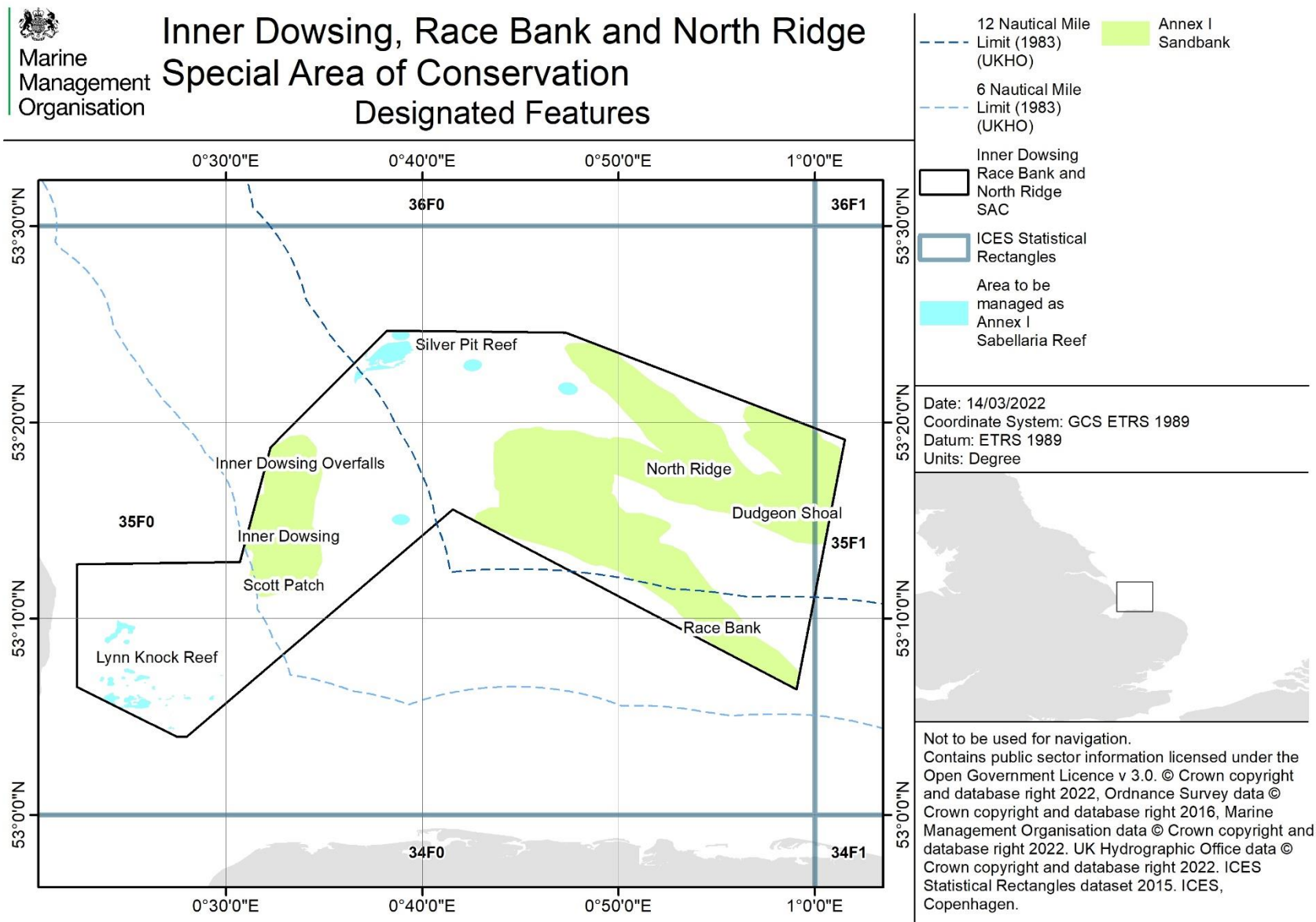
- reefs; and
- sandbanks which are slightly covered by sea water all the time.

The conservation objectives for the Inner Dowsing, Race Bank and North Ridge SAC are set out in the Natural England (NE) and Joint Nature Conservation Committee (JNCC) conservation advice and are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the favourable conservation status of its qualifying features, by maintaining or restoring:

- the extent and distribution of qualifying natural habitats and habitats of the qualifying species;
- the structure and function (including typical species) of qualifying natural habitats;
- The structure and function of the habitats of the qualifying species;
- the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
- the populations of each of the qualifying species;
- the distribution of qualifying species within the site.

The SAC extends from near inshore waters within 6 nautical miles (nm), out into the UK exclusive economic zone (EEZ) beyond 12 nm. The Eastern Inshore Fisheries and Conservation Authority (IFCA) is the principal regulator for fisheries management within 6 nm and are responsible for assessing and managing the impacts of fishing within this area. The MMO assessment and management of fishing within the SAC is therefore focussed on the part of the site offshore of 6 nm.

Figure 1: Inner Dowsing, Race Bank and North Ridge SAC designated features.



### **3. Assessment of the effects of fishing in Inner Dowsing, Race Bank and North Ridge SAC**

MMO has used a wide range of information in its assessment, including landings records, vessel monitoring system (VMS) data, fisheries sightings data and self-reported patterns of fishing activity to understand patterns of fishing activity at the site (areas beyond 6nm). The assessment also takes into account advice from NE and JNCC, and scientific literature. The assessment concluded that both sandbank and reef features are sensitive to the impact of demersal fishing activities and that the reef feature is sensitive to the impacts of static gears (pots, anchored nets and lines), and that these interactions are not compatible with the conservation objectives of the site and may result in an adverse effect on site integrity. Management of fishing activity is therefore required to support the achievement of the conservation objectives for the SAC.

#### **4. Call for evidence**

##### **4.1 Methodology for collecting responses**

The call for evidence for Inner Dowsing, Race Bank and North Ridge SAC included an [online survey](#) which presented multiple management options fishing activities.

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

The management options consisted of three options:

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

**Option 2:** Reduce/limit pressures.

**Option 3:** Remove/avoid pressures (whole site prohibition).

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 and have been considered alongside the survey responses.

##### **4.2 MMO conclusion following call for evidence**

During the call for evidence, 18 responses were received relating to Inner Dowsing, Race Bank and North Ridge SAC.

MMO would like to thank everyone who responded to the call for evidence. We have reviewed all responses and have taken these into consideration in updating the assessment. Please see Annex 1 for detailed MMO responses to site specific consultation responses received through the Call for Evidence. These included responses from individuals, academics, fishers, non-governmental organisations, industry groups and other government departments.

Responses included both support for, and objections to the proposed management options.

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

- mussel prospecting and scallop dredging;
- reef feature extent and sensitivity;
- data analyses;
- management of sandbank by sub-feature;
- assessment format;
- displacement of fishing effort;
- additional management required;
- Statutory Nature Conservation Body (SNCB) advice;
- offshore windfarms;
- heritage features;
- partial site closures and management measures;
- favourable condition targets;
- impact of trawls and dredges;
- impact of traps, anchored nets and lines on *Sabellaria spinulosa* reef; and
- site integrity, recoverability, and control areas.

Based on the updated assessment, MMO has concluded that option 2 (Reduce/limit pressures) is the preferred option. MMO has developed management in the form of a byelaw to prohibit the use of bottom towed gear over the sandbank and reef features of the SAC, and the use of static gear fishing over the reef features.

## **5. Formal consultation**

### **5.1 Methodology for collecting responses**

The formal consultation for Inner Dowsing, Race Bank and North Ridge SAC consisted of a survey presenting the preferred management option rather than multiple options. The preferred management option was option 2 – reduce/limit pressures, prohibiting bottom towed fishing gear in specified areas of reef and sandbank and prohibiting static fishing gear in specified areas of reef. A depth-based buffer has been applied around the edge of the site 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 protected sandbank feature, do not negatively impact it. The draft byelaw was accompanied by a regulatory triage assessment (RTA) which examined the monetised and non-monetised costs and benefits of the draft byelaw, and an updated MMO fisheries assessment for Inner Dowsing, Race Bank and North Ridge SAC.

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 to consider in the formal consultation letter via email. A number of responses were received in this way. In these cases, email responses have been considered alongside the survey responses.

## **5.2 MMO conclusion following formal consultation**

A total of 34 responses were received, 25 of which were in support of the management measures proposed and one response requested additional information only. There were eight representations against the measures proposed, three of which requested additional management (whole site closure to bottom towed fishing gear) from that proposed.

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

- proposed management measures are not appropriate;
- management of static gears over reef;
- displacement;
- joint working with Eastern IFCA and the IFCA approach;
- evidence;
- monitoring and control;
- impact on recreational anglers;
- social implications; and
- other impacts on fishers.

MMO would like to thank everyone who responded to the formal consultation. We have considered all response 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. Decisions 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 Inner Dowsing, North Ridge and Race Bank SAC, **MMO has concluded that in order to comply with its duties under the Conservation of Habitats and Species Regulations 2017, and the Conservation of Offshore Marine Habitats and Species Regulations 2017, management is required in the form of a fisheries byelaw. Bottom towed fishing should be prohibited across the reef and sandbank; in addition, all static gear should be prohibited across all areas to be managed as reef (option 2).**

MMO has conducted a comprehensive assessment of the impacts of commercial fishing within Inner Dowsing, North Ridge and Race Bank SAC and consulted widely upon required management measures to protect the sandbank feature 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 created The Inner Dowsing, North Ridge and Race Bank (Specified Area) Prohibited Fishing Gears Byelaw 2022 and will submit this byelaw to the Secretary of State for confirmation<sup>2</sup>.

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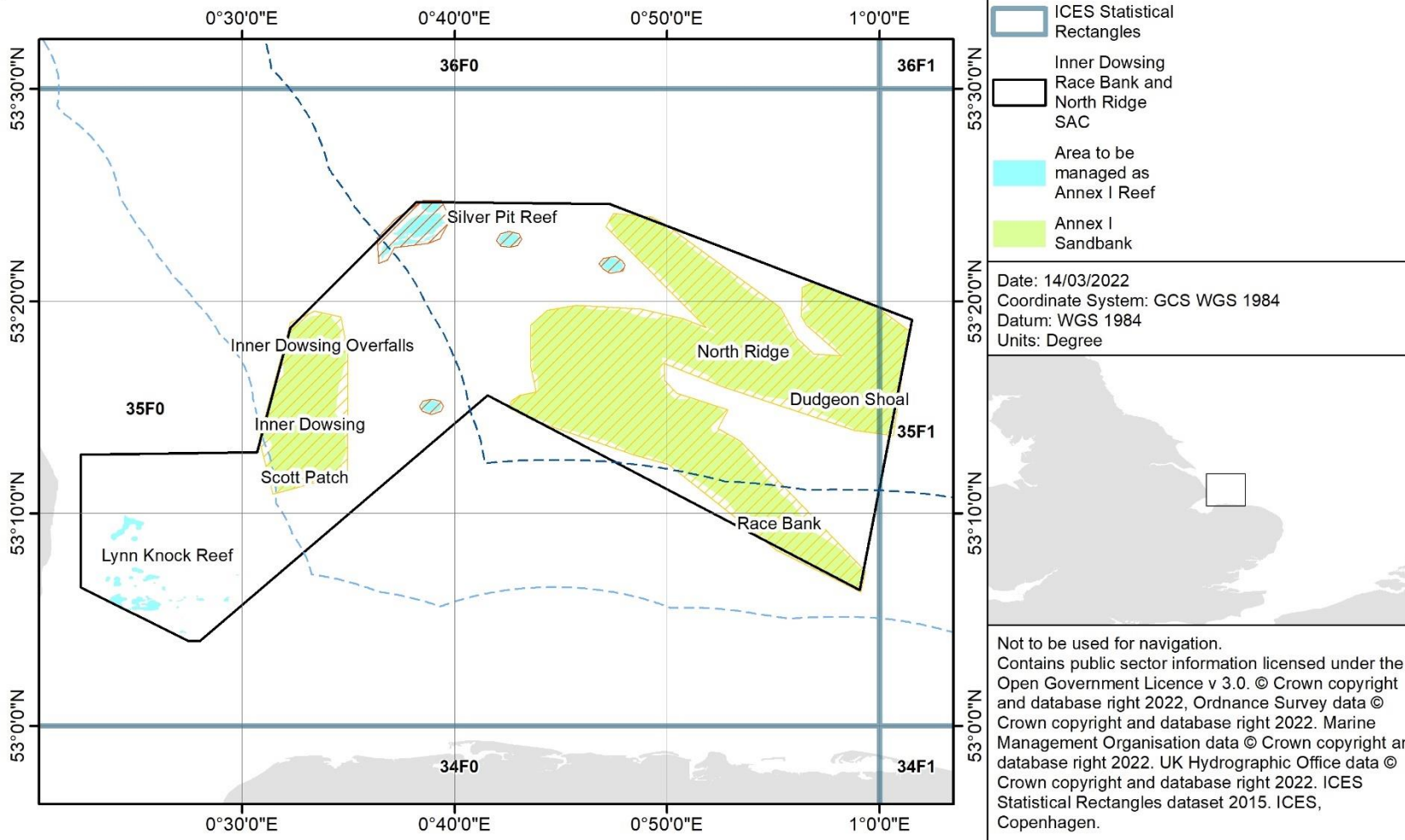
2

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/308581/byelaw-idrbnr.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/308581/byelaw-idrbnr.pdf)

**Figure 2: Inner Dowsing, Race Bank and North Ridge SAC management area.**



# Inner Dowsing, Race Bank and North Ridge Special Area of Conservation (Specified Areas) Prohibited Fishing Gears Byelaw 2022



## **Annex 1: MMO responses to site specific consultation responses received through call for evidence – Inner Dowsing, Race Bank and North Ridge SAC**

### **1. Site specific consultation responses**

This section sets out how new evidence received has been incorporated into the assessment and our response to comments received for the call for evidence.

MMO received a detailed representation from the Eastern IFCA suggesting a number of amendments to the fisheries assessment based on knowledge of the local fleet. The amendments have been incorporated into the assessment; including additional local fleet knowledge which has allowed MMO to adjust gear sizes and this is reflected in updated Pr-values, amendments to the fleet information and detail.

The Eastern IFCA also highlighted VMS data which suggested increased Danish seining activity across the site in 2015 only, during the construction of the Race Bank Wind Farm. Further investigation has shown that this activity follows the export cable and array of the Race Bank Wind Farm and no landings are associated with the vessels responsible for these VMS reports. These vessels are therefore believed to be operating as guard ship vessels (i.e. for coastal patrol purposes) and not fishing.

The remaining comments have been categorised into themes and addressed. The main themes focus on:

- mussel prospecting and scallop dredging comparison;
- reef feature extent and sensitivity;
- data analyses;
- management of sandbank by sub-feature;
- assessment format;
- offshore windfarms;
- heritage implications;
- partial site closures and management measures;
- favourable condition targets;
- impact of dredges and trawls;
- impact of traps, anchored nets and lines on *S. spinulosa* reef; and
- site integrity, recoverability and control areas.

#### **1.1 Mussel prospecting and scallop dredging comparison**

**Respondent comment:** Sublittoral mussel is an important resource for local inshore fisheries but has not been found in the 0 to 6 nm section of the site for several years. We consider it is not appropriate to totally exclude mussel dredging from sandbanks

in the MMO portion of the SAC. We suggest that this fishery should be authorised on a case-by-case basis with bespoke assessment of impacts on SAC integrity.

Because of the differences in size and form between mussel dredges and scallop dredges, the gear types should not be automatically managed in the same way or consider they can be assessed in a single category of “dredging”. Mussel fishing is carried out using a small bladed dredge, typically 1 m across. Mussels are found proud of the seabed surface and are skimmed off the “mussel mud” they lie upon, meaning there is little contact with the seabed.

**MMO response:** We acknowledge the importance of the mussel seed fishery in this area. Whilst there can be a substantial difference in the size of a mussel dredge compared to other forms of dredging, the impact a mussel dredge exerts on a sandbank of a mussel dredges is, although reduced in footprint, still the same pressure. We have amended the gear sizes in our data analysis for Pr values to reflect a smaller dredge but the potential for this activity to result in an adverse effect on the integrity could not be excluded.

## 1.2 Reef feature extent and sensitivity

**Respondent comment:** Has MMO scrutinised evidence underpinning the reef feature extent advice? We apply a high degree of scrutiny to MPA feature extent advice, particularly for *Sabellaria* reef. We work closely with NE throughout and in some cases our scrutiny has resulted in the feature extent advice being changed.

**MMO response:** MMO is using the most recent feature data provided by NE to define the area to be managed as reef. This is based on a “core reef approach”<sup>3</sup> where areas to be managed as reef are those where reef has been present at a certain frequency over a series of surveys. Although this approach is based on an application inside 6 nm we have used its principles here along with the joint NE and JNCC formal feature advice letter from 2015 (available on request). This approach allows MMO to protect areas which consistently support reef formation.

**Respondent comment:** *S. spinulosa* reef in the site is subtidal, whereas the *S. alveolata* experiments were intertidal. Has the effect of hydrodynamic drag (reducing the force of impact) been considered when comparing Cunningham’s work with impacts on *S. spinulosa*?

**MMO response:** Additional evidence has been provided to show that *S. spinulosa* reef is more sensitive than *S. alveolata* especially whilst on unstable sediments such as in the Inner Dowsing, Race Bank and North Ridge SAC. No additional evidence was found on the specific impact of hydrodynamic drag on gear feature interactions.

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<sup>3</sup> <http://publications.naturalengland.org.uk/publication/5970080978960384>

### 1.3 Data analyses

**Respondent comment:** We are not aware of a high amount of netting in this area. We suggest it is more likely to be potting, based on our understanding of fishing activity in and around the area, although we do not have data to support this suggestion.

**MMO response:** The VMS data shows high levels of netting activity by UK vessels in 2014, concentrated over the sandbank feature, with netting also recorded in 2016, 2017 and 2019 but at lower levels. It is noted that no landings from netting have been associated with VMS reports for UK vessels which has been considered in the MPA fisheries assessment whilst assessing the impacts of netting on the site's features. It is also important to consider that a substantial proportion of the fishing at this site takes place by vessels under 12 m which do not report their location using VMS.

**Respondent comment:** While the data collected under the Regional Seabed Monitoring Programme (RSMP), and the subsequent regional monitoring surveys that will be repeated by industry every five years, are primarily to deliver the compliance requirements for marine licences, this methodology clearly has the potential to deliver other value-added outcomes in support of both the wider MPA network and determining the wider environmental status of regional seas.

**MMO response:** The Inner Dowsing, Race Bank and North Ridge SAC assessment uses the best available evidence, including updated ecological data from SNCBs. Longer term monitoring of both activities and environmental status of the site is important to understand the effectiveness of the proposed byelaw, and where appropriate and available long-term data sets such as the Regional Seabed Monitoring Programme will be used to support this.

**Respondent comment:** Is there a translation of the number of pings into a number of trips, to quantify the level of interaction between fishing gear and seabed? The lack of data for under 12 m vessels highlights the need for VMS on all commercial fishing vessels, to help regulators understand the level and location of fishing effort and ensure management is appropriate and proportionate. Although we understand the MMO portion of the site to be important potting ground, we do not think the VMS data shows this. This is because VMS only shows data for vessels over 12 m and the majority of the local potting vessels are under 12 m.

**MMO response:** MMO use a variety of analytical methods to determine the level of interaction of different gear types with the seabed. Whilst we do not use trip data, we analyse VMS reports ("pings") which occur at fishing speeds which give us a realistic picture of the fishing activity undertaken by vessels with VMS, allowing us to determine the pressure of these gears and these vessels on the seabed. We do not believe that analysing the activity by trips would allow for a more detailed picture in

terms of activity pressure. The lack of VMS on under 12 m vessels means that full extent of the fishing activity is not captured through VMS data, and so we use a variety of evidence including local knowledge, MMO catch app data and FisherMap in order to give a fuller picture of the activities of the whole fleet. We would welcome additional information about under 12 m vessel activity in the area to improve our evidence base and allow us to build a better picture of activity within the site.

#### **1.4 Management of sandbank by sub-feature**

**Respondent comment:** We suggest the evidence from SNCBs which states that the three sandbank sub-features vary in terms of relative sensitivity, supports management at sub-feature level rather than the sandbank feature. Sub-features themselves can vary in terms of sensitivity, depending on local environmental conditions. Given the low levels of demersal trawling and the varying sensitivities of sandbank sub-features to pressures from trawling, adverse effects could be ruled out in some sandbank areas. MMO should explore spatial management at sub-feature level and explore the option of effort management rather than gear specific closures. We understand that these options require more resource than closures over large feature areas, but we feel the resource is justified because of the need to balance conservation duties with supporting viable inshore fisheries. 96% of the inshore waters off Lincolnshire, Norfolk and Suffolk are designated MPAs and the southern North Sea is hugely important for offshore wind and aggregate dredging, further spatially constraining inshore fisheries in this area. It is important to consider how fisheries management within MPAs to ensure site integrity can be designed to meet conservation needs but minimise restrictions on fisheries.

**MMO response:** Although sandbank sub-features vary in terms of relative sensitivity and resilience, the MMO assessment concluded that an adverse effect on site integrity could not be excluded for bottom towed fishing over the least sensitive sub-feature. In part this is because while the communities may be considered less sensitive at sub-feature level, they contain more sensitive components, for example long-lived epifauna or bivalves, which are likely to be impacted by bottom towed fishing.

In addition, the sandbank feature has been assessed by NE and JNCC as being in unfavourable condition. The conservation objective therefore requires that the sandbanks are recovered to favourable condition, and any activity which compromises the ability to the sandbanks to recover cannot take place without undermining the site's conservation objectives.

#### **1.5 Assessment format**

**Respondent comment:** There has been no consideration in the in-combination assessment of the unfavourable condition of the SAC. Depending on the type of management for fisheries which are assessed to cause an adverse effect, the in-

combination effect with other activities may impede site recovery, and therefore the conservation objectives for the SAC would not be met.

**MMO response:** In 2019, when the condition was reassessed for this site, the features of the Inner Dowsing, Race Bank and North Ridge SAC were found to be in unfavourable condition. The site's conservation objective is to 'maintain or restore' the qualifying features to achieve favourable condition. Given the features are in unfavourable condition, the 'restore' objective is relevant here. Part C of MMO MPA fisheries assessments investigates the effects of fishing activities in-combination with other relevant activities against these conservation objectives.

**Respondent comment:** the use of the generic term "dredging" in the draft assessment has the potential to be misinterpreted by third parties to include marine aggregate extraction. For this reason, it would be helpful if the description used in the assessment could be more specific – "scallop dredging" for example.

**MMO response:** MMO recognises that the term dredging has other meanings. However, as a fisheries assessment, and to maximise clarity, shortened terminology has been used to increase readability. The term dredging in the assessment covers a variety of dredging activity such as mussel prospecting and scallop dredging. The fisheries assessments clearly state that the effect of other relevant (non-fishing) activities are considered in Part C of the assessment. We therefore consider that use of the term dredging in the assessment to refer to a form of fishing is unlikely to be misinterpreted.

**Respondent comment:** We highlight that this is very much a qualitative assessment rather than a quantitative assessment (section 4.2 - 4.5). Where possible, quantitative information must be used to assess impacts e.g. extent of habitat disturbed or damaged. It would be useful to collate quantitative information in a table.

**MMO response:** Quantitative values for fishing activity are provided in Part B of the assessment, particularly in section 4.1 of this assessment, where fishing activity data is collated in tables. This section of the assessment also includes Pr-values, which are used as a method to quantify fishing pressure within an area of interest. Pr-values quantify the level of pressure for a single average day of effort for a reference vessel or fisher (land-based) within a fleet, taking into account the gear used. This method is used to inform the level of impact that is acceptable for maintaining integrity of the site or feature and to help define the spatial extent of the fisheries activities.

Quantitative information is also used where possible elsewhere in the assessment including in other sections of Part B, such as section 4.3 (removal of target species). For example, section 4.3.1.1 presents the estimated landings values from traps and then uses these values as a basis for assessing the impacts of traps on the sandbank feature via the removal of target species.



MMO use quantitative data to inform their assessments where possible, alongside scientific advice from the SNCBs, to assess the impacts of fishing against the conservation objectives. Quantifying the effects of fishing pressures on the conservation objectives of an MPA is, however not always possible, and so qualitative information is also used throughout the assessment.

## 1.6 Offshore wind farms

Two respondents raised the issue that cable maintenance and repair activities are becoming more common place. The presence of offshore windfarms in the area may be contributing to the unfavourable condition of this SAC as is the presence of infrastructure associated with Race Bank Offshore Wind Farm. It is assumed that any further repairs and/or cable burial works associated with cabling within the site will contribute to further decline of the site.

**MMO response:** The MMO fisheries assessment concluded that it is unlikely that operation and maintenance of existing submarine cables will have a significant in combination impact with fishing and other activities via the pressures of abrasion and penetration. Such conclusions take into account that the frequency of maintenance to existing cables will be low, and that both decommissioning, burial, protection and maintenance of submarine cables as well as maintenance of offshore windfarms are licensable activities and are therefore subject to detailed assessments of their impacts, taking the impacts of fishing activity into account.

## 1.7 Heritage features

**Respondent comment:** 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. Further detail about the interaction between the historic environment and commercial fishing was also provided (Firth *et al.*, 2013, Russel and Stevens 2014).

**MMO response:** MMO has duties under the Conservation of Habitats and Species Regulations 2017, and the Conservation of Offshore Marine Habitats and Species Regulations 2017, to protect European marine sites. The MMO fisheries assessment of the impact of fishing in Inner Dowsing, Race Bank and North Ridge SAC determined that bottom towed fishing and static fishing gears are not compatible with the conservation objectives of the site. The proposed management measures are therefore required, even where this may result in fewer archaeological discoveries.

## 1.8 Partial site closures and management measures

**Respondent comment:** Gill netting and Danish seining rarely take place in the site, so management must be proportionate. We suggest effort caps might be more proportionate than spatial closures to certain gear types (except for red risk

interactions where spatial closures are appropriate), given low sensitivities of features and low levels of activity.

**MMO response:** Whilst the levels of activity analysed between 2014 and 2019 show low levels of several of these activities, the MMO assessment concluded that the features of the site (reef and sandbank) are sensitive to the impacts of bottom towed gears, including demersal seines and (for reef) static fishing gears, including gill nets. As a substantial proportion of the fishing at this site takes place from vessels under 12 m which therefore do not report their location using VMS, it is not possible to rule out, with confidence, these activities taking place. Prohibiting the use of other bottom towed fishing gears and static gears without prohibiting these gears may cause an increase in the use of these gears in this area. The proposed management including these gears in the prohibition of other gears with similar impacts is therefore appropriate.

**Respondent comment:** Option 2 (zoned management) is appropriate to provide protection to sandbank and reef features in the site. However, we suggest any such measures should be supported by clear evidence of reef extent (through analysis of the data underpinning feature extent advice). We also suggest consideration be given to zoning management within sandbanks to provide protection to their sensitive sub-features (e.g. subtidal mixed sediment) but not restrict fishing over the less sensitive sub-features (e.g. subtidal sand). Eastern IFCA takes these approaches (scrutiny of feature extent evidence and management at sub-feature level) to assessment and management of fisheries in inshore MPAs and although time consuming, this approach enables the best possible balance between fisheries and conservation needs.

**MMO response:** MMO also concluded that a zoned approach is an appropriate management option for the site. The effects of fishing on the benthic ecology of sandbanks may vary with sediment type (Rijnsdorp, *et al.*, 2018). However, studies on how the impacts of bottom towed fishing vary with habitat type can, at times, provide conflicting results (Hiddink *et al.*, 2017, Stewart and Howarth, 2016). Furthermore, delineating variation in sensitivity at sub-feature level (which are classified by sediment type) does not consider species-specific sensitivities (Hiddink *et al.*, 2006). While some information is available detailing how bottom towed fishing impacts may vary, it has not been possible to identify an intensity and extent of fishing that would not compromise the recovery of the sandbank feature to favourable condition, even in more resilient habitats (Russell and Stevens, 2014).

**Respondent comment:** Within management option 2, we suggest MMO should explore whether a cap on fishing effort rather than spatial closures would be acceptable to protect sandbank features (or sub-features). This would require an assessment of the ability of the site to withstand different levels of activity, based on feature (or sub-feature) sensitivity and recoverability, and fishing intensity. The assessment illustrates that most types of fishing activity occurring within the SAC do

so at low levels, so we consider effort management might be a more appropriate response than spatial closures to particular fishing gear types (except for red risk interactions where spatial closures are necessary).

**MMO response:** The effects of fishing pressures can vary with several factors, including habitat type (Rijnsdorp *et al.*, 2018). For example, due to containing large proportions of long-lived sessile epifauna, communities in gravel habitats may be more sensitive to bottom towed fishing (Rijnsdorp *et al.*, 2018). Delineating variation in habitat sensitivity or recoverability (for example by sediment type) does not, however, consider species-specific sensitivities, for example fragile species will be more vulnerable (Hiddink *et al.*, 2006). Studies on how the impacts of fishing impacts vary with habitat type can also be conflicting (Hiddink *et al.*, 2017; Stewart and Howarth, 2016). While some information on how bottom towed fishing impacts vary; the intensity and extent of fishing that is sustainable, even in more resilient habitats, remains unclear (Stewart and Howarth, 2016). Given that the legal obligations to protect the site require that it must demonstrate that activities are compatible with conservation objectives for them to take place, and that the conservation objectives of the site are to 'restore' the sandbank and reef features to favourable condition, MMO cannot rule out that, even at low levels, the activities identified (bottom towed fishing gear over sandbank and reef, and the use of static fishing gear over reef) will not have an adverse effect on site integrity.

### 1.9 Favourable condition targets

**Respondent comment:** In relation to the attribute - structure and function: presence and abundance of key structural and influential species: The targets or structural / influential species are not currently defined in the SNCB advice for identified pressures for sandbanks and reef. It is therefore unclear how MMO has undertaken its assessment against this attribute.

**MMO response:** The tables identified for sandbank and reef have been updated to conclude that MMO will not assess the attribute, with a justification of: Key species not identified therefore cannot be assessed.

**Respondent comment:** Since the NE advice has not identified influential and functional species for targets, it is not clear how the assessment has defined what species or biological communities are relevant to this assessment. Nor, other than with reference to *Flustra foliacea*, has it considered the level of exposure to seines, sensitivity or mortality rates and recoverability of the species that it has listed. *Flustra foliacea* is only associated with sub-tidal mixed sediments that occupy only parts of the feature.

Taking the most sensitive of the sub habitats, sub-tidal mixed sediments, the NE supplementary advice identifies the top of the banks as having predominantly low

diversity communities, typical of disturbed mobile sediment environments (Marlin<sup>4</sup> sensitivity tables). NE advice identifies that higher diversity can occur where cobbles/pebbles provide firmer attachment surfaces and also along the flanks. NE advice that towards the troughs between the banks where the sediments tend to be more stable, epifaunal communities are more diverse. It is not clear how a conclusion may be drawn that any level of seining is not compatible with targets for non-target species for all parts of the feature.

**MMO response:** Noting that NE and JNCC have not identified 'influential and functional species' for this site, the assessment has been updated to remove consideration of activities against this attribute. The pressure 'removal of non-target species' is described by NE as: by-catch associated with all fishing, harvesting and extraction activities. Ecological consequences include food web dependencies, population dynamics of fish, marine mammals, turtles, and sea birds (including survival threats in extreme cases). The physical effects of fishing gear on seabed communities are addressed by the "abrasion" pressure type so the pressure addresses the direct removal of individuals associated with fishing/ harvesting.

MMO has considered species associated with all sub-features of the site that may be impacted by bottom towed gear, not just the most sensitive subtidal mixed sediments feature. The crests and flanks of the sandbanks are characterised by polychaete worms (e.g. *Nephtys* spp.), mobile amphipods (e.g. *Bathyporeia* spp.) and large bivalves (e.g. *Abra alba*). Subtidal coarse sediment support epifauna such as barnacles and ascidians as well as infaunal polychaetes, including, *Spiophanes* spp. Subtidal sand communities include tube building amphipods such as *Bathyporeia* spp. and the bristleworm *Ophelia borealis*, and some large bivalves such as *Abra prismatica*. Trawls, seines and dredge fishing activities may remove these species as by-catch (non-target species) (Hinz *et al.*, 2012, Kaiser *et al.*, 2006). Removal of non-target species is therefore relevant to the whole subtidal sand feature.

The Marlin advice highlighted by the respondent states that resistance is low for all relevant biotopes apart from A5.134 (*Hesionura elongata* and *Microphthalmus similis* with other interstitial polychaetes in infralittoral mobile coarse sand), where it is medium, and A5.611 (*S. spinulosa*) where it is 'none'. Resilience for all relevant biotopes is either high or medium and overall sensitivity is either low or medium. As described in the assessment the activity levels of trawling, dredging and seines are relatively low within the site. However, removal of non-target species from the sandbank feature is likely to compromise the stated attribute target to 'restore the presence and spatial distribution of subtidal sandbank communities.'

NE and JNCC's feature condition assessments for sub-features of the sandbank indicated the presence and spatial distribution of biological communities to be

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<sup>4</sup> <https://www.marlin.ac.uk/>

unfavourable for all sub-features. Fishing using bottom towed gear, even at low levels, could impact this attribute and therefore cause adverse effects on site integrity. Further, management measures would also protect the designated feature against potential increases in activity levels.

### **1.10 Impact of demersal trawls and dredges**

**Respondent comment:** No evidence is provided that a precautionary approach is necessary at present levels of fishing pressure. As noted above the relevant species have not been identified in the advice. SNCB advice has not taken account of the footprint analysis undertaken for this assessment and therefore the onus should be on SNCBs to consider whether or not the conservation objective for the feature has been set appropriately in relation to relevant attributes.

Another respondent commented that the assessment notes low level of dredging activity, but concludes pressures are not compatible with the conservation objectives. It would appear that MMO conclude that no level of interaction is compatible with sandbank feature and therefore this raises the question whether MMO consider that dredges are the equivalent of a red risk as defined in Defra's revised approach whatever habitat they occur on.

**MMO response:** Application of the precautionary principle is a legal requirement when assessing and managing activities under the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017. NE and JNCC have set attribute targets for the sandbank feature including restoring the presence and spatial distribution of subtidal sandbank communities.

Dredging and trawling, even at low levels, could impact the target for subtidal sandbank communities to restore presence and spatial distribution, and therefore result in an adverse effect on site integrity. In the absence of evidence that these activities can continue without such impacts, management measures are being proposed to ensure that fishing does not undermine the conservation objectives of the site. NE and JNCC's feature condition assessments for sub-features of the sandbank indicated the presence and spatial distribution of biological communities to be unfavourable for all sub-features. Epifaunal species such as barnacles, ascidians, mobile amphipods and bivalves, as well as infaunal polychaetes, are found on/in the sandbank feature of the site. Dredges have been shown to impact non-target species such as these either through abrasion or bycatch (Hinz *et al.*, 2012, Kaiser *et al.*, 2006). Management measures would also protect the designated feature against potential increases in activity levels.

With regards to the revised approach and whether MMO consider dredges to be the equivalent of a red risk, MMO use the fisheries in European marine sites matrix<sup>5</sup> to guide us on the level of evidence for a particular interaction. However, MMO still conduct assessments on a site-by-site basis, and due to the reasoning provided above, has concluded that even at low levels dredging and trawling is considered to be capable of having an adverse effect on site integrity.

### 1.11 Impact of traps, anchored nets and lines on *S. spinulosa* reef

**Respondent comment:** There is a practical maximum density of gear for fishing to operate effectively, which in turn can inform the level of interaction that is theoretically possible with a conservation feature. Our own calculations for potting suggested that the maximum rate for pot interactions in the most densely fished areas that we know of are in the order of 1 in 30 years.

The assessment does not consider the extent of exposure possible from static gears in the assessment. MMO consider that no level of exposure is compatible with this feature contrasting with the amber classification provided in Defra's revised approach.

**MMO response:** The reef feature of the site has several 'recover' targets related to the structure and distribution such as:

- Restore the presence and spatial distribution of reef communities.
- Restore the total extent, spatial distribution and types of reef (and each of its sub features).
- Restore the species composition of component communities.

*S. spinulosa* reefs have been described to be impacted by potting in numerous papers (Jones, 1999, Reisen and Reise, 1982). *S. spinulosa* is more fragile than *S. alveolata* and surface abrasion may lead to greater damage and lower recovery rates (Gibb *et al.*, 2014). Furthermore, there are no direct observations of reef recovery, through repair, from abrasion for *S. spinulosa* reefs<sup>4</sup>. The dwelling tubes constructed by *S. spinulosa* are relatively fragile and therefore susceptible to damage from direct physical impacts (Benson *et al.*, 2013). If the individual worms themselves escape direct injury, they may still be left vulnerable to predation (Benson *et al.*, 2013). Such impacts can also break reefs down into smaller fractions, making them more vulnerable to further damage and changing the habitat for the associated fauna (Benson *et al.*, 2013).

The physical impacts of potting, even at low levels, could cause an adverse effect on site integrity. The assessment of the site indicates that potting has occurred every year (between 2014 and 2019) in close proximity to the reef feature, given the length

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

of a potting string and the uncertainty of the location of the string with the associated VMS location, it is possible that pots are laid within the reef area. Additionally, the activity of smaller vessels is not captured by VMS, and FisherMap and sightings data indicate potting by smaller vessels could take place over the reef. Further, the proposed management would also protect the reef against potential increases in activity levels and the combined effects of potting and other static gears.

With regards to the revised approach and whether MMO consider no level of exposure to be compatible with the feature (and therefore to be the equivalent of a red risk), MMO use the fisheries in European marine sites matrix<sup>4</sup> to guide us in the level of evidence for a particular interaction. However, MMO still conduct assessments on a site-by-site basis, and due to the reasoning provided above, has concluded that even at low levels potting activity on reef feature may have an adverse effect on site integrity.

### **1.12 Site integrity, recoverability, and control areas**

**Respondent comments:** There is no control area to show what the ecosystem can and should be at such a scale for different features either in the absence of all fishing, or fishing of certain gears (resulting in poor/no scientific knowledge). These 'controls' should be in place for at least 20 years in order to allow the community to change based on the stochastic nature of recruitment and ecological succession.

**MMO response:** NE and JNCC are responsible for assessing and advising on the condition of the features of the SAC. Their most recent evaluation is that the features of the site are currently in unfavourable condition.

**Respondent comment:** There is an assumption that 'recoverability' allows for the site to be impacted on a regular basis (based on the recoverability of the species on each habitat). However, this assumption is flawed in that: it looks at isolated species and habitats, not their interactions in time and space; neither the accumulated or in-combination impact on the function of the habitat; and commercial species are overlooked. There is often an assumption that the site was at a status that was favourable when designated, and therefore, by inference that 'ongoing' activities aren't heavily modifying or damaging to the sites' conservation features. This assumes that the base level of trawling, potting, cable laying, aggregate extraction is normal/reasonable. This is untenable under the Habitats Regulations and Offshore Habitats Regulations that should discount reasonable doubt of a likelihood of ongoing deterioration of the site, and of favourable conservation status.

**MMO response:** The MMO fisheries assessment for this site does not rely on an assumption set out above around recoverability or condition. NE and JNCC have advised that the features of the site are currently in unfavourable condition, and the MMO fisheries assessment has concluded that management measures are required to prohibit certain types of fishing across the site's sensitive features.

**Respondent comment:** There is limited understanding amongst NE, MMO and fishers about the true integrity of conservation features, and the structuring and modifying effects of fishing on these features. When considering the management of 'the feature' according to the Habitats Regulations and Offshore Habitats Regulations, MMO must consider both maintaining the physical habitats, but more importantly the biodiversity that is typical of those habitats. The fish and invertebrate populations that are of commercial interest to the fishery are also to be considered in the management of the site. However, fishing mortality is often disregarded in management. It is likely that highly mobile shallow sandbank tops can be fished with limited short- and long-term impact. But the deeper areas, troughs between banks, shell and gravel areas will potentially recover to host more biodiversity, particularly if left alone from trawling and dredging. There is strong evidence from the historical literature that the sites were able to host biogenic reef communities in these sorts of areas. The important paper from Braekman *et al.* (2014) 'Protecting the Commons...' illustrates some of the existing North Sea benthic species that will be affected by abrasion that are essential for benthic-pelagic coupling. Reduction of the numbers of these species will impact the functioning of the site, reduce biodiversity, and fundamentally reduce such species from the site.

**MMO response:** NE and JNCC, in their formal conservation advice package for this site, have set out a range of attribute targets for the features of the site, which if met will support those features to be in favourable condition and support the integrity of the site. The MMO assessment for this site uses the relevant attribute targets to assess the impacts of fishing and identify any management required to ensure the site is adequately protected.



## 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 NE<sup>6</sup>.

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 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

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<sup>6</sup> <https://jncc.gov.uk/our-work/marine-activities-and-pressures-evidence/>

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 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 NE<sup>7</sup>.

## 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.

## Annex 2: MMO responses to site specific consultation responses received through formal consultation – Inner Dowsing, Race Bank and North Ridge SAC

### 1. Site specific consultation responses

This section sets out how evidence received during the formal consultation has been incorporated into the assessment and our response to comments received.

#### 1.1 Proposed management measures are not appropriate

The following points were raised by respondents regarding the management measures being insufficient to protect the features of the site:

1. Bottom contacting fishing gear is incompatible with the overall site objectives to 'restore' the protected sandbanks and reef, as it directly damages them.
2. The extent of damage by bottom trawlers to the seabed is unknown. Therefore, the precautionary principle should be applied, and all gear that comes into contact with the seabed should be banned from the entire site.
3. Given the sensitivity of the reef feature to bottom towed gear and the potential for recolonisation in additional locations in the SAC the whole site should be protected from such fishing.
4. The whole site should be closed to bottom towed fishing gears, allowing organisms to move between the 'feature' and 'non-feature' without the pressure from fishing. Furthermore, the ephemeral nature of *S. spinulosa*

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<sup>7</sup> <https://jncc.gov.uk/our-work/marine-activities-and-pressures-evidence/#jncc-pressures-activities-database>

suggest that full site closure can be the only guarantee that the habitat can be protected were it to recruit into the seabed away from the closed areas.

5. The draft Regulatory Triage Assessment concludes that option 1 would “ensure that no risk to the site’s conservation objectives was occurring from fishing activities.” So, this option must be pursued if the Government is serious about introducing ‘world leading’ ocean protection.

**MMO response:** Prohibiting the use of bottom towed gears over the whole site would allow MMO to ensure that there is minimal risk to the site’s conservation objectives occurring from fishing activities. However, MMO will only implement management or prohibit fishing in parts of the site where MMO MPA fisheries assessment cannot rule out that it is causing an adverse effect on site integrity. As bottom towed gears are not causing an adverse effect on site integrity where there is no feature present (the areas of the site without reef or sandbank, Figure 1), extending management to the full site would therefore introduce unnecessary and disproportionate costs to the fishing industry.

6. Partial site closure will not maintain site seafloor integrity, which is required by national legislation and international agreements including the Habitats Regulations and Offshore Habitats Regulations, Marine Strategy Regulations and UNCLOS.

**MMO response:** The MMO MPA fisheries assessment was carried out in order to identify management measures which further the site’s conservation objectives. These measures have been identified and will be progressed by MMO.

7. The mosaic of different protections and fishing prohibitions adds to the complexity of other management issues such as compliance and enforcement as well as public buy-in and support.

**MMO response:** MMO acknowledge the complexity of marine and fisheries regulations. In developing MPA management measures we seek to ensure that they are clear and as easy to comply with as possible. In addition, MMO provide information and guidance to stakeholders designed to support compliance.

8. Scientific evidence is clear that fully protected MPAs, which ban destructive, industrial fishing activity, have greater ecological outcomes. A partial closure means that opportunities to fully revitalise fish stocks, benefiting local fishers, will be missed.

**MMO response:** MMO take a proportionate approach – see response to 1-5.

9. The boundaries of the management areas are tightly drawn around these features, it is a lost opportunity to take a site-based approach to management by enabling recovery of benthic communities beyond the tight confines of the features. This is particularly relevant for long term conservation of *S. spinulosa* reefs which can be ephemeral, spreading out and receding in the areas currently mapped, and sandbanks which are not static features.

**MMO response:** As detailed in Section 4.3.2 of this document, MMO is following SNCB advice on the location of areas to be managed as reef following the core reef approach. The boundaries of the proposed management area will include an appropriate buffer zone, in this site at the depth of the reef, this is 500 m, to prevent direct damaging physical interactions between fishing activity and the designated features as detailed in the MMO MPA fisheries assessment (Section 7).

10. There are areas of Annex 1 *Sabellaria* reef to the west of the MPA which are not covered by any of the restrictions proposed. This is unacceptable and it is unclear as to why these areas were not included in the closed zones within the site. We strongly suggest all areas of the MPA where protected features have been identified, are included in the proposed closures to bottom-towed and static fishing gear.

**MMO response:** The geographic scope of MMO's MPA assessment covers the site outside 6 nm (Figure 1). Eastern IFCA are responsible for managing fishing in the 0 nm to 6 nm area and are currently developing management measures to protect *S. spinulosa* reef in the Lynn Knock area which falls under IFCA jurisdiction. Views from Eastern IFCA have been sought throughout this process and additional information has been included as expert opinion on local fishing activities (Section 5.3.5).

## **1.2 Management measures are too restrictive**

The following points were raised by respondents regarding the management measures being restrictive:

1. The available evidence as it stands signals that a more proportionate approach should be taken to managing bottom towed gears over the sandbank feature, either through a zoned or a combination of zoned and effort-based management and monitoring mechanisms.
2. No attempt to list the species or sub-habitats, define their location or undertake sensitivity analysis, using the sensitivity assessments via Marlin, for instance, has been undertaken. We provided information on this in the call for evidence with respect to non-target species. This has not been incorporated into the current assessment and is provided again: Marlin sensitivity of listed biotopes to removal of non-target species.
3. NE supplementary advice lists only fishing using bottom towed gears and the presence of hard substrata installed as part of the cabling and scour protection as pressures with a recover conservation objective based on low confidence. The MMO fisheries assessment quantitatively confirms a very low level of bottom towed gear activity. Given this and the likely extent of hard substrata relative to the size of the feature, it is our view that the recover conservation objective is likely to be faulty.
4. MMO should therefore state which species it is referring to and indicate the locations and/or sub features where they are to be found and how this relates

to the NE conservation advice. According to NE's Designated Sites View<sup>3</sup>, supplementary advice has not identified structural or influential species associated with sandbank feature, nor has Maintain Recover or Restore target been determined with respect to the abundance of listed species. It has provided a maintain objective for species composition of component communities for the feature and sub-features.

5. We highlight the value of adopting an open-ended approach and allowing scalable management, to take into account the changes linked to natural disturbances (in particular for the sandbank habitat, subject to influence of storms) and which could result from climate change.

**MMO response:** MMO agree that the impacts of bottom towed gear on the seabed may vary with several factors, including potentially the levels of natural disturbance (Lambert *et al.*, 2014), sediment type (Rijnsdorp *et al.*, 2018) and exposure to previous fishing activity (Sciberras *et al.*, 2018). While some information is available detailing how bottom towed fishing impacts vary, the intensity and extent of bottom towed fishing that is sustainable, even in more resilient habitats, remains unclear (Stewart and Howarth, 2016).

The sandbank feature has been assessed by NE and JNCC as being in unfavourable condition. The conservation objective therefore requires that the sandbanks are recovered to favourable condition, and any activity which compromises the ability of the sandbanks to recover cannot take place without undermining the site's conservation objectives.

The advice of SNCBs is that the sandbank feature in the site is in unfavourable condition in part due to the impacts of demersal fishing. Although the impacts may vary, trawling can have large negative effects on the biomass and production of benthic communities. MMO has considered best available evidence and advice in accordance with the pressure activities database published by JNCC and NE<sup>8</sup> to determine which activities are likely to hinder the conservation objectives of the site.

The MPA assessment uses high confidence VMS data (for over 12 m vessels) coupled with landings data and spatial footprint analysis alongside FisherMap data to review the fishing activity within the SAC (section 4.1 in the MPA assessment). Whilst MMO acknowledge that under 12 m vessels operating within the site are not represented in this analysis, showing an under representation of fishing activity. MMO has concluded that where we cannot rule out an adverse effect on site integrity, the activity must be managed. Therefore, MMO consider that bottom towed fishing activity is not compatible with the site's conservation objectives, particularly to

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<sup>8</sup> <https://jncc.gov.uk/our-work/marine-activities-and-pressures-evidence/#jncc-pressures-activities-database>

'restore' the extent and distribution of, and the structure and function of, the sandbank feature.

MMO strives to avoid any unnecessary costs to the fishing industry, financial or otherwise in the development of management measures. However, MMO has duties under the Conservation of Habitats and Species Regulations 2017, and the Conservation of Offshore Marine Habitats and Species Regulations 2017, to exercise all relevant functions to ensure compliance with the Habitats Directive. The potential for management to have a socio-economic impact does not override this duty.

6. It is our view that the current assessment does not follow a best available evidence approach which should include sensitivity analysis and take into account exposure information from the activity data and Pr analysis and other information comparable to that undertaken by Eastern IFCA in its assessment of the Shrimp fisheries in the Wash and North Norfolk Coast site.

**MMO response:** MMO has worked closely with the Eastern IFCA during the production of this assessment. There has been consideration of the assessment of The Wash and North Norfolk SAC (please see section 1.6). MMO has used Pr-values in the assessment as a method to quantify fishing pressure within the site. MMO believe that we have used the best available evidence to assess the impacts of fishing gears on the designated features of the site and that our conclusions are robust.

7. The proposal to ban the bottom seine gear is unjust, they do not have the same characteristics as bottom trawls (absence of elements heavy such as panels and soles).

**MMO response:** MMO agree that with the absence of specific gear components (e.g. otter boards) and lighter ground gear, seines tend to cause less damage to the seabed via abrasion and penetration compared to other demersal gears (Polet and Depestele, 2010). However, demersal seines have the potential to remove epifauna, particularly when the ropes of the seine net are closed up to herd demersal fish and can result in the removal of non-target species via incidental bycatch (e.g. van der Reijden *et al.*, 2014). Therefore, we have not been able to exclude the possibility of demersal seines having an adverse effect on site integrity, particularly restoring the biological structure and communities of the sandbank habitat.

### **1.3 Management proposed differs from the Joint Approach and previous management**

The following points were raised by respondents regarding how the management differs from current management within the site and the Joint Recommendation:

1. The proposed byelaw differs from previous management of the site within the 6 – 12 nm zone in which the sandbank feature adopted a monitoring approach.



**MMO response:** in 2013 MMO assessed the red risk gear feature interactions, this included the implementation of The Inner Dowsing, Race Bank and North Ridge European Marine Site (Specified Areas) Bottom Towed Fishing Gear Byelaw in 2014. MMO review all assessments and management regularly, using the best available evidence for support. Increased understanding of the impacts of fishing and new evidence may change the outcome of previous assessments and therefore revised management is required.

2. This management differs from a draft Joint Recommendation for this site which received stakeholder input via the North Sea Advisory Council in 2014. This recommendation was based around a partial closure to trawl and dredge gears of the sandbank feature with additional areas closed to seines in locations of *S. spinulosa*. No prohibitions on static gears were proposed. The current proposal appears not to have recognised or taken account of this prior process.
3. The draft Joint Recommendation prepared by Defra stated: “It is unlikely that demersal static gears at moderate levels of fishing effort will have a significant effect on the long-term natural distribution of *S. spinulosa* reefs, or on the structure and function of their associated biological communities. Sensitivity of *S. spinulosa* reefs to static gears is low to medium depending on fishing intensity (Hall *et al.*, 2008; Tillin *et al.*, 2010). However, effects at high levels of fishing intensity are uncertain and it is possible in some circumstances that damage to reef structures could exceed their capacity to recover.
4. The risk to the achievement of the conservation objective is considered to be sufficiently low that no additional management is considered necessary for demersal static gears. However, if monitoring indicates impacts from these gears, it may be necessary to introduce some degree of management in the future.”

**MMO response:** Previous proposals for management of fishing in many English offshore MPAs were developed as Joint Recommendations under the Common Fisheries Policy Regulation (EU) 1380/2013 Article 11 process. These measures were constrained by the requirement to achieve agreement from all EU member states with a management interest in the site. This led to a significant trade-off between protection of the sandbank and socio-economic fishing interests of the EU. The European Commission’s Scientific, Technical and Economic Committee for Fisheries (STECF) noted this trade off may have negative impacts on the ecological requirements of the natural habitat types found within the North Sea<sup>9</sup>.

As an independent coastal state, the UK, and therefore MMO as the lead regulator, has the responsibility to ensure compliance with its duties to exercise all relevant

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<sup>9</sup> [Joint Recommendation Dogger Bank.docx \(lbtst.dk\)](#)

functions to ensure compliance under the Conservation of Offshore Marine Habitats and Species Regulations 2017 and the Conservation of Habitats and Species Regulations 2017. In accordance with STECF's conclusion above, MMO is unable to conclude that the use of bottom towed gears over sandbank and static gear over reef within the SAC, in light of the site's conservation objectives, will not have an adverse effect on the integrity of the site. As such, allowing bottom towed gears to operate over reef and sandbank, and static gears to operate over reef feature would be in breach of MMO's duties detailed above. Therefore, alternative management options such as those proposed under the Joint Recommendations have not been deemed appropriate by MMO.

#### **1.4 Management of static gears on reef**

The follow points were raised by respondents regarding the proposed management of static gears over areas of reef:

1. Static gear should be capped at current levels and reduced to zero by 2030 in line with our policy of making offshore sites HPMAAs [highly protected marine areas] with no commercial fishing where possible.

**MMO response:** Static gear restrictions are being assessed against the features of this site and furthering the conservation objectives. This is to ensure MMO completes its legal duties under UK legislation. HPMAAs are a separate consideration and Defra are currently reviewing criteria to create a shortlist of pilot sites which may be designated as HPMAAs.

2. The "precautionary principle" can only be applied to *S. spinulosa* areas in Inner Dowsing, Race Bank and North Ridge SAC where there is no evidence of no harm: there are decade's evidence of no significant harm that the application of the "precautionary principle" to protect *S. spinulosa* from abrasion from demersal trawling or potting is entirely void.
3. There is no evidence given that either potting or demersal long-lining have any impact on *S. spinulosa*, yet both are to be prohibited.
4. This will set a precedent for managing areas of *S. spinulosa* elsewhere in elsewhere in UK waters.

**MMO response:** The MPA assessment, which draws on the best available evidence, expert accounts and scientific literature, in accordance with the pressure activities database published by JNCC and NE<sup>10</sup>, determines which activities are likely to hinder the conservation objectives of the site. 100% of the reef feature in Inner Dowsing, Race Bank and North Ridge SAC is in unfavourable condition without

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<sup>10</sup> <https://jncc.gov.uk/our-work/marine-activities-and-pressures-evidence/#jncc-pressures-activities-database>

change<sup>2</sup> and the conservation objectives include restoring the presence and spatial distribution of reef communities. This unfavourable condition combined with the restore objective (in addition to unquantifiable activity from under 12 m vessel), has led MMO to conclude that adverse effects cannot be ruled out for potting on *S. spinulosa* in this SAC and therefore we should implement management in the form of the proposed byelaw.

Whilst each site is assessed on a site by site basis, this decision will not set a precedent for all areas of reef and the interaction with static gears in English waters. Assessments have used best available evidence on a site by site basis. Sufficient evidence was not provided to confirm, beyond reasonable scientific doubt, that allowing pressures exerted by demersal and static gears to continue over areas of *S. spinulosa* would allow a furthering of the conservation objectives and avoidance of an adverse effect on site integrity and in accordance with the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017. MMO in all circumstances has followed the best available scientific evidence, to make management decisions in line with its legislative duties as outlined.

5. Based on the available evidence, Walmsley *et al.* (2015) recommended that for “features that are sensitive to high intensity potting, or on features where there are particular concerns, that industry-led best practice in setting and hauling gear could be formalised”.

**MMO response:** As noted by Walmsley *et al.* (2015), a number of evidence gaps exist where it concerns potting impacts on specific habitats, including on *Sabellaria* reef. Walmsley *et al.* (2015) also state that evidence from a sub-feature in one region may not be directly transferable to another region due to site-specific differences. Currently, MMO cannot rule out an impact from potting gears on the reef feature of this SAC and therefore, as MMO is obligated to take steps to avoid deterioration of habitats in SACs, MMO must introduce appropriate management measures for these fishing gears. As stated, if information is received that changes the MMO MPA fisheries assessment outcomes, the management will be updated accordingly when the fisheries assessment is updated (every five years or sooner if significant new information comes to light).

6. The results of a recent long-term study over four years aimed at looking at the effects of different intensities of pot fishing on temperate reef building and reef associated organisms in Lyme Bay found that below a threshold the static fishery was demonstrated to be compatible with the temperate reef ecosystem tested.

**MMO response:** As outlined in the Inner Dowsing, Race Bank and North Ridge SAC fisheries assessment, extensive literature demonstrates that demersal trawling damages *S. spinulosa* reefs. Demersal longlines and pots can also damage the reef through the gear striking or becoming entangled with the reef, particularly when the

gear moves across the seabed, due to the tide, currents and/or when the gear is being retrieved (Grieve *et al.*, 2014). Given such evidence (combined with the conservation objective to restore the reef communities and the unquantified activity of under 12 m vessels), MMO cannot rule out that these gears do not have an adverse effect on site integrity. Significant areas in the Wash which were regularly fished for shrimp using demersal beam trawling over patches of low level sparse *Sabellaria* crust. Although the fishery has ceased, and the area is not fished, there is no significant change in *S. spinulosa* abundance according to Eastern IFCA data. Another intertidal area is regularly trawled and has not decreased in abundance either.

7. Significant areas in the Wash which were regularly fished for shrimp using demersal beam trawling over patches of low level sparse *Sabellaria* crust. Although the fishery has ceased and the area is not fished there is no significant change in *S. spinulosa* abundance according to Eastern IFCA data. Another intertidal area is regularly trawled and has not decreased in abundance either.

**MMO response:** In The Wash and North Norfolk Coast SAC, 61% of the reef feature is in unfavourable condition and has not changed, whilst 37% of the reef feature is in unfavourable but recovering condition. In contrast, 100% of the reef feature in Inner Dowsing, Race Bank and North Ridge SAC is in unfavourable condition. Trawling on *S. spinulosa* reef is considered a red interaction in the revised approach to commercial fisheries management. Such 'red risk' interactions are those where it is clear that the conservation objectives will not be achieved for a designated feature because of its sensitivity to a type of fishing - irrespective of feature condition, level of pressure, or background environmental conditions where that feature occurs. As such, allowing demersal trawling on *S. spinulosa* would be in breach of MMO's duties to ensure that fishing is managed to further the conservation objectives of the site, particularly to restore the reef communities.

8. The reference to damage generated by jumping and kicking the reef lacks any context and explanation of whether and how it is relevant to the deployment of static gears (Cunningham *et al.*, 1984). Is this deliberate damage or occurred over the passage of time? What is the intensity of kicking and jumping and its relevance to the intensity of laying and retrieving static fishing gears submerged reef at depth that occur in the SAC? The suggestion that *S. spinulosa* is more fragile and less resilient than *S. alveolata* rests on the opinion of one individual as reported by Gibb *et al.* (2014). It has not been possible to review Last *et al.* (2012), but this assessment is with respect to shrimp trawling as opposed to static gears.
9. The precautionary closure of the identified *S. spinulosa* to all demersal trawling and demersal static gear is driven by: lack of long term impacts of different fishing methods on *S. spinulosa*; the SNCB assessment of the *S.*

*spinulosa* at the site as "unfavourable declining" is based on the status of *S. spinulosa* in UK waters generally; and the acknowledged lack of understanding of the biology and population dynamics and distribution of *S. spinulosa*.

**MMO response:** Limited literature is available on the abrasion impacts of static gears on *Sabellaria* reef. Where available MMO has used literature assessing the impacts of the specific fishing gear in question on the specific habitat being assessed. However, such literature is not available for all fishing gear-feature interactions and is lacking for static gear impacts on *S. spinulosa*. Therefore, with limited evidence available, studies such as Cunningham *et al.* (1984) and Last *et al.* (2012) help provide context with regards to the potential impacts of static gear on the reef feature, helping to inform on possible recovery rates and impacts on patchy distributions of *S. spinulosa*. Similarly, with regards to the Gibb *et al.* (2014) using expert evidence in the form of references to personal communications is not unusual in scientific literature and reports where evidence is otherwise limited. MMO has used the best available evidence to assess the impacts of fishing gears on the designated features of the site. As there is little evidence to suggest otherwise, MMO cannot rule out that static gears do not have adverse effects on site integrity.

10. As the 500 m margin bordering the *S. spinulosa* reef is based on an estimation of the extent of the reef boundary, which may change over time. We would suggest employing the precautionary principle and consider temporal zoning within the SAC, on the basis that ground truthing of the reef boundary has taken place.

**MMO response:** NE and JNCC have applied a 500 metre margin around reef polyline and point data, shown in Figure 1, in order to account for uncertainty in reef extent due to the inability of the ground truthing data used to provide information on reef extent<sup>2</sup>.

## 1.5 Displacement

The following points were raised by respondents regarding the impact of displacement due to the proposed management:

1. Spatial management measures to manage fishing pressures may result in displacement of activities to other areas within, and outside of MPAs. This may result in impacts to benthic communities, mobile species, and stocks of commercial fish and shellfish.
2. The proposed management risks displacing all bottom trawl effort to the areas that remain open and could rapidly degrade the seabed in these locations, having an adverse impact on the rest of the ecosystem. The specific protected features cannot be properly protected in isolation, only a full ban on bottom trawling would provide proper protection, by displacing fishing effort to outside of the MPA.

3. Partially closing parts of the site where protected features are known to be situated, risks displacing all bottom trawl effort to the areas that remain open.
4. Some effort displacement is expected of both demersal trawling and potting to areas which the respondent utilises, increasing effort there, hence diminishing their opportunities risking their business.
5. It is possible that the displaced fishing pressure from the remainder of the closed zones will negatively impact those reef areas even more harshly than is currently the case. The result of this will be the further decline of this site.

**MMO response:** MPA assessments use the best available evidence to fully consider all impacts against the conservation objectives. If the assessment cannot conclude that use of certain fishing gear types is compatible with the site's conservation objectives, appropriate management measures will be introduced. Although management measures implemented may cause displacement of fishing activity between areas of feature within the SAC, it is not possible to accurately predict the location (and thus the associated environmental costs) of displaced fishing activity. This potential displacement of fishing activity does not remove the requirement to introduce management to protect the designated features.

Through onboard vessel monitoring system data, landings records and surface and aerial surveillance, MMO closely monitors fishing activity, and therefore displacement of activities. MMO will respond to any issues that may arise as a result of displacement and welcome input from the fishing industry to assist in this process.

MMO will also regularly review and update the MPA assessments to reflect any significant changes in fishing activity, including potentially increased fishing effort as a result of displacement. If MMO fisheries assessments for other MPAs conclude that high levels of fishing activity are hindering the conservation objectives from being furthered, suitable management would be proposed.

Figure 1 shows large areas of "areas to be managed as reef", MMO used the most recent feature data provided by NE to define the area to be managed as reef. This is based on a "core reef approach"<sup>11</sup> where areas to be managed as reef are those where reef has been present at a certain frequency over a series of surveys. This approach allows MMO to protect areas which consistently support reef formation. If there is displacement to areas of reef currently unidentified in the MPA assessment, then this will be taken under advisement when MMO review the assessments and as part of our monitoring and control plan.

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<sup>11</sup> <http://publications.naturalengland.org.uk/publication/5970080978960384>

## 1.6 Joint working with Eastern IFCA and IFCA approach

The follow points were raised by respondents regarding how MMO has worked with the Eastern IFCA on the Inner Dowsing, Race Bank and North Ridge SAC and how our management measures and assessment differs from Eastern IFCA conclusions:

1. MMO should regard the wider region which is naturally confined by topography and multiple MPAs and the potential to cause a cascade of knock-on impacts and management conflicts.

**MMO response:** Marine planning supports a strategic approach to the utilisation and development of the marine environment across multiple sectors and considers socioeconomic factors. All management decisions for MPAs will be compliant and made in accordance with relevant policies of the Marine Plan for that area and while a number of MPAs are situated in the North Sea, their designation does not imply a requirement for fisheries management. Where fishing activity can be ruled out as having an adverse effect on the integrity of the site the fishing activity can continue.

2. MMO should continue to work closely with the IFCA to ensure there is a consistency in approach to management measures across the entire site. The present approach provides no tangible evidence that MMO is doing that.
3. Eastern IFCA has applied several methods which underpin its assessment of shrimp trawling in the Wash. This included an assessment of wave generated disturbance which identified that natural disturbance was likely to have similar effects to demersal trawling on shallow parts of the site (0 - 10 m).
4. The examination of species diversity and faunal cluster data provided in Cooper and Barry (2017) used data associated with aggregates offshore wind farm activity from over the last 20 years, and considered to be contemporaneous to the shrimp fishery, and compared this with fishing activity data. With the exception of one shallow area of “mosaic habitat” west of the Lynn Knock “the analysis showed that shallower waters (<10 m) within and outside The Wash and North Norfolk Coast had similar faunal clusters and low diversity levels, irrespective of levels of shrimp fishing activity” (P52 and Appendix 9). Eastern IFCA considered that the “results support the hypothesis that levels of biological diversity are driven primarily by physical conditions (water depth and sediment type) rather than intensity of shrimp fishing activity”.
5. Eastern IFCA also undertook addition analysis by applying the IQI index in support of its other analyses. It is noted that the analysis extends partly into the Inner Dowsing, North Ridge and Race Bank SAC. Eastern IFCA used shrimp fishery return data for its fishing activity overlay which does not cover the whole of Inner Dowsing, North Ridge and Race Bank SAC. The available species diversity and faunal cluster data contained in Cooper and Barry

(2017) is, however, more extensive across Inner Dowsing, North Ridge and Race Bank SAC than The Wash and North Norfolk Coast.

6. The Eastern IFCA conclusions are consistent with NE supplementary advice for Inner Dowsing, North Ridge and Race Bank SAC that identifies the top of the banks as having predominantly low diversity communities, typical of disturbed mobile sediment environments.

**MMO response:** There are several key differences between Inner Dowsing, Race Bank and North Ridge SAC and The Wash and North Norfolk SAC that should be taken into account such as the levels and type of bottom towed fishing activity occurring (see section 5.3.2 for additional information). The Eastern IFCA assessed the impacts of shrimp trawling, which is relatively light compared to other bottom towed gears (Eastern IFCA, 2018). Critically, 72% of the sandbank feature in The Wash and North Norfolk SAC is in favourable condition whereas the sandbank feature in Inner Dowsing is in unfavourable condition requiring a more precautionary approach.

A zoned approach is likely to result in increased bottom towed gear activity and associated impacts in areas that remain open to bottom towed gears due to displacement from closed areas. Current levels of bottom towed fishing activity are likely preventing the conservation objectives from being furthered, increased levels of activity in open areas would likely be in breach of MMO's duties under the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017.

There is uncertainty and conflicting evidence regarding the impact of bottom towed gears on the sandbank feature, MMO cannot rule out an adverse effect on site integrity if areas of Inner Dowsing, Race Bank and North Ridge SAC sandbank feature remain open to bottom towed gears, nor identify activity thresholds that will allow some activity from bottom towed fishing without having adverse effects on site integrity. MMO has therefore concluded that an adaptive or zoned management approach is not sufficient to further the conservation objectives of Inner Dowsing, Race Bank and North Ridge SAC.

## 1.7 Evidence

The following points were raised by respondents regarding the evidence used in the MPA assessment and in MMO's decision making process:

1. Oceana analysis found 1,037 fishing hours recorded in 2019 using bottom towed gear within the site. 99% of this fishing was conducted with bottom otter trawl and 1% with beam trawl. Our analysis shows apparent bottom-fishing occurring in parts of the site, with different intensities, reaching a maximum of 60 hours/km<sup>2</sup> for the most intensively fished cells. A clear concentration of bottom-fishing is visible at the centre of the site, providing further evidence of the need to manage the whole site and prohibit bottom towed gear throughout



to ensure site integrity and recovery of the whole site, including potential expansion of reef habitat.

2. Fishing activities conducted by vessels under 12 m are not recorded as they are not required to report their location via VMS. Additional data within the assessment obtained from other sources regarding the fishing activity of smaller vessels are also reported to have low confidence. As a result, there is a concern that the restrictions proposed may not be proportional to fishing effort.

**MMO response:** MMO has used best available evidence regarding the habitat and fishing activities within the SAC. Where additional, relevant evidence was provided during the consultation periods, this has been incorporated into our assessment.

Additional fisheries data provided through Ocean (global Watch data) uses Automatic Identification System (AIS) data. MMO has reviewed the use of AIS data against the continued use of VMS data for MPA assessments and understanding fishery activity levels within our MPA network. MMO determined more confidence in VMS data and has proceeded to use this evidence.

3. The assessment states that the future monitoring of activity within the site will be via surface surveillance, VMS and landings data. How will these actions be executed to monitor the footprint of fishing activity including under 12 m vessels more accurately?

**MMO response:** MMO has launched the roll out of I-VMS to under 12 metre fishing vessels which are licensed to fish in English waters, with legislation due to come into force which will make it a legal requirement for these vessels<sup>12</sup>. I-VMS will provide a better understanding of where fishing activities are taking place. Once available, I-VMS data will be considered alongside the VMS, surveillance and landings data currently available.

The monitoring and control plan for MPA monitoring fishing activities with MPAs is detailed in Annex 3 of the assessment.

## 1.8 Monitoring and control

The following points were raised by respondents regarding the monitoring and control of the SAC:

1. According to JNCC, there is no long-term condition monitoring available to determine whether Inner Dowsing, Race Bank and North Ridge is moving towards its conservation objectives, so the extent of damage by bottom trawlers to the protected seabed is unknown. Therefore, the precautionary

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<sup>12</sup> [Inshore Vessel Monitoring \(I-VMS\) for under-12m fishing vessels registered in England - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/inshore-vessel-monitoring-i-vms-for-under-12m-fishing-vessels-registered-in-england)

principle should be applied, and all gear that comes into contact with the seabed should be banned from the entire site

2. It is not specified what the associated measures will be in terms of control and surveillance. Depending on the modalities adopted, the constraints for the fleets, including those not affected by the management, can turn out to be severe and have economic repercussions.

**MMO response:** A monitoring and control plan is being developed by MMO to consider byelaw associated control and surveillance measures for fishing activity within the site. This monitoring plan is related to monitoring of fishing activity and to outline associated control measures, and not site condition. The implementation of this is not a sufficient reason for the site to remain open to bottom towed gear and static gear over specified areas when this has been assessed as having an adverse effect on site integrity.

It is the SNCBs role to undertake monitoring of site integrity and recovery. Any monitoring completed by JNCC will be reviewed by MMO as part of the review process of the MPA assessments and the efficacy of any management measures in place.

### **1.9 Impact on recreational anglers**

The following point was raised by respondents regarding the impact on recreational sea anglers:

1. The interpretation of static fishing gear would include angling with the use of weights fishing on the seabed. Is there the intention to include recreational angling, or any unintended inclusion, through the existing wording?

**MMO response:** We have reviewed the impact of fishing weights and the potential to impact reef feature. An additional section has been added to the MPA fisheries assessment (section 4.2.2.2 Impacts of small weights from marine recreational fishing (angling)). There is some evidence of potential physical impact (abrasion) from small weights used in recreational sea angling, however the evidence indicates that the light weights used during recreational sea angling will not significantly damage *S. spinulosa* reef. MMO has amended the byelaw to exclude recreational angling as MMO has determined that any impact of this activity will not have an adverse effect on site integrity.

### **1.10 Social implications**

The following points were raised by respondents regarding the social implications of the management measures on marine users:

1. The dependence of non-UK activities on each site may seem moderate, the consequences of the network as a whole, on the activity of the fleets, has to be considered.

**MMO response:** All management measures are non-discriminatory as they apply equally to vessels regardless of the country conducting the fishing activity. However,

due to varying levels of activity within the SAC, some countries may be impacted more than others.

2. Depending on the regulations adopted, and even in the event that a total ban on fishing sites is not enacted, several vessels could nevertheless be required to cease their activity, due to the cost of adaptation of their fishing strategy.
3. There are no new analyses of the risks of degradation of the conservation status of sites by the fishing gear targeted by these prohibition measures accompanies the proposals. No consideration of the potential social and economic impacts for the vessels concerned, in the consultation documents.

**MMO response:** MMO strive to avoid any unnecessary impacts to the fishing industry including financial implications in the development of management measures. However, MMO has a duty to exercise all relevant functions to ensure compliance under the Conservation of Offshore Marine Habitats and Species Regulations 2017 and Conservation of Habitats and Species Regulations 2017. The potential for management to have a socio-economic impact does not override this duty.

In accordance with our duties, the social and economic impact of the proposed management has been assessed and considered as part of the process of developing and introducing management measures. The social and economic impact of the proposed management has been assessed and considered as part of the process of developing and introducing management measures in the form of an RTA.

### **1.11 Other activities and their impacts on designated features**

The following points were raised by respondents regarding about the other activities on going within the Inner Dowsing, Race Bank and North Ridge SAC and their impacts on the site:

1. There are factors which are far more likely to have long term adverse impacts on the *S. spinulosa* than any demersal fishing or potting, not considered within the assessment materials to date.
2. The "Docking Shoal" and "South Well" reef areas are in close proximity and within aggregate dredging areas. It is highly likely that the *S. spinulosa* abundance and extent here has been adversely affected by that activity and will continue to be affected until some decades after the activity in the adjacent dredging area ceases.
3. Removal of aggregate material dredging sites will affect local tidal streams both at the surface and benthic levels, affecting scour/sedimentation, and affecting the quantity of food matter carried by *S. spinulosa*.

**MMO response:** With regards to aggregate extraction; aggregate extraction areas are consented by MMO through the marine licensing process. During this process, MMO consult SNCBs and Cefas to determine the impacts of the proposed works on the surrounding area. The two aggregate extraction areas are more than 400 metres from areas to be managed as reef (Figure 3). Part C of the MPA assessment reviews the impacts of fishing in-combination with other activities occurring within the site.

4. Two reef areas are near the export cable route for the Triton Knoll windfarm, and lie along the same bathymetric level: given all of this one would expect to find equally good *S. spinulosa* between the two sites, yet MMO has permitted Triton Knoll to lay cables through the area. There will be long-term adverse seabed effects for 50 m either side of the cables, with lesser ripple effects (potentially affecting benthic tidal currents) for greater distance. One of the major adverse effects of windfarm cables is that they attract common starfish, which prey upon (actually very quickly wipe out) *S. spinulosa*.
5. The impacts of the recently consented windfarms within the vicinity of the site are not considered to have an impact yet bottom towed and static gear are being prevented even at low levels.

**MMO response:** The extent and impact of windfarms within Inner Dowsing, Race Bank and North Ridge SAC are considered during the consenting process. Whether through the Planning Inspectorate (PINS) or through MMO (for marine licensing), consideration will be taken by the consenting body as to the advice of the SNCBs, the advice will take into account best available evidence on feature extent and the impact of the proposed works on the integrity of the site. Figure 4 illustrates the consented windfarms and their associated cable routes within the SAC, as shown, the windfarm and associated works are at least 1 km away from areas to be managed as reef, it is unlikely that there would be any impact on the reef areas from this distance.

Marine planning supports a strategic approach to the utilisation and development of the marine environment across multiple sectors and considers socioeconomic factors. All management decisions for MPAs will be compliant and made in accordance with relevant policies of the Marine Plan for that area and while a number of MPAs are situated in the North Sea, their designation does not imply a requirement for fisheries management. Where fishing activity can, beyond reasonable scientific doubt, be ruled out as: having an adverse effect on the integrity of the site (for EMSs) or not significantly risk hindering the conservation objectives of the site (for MCZs), the fishing activity can continue.

The socio-economic impacts of the development of offshore windfarms is given consideration in the marine license application by MMO or by PINS depending on whether the development is deemed a nationally significant infrastructure project

(NSIP). Statutory duties under the Marine and Coastal Access Act 2009 or the Planning Act 2008 will be discharged by the regulatory body accordingly.

Part C of the MPA assessment reviews the impacts of fishing in-combination with other activities occurring within the site. When consenting new works, the MMO Marine Licensing team liaise with the MMO Marine Conservation Team to determine if proposed marine licensable activities are compatible with management measure within each MPA.

**Figure 3: Current and legacy aggregate extraction sites in Inner Dowsing, Race Bank and North Ridge SAC.**

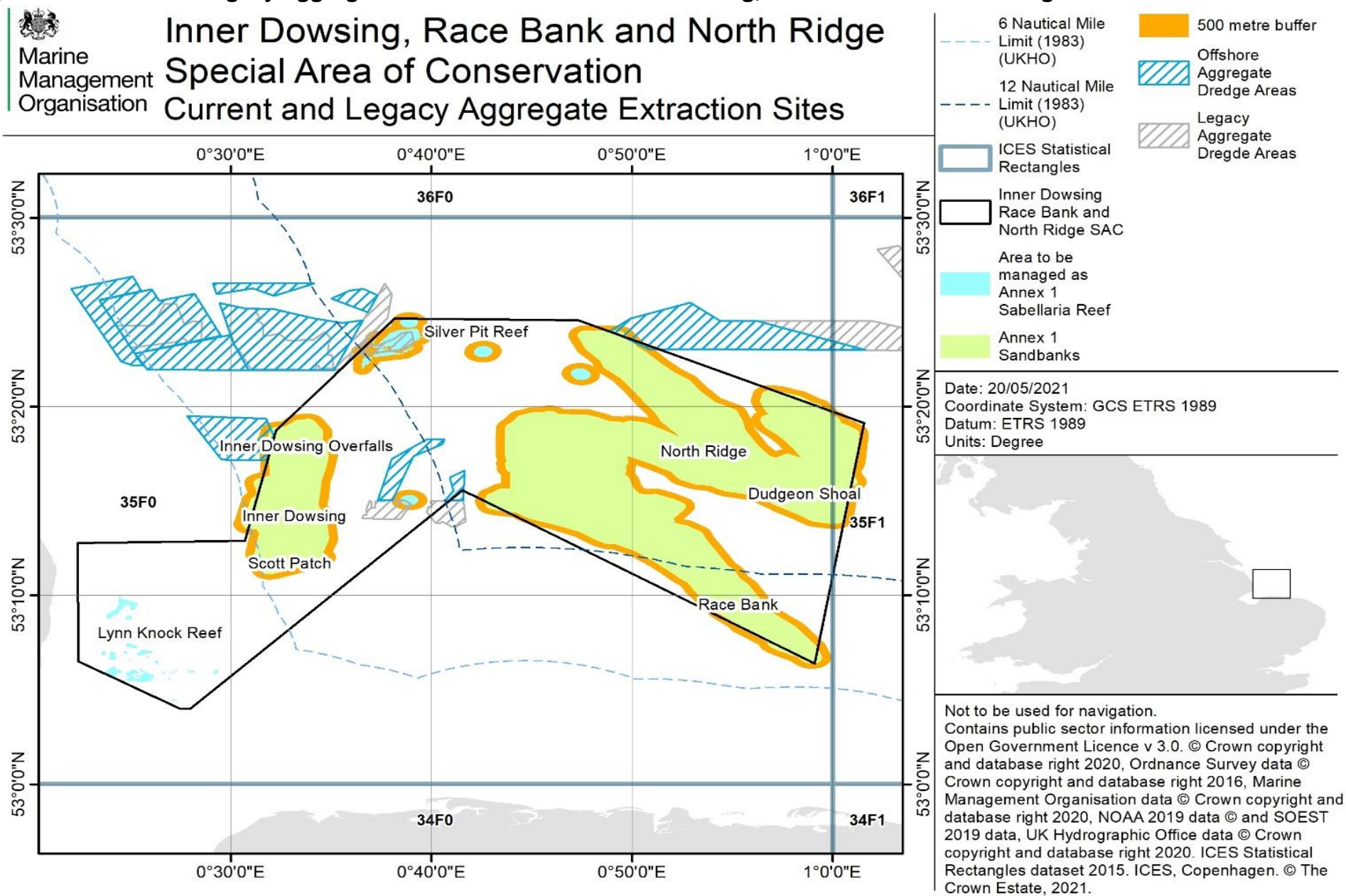
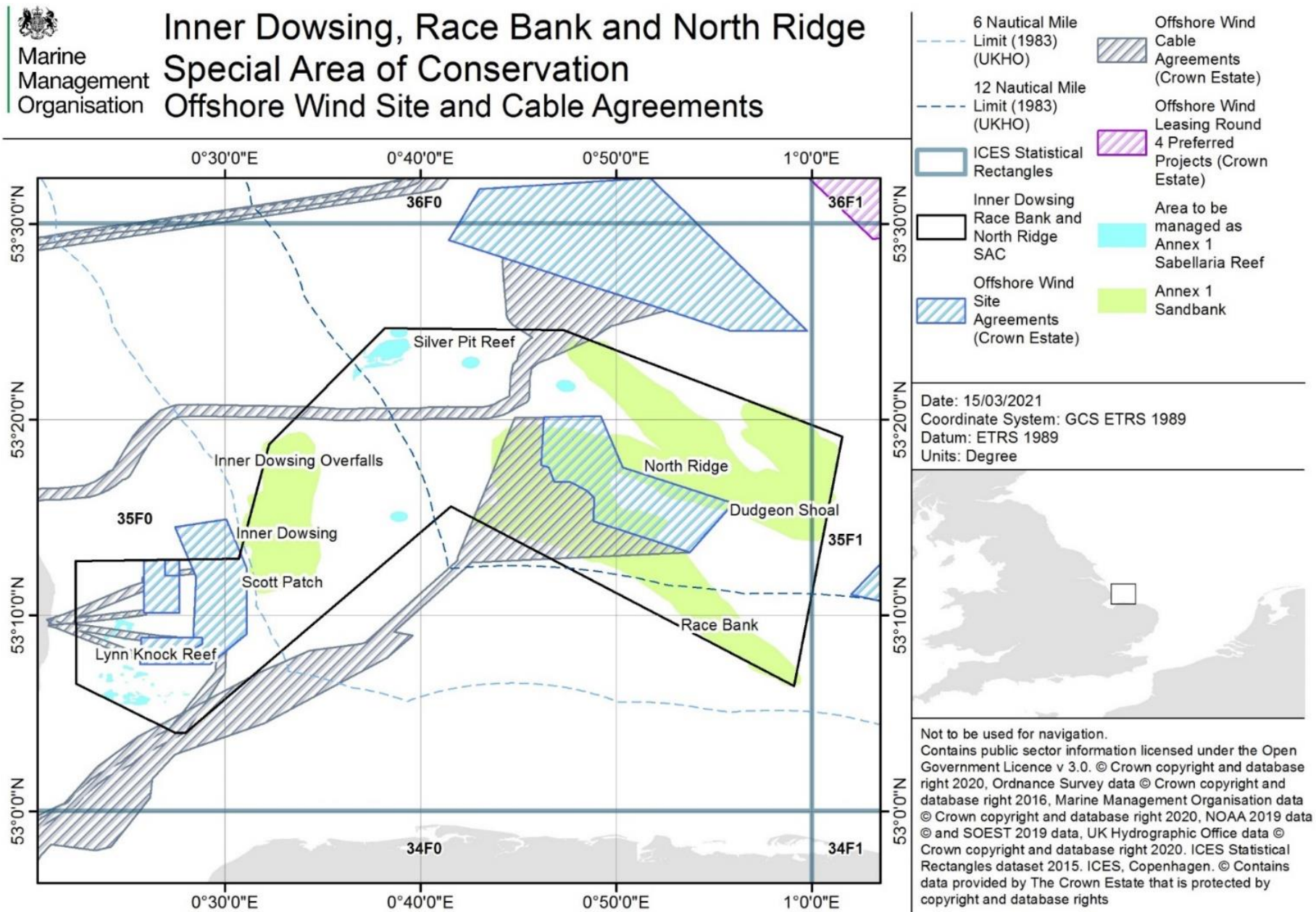


Figure 4: Offshore wind site and cable agreements in Inner Dowsing, Race Bank and North Ridge SAC.



## 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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