

Assessing the contribution of other area-based measures to addressing shortfalls in the MPA network in Secretary of State Waters

1 Background

Designating Marine Protected Areas (MPAs) is an important step in helping to conserve the marine environment. The UK Government and Devolved Administrations are committed to creating an ecologically coherent network of MPAs in UK waters. The Marine and Coastal Access Act 2009 allows for the creation of MPAs called Marine Conservation Zones (MCZs). Under this Act, MCZs protect a range of nationally important marine wildlife, habitats, geology and geomorphology.

1.1 The MCZ Project

At the request of Defra, JNCC and Natural England set up a project in 2008 to give sea users and interest groups (stakeholders) the opportunity to recommend MCZs to the UK Government. Using the Ecological Network Guidance (ENG)¹ as a basis for identifying sites, the regional MCZ projects recommended 127 MCZs in September 2011. To evaluate how the recommended MCZs (rMCZs) compared with the requirements of the ENG and the MCZ Project Guidance² Defra requested that JNCC and Natural England complete a review; advice was provided in July 2012. Since then JNCC and Natural England have been advising Defra on the designation of further MCZs to help complete an ecologically coherent network of MPAs.

To date 50 MCZs have been designated in two Tranches. Defra announced their intention to designate a third tranche of MCZs in 2018 to complete the network of MPAs in Defra Secretary of State Waters around England and offshore waters of Northern Ireland. JNCC reviewed progress with the existing MPA network up to Spring 2016 and considered whether potential site options drawn from the remaining recommended MCZs would complete the network³. Even if these site options were designated, there would still be some shortfalls in the MPA network. Defra asked JNCC and Natural England to take forward process to identify options to address these shortfalls to complete the network. JNCC and Natural England have identified potential Areas of Search as options where new sites could be determined to fill shortfalls in Defra's contribution to the UK MPA network. The approach taken is described in a paper available on JNCC's website⁴.

¹ JNCC and Natural England, Ecological Network Guidance (ENG), 2012. Available at: http://jncc.defra.gov.uk/pdf/100705_ENG_v10.pdf

² JNCC and Natural England, Project Delivery Guidance on the process to select Marine Conservation Zones. Available at: <http://jncc.defra.gov.uk/page-4881>

³ JNCC, Assessing progress towards an ecologically coherent MPA network in Secretary of State Waters in 2016, October 2016. Available at: <http://jncc.defra.gov.uk/page-7119>

⁴ JNCC & Natural England. 2016. Identifying potential site options to help complete the Marine Protected Area network in the waters around England. Available at: <http://jncc.defra.gov.uk/page-7119>

1.2 The role of other area-based measures

The UK has many policy obligations to contribute to Marine Protected Area (MPA) networks at a range of scales. Some of these obligations note that conserving marine biodiversity can be undertaken through both MPAs and other forms of spatial protection measures:

- The Convention on Biological Diversity, Aichi target 11 calls for 10% of coastal and marine areas to be *conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and **other effective area-based conservation measures***;
- Article 13.4 of The Marine Strategy Framework Directive notes **spatial protection measures** as one of the Programmes of Measures expected to make a contribution to Good Environmental Status of Europe's seas; and,
- The OSPAR Convention for the protection of the marine environment across the North-east Atlantic calls for the development of an ecologically coherent and well-managed network of MPAs; As part of any assessment of ecological coherence across the North-east Atlantic the need to consider the contribution of **other area-based measures** is also cited.

1.3 Purpose of this paper

The purpose of this paper is to present an approach for assess the potential contribution of other area-based measures to addressing remaining shortfalls in the MPA network within Secretary of State Waters in the offshore marine area.

It is important to note that the policy obligations outlined in Section 1.2 are based on the UK network of MPAs as a whole and that this work is only covering a component of that. Indeed work has been undertaken in Scotland to conduct a similar exercise for Scottish waters as part of the Scottish MPA Project (Cunningham *et al.*, 2011⁵) and this work has drawn from that.

It is likely that further work will need to be undertaken at a UK level through our engagement with OSPAR to consider the contribution of other area-based measures more broadly.

2 An approach to assessing the contribution of other area-based measures

2.1 How are MPAs defined?

A useful starting point for this process is to consider how an MPA is defined. A commonly accepted definition that has been adopted by Defra was developed by the IUCN (2008): – ‘A **clearly defined geographical space, recognised, dedicated and managed through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values**’.

⁵ <http://www.gov.scot/Resource/Doc/295194/0121831.pdf>

From this definition, it appears there are several important elements for an area to be considered as an 'MPA':

- Be a clearly defined geographical space;
- Be managed through legal or other effective means; and,
- Be able to achieve the long-term conservation of nature.

2.2 A decision-tree based approach

Based on the key elements outlined from the IUCN definition of an MPA above, Figure 1 sets out a decision-tree for considering the contribution that other area-based measures could make to addressing shortfalls in the MPA network in Secretary of State Waters within offshore waters. An area needs to meet all the relevant criteria in order to be considered as making a valid contribution to the network in the longer term.

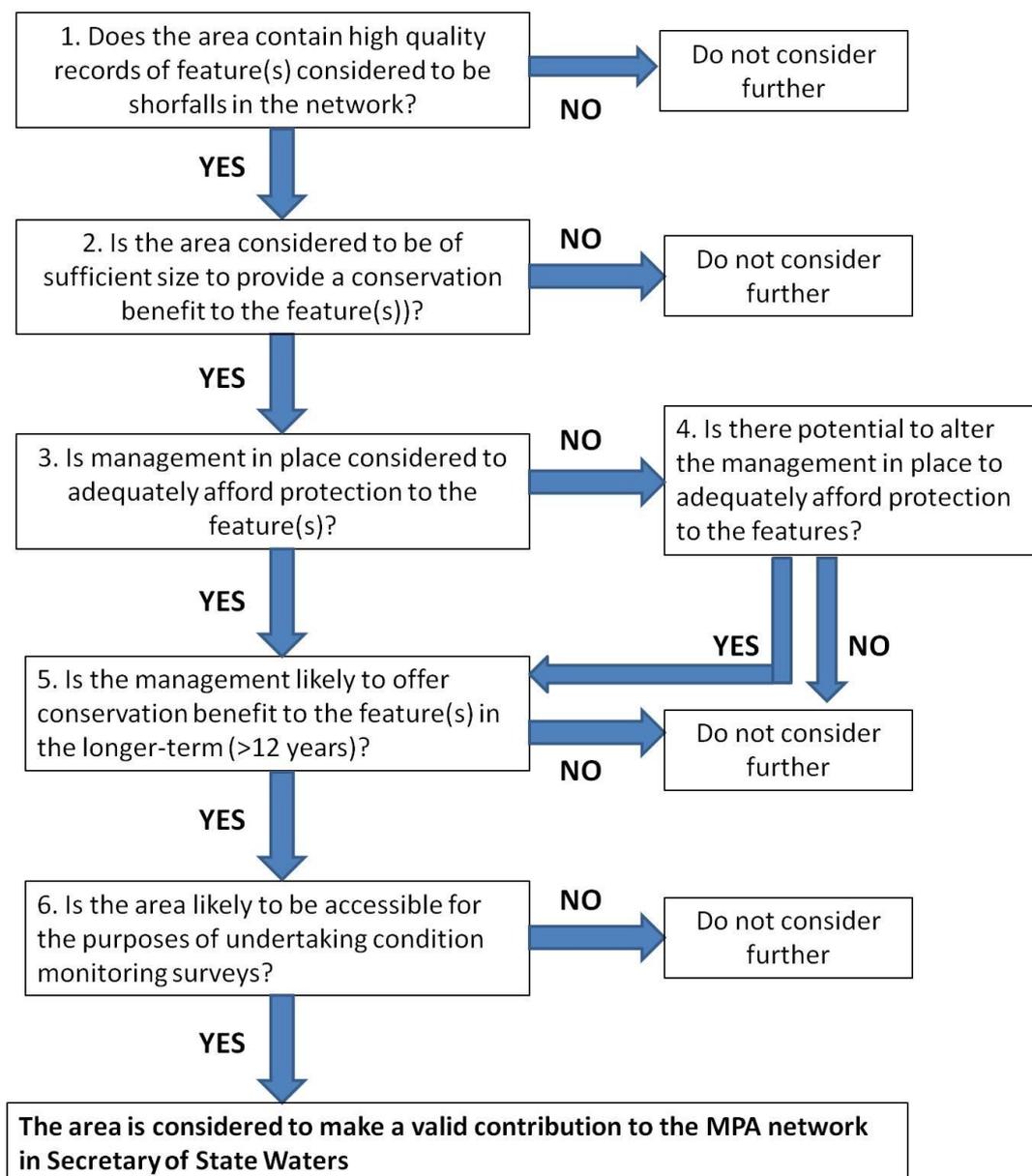


Figure 1. A decision-tree for considering the potential contribution of other area-based measures to the MPA network in Secretary of State Waters within offshore waters.

The first step in the process is to consider the in-principle contribution an other area-based measure type could potentially make (Section 2.3). The second is to assess specific area-based measures in terms of the contribution they could make to addressing shortfalls in the network in offshore waters (Section 3).

2.3 Types of other area-based measures in Secretary of State Waters

Table 1 provides an overview of the types of other area-based measures in offshore Secretary of State Waters that could make a contribution to the MPA network. In each case, Table 1 assesses the potential contribution each type of other area-based measure could make – with only those that have the potential to make a contribution being considered as part of the process outlined in Figure 1. Based on the results of Table 1 below, only fisheries restriction areas are considered to yield a potential benefit to the conservation of marine habitats and species in offshore Secretary of State Waters.

Table 1. Types of other area-based measures present in offshore Secretary of State Waters and a summary of their potential contribution to the MPA network

<i>Other area-based measures</i>	<i>Appraisal of potential benefit</i>	<i>Potential limitations</i>	<i>Potential to address shortfalls in the MPA network in offshore Secretary of State waters?</i>
Military Practice Areas	Practise Exercise Areas (PExA) where military practice exercises can be undertaken at any time (permitting certain restrictions). The Ministry of Defence (MoD) informs the public through a notice to mariners prior to using a PExA.	Whilst potential MoD activities that may impact marine habitats and species may be limited in these areas, these areas do not preclude other non-military activities taking place on a long-term basis and are therefore unlikely to afford significant conservation benefit to shortfalls in the MPA network.	No
Ministry of Defence Firing Danger Areas	Used for various types of Ministry of Defence activities, but primarily for live or inert firings using various munitions and weapons.	Management of these areas are unlikely to be appropriate to avoid impacting marine habitats and species. The intensity or type of activities could change in the future which could further impact features. The areas may not prohibit certain damaging non-military activities from taking place and it may not be possible to monitor the area to determine its ecological condition.	No
Energy sector safety exclusion zones	Safety exclusion zones around energy sector infrastructure at sea that exclude other users.	The scale of these safety exclusion zones is unlikely to be sufficient to provide a conservation benefit to MPA features in the network. Additionally, it would not be feasible to restrict any of the essential works required to maintain the infrastructure or decommissioning activities, even if those activities represent a potential impact to marine habitats and species. There may also be restrictions on gaining access to these areas for condition monitoring purposes.	No

<i>Other area-based measures</i>	<i>Appraisal of potential benefit</i>	<i>Potential limitations</i>	<i>Potential to address shortfalls in the MPA network in offshore Secretary of State waters?</i>
Fisheries Management Areas	These include areas established through the Common Fisheries Policy (e.g. ICES advised implemented closures).	Depending on the type of measures imposed and their permanency, they could offer a potentially valuable contribution to addressing shortfalls in the MPA network in Secretary of State Waters.	Yes
Aggregate extraction zones (Aggregate options, Exploration and agreement areas, Application areas, Aggregate licence areas)	Areas used/of interest for marine aggregate extraction.	Whilst for the period of active dredging activity aggregate extraction zones would exclude other sea users from these areas, the temporary nature of this activity and the potential impact of aggregate dredging on marine habitats and species is unlikely to result in a potential benefit to the MPA network in Secretary of State Waters.	No
Marine planning Regions	Marine Planning Regions have been developed and cover the full extent of offshore Secretary of State Waters. Marine Plans prepared for these regions are intended to interpret and present Government's policies and objectives for UK waters into a clear, spatial, temporal and locally-relevant expression of policy, implementation and delivery.	Due to the infancy of this process, it is not yet clear whether activities brought forward as part of the implementation of regional marine planning processes will deliver (in principle) tangible conservation benefits to features considered to be shortfalls in the MPA network.	No

3 Results

JNCC's evaluation of those spatial measures that offer the potential to make a contribution to the MPA network concluded that fisheries measures are the only realistic option (Table 1) Table 2 provides an overview of fisheries management areas in Secretary of State Waters together with an assessment of these areas against the six criteria set out in Figure 1. A map of these fisheries management areas is provided in Figure 2.

After reviewing the features present within these areas, JNCC concluded that none of the fisheries management areas assessed could afford adequate protection to MPA features in the MPA network in Secretary of State Waters. These areas would not therefore make a contribution to addressing the shortfalls in the existing MPA network.

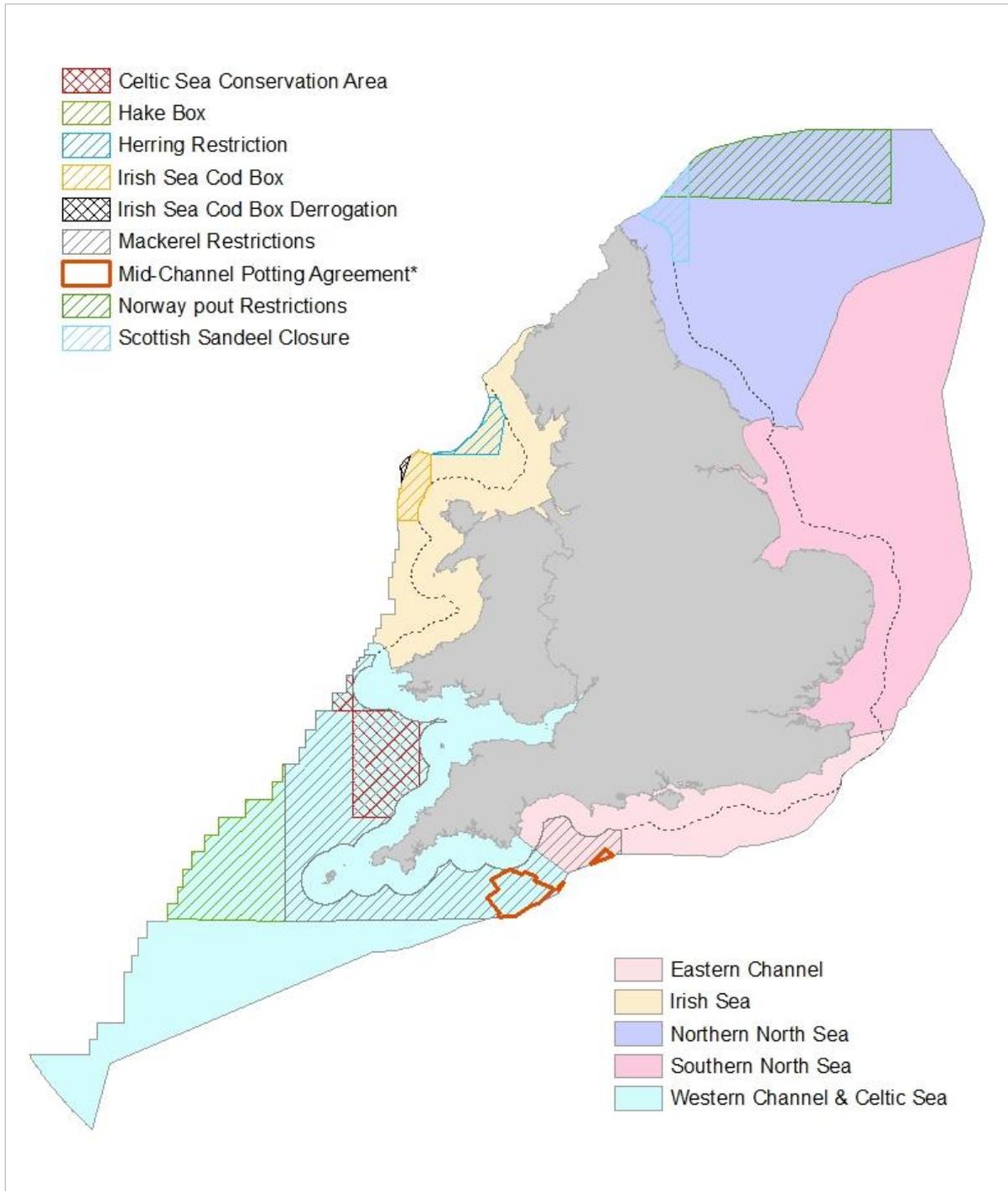


Figure 2. Map of fisheries management areas in Secretary of State Waters.
 *Note the Mid-Channel Potting Agreement changes its location on an annual basis.

Table 2. Assessment of fisheries management areas against the six criteria for assessing other area-based measures and their contribution to addressing shortfalls in MPA network in Secretary of State Waters

Fisheries management area (hyperlink to regulation)	Charting Progress II Regional Sea	<i>Verified feature records considered to be shortfalls in the region</i>	<i>Sufficient size to afford conservation benefit?</i>	<i>Management appropriate?</i>	<i>Could be adapted to deliver conservation benefit</i>	<i>Permanency of management?</i>	<i>Accessibility for condition monitoring purposes?</i>	Conclusions
Mackerel box closure	Western Channel, Eastern Channel & Celtic Seas	Verified records of subtidal coarse sediment and subtidal sand	Yes – total marine area 33,432 km ² in Secretary of State Waters	No – Represents a landing restriction on mackerel only and no gear restrictions apply. The measure is also for the management of a pelagic species.	No – but an MCZ designation could overlap with the current closure to afford protection to subtidal coarse sediment and subtidal sand	Unclear from underlying regulation	Yes	Does not contribute – Whilst verified records of features considered to be shortfalls in the Western Channel & Celtic Seas Regions are recorded, the management in place is not likely to afford protection to these features as no gear restrictions apply. In addition, it is unclear from the underlying regulation what the permanency of management in this area is.
Herring Restriction	Irish Sea	Verified records of subtidal coarse sediment	Yes – total marine area 1,411 km ² in Secretary of State Waters	No – Represents a landing restriction on herring as part of a seasonal restriction (21 st September – 31 st December). The measure is also for the management of a pelagic species.	No – but an MCZ designation could overlap with the current closure to afford protection to subtidal coarse sediment	Unclear from underlying regulation	Yes	Does not contribute – Whilst verified records of features considered to be shortfalls in the Irish Sea are recorded, the management in place is not likely to afford protection to these features. The management places a seasonal restriction on landing herring. In addition, it is unclear from the underlying regulation what the permanency of management in this area is.

Fisheries management area (hyperlink to regulation)	Charting Progress II Regional Sea	<i>Verified feature records considered to be shortfalls in the region</i>	<i>Sufficient size to afford conservation benefit?</i>	<i>Management appropriate?</i>	<i>Could be adapted to deliver conservation benefit</i>	<i>Permanency of management?</i>	<i>Accessibility for condition monitoring purposes?</i>	Conclusions
Sandeel restriction	Northern North Sea	Verified records of subtidal sand	Yes – total marine area 1,906 km ² in Secretary of State Waters	No – A year round closure on sandeel fishing but no other gear restrictions apply.	No – but an MCZ designation could overlap with the current closure to afford protection to subtidal coarse sediment	Yes – been in place since 2000 with no re-opening criteria established	Yes	Does not contribute – Whilst verified records of features considered to be shortfalls in the Northern North Sea are recorded, the management in place is not considered to afford protection to these features. The management places a restriction on sandeel fishing only.
Celtic Sea Conservation Area (Trevoise Box)	Western Channel & Celtic Seas	Verified records of subtidal coarse sediment	Yes – total marine area 7,482 km ² in Secretary of State Waters	No – Although gear types considered to affect features considered to be shortfalls in the network are restricted in this area, this measure is seasonal (1 st February to 31 st March each year)	Yes – a change from seasonal to year round closure to gear types in the area would be considered adequate to afford protection to the features considered to be shortfalls in the network in this area.	No – been in place since 2005 with re-opening criteria yet to be established.	Yes	Does not contribute – Whilst verified records of features considered to be shortfalls in the Western Channel & Celtic Seas are recorded, the management in place is not considered likely to afford protection to these features. It is only a seasonal restriction on gear types with the potential to affect the biological communities associated with subtidal coarse sediment. A change in management to represent a year-round closure would be considered to afford adequate protection to subtidal coarse sediment in the area.

Fisheries management area (hyperlink to regulation)	Charting Progress II Regional Sea	<i>Verified feature records considered to be shortfalls in the region</i>	<i>Sufficient size to afford conservation benefit?</i>	<i>Management appropriate?</i>	<i>Could be adapted to deliver conservation benefit</i>	<i>Permanency of management?</i>	<i>Accessibility for condition monitoring purposes?</i>	Conclusions
Hake Box	Western Channel & Celtic Seas	Verified records of subtidal coarse sediment	Yes – total marine area 12,239 km ² in Secretary of State Waters	No – Restriction applies to using mesh sizes below 120mm for the purposes of conserving juvenile hake. All other fishing practices permitted	No – but an MCZ designation could overlap with the current closure to afford protection to subtidal coarse sediment.	Yes – year round restriction in place since 2001	Yes	Does not contribute – Whilst verified records of features considered to be shortfalls in the Western Channel & Celtic Seas are recorded, the management in place is not considered to afford protection to these features as the management applies to a restriction on use of certain mesh sizes only.
Irish Sea Cod Box	Irish Sea	Verified records of subtidal coarse sediment	Yes – total marine area 1,691 km ² in Secretary of State Waters	No – Although gear types considered to affect features considered to be shortfalls in the network are restricted, this measure is seasonal (14 th February to 30 th March each year)	Yes – a change from seasonal to year round closure to gear types in the area would be considered adequate to afford protection to the features considered to be shortfalls in the network in this area.	Yes – restriction in place since 2000 with no re-opening criteria established.	Yes	Does not contribute – Whilst verified records of features considered to be shortfalls in the Irish Sea are recorded, the management in place is not considered to afford protection to these features as it represents a seasonal restriction on gear types with potential to affect the biological communities associated with subtidal coarse sediment. A change in management to represent a year-round closure would be considered to afford adequate protection to subtidal coarse sediment in the area.

Fisheries management area (hyperlink to regulation)	Charting Progress II Regional Sea	<i>Verified feature records considered to be shortfalls in the region</i>	<i>Sufficient size to afford conservation benefit?</i>	<i>Management appropriate?</i>	<i>Could be adapted to deliver conservation benefit</i>	<i>Permanency of management?</i>	<i>Accessibility for condition monitoring purposes?</i>	Conclusions
Norway Pout Restrictions	Northern North Sea	Verified records of subtidal sand	Yes – total marine area 11,211 km ² in Secretary of State Waters	No – Represents a landing restriction on Norway pout only and no gear restrictions apply	No – but an MCZ designation could overlap with the current closure to afford protection to subtidal coarse sediment.	Yes – year round restriction in place since 1997	Yes	Does not contribute – Whilst verified records of features considered to be shortfalls in the Northern North Sea are recorded, the management in place is not considered to afford protection to these features as no gear restrictions apply.
Channel Potting Agreement (no underlying regulation as voluntary agreement)	Western Channel, Eastern Channel & Celtic Seas	Verified records of subtidal coarse sediment in Western Channel and subtidal mixed sediments in Eastern Channel	Yes – total marine area approx 2,326 km ² in Secretary of State Waters	No – A temporal towed gear restriction that changes in location and extent on an annual basis	No – but an MCZ designation could overlap with the current closure to afford protection to subtidal coarse sediment.	No – Temporal restriction only that changes in location and extent on an annual basis	Yes	Does not contribute – Whilst verified records of features considered to be shortfalls in the Western Channel and Celtic Seas are recorded, the management in place is not considered to afford protection to these features as the management is seasonal only and changes in location and extent on an annual basis.

4 Conclusions

JNCC's in-principle assessment of the contribution other area-based measures could make to the MPA network in offshore Secretary of State waters identified fisheries management areas as potentially making a contribution. Our assessment of the eight fisheries management areas that fall at least partially within offshore Secretary of State Waters suggest that none of these areas make an adequate contribution to addressing shortfalls in the MPA network as they currently stand. This is primarily because the management measures in place apply to the protection of pelagic fish species or represent seasonal restrictions on fishing activity.