Joint Recommendation regarding the protection of sub-tidal sand, sub-tidal course sediment, sub-tidal mixed sediment and the English Channel Outburst Flood Features (Quartenary fluvio-glacial erosion deposits) within the Offshore Overfalls Marine Conservation Zone under Article 13(4) of Directive 2008/56/EC and Article 18 of Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy (the Basic Regulation).

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Joint Recommendation

1. Introduction

This joint recommendation contains a proposal for the regulation of fisheries activity and is initiated by the United Kingdom (UK) and submitted to the European Commission jointly by the UK and the following Member States: The Netherlands, Belgium and France being those Member States who have a direct management interest affected by the joint recommendation.

The overall aim of this joint recommendation is to ensure the protection of the broadscale habitats Subtidal coarse sediment (A5.1), Subtidal sand (A5.2) and Subtidal mixed sediments (A5.4) within the Offshore Overfalls Marine Conservation Zone (MCZ) from fisheries, thereby contributing to the obligation to recover these features to Favourable Condition in accordance with the Offshore Overfalls Marine Conservation Zone Designation Order 2016[1]. It is not considered that the geomorphological feature within the site (English Channel Outburst Flood Feature) is at risk from fishing activities and as such it is not included in the management proposal set out in this document.

It is the intention of the UK government (as the initiating Member State) to take forward measures in respect to fisheries activities exercised by all vessels including fishing vessels carrying the flag of other Member States of the EU.

2. The Recommendations to be Implemented

The following recommendation is proposed for adoption in the Offshore Overfalls MCZ:

- the closure of the two zones within the site to demersal trawls and dredges.

Table 1: Gear types that are prohibited in the areas proposed for closure in the site

Gear Types to be prohibited with the site's management boundary.	**Gear code Annex XI in EU Regulation No 404/2011**	**International Standard Classification of Fishing Gears**
Beam trawling	TBB	TBB
Bottom/Otter trawling	OTB, OTT, PTB, TBN, TBS, TB	OTB, OTT, OT, PTB, TB
Dredging	DRB	DRB, DRH

[1] http://www.legislation.gov.uk/ukmo/2016/16/pdfs/ukmo_20160016_en.pdf

The coordinates of the site and management boundaries are as follows:

Table 2: Offshore Overfalls site boundary

Point	Latitude	Longitude
1	50° 35’ 04.729” N	00° 55’ 55.538” W
2	50° 35’ 02.580” N	00° 30’ 48.064” W
3	50° 24’ 07.517” N	00° 30’ 47.502” W
4	50° 24’ 26.935” N	00° 56’ 00.895” W

Table 3: Offshore Overfalls proposed closure to demersal trawls and dredges

Zone	Point	Latitude	Longitude
1	1	50° 35' 02.544" N	00° 31' 14.892 " W
1	2	50° 34' 47.890" N	00° 31' 32.931" W
1	3	50° 34' 35.692" N	00° 31' 48.680" W
1	4	50° 34' 25.420" N	00° 32' 02.501" W
1	5	50° 34' 15.248" N	00° 32' 16.709" W
1	6	50° 34' 03.750" N	00° 32' 33.442" W
1	7	50° 33' 53.348" N	00° 32' 49.219" W
1	8	50° 33' 43.424" N	00° 33' 04.878" W
1	9	50° 33' 34.496" N	00° 33' 19.496" W
1	10	50° 33' 22.215" N	00° 33' 40.490" W
1	11	50° 33' 12.335" N	00° 33' 58.172" W
1	12	50° 33' 00.790" N	00° 34' 19.807" W
1	13	50° 32' 51.321" N	00° 34' 38.400" W
1	14	50° 32' 41.007 " N	00° 34' 59.599" W
1	15	50° 32' 31.606" N	00° 35' 19.855" W
1	16	50° 32' 21.718" N	00° 35' 42.225" W
1	17	50° 32' 13.010" N	00° 36' 02.916" W
1	18	50° 31' 56.550" N	00° 36' 44.725" W

1	19	50° 31' 47.214" N	00° 37' 09.771" W
1	20	50° 31' 40.705" N	00° 37' 28.142" W
1	21	50° 31' 32.212" N	00° 37' 53.395" W
1	22	50° 31' 25.525" N	00° 38' 14.429" W
1	23	50° 31' 14.097" N	00° 38' 53.147" W
1	24	50° 31' 03.596" N	00° 39' 32.522" W
1	25	50° 30' 55.042" N	00° 40' 08.074" W
1	26	50° 30' 44.544" N	00° 40' 57.517" W
1	27	50° 30' 39.389" N	00° 41' 24.987" W
1	28	50° 30' 31.740" N	00° 42' 11.071" W
1	29	50° 30' 27.026" N	00° 42' 43.626" W
1	30	50° 30' 22.778" N	00° 43' 20.190" W
1	31	50° 35' 01.154" N	00° 48' 20.071" W
2	1	50° 24' 20.741" N	00° 48' 15.252" W
2	2	50° 24' 26.935" N	00° 56' 00.895" W
2	3	50° 29' 18.045" N	00° 55' 58.453" W
2	4	50° 29' 18.026" N	00° 48' 15.303" W
3	1	50° 32' 51.641" N	00° 55' 55.996" W
3	2	50° 34' 01.447" N	00° 55' 54.736" W
3	3	50° 35' 02.299" N	00° 52' 08.372" W
3	4	50° 35' 01.025" N	00° 50' 09.222" W
3	5	50° 32' 51.625" N	00° 50' 15.700" W

3. Control and enforcement of the proposed fisheries management measures

Control and enforcement of the proposed fisheries management measures will be based on the risk-based systems in accordance with the model developed by the UK's Marine Management Organisation (MMO).

Key provisions which should be included in an EC regulation to facilitate control, enforcement and compliance include:

- A prohibition on any demersal trawls and dredges being deployed in the identified management areas of the MCZ.

- Establishment of two 1nm (1.852km) reporting zone around the Offshore Overfalls MCZ's management areas. All fishing vessels within this area shall be required to record or report vessel positions at a rate of 10 minute intervals. These areas shall be defined by the reporting zone and coordinates displayed in Annex F.

- A requirement for all fishing vessels entering the reporting zones to have a system for recording and reporting vessel position which meets prescribed specifications (see section 8.2 of Annex C for minimal requirements) and is installed and operative. Any fishing vessel entering the Offshore Overfalls MCZ management area or the reporting zone without such a system will be committing an offence.

- A requirement for all fishing vessels transiting the prohibited area carrying prohibited gears to have all gears on board lashed and stowed.

- A requirement for all fishing vessels transiting the restricted area carrying prohibited gears to ensure that the speed during the transit is not less than 6 knots except in the case of force majeure or adverse conditions[2]. In such cases the master shall immediately inform the fisheries monitoring centre of the flag member state which shall then inform the UK Fisheries Monitoring Centre (FMC).

The proposal on which gear types to prohibit is formulated in terms of Gear Codes in Annex XI in EU Regulation 404/2011 and is explained in more detail in Section 8 of Annex C.

The ongoing management needs of this site will be assessed on an annual basis. If changes to the current management status are required, the UK will coordinate such a requirement in accordance with Articles 11 and 18 of the Basic Regulation and in collaboration with those Member States with a direct management interest in Offshore Overfalls MCZ.

[2] Article 50 4(b) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:343:0001:0050:EN:PDF

Joint Recommendation regarding the protection of sub-tidal sand, sub-tidal course sediment, sub-tidal mixed sediment and the English Channel Outburst Flood Features (Quartenary fluvio-glacial erosion deposits) features within the Offshore Overfalls Marine Conservation Zone under the Habitats Directive 92/43/EEC of 21 May 1992 under Articles 11 and 18 of Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy (the Basic Regulation).

Supporting Documentation

1. Introduction

1.1 General Remarks

The Offshore Overfalls site was designated as a Marine Conservation Zone (MCZ) in January 2016. MCZs are designated by the UK government under the Marine and Coastal Access Act 2009 for England and Wales. These zones will contribute to the UK's commitment to have a well-managed and ecologically coherent network of Marine Protected Areas (MPAs) by 2016 and will also assist in meeting commitments relating to the EU Marine Strategy Framework Directive (MSFD).

Commercial fishing has been identified as an activity which could adversely impact the integrity of this site's features and as such require being assessed and, if necessary, managed to reduce its impact. The General Management Approaches for Offshore Overfalls MCZ are to recover all broadscale habitat features present to favourable condition.

As the proposed area of the Offshore Overfalls site falls beyond 6 nautical miles (nm) of the UK coastline. All Member States have access to the site up to the 12nm limit, France and Belgium have fishing access rights to the 6nm limit of the site. However the UK, Belgium, France and the Netherlands are currently the Member States with an active fishing interest in the site. It is the intention of the UK government (as the initiating Member State) to take forward measures in respect to fisheries activities exercised by all vessels including fishing vessels carrying the flag of other Member States of the EU.

This document covers the 11 information items of the Commission's guidelines from 2008 concerning development of proposals for fisheries management measures in marine Natura 2000 areas within the scope of the Common Fisheries Policy[3].

1.2 Overall aim of the present proposal

The overall aim of this joint recommendation is to ensure the protection of the designated broadscale habitats Subtidal coarse sediment (A5.1), Subtidal sand (A5.2) and Subtidal mixed sediments (A5.4) from fishing activities that could adversely affect feature condition and thereby to contribute to the obligation of recovering all protected features to favourable condition in accordance with the East of Haig Fras Marine Conservation Zone Designation Order 2016.

The conservation objectives for the protected features of the MCZ are that, subject to natural change, the Subtidal sand, Subtidal coarse sediment and Subtidal mixed sediments features are to remain in or be brought into favourable condition. In order to achieve the conservation objectives, General Management Approaches (GMAs) have been set for each feature. Except where direct evidence of condition is available, feature condition is typically based on a proxy assessment of feature sensitivity and the presence of activities to which they may be sensitive. The GMAs for Offshore Overfalls MCZ are to recover all the broadscale habitats to favourable condition.

According to advice provided by Joint Nature Conservation Committee (JNCC), the UK Government's statutory scientific advisor for offshore habitats, where fishing using demersal trawls and dredges overlaps with the feature it may pose a risk to achieving the conservation objectives for the site. Management measures may focus on the removal of pressures (to reduce the risk of not achieving the conservation objectives to the lowest possible level), or the reduction of pressures (to reduce the risk of not achieving the conservation objectives).

The UK is proposing to restrict demersal trawling and dredging within zoned management areas inside the site, due to the risk posed to the achievement of the conservation objectives. Where there is any uncertainty regarding the impacts of fishing on the features, an "adaptive management" approach is proposed, which would allow the site to move towards its conservation objectives while providing the opportunity to improve our understanding of the impacts and subsequently adapt management accordingly. The content of the proposed fisheries management measures is explained in more detail in section 1.3.

The proposal has been reviewed by CEFAS (see section 5).

[3] http://ec.europa.eu/environment/nature/natura2000/marine/docs/fish_measures.pdf

1.3 Recommendation to be implemented

The following recommendation is proposed for adoption in the Offshore Overfalls MCZ:

- the exclusion of demersal trawls and dredges (Table 4) within the proposed management boundary (Figure 1 and coordinates in Table 5).

Table 1: Gear types that are prohibited in the areas proposed for closure in the site

Gear Types to be prohibited within the site's management boundaries	**Gear code Annex XI in EU Regulation No 404/2011**	**International Standard Classification of Fishing Gears**
Beam trawling	TBB	TBB
Bottom/Otter trawling	OTB, OTT, PTB, TBN, TBS, TB	OTB, OTT, OT, PTB, TB
Dredging	DRB	DRB, DRH

The coordinates of management boundary is as follows:

Table 2: Offshore Overfalls MCZ proposed closures to demersal trawls and dredges

Zone	Point	Latitude	Longitude
1	1	50° 35' 02.544" N	00° 31' 14.892 " W
1	2	50° 34' 47.890" N	00° 31' 32.931" W
1	3	50° 34' 35.692" N	00° 31' 48.680" W
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3	5	50° 32' 51.625" N	00° 50' 15.700" W

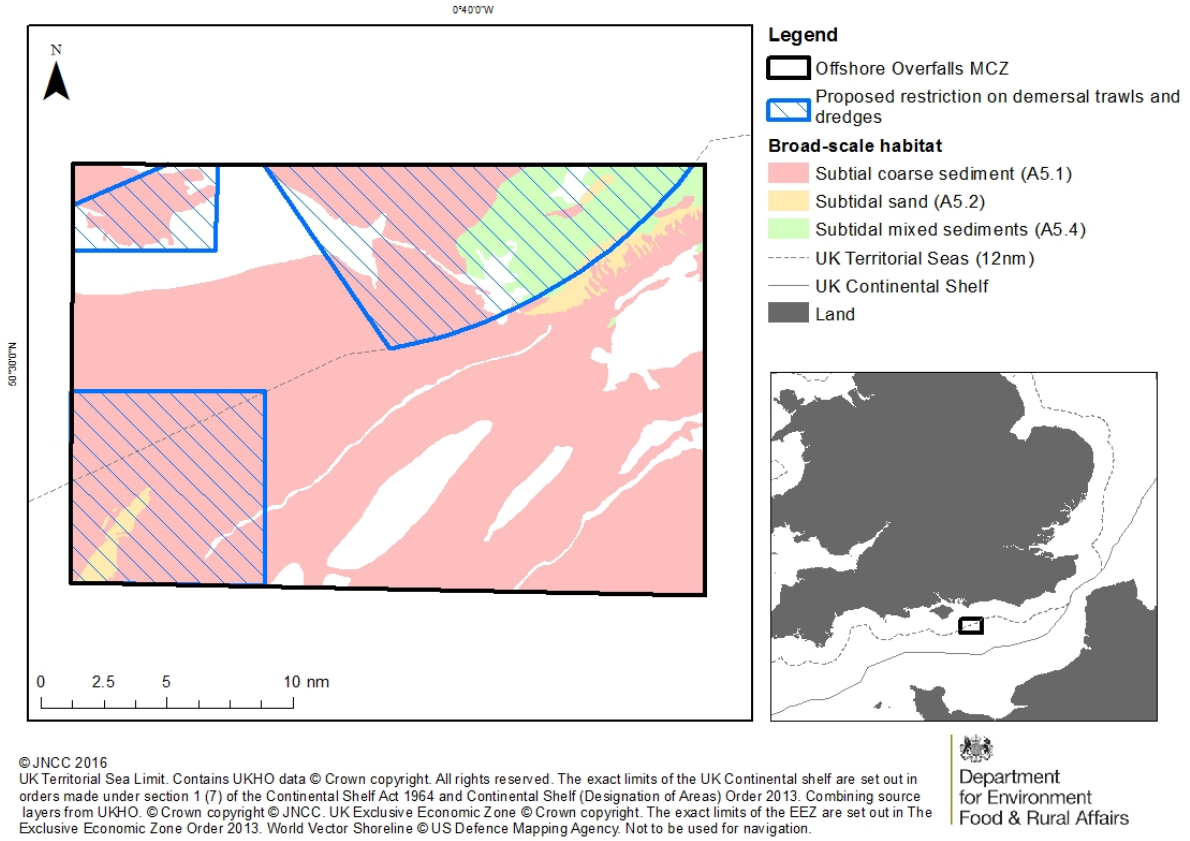


Figure 1: Offshore Overfalls MCZ site map including protected features for which management is being proposed.

2. Legal framework

2.1 Common Fisheries Policy

The Common Fisheries Policy (Regulation No 1380/2013 (The Basic Regulation) Article 11) states that Member States are empowered to adopt conservation measures not affecting fishing vessels of other Member States that are applicable to waters under their sovereignty or jurisdiction. The UK has an obligation in recovering these habitat types to favourable condition in accordance with the Offshore Overfalls Marine Conservation Zone Designation Order 2016.

Where a Member State ("initiating Member State") considers that measures need to be adopted for the purpose of complying with the obligations referred to above, and other Member States have a direct management interest in the fishery to be affected by such measures, the European Commission shall be empowered to adopt such measures, upon request, by means of delegated acts. For this purpose cooperation between Member States having a direct management interest is foreseen with a view to formulating a joint recommendation in agreement on draft fisheries management measures to be forwarded to the Commission.

The initiating Member State shall provide the Commission and the other Member States having a direct management interest with relevant information on the measures required, including their rationale, scientific evidence in support and details on their practical implementation and enforcement. Member States shall consult the relevant Advisory Councils.

The initiating Member State and the other Member States having a direct management interest may submit a joint recommendation within six months from the provision of sufficient information. The Commission shall adopt the measures, taking into account any available scientific advice, within three months from receipt of a complete request (Reg 1380/2013, Articles 11 and 18).

The following chapters describe how the UK, as the initiating Member State, has taken the Commission's criteria for decision making into account, as well as the requirements for regional coordination in line with the new Basic Regulation.

2.2 Fisheries Access to the Offshore Overfalls MCZ

In accordance with the Basic Regulation the following Member States operate mobile demersal gears within the proposed management zones: UK, Belgium, France, and the Netherlands.

2.3 Designation of the Offshore Overfalls MCZ

The Offshore Overfalls site was designated as a MCZ in January 2016. MCZs are designated by the UK government under the Marine and Coastal Access Act 2009 for England and Wales. These zones will contribute to the UK's commitment to have a well-managed and ecologically coherent network of MPAs by 2016 and will also assist in meeting commitments relating to the EC Marine Strategy Framework Directive (MSFD).

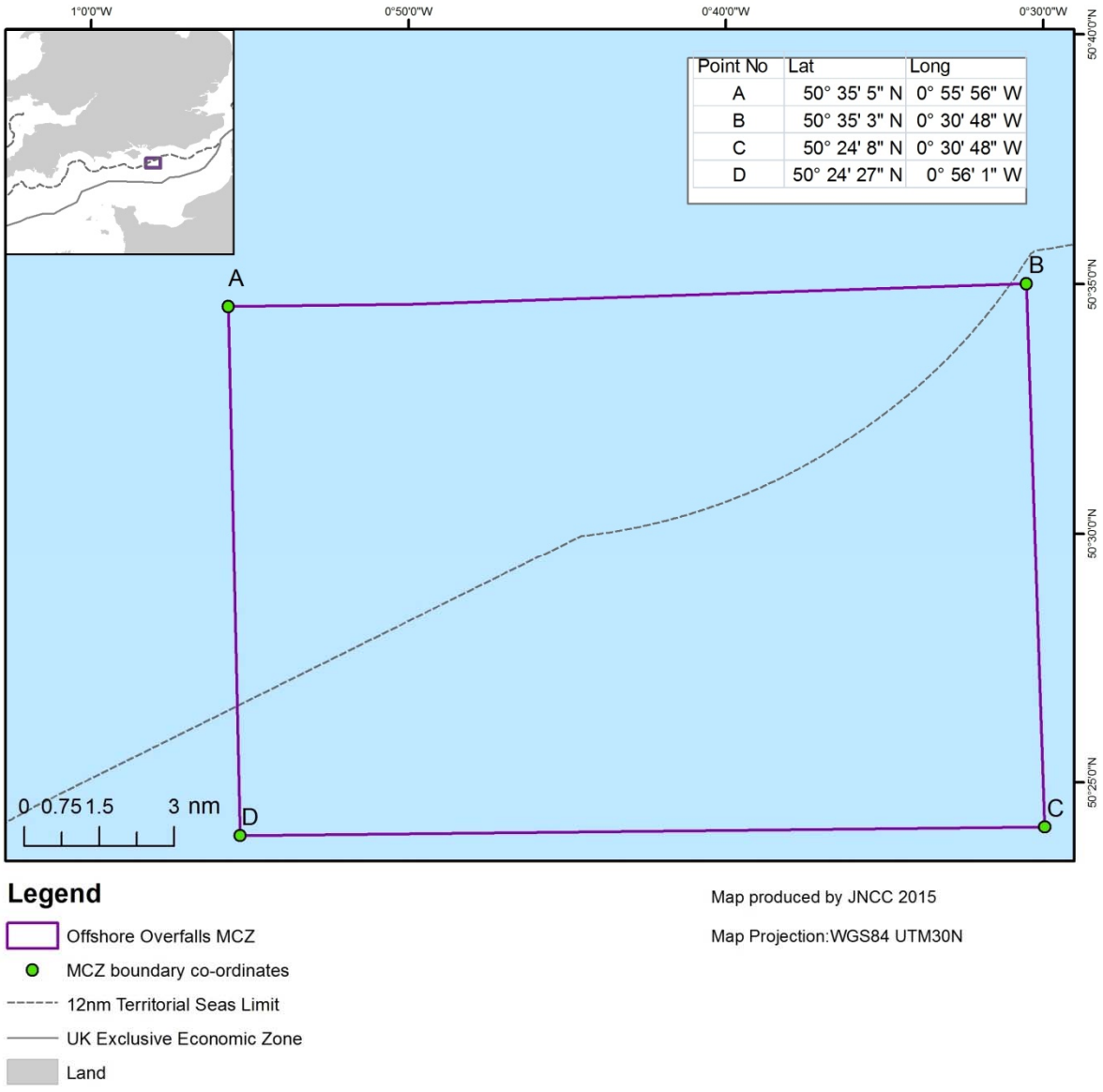


Figure 2: Site boundary for Offshore Overfalls MCZ (coordinates rounded to nearest second)

3. Process

This chapter describes the process from when the initiative to protect sub-tidal sand, sub-tidal course sediment, sub-tidal mixed sediment and the English Channel Outburst Flood Features (Quartenary fluvio-glacial erosion depositis) from fisheries activities at Offshore Overfalls MCZ were commenced at a fisheries management workshop held in Exeter in May 2016 by the Department for Environment Food and Rural Affairs (Defra) until the submission of fisheries management measures in the form of 'A Joint Recommendation' by the UK, The Netherlands, Belgium and France .

3.1 Stakeholder workshops

A Defra-led workshop was held in Exeter on 18 and 19 May 2016 to discuss fisheries management measures for MPAs in the Channel and the Southwest Approaches with the intention of developing management measures in conjunction with stakeholders. The workshop was attended by French, Irish and UK fisheries representatives as well as delegates from the French, Irish and Spanish governments and the Northwest Waters Advisory Council (NWWAC). There was also representation from Non-Governmental Organisations (NGOs) and conservation organisations.

Ahead of these meetings the UK prepared fisheries management options papers for the sites which discussed the risk to achievement of the conservation objectives associated with a range of management options.

During the meeting, an initial Defra management proposal for the site was tabled and discussed. The meeting considered amendments to the proposal, which would limit socio-economic impact while still ensuring inclusion of the range of protected features within the site.

Defra noted they wold be requesting that the MMO assess levels of >15m fishing activity within the site.

A site specific excerpt from the report of the meeting is at Annex A.

3.2 Consultation on management proposals

Fisheries management measures were developed in close coordination with other Member States with a direct management interest in the sites. Draft management proposals were subject to a six week period of consultation with Member States with a direct management interest in the sites and the Northwest Waters Advisory Council.

3.3 Formal agreement of Joint Recommendations

Finalised management proposals were then presented to other Member States with a direct management interest in the sites for agreement that sufficient information had been provided in order to commence the formal agreement of the proposals as Joint Recommendations. [Following this, ad hoc meetings of the Northwest Waters Article 11 sub-group were held to start formal agreement proceedings for the Joint Recommendations. Any outstanding issues were then addressed before agreement was reached on the Joint Recommendations by members of the Northwest Waters High-Level Group and they were submitted to the European Commission for adoption.]

3.4 Involvement of the North West Waters Advisory Council

The North Western Waters Advisory Council (NWWAC) attended the workshop in Exeter in May 2016 where initial proposals for management were discussed and the UK presented its rationale behind the measures proposed. In January 2017, the UK consulted the NWWAC on proposals for fisheries management measures in 12 MPAs, in line with the provision outlined in Article 11 of the CFP. The NWWAC held a meeting on 28 February 2017 where the proposed measures were presented and discussed, which the UK attended.

On 30 March 2017, the UK replied to a response from the Secretariat covering general comments on the proposals as well as some specific comments on several of the proposals for the MPAs in question. With respect to Offshore Overfalls MCZ, where remarks were made regarding a larger site area than originally proposed, or discussed at the Exeter workshop, has now been suggested being closed to bottom trawling activity, the UK responded: '*that it was made clear throughout the process that proposals are subject to change as understanding develops. Following advice it was decided a slight increase (the initial measures presented at the workshop proposed managing 28.40% of the site whereas the amended measures currently propose managing 35.51% of the site) in the size of the closure would be necessary to provide the features for which the site has been designated the best possible opportunity to meet the conservation objectives*'.

4. Rationale

The seabed in the site has a diverse range of sediment types from sand to coarse and mixed sediments. These habitats are known to support a range of animal species, including those which live within the sediments and those that live on the sediment surface. The available evidence indicates

that the features designated may be sensitive to prevailing fishing activities and as such measures are proposed to reduce the level of risk to achieving the conservation objectives for the site.

Demersal towed gears

Whilst it is unlikely that demersal towed gears can affect the long-term natural distribution of the protected features within the site, there is some evidence to indicate that the use of demersal trawls and dredges can impact the structure and function of the habitat and the long term survival of its associated species. This site covers a broad range of habitats and biological communities which is likely to be reflected in an equally broad range of sensitivities to demersal trawl and dredge activity. It is expected that such activities could result in some degradation of the associated benthic communities relative to the un-impacted state particularly with a reduction in the abundance of fragile long lived species. Stable sediments are likely to be more susceptible to disturbance from demersal towed while in higher energy areas much of the natural fauna will be well adapted to recover from disturbance. There is evidence that severity of impact over certain habitats may be cumulative[2] and may be less severe where fishing pressure is low. As with demersal trawls and dredges, demersal seines may impact the structure and function of sedimentary habitats and the long term survival of their associated species. However, demersal seines (Danish and Scottish seines) lack the heavy gear components of other mobile demersal gears, such as otter doors and trawl shoes (Suuronen et al. 2012; Donaldson et al. 2010), so the risk of impact to sedimentary features and thus to achieving the conservation objective for the site is likely to be lower.

Demersal static gears

It is not expected that demersal static gears will have a significant impact on sedimentary features within the site. However, the impacts of repeated exposure to these types of fishing gear at high levels of fishing activity are unknown.

5. Principles

Based on scientific advice from JNCC concerning the risk associated with a range of management options, and the consideration of socio-economic factors, the UK has decided to protect sub-tidal sand (A5.2), sub-tidal mixed sediments (A5.4) and sub-tidal coarse sediment (A5.1) from physical disturbances due to demersal trawl and dredge activity.

When formulating the present proposal, the following principles were applied:

1. Sound scientific basis

This proposal for fisheries management measures is based on available scientific evidence. JNCC has provided scientific advice in relation to the risk to achieving the conservation objectives. The proposal has also been reviewed by CEFAS. The advice from Cefas was that this approach reduces the pressures from demersal trawls and dredges sufficiently to contribute to long term progress in recovering the features towards favourable condition.

2. Stakeholder involvement

An important element of the process of formulating fisheries management measures has been the involvement of stakeholders. This has been outlined in further detail in sections 3.1 and 3.2.

3. Transparency

In this proposal the UK has been transparent on the data being used, the steps being taken and the methodology used, as well as the involvement of stakeholders.

4. *Proportionality*

An approach was sought that would deliver a regulatory proposal that delivers a key contribution to the achievement of the conservation objectives while minimising the effect on the fishing industry. A key safeguard in the process to deliver such an outcome was to follow the European Commission guidance in this regard, which described a proportional approach towards balancing sustainable exploitation of resources and the need to conserve important habitats, including a precautionary approach to fisheries management.

5. *Non discrimination*

The proposal will need to ensure that measures are not applied in a discriminatory manner. A coordinated approach between Member States is the only way of ensuring non-discrimination for fleets affected by the proposed measures. Ultimately, a proposal is presented to the European Commission for regulation in the framework of the CFP, ensuring a level playing field for the fishing sector affected.

6. Proposal scope

The proposed management boundary for a closure to demersal trawls and dredges encompasses approximately 36% of the site. Of the broadscale habitats within the site, approximately 33% of the Subtidal coarse sediment, 90% of the Subtidal mixed sediments and 50% of the Subtidal sand are included within the proposal.

List of Annexes:

Annex A – Excerpt of the meeting note from the May 2016 workshop in Exeter.

Annex B – Overview of the 11 information items in the Commission's guidelines from 2008

Annex C – Map of English MPA network

Annex D – Map and Coordinates for the Offshore Overfalls MCZ reporting zone with increased reporting

Annex E – References

Annex A – Meeting note from the May 2016 workshop in Exeter

Offshore Overfalls MCZ

It was noted that this was a high-value site for the French fishing industry and in particular for dredges; the UK will be confirming these values with the French government.

It was suggested that the north-eastern boundary should align with the 12nm limit. Whilst this would allow a level of fishing activity to continue, given most of the sub-tidal sand feature occurs outside of the 12nm limit this will need to be looked at again and taken into consideration as part of the ongoing evaluation. A closure in the north-west of site was also suggested which attendees indicated was preferable to the closure in the south-west of the site; however it was observed that a closure in the south-west will still be necessary in order to adequately capture the sub-tidal sand that is present there.

Defra noted that they will still need to consider the proportion of habitat covered along with the fishing intensity when evaluating further what closures will be considered.

Some attendees raised concern over the potential loss of habitat were the north-eastern boundary to be moved back to the 12nm line and also questioned whether in doing so Defra would be treating domestic sites in the same manner as they would do with a EMS (the suggestion was that Defra could be at risk of being accused of being less stringent with domestic sites compared to EMS).

To note that any restrictions moved inside the 12nm line will have knock on consequences for the UK under 15m vessels and could cause gear conflicts with static gear vessels.

Amended boundary discussion

Defra will look at the percentage coverage of each of the habitats, particularly that of sub-tidal sand.

Defra will also evaluate what level of under 15m activity is occurring in the site.

Some adjustments to the draft management proposal were put forward. These will be considered further post-workshop.

Annex B – Overview of the 11 information items in the Commission's guidelines from 2008

The Commission has issued guidance on a consistent approach to requests for fisheries management measures under the Common Fisheries Policy[4]. Accordingly, this document provides the scientific and technical information required to support a formal request to the Commission for fisheries regulation under the Common fisheries Policy.

1 Comprehensive description of the natural features including distribution within the site

Offshore Overfalls MCZ is a joint inshore and offshore site located in the eastern English Channel, approximately 18km south-east of the Isle of Wight (Figure 1). The seabed is predominantly coarse sediments with areas of sand, mixed sediments and exposed bedrock. The area of the site is 593km2, including the English Channel outburst flood geomorphological features which are quarternary fluvio-glacial erosion features. The variety of habitats found in the site support a diverse range of species. Sponges, hydroids and bryozoans cover the cobbles and boulders where crabs, sea stars and sea urchins abound. Burrowing worms, anemones and bivalves such as scallops inhabit the sediment.

The MCZ currently has four designated features; a geomorphological feature known as the English Channel Outburst Flood Features (Quartenary fluvio-glacial erosion features) and three broad scale habitats (Figure 1). The geomorphological feature has not been considered within the scope of this document as it is not considered to be at risk from the pressures associated with fishing activity. 'Subtidal coarse sediment' is the most widespread broadscale habitat, occupying over three quarters of the site. 'Subtidal mixed sediments' is confined to the north-east, whilst 'Subtidal sand' is located in two isolated patches that fringe the deeper channel running through the site. The deeper channel is part of the English Channel Outburst Flood Features which were formed over 200,000 years ago when a large glacial (freshwater) lake burst its retaining bank to the south causing a vast discharge of sediment and water to erode large scale longitudinal outburst flood features along an ancient valley system that now lies submerged by seawater.

The site was comprehensively surveyed in 2012 through the Defra-funded MB0120 Offshore Overfalls MCZ survey. This was a collaboration between Cefas and JNCC to collect acoustic and groundtruth data, in order to identify the presence and extent of broad-scale habitats and features

[4] http://ec.europa.eu/environment/nature/natura2000/marine/docs/fish_measures.pdf

The broadscale habitat map was produced using outputs of the 2012 survey and also available bathymetry data (Astrium, 2011) in areas beyond survey coverage.

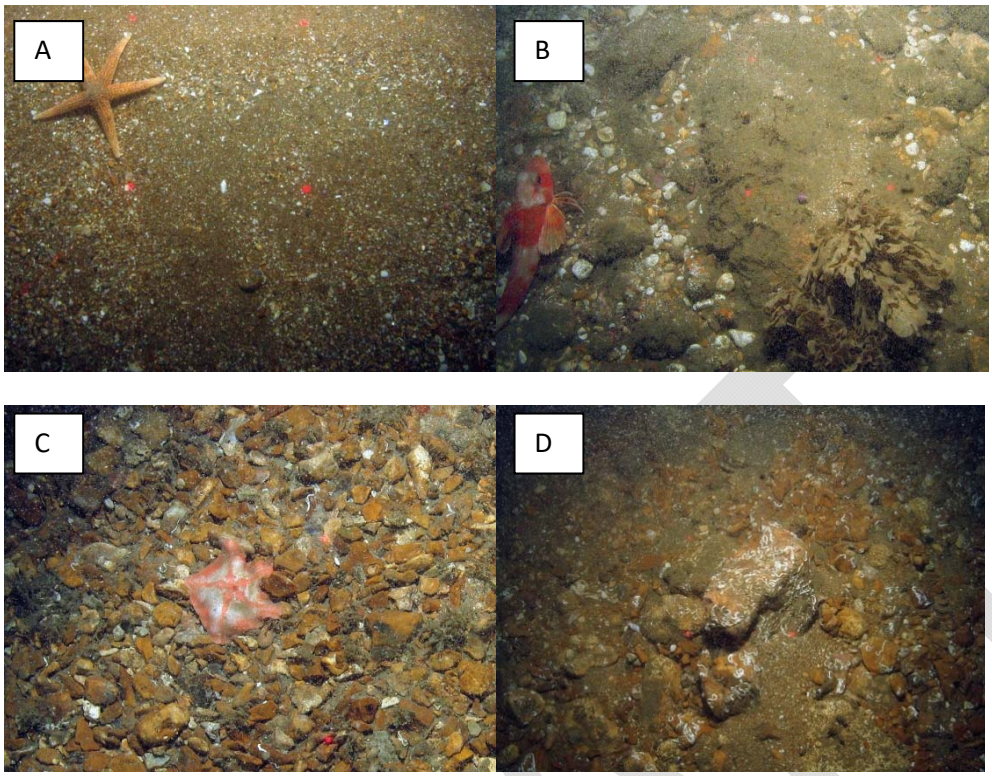


Figure 1. Photographs taken from the 2012 MB0120 survey of Offshore Overfalls MCZ

A: Subtidal sand with common starfish (*Asterias rubens*)

B: Subtidal coarse sediment with red gurnard (*Aspitrigla cuculus*) and horn wrack (*Flustra foliacea*)

C:Subtidal coarse sediment with Goose foot starfish (Anseropoda placenta)

D: Subtidal mixed sediments with Keel worm (Pomatoceros species).

2 Scientific rationale for the sites' selection in accordance with the information provided in the Marine Conservation Zone Designation Order. Intrinsic value of its features. Specific conservation objectives

The UK has committed to the development of an MPA network designed to protect a range of nationally important marine species and habitats which will be central to achieving Good Environmental Status (GES) by 2020 under the Marine Strategy Framework Directive (MSFD). Such a network is also consistent with the UK's obligations under the OSPAR Convention. Due to the large number of individual habitats and species in UK waters, features were grouped into Broad-scale Habitats. To ensure that the full range of biodiversity in UK seas is conserved, representative

examples of Broad-scale Habitats and specific features of conservation importance were designated within the MCZ network.

Selection guidelines for MCZs were laid out by Defra to support the initial identification of sites through four regional stakeholder projects. The guidance covers the aim of the network; the involvement of stakeholders; the principles for design of an MPA network; principles for the identification of sites and also the setting of conservation objectives.

Site recommendations were based around the seven design principles laid out in the Ecological Network Guidance (ENG):

- Representativity
- Replication
- Adequacy
- Viability
- Connectivity
- Protection
- Best available evidence

Offshore Overfalls MCZ is included in the MPA network for its contribution to the conservation of the broadscale habitats Subtidal coarse sediment (A5.1), Subtidal sand (A5.2) and Subtidal mixed sediments (A5.3).

2.1 Conservation objectives

Conservation objectives set out the desired state for the protected feature(s) of an MPA. To achieve the conservation objectives a general approach to management for each designated feature has been set by JNCC based on current knowledge of condition.

The GMAs for the protected features of the MCZ are:

- Subtidal coarse sediment – Recover to favourable condition
- Subtidal sand – Recover to favourable condition
- Subtidal mixed sediments – Recover to favourable condition

3 Basis for the spatial extent of the site boundary clearly justified in terms of conservation objectives

The site protects 593km^2 of seabed, including the English Channel outburst flood geomorphological features which are quaternary fluvio-glacial erosion features. The boundaries around the larger offshore part of the MCZ were set to include an area of higher biodiversity and are determined by geographical coordinates alone. The boundary is in accordance with the MCZ Ecological Network Guidance, which advises using a minimum number of simple lines to delineate the site.

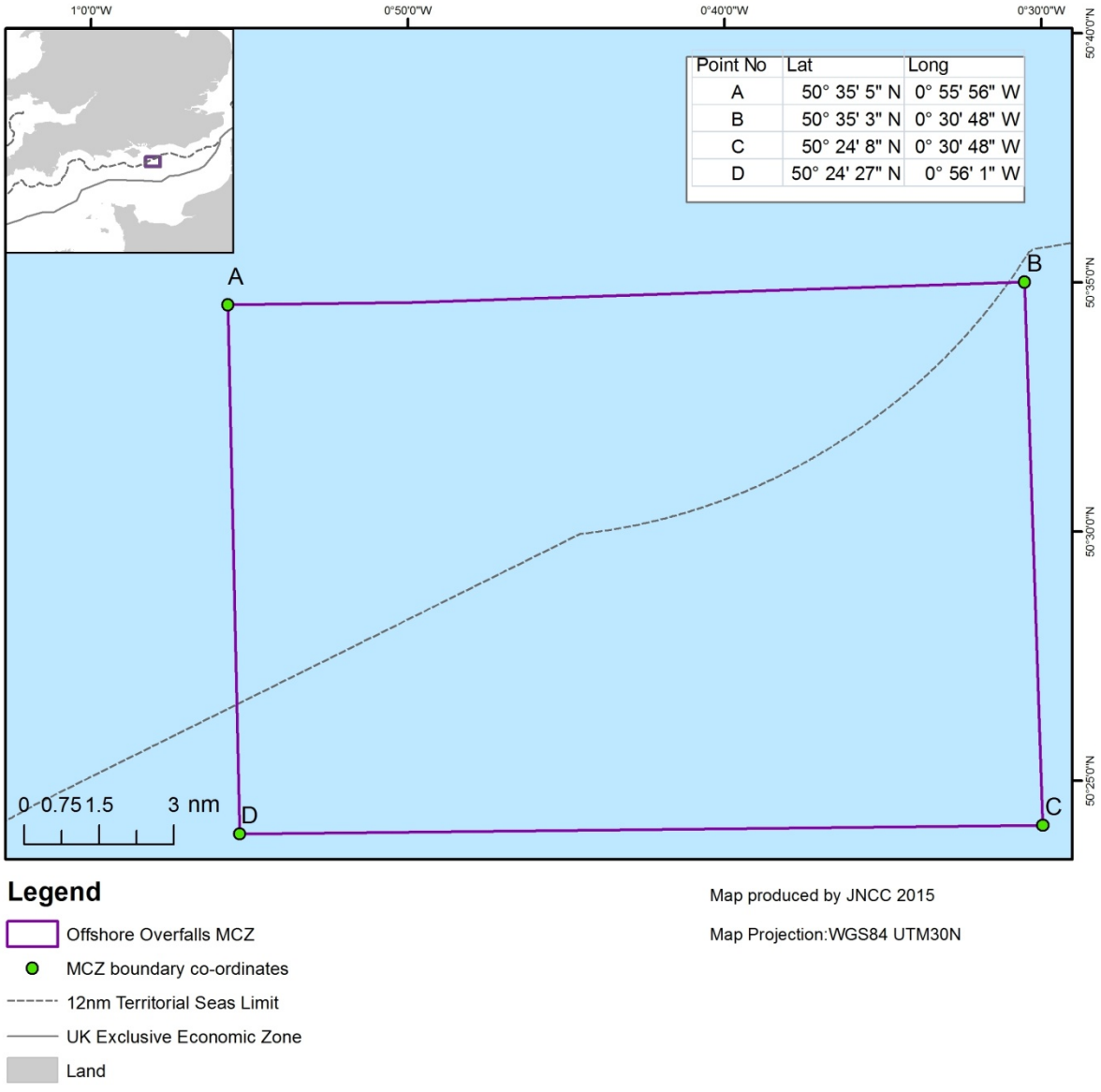


Figure 2: Site boundary for Offshore Overfalls MCZ (coordinates rounded to nearest second)

4 Threats to the long-term natural distribution, structure and functions of the habitats and the long-term survival of associated species from different types of fishing gear. List of other human activities in the area that could damage the habitats

4.1 Demersal trawls and dredges (including scallop dredges, beam trawls and otter trawl)

It is unlikely that demersal trawls and dredges can affect the long-term natural distribution of **Subtidal sand, Subtidal coarse sediment and Subtidal mixed sediments**. However, there is evidence to indicate that their use can impact the structure and function of the habitats and the long term survival of their associated species.

The extent to which mobile gear impacts on **Subtidal sand** communities can vary considerably, according to the type of gear, the intensity of fishing and the sediment composition. Trawling and dredging tend to cause increased mortality of fragile and long lived species and favour opportunistic, disturbance-tolerant species (Bergman & Van Santbrink, 2000; Eleftheriou & Robertson, 1992). Some particularly sensitive species may disappear entirely (Bergman & Van Santbrink, 2000). The net result is benthic communities modified to varying degrees relative to the un-impacted state (Bergman & Van Santbrink, 2000; Kaiser et al. 2006). In higher energy locations, for example the sandy bank tops or wave and/or tide exposed areas the associated fauna tend to be well adapted to disturbance and as a result are more tolerant of fishing-related disturbance (Dernie et al. 2003; Hiddink et al. 2006). The habitat may be maintained in a modified state; however modification is likely to be low relative to natural variation. In lower energy locations, such as muddy sands and sand in deep water, or on the flanks and towards troughs between banks, sediments tend to be more stable and their associated fauna less tolerant of disturbance (Kaiser et al. 2006; Hiddink et al. 2006). The habitat may be maintained in a modified state with reduced abundance of fragile, long lived species.

As with sandy habitats, the broad scale habitat **Subtidal coarse sediment** includes sub-habitats with a wide range of sensitivities to trawling. Communities on unstable coarse sediments are considered to contain relatively robust fauna which are not believed to be greatly impacted by surface abrasion (Hall et al 2008). More stable gravels may support a 'turf' of fragile species which are easily damaged by trawling and recover slowly (Collie et al 2005, Foden et al 2010). Trawling may result in a modified benthic community with reduced abundance of fragile long lived species. Recovery time from dredging is longer than from trawling (Foden et al 2010).

The broad scale habitat **Subtidal mixed sediments** covers a wide range of different types of sediment from muddy, gravely sands to mosaics of cobbles and pebbles in or on a sand, gravel or mud seabed. Areas of mixed sediments may also include instances where waves or ribbons of sand form on the surface of a gravel bed (Anon, 2010). These different habitats can be expected to vary greatly in their sensitivity to fishing impacts (Roberts et al. 2010). However, as there are very few studies that directly evaluate fishing impacts on subtidal mixed sediments it is not possible to give general advice for this broad scale habitat. In the absence of specific advice, a reasonable proxy may be to consider the advice given for other, similar constituent habitats, outlined in the information above.

4.2 Demersal seines (including Scottish and Danish seines)

As with demersal trawls and dredges, demersal seines may impact the structure and function of sedimentary habitats and the long term survival of their associated species. However, demersal seines (Danish and Scottish seines) lack the heavy penetrating gear components of other mobile demersal gears, such as otter doors and trawl shoes (Suuronen et al. 2012; Donaldson et al. 2010), so the risk of impact to sedimentary features may be lower. The risk to achievement of the conservation objectives posed by demersal seining must be considered on a site by site basis.

4.3 All demersal static gears (including gillnets, trammel nets, longlines, pots and traps)

It is unlikely that demersal static gears will have a significant effect on the long-term natural distribution of **sandbanks, Subtidal sands, Subtidal coarse sediment Subtidal mud and deep sea bed**, or on the structure and function of their associated biological communities.

4.4 Other Human activities

The information within this section represents current knowledge of the nature and extent of activities taking place within or close to the site.

There is a plugged and abandoned well located in the east of the site and an aggregate license area borders the north-west corner of the site boundary.

Due to the site's proximity to the busy ports of Southampton and Portsmouth and location in the English Channel, shipping activity is moderate to high across the site. Under international law, ships have a right of passage at sea, including in areas designated as MPAs (unless management specifies the restriction of ship transiting). The pressures associated with shipping activity within Offshore Overfalls MCZ are not considered likely to impact the protected features of the site.

The MCZ is located in a military practise area within some restrictions in operation. Activities include acoustic trials with towed sonar equipment. The Ministry of Defence (MoD) has incorporated all designated MPAs into the Environmental Protection Guidelines and Wider Marine Environmental and Sustainability and Assessment Tool. These guidelines are used to manage MoD activity to minimise the associated risks to the environment.

SCUBA diving, recreational fishing, use of sailing boats and of recreational motor boats may occur in the site. The Defra UKHO records show 31 wrecks and six obstruction points located in the vicinity of the MCZ.

5 Fleet activity in the area and in the region, distribution of fleets (by nation, gear, and species), and information on target and bycatch species over 6 years from 2010 to 2015 inclusive.

5.1 Validity of data

In the section below relevant fleet statistics for the years 2010-2015 are provided as requested by the European Commission guidance. The UK, as the initiating Member State, analysed fishing from Member States active in the Offshore Overfalls MCZ over a six year period. This approach is consistent with other management proposal methodology across Member States. A four year dataset is considered to be representative of the contemporary fisheries carries out in the area and thus valid for the purpose of underpinning the current proposal.

Overall, fisheries have been changing since the early 2000s as a result of changes in economic and regulatory conditions, e.g. fuel prices and engine efficiencies, the introduction of individual transferable quota (ITQ) systems[5] in various forms. Fishing fleets have been reduced in terms of the number of vessels and fishing effort has decreased. Fishing opportunities are dictated by stock status, market conditions, fuel prices and technological opportunities, as well as quota availability. In

[5] Individual transferable quotas (ITQs) are a type of catch share system, which is a tool used by some governments to manage fisheries

addition, policy decisions on alternative use of marine habitat, sustainable exploration and environmental policies will influence fishing opportunities

The fisheries are dynamic and sound judgement is required when using the data. However, more recent datasets are expected to improve our understanding of the structure of fisheries.

Vessels from six Member States have been present within the relevant area according to VMS reports or "pings". However, French vessels routinely report every hour and not every two hours like all other Member States' vessels. The data concerning the number of French vessels will be accurate but their activity through pings may appear distorted. To maintain consistency across all vessels and Member States' data, the information on French vessels has been displayed as it was received into the MMO Fisheries Monitoring Centre (FMC); FMC, therefore it has not been altered to reflect possible one hour vessel pings as this could alter the validity of the data further. To establish which vessels specifically report at a higher level would require additional processing and information.

To note, unknown gear classification relates to a specific VMS report which does not have valid corresponding log book information.

5.1.1 Data analysis

Data presented has been analysed by applying the standard methodology used to identify whether or not vessels have been active in a specified spatial area to the information. VMS reports ("pings") were used to indicate vessel fishing activity based on the speed of the vessel as reported within the VMS message. Each ping was classified as indicative of fishing activity taking place if the speed is greater than or equal to 0 knot and less than or equal to six knots[6].

Each VMS ping received from a vessel in ICES statistical rectangles 29E9 and 30E9 (the ICES rectangles that sit across the site) has been extracted from the UK VMS system, (each ping will hold the following information, the vessel identity (CFR) number, position and speed and the date and time of that ping). These fishing pings from the rectangle(s) concerned are then processed in GIS software to identify whether the position was inside or outside the Offshore Overfalls MCZ or the proposed management areas. This provides a proportion of pings falling within the area for the vessels of each Member State.

This proportion was then applied to landings data to allow estimates of landings value and quantity derived from within the Offshore Overfalls MCZ or proposed management areas by non-UK vessels. Landings values and quantities for UK vessels were derived from UK statistical data held by the Marine Management Organisation.

[6] Article 50 of Council Regulation (EC) No 1224/2009 : http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:343:0001:0050:EN:PDF

5.1.2 Data limitations

The data provided in this section is subject to the following limitations:

1. Data is only available from vessels that are required to carry EU VMS systems (i.e. vessels 12 metres and above in length). As such their pattern of activity may differ from vessels of less than 12 metres in length.

2. Vessel numbers derived from VMS can suggest an increase over the years analysed, however it is important to note that during this period VMS was introduced to the 12m and above fleet, in addition to the 15m and above fleet.

3. Unless stated otherwise, all data shown is over a six year period 2010 - 2015.

4. The speed thresholds (0-6 knots) used to make assumptions as to whether a vessel is fishing or not only provide indications, not definitive proof of fishing and have been applied across all gear types.

5. The proportion of activity inside the site is based on the number of pings as opposed to actual fishing time.

6. VMS reports are sent by every fishing vessel at 2 hourly intervals, with the exception of the French VMS activity. This was witnessed at an hourly rate.

7. Germany reported to the UK low management interests in the respective UK sites. Therefore no landing information has been supplied to the UK.

8. From analysis of the UK VMS, one vessel reported 75 pings during one day in January 2013. The same vessel reported during one day in November 2013 with 65 pings. An additional vessel reported 75 pings in one day in January 2013. These higher reporting rates indicate a fault with the individual vessels VMS system which means the vessels were reporting at a much higher rate such as every 10mins instead of once every two hours.

5.2 Fleet activity by state

From 2010 to 2015, vessels from three Member States (in addition to the UK) were active within and around the Offshore Overfalls MCZ (see table 1). Of these, the most significant activity was from French and UK vessels, with lower levels but increasing activity from Belgian. There was limited activity from Ireland, Germany and the Netherlands.

Table 1: Number of vessels and pings (0-6knots) associated with the Offshore Overfalls MCZ by year and Member State.

Nationality		2010	2011	2012	2013	2014	2015
		Total	Total	Total	Total	Total	Total
Belgium	Number of vessels	13	9	13	12	10	20
	Number of pings	44	50	33	77	91	210
France	Number of vessels	76	71	67	84	52	53
	Number of pings	5226	3198	3301	4042	2573	3631
Germany	Number of vessels	1	2	4	1	1	1
	Number of pings	1	3	19	1	9	4
Ireland	Number of vessels	4	0	0	0	1	0
	Number of pings	4	0	0	0	1	0
Netherlands	Number of vessels	5	6	8	8	3	2
	Number of pings	8	23	49	27	27	3
UK	Number of vessels	57	52	57	56	29	27
	Number of pings	298	274	250	549*	350	200

* See limitation point 8.

5.3 Landings values

As shown in Tables 2.1 and 2.2 the gear groups of major importance in terms of effort (tonnage) and economic importance (value) include (1) Beam Trawls directed at demersal fish (flatfish), (2) Otter board bottom trawls for demersal fish, (3) otter board bottom trawls for demersal and semi pelagic fish. Fishing for these species occurs in the Southern Irish Sea, Celtic Sea and North East Atlantic.

The fisheries data for 2010 – 2015 inclusive in Offshore Overfalls MCZ involve similar gear types but two groups are of major importance regarding effort (Pelagic and Bottom (demersal) trawls).

Table 2.1: Vessel size and gear type for vessels operating in 29E9 and 30E9 by year and Member State showing effort (tonnage caught)

Sum of tonnes (29E9 and 30E9)		YEAR						
NAT	**GEAR**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**Grand Total**
BEL	Beam trawl	1,340.11	1,350.39	1,024.30	1,074.30	1,748.06	1,699.98	8,237.13
	Bottom trawls	0.48	0.00	11.95	0.53	2.33	2.37	17.65
	Dredge	2.08	25.35	18.26	44.95	94.57	110.20	295.41
	Fly shooting seine	88.69	132.55	81.61	105.99	50.76	83.48	543.07
	Nets	0.82	0.00	0.00	0.00	0.00	0.00	0.82
BEL Total		**1,432.18**	**1,508.29**	**1,136.12**	**1,225.77**	**1,895.70**	**1,896.04**	**9,094.09**
DNK	Otter Trawl midwater	0.00	0.00	700.10	317.30	477.10	98.00	1,592.50
DNK Total		**0.00**	**0.00**	**700.10**	**317.30**	**477.10**	**98.00**	**1,592.50**
FRA	Scallop dredge	277.08	1,271.34	1,058.37	515.27	594.33	630.83	4,347.22
	Pots	0.00	1.33	0.86	0.00	0.00	2.74	4.93
	Gillnets unspecified	0.64	0.00	0.00	0.00	0.00	0.00	0.64
	Trammel nets	0.02	0.64	0.00	0.00	0.00	0.00	0.66
	Long Lines	1.59	0.05	5.38	4.21	0.00	3.01	14.24
	Otter Trawl bottom	4,476.73	3,295.49	2,563.76	2,795.22	1,970.68	2,311.87	17,413.75
	Otter Trawl midwater	1,835.20	2,600.81	2,357.39	923.21	1,181.37	1,539.20	10,437.18
	Otter Trawl twin	0.00	0.04	0.00	0.26	0.00	0.04	0.34
	Pair trawl bottom	0.34	1.39	1.99	37.51	0.03	0.52	41.77
	Pair trawl midwater	381.12	146.90	186.01	281.39	35.44	74.76	1,105.62
	Danish seines	204.79	63.72	85.43	61.45	45.34	196.68	657.42
	Scottishs seines	0.12	0.00	0.19	0.00	0.03	0.00	0.34
	Beam Trawl	0.80	1.59	0.24	0.03	1.19	1.51	5.38
FRA Total		**7,178.44**	**7,383.29**	**6,259.61**	**4,618.56**	**3,828.42**	**4,761.17**	**34,029.49**
IRL	Bottom trawls	0.00	0.00	0.00	0.95	0.00	0.00	0.95
	Dredge	0.00	4.79	0.00	11.34	150.60	0.54	167.27

IRL Total		**0.00**	**4.79**	**0.00**	**12.29**	**150.60**	**0.54**	**168.22**
NLD*	Handlines and polelines	14.82	0.84	5.08	0.00	0.00	0.00	20.74
	Otter Trawl bottom	8.65	0.87	0.00	0.00	0.98	0.00	10.50
	Otter trawl midwater	7,530.26	11,280.75	8,199.22	3,413.63	2,704.14	9,606.89	42,734.89
	Otter Trawl twin	19.00	0.00	0.00	0.00	0.00	0.00	19.00
	Pair trawl bottom	2,385.52	1,436.72	299.54	841.57	0.12	0.00	4,963.47
	Danish seine	50.32	52.26	93.16	70.09	0.00	0.00	265.84
	Scottish seine	667.51	573.15	632.35	655.44	342.97	683.32	3,554.74
NLD Total		**10,676.09**	**13,344.59**	**9,229.35**	**4,980.74**	**3,048.21**	**10,290.21**	**51,569.19**
UK	Beam trawls	200.81	161.88	221.28	144.23	255.91	165.76	1,149.87
	Boat dredges	2,242.53	5,386.07	1,774.87	1,391.18	1,621.71	716.77	13,133.13
	Driftnets	20.94	14.19	9.36	15.97	63.12	17.91	141.48
	Fyke nets	0.68	0.00	0.00	0.00	0.02	0.01	0.71
	Gillnets (all)	385.87	358.66	172.19	205.47	230.52	161.21	1,513.92
	Hand fishing	97.44	119.60	141.89	71.93	35.51	107.74	574.12
	Hand lines and pole-lines (hand-operated)	0.00	0.00	0.00	0.00	0.00	1.96	1.96
	Hooks and lines (not specified)	34.02	35.35	34.91	29.79	31.32	28.17	193.56
	Longlines (not specified)	0.99	1.12	0.00	0.09	2.21	0.00	4.42
	Miscellaneous gear	0.00	5.36	0.00	0.00	0.00	0.00	5.36
	Otter trawls (Bottom and not specified)	114.92	1,611.99	142.13	181.83	126.79	97.41	2,275.06
	Otter trawls – mid water	248.16	0.00	2,643.29	1,577.16	0.11	1,087.56	5,556.28
	Otter twin trawls	0.30	0.00	0.00	0.00	0.00	0.00	0.30
	Pair trawls - bottom	159.15	116.48	141.03	135.18	135.11	75.81	762.76
	Pair trawls – mid water	344.75	960.30	72.11	1,450.73	876.33	1,130.60	4,834.83
	Pots	1,984.05	1,980.16	2,542.07	2,109.33	1,861.78	1,848.48	12,325.87
	Scottish seines	337.41	144.56	198.44	365.52	220.58	320.79	1,587.30
	Shrimp trawls – mid water	0.00	0.00	0.12	0.00	0.00	0.00	0.12

Trammel nets	34.53	97.99	219.22	179.82	190.08	179.10	900.74
Traps (not specified)	155.51	90.86	209.59	128.67	84.71	109.24	778.59
UK Total	**6,362.03**	**11,084.60**	**8,522.50**	**7,986.92**	**5,735.80**	**6,048.51**	**45,740.36**
Grand Total	**25,648.74**	**33,325.56**	**25,847.68**	**19,141.57**	**15,135.83**	**23,094.46**	**142,193.84**

NLD* Revised data

Please note Germany reported to the UK low management interests in the respective UK sites. Therefore no landing information has been supplied to the UK.

Table 2.2: Vessel size and gear type for vessels operating in 29E9 and 30E9 by year and Member State showing landing values

Sum of Value (£)(29E9 and 30E9)		YEAR						
NAT	**GEAR**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**Grand Total**
BEL	Beam trawl	£3,495,429	£3,681,075	£2,764,073	£2,607,816	£4,440,710	£4,008,183	£20,997,286
	Bottom trawls	£1,313	£0	£22,064	£4,086	£14,370	£12,707	£54,540
	Dredge	£2,065	£39,337	£32,005	£87,304	£172,300	£198,657	£531,668
	Fly shooting seine	£152,896	£278,790	£165,002	£151,441	£78,294	£160,885	£987,308
	Nets	£3,196	£0	£0	£0	£0	£0	£3,196
BEL Total		**£3,654,898**	**£3,999,202**	**£2,983,145**	**£2,850,646**	**£4,705,674**	**£4,380,432**	**£22,573,997**
DNK	Otter trawl midwater	£0	£0	£592,065	£251,233	£305,054	£61,232	£1,209,584
DNK Total		**£0**	**£0**	**£592,065**	**£251,233**	**£305,054**	**£61,232**	**£1,209,584**
FRA	Scallop dredge	£424,855	£2,271,686	£1,864,337	£885,213	£1,069,117	£1,443,923	£7,959,132
	Pots	£0	£2,576	£1,731	£0	£0	£2,719	£7,025
	Gill nets unspecified	£1,045	£0	£0	£0	£0	£0	£1,045
	Trammel nets	£38	£985	£0	£0	£0	£0	£1,023
	Long lines	£1,758	£144	£6,379	£4,817	£0	£2,601	£15,699
	Otter trawl bottom	£6,153,028	£4,334,016	£3,775,807	£3,871,309	£2,441,659	£3,465,331	£24,041,150
	Otter Trawl midwater	£785,688	£989,829	£772,444	£422,402	£502,007	£594,686	£4,067,056
	Otter Trawl twin	£0	£26	£0	£394	£0	£91	£511
	Pair Trawl bottom	£1,431	£2,563	£3,539	£48,841	£12	£446	£56,832
	Pair Trawl midwater	£679,042	£404,129	£414,967	£904,512	£73,585	£142,890	£2,619,124
	Danish Seines	£304,853	£80,271	£124,843	£80,017	£70,366	£322,266	£982,616
	Scottish Seines	£202	£0	£628	£0	£31	£0	£861
	Beam Trawls	£2,050	£3,391	£692	£111	£1,672	£1,862	£9,777
FRA Total		**£8,353,990**	**£8,089,616**	**£6,965,367**	**£6,217,615**	**£4,158,449**	**£5,976,814**	**£39,761,852**
IRL	Bottom trawls	£0	£0	£0	£2,848	£0	£0	£2,848
	Dredge	£0	£29,206	£0	£29,155	£266,422	£1,761	£326,544

IRL Total		**£0**	**£29,206**	**£0**	**£32,003**	**£266,422**	**£1,761**	**£329,392**
NLD*	Handlines and polelines	£27,416	£1,806	£3,462	£0	£0	£0	£32,683
	Otter Trawl bottom	£9,671	£762	£0	£0	£777	£0	£11,210
	Otter Trawl midwater	£2,665,511	£5,244,946	£3,040,783	£984,646	£817,997	£2,406,694	£15,160,577
	Otter Trawl twin	£22,734	£0	£0	£0	£0	£0	£22,734
	Pair Trawl midwater	£890,281	£1,006,157	£197,896	£259,185	£843	£0	£2,354,361
	Danish Seine	£102,228	£100,565	£140,172	£88,599	£0	£0	£431,564
	Scottish Seine	£1,223,544	£1,116,419	£948,708	£805,878	£550,143	£1,355,448	£6,000,139
NLD Total		**£4,941,384**	**£7,470,655**	**£4,331,020**	**£2,138,309**	**£1,369,761**	**£3,762,142**	**£24,013,270**
UK	Beam trawls	£571,121	£496,790	£542,520	£369,440	£726,999	£420,144	£3,127,015
	Boat dredges	£3,331,299	£9,622,574	£2,830,044	£2,271,916	£2,970,263	£1,458,500	£22,484,596
	Driftnets	£90,748	£45,578	£31,984	£75,863	£342,585	£112,256	£699,014
	Fyke nets	£2,724	£0	£0	£0	£85	£45	£2,854
	Gillnets (all)	£1,234,084	£1,259,861	£560,625	£581,475	£810,330	£515,670	£4,962,044
	Hand fishing	£160,259	£244,057	£271,314	£127,789	£61,426	£213,008	£1,077,851
	Hand lines and pole-lines (hand-operated)	£0	£0	£0	£0	£0	£18,266	£18,266
	Hooks and lines (not specified)	£216,441	£215,307	£249,138	£228,865	£230,978	£179,864	£1,320,592
	Longlines (not specified)	£7,607	£9,708	£0	£366	£11,296	£0	£28,977
	Miscellaneous gear	£0	£10,598	£0	£0	£0	£0	£10,598
	Otter trawls (Bottom and not specified)	£227,694	£1,272,186	£314,499	£415,458	£289,142	£208,864	£2,727,844
	Otter trawls – mid water	£173,710	£0	£409,341	£432,437	£504	£348,978	£1,364,971
	Otter twin trawls	£835	£0	£0	£0	£0	£0	£835
	Pair trawls – bottom	£254,599	£311,309	£301,774	£263,315	£255,002	£172,253	£1,558,251
	Pair trawls – mid water	£95,636	£265,002	£19,831	£400,062	£291,780	£412,473	£1,484,784
	Pots	£1,935,055	£1,824,835	£2,182,299	£1,988,390	£2,052,397	£2,112,309	£12,095,285
	Scottish seines	£777,882	£320,707	£602,097	£586,250	£410,832	£744,530	£3,442,298

Shrimp trawls – mid water	£0	£0	£939	£0	£0	£0	£939
Trammel nets	£147,438	£414,092	£772,561	£563,512	£613,399	£596,444	£3,107,447
Traps (not specified)	£228,093	£196,195	£448,761	£193,641	£158,466	£148,485	£1,373,640
UK Total	**£9,455,223**	**£16,508,799**	**£9,537,728**	**£8,498,777**	**£9,225,483**	**£7,662,090**	**£60,888,100**
Grand Total	**£26,405,495**	**£36,097,478**	**£24,409,324**	**£19,988,583**	**£20,030,843**	**£21,844,471**	**£148,776,195**

NLD* Revised data

Please note Germany reported to the UK low management interests in the respective UK sites. Therefore no landing information has been supplied to the UK.

5.4 Annual variation in fishing activity

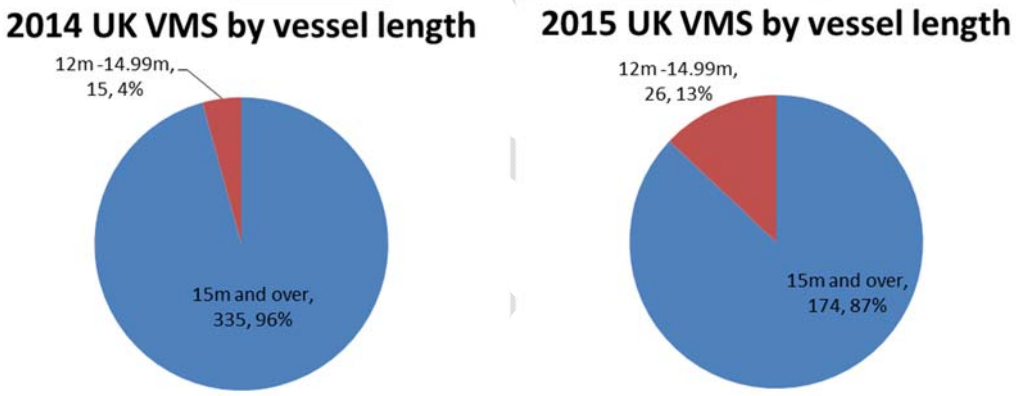
Fishing effort is indicated by the number of VMS reports at speeds indicative of fishing (from 0 to 6 knots) received by the UK Fisheries Monitoring Centre (FMC). Reports are sent by every fishing vessel at 2 hourly intervals.

VMS Activity

Over the years analysed (2010-2015) through VMS, the total volume of vessels fishing in the Offshore Overfalls MCZ from other Member States are 527 and 278 from the UK, making a total of 805 (an average of 134 vessels per year). However, vessels have been counted more than once if they enter the MCZ in separate years. See Table 1.

French VMS activity suggests a slight decrease on vessels numbers in recent years, from a peak of 84 vessels in 2013, down to 53 in 2015. This mirrors the number of VMS pings, from a peak of 4042 in 2013, down to 3631 in 2015. The activity sweeps across the site, starting from the eastern side of the MCZ diagonally across to the south west. Whilst part of the activity occurs over the subtidal mixed sediments inside the 12nm limit, a larger proportion of activity occurs over the subtidal coarse sediment outside of the proposed closures.

UK VMS activity suggests a slight decrease on vessels numbers in recent years, from a peak of 57 vessels in 2012, down to 27 in 2015. Again this mirrors the number of VMS pings from 549 in 2013 to 200 in 2015. The recent introduction of VMS pings from the UK 12-15m fleet recorded in the MCZ made up 13% of the total UK VMS activity.



The location of the UK VMS activity is predominately at the north eastern section of the MCZ (east of 0°40’0”W, north of 50°30’0”N). The fishing activity starts outside of the MCZ and stops in the section detailed, straddling the 12nm limit over the subtidal mixed sediments and a portion of subtidal sand.

Belgian VMS activity level had been fairly level over the years analysed, until a noticeable increase occurred in 2015. Vessel numbers had been averaging around 11 per year, but in 2015 the total rose to 20. This mirrors the number of VMS pings, averaging around 59 per year, but in 2015 the total rose to 210. The location of Belgian activity mirrors the UK activity location above, predominately at the north eastern section of the MCZ (east of 0°40’0”W, north of 50°30’0”N). The fishing activity starts outside of the MCZ and stops in the section detailed, straddling the 12nm limit over the subtidal mixed sediments and a portion of subtidal sand.

Landings information

The values (£) and landings (tonnes) effort taken within the MCZ vary between each member state.

Belgian landings within ICES rectangles 29E9 and 30E9 has increased over recent years in terms of tonnes landed and value taken. The lowest year was in 2012 with 1,136 tonnes landed and an approximate value of £2.9million, compared to a peak in 2015 with 1,896 tonnes landed and an approximate value of £4.3million. This has predominately been generated through the beam trawling, but also through an increase of dredging activity in recent years. Landings from Fly shooting seines has remained fairly consistent during the years analysed (2010-2015).

French landings within ICES rectangles 29E9 and 30E9 had gradually decreased over the recent years in terms of tonnes landed and value taken until 2015. In 2011 (peak year) there was 7,383 tonnes landed with an approximate value of £8million, this decreased to 3,828 tonnes in 2014 with an approximate value of £4.1million. However in 2015 the landings increased with 4,761 tonnes and an approximate value of £5.9million. The gears types commonly used in this ICES rectangle are from Dredges (DRB), Bottom Otter trawling (OTB), Mid water Otter trawling (OTM) and to a lesser degree Seining (SDN).

UK landings within ICES rectangles 29E9 and 30E9 has decreased over recent years in terms of tonnes landed and value taken. In 2011 (peak year) there was 11,084 tonnes landed with an approximate value of £16.5million, this decreased to 5,735 tonnes in 2014 with an approximate value of £9.2million. In 2015, although the landings gradually increase to 6,048 tonnes, the value caught is lower at £7.6million. The gears types commonly used in this ICES rectangle are from Potting, Mid water Otter and Pair trawling (OTM and PTM), Dredges (DRB) and to a lesser degree Seining (SSC).

Dutch landings within ICES rectangle 29E9 had decreased over the recent years in terms of tonnes landed and value taken until a dramatic increase in 2015. In 2011 (peak year) there was 13,344 tonnes landed with an approximate value of £7.4million, this decreased to 3,048 tonnes in 2014 with an approximate value of £1.3million. However in 2015 the landings increase again with 10,290 tonnes caught mainly through a reduction of just two gear types (Mid water otter trawl (OTM)and Scottish seines (SSC)) being used. This brought the 2015 total value to £3.7million. However when analysing the Dutch VMS, there is a strong likelihood that the majority of the landings took place outside the MCZ, when considering the low volume of VMS pings.

Figure 3: VMS reports indicating all fishing activity in the Offshore Overfalls MCZ 2010 by Nationality

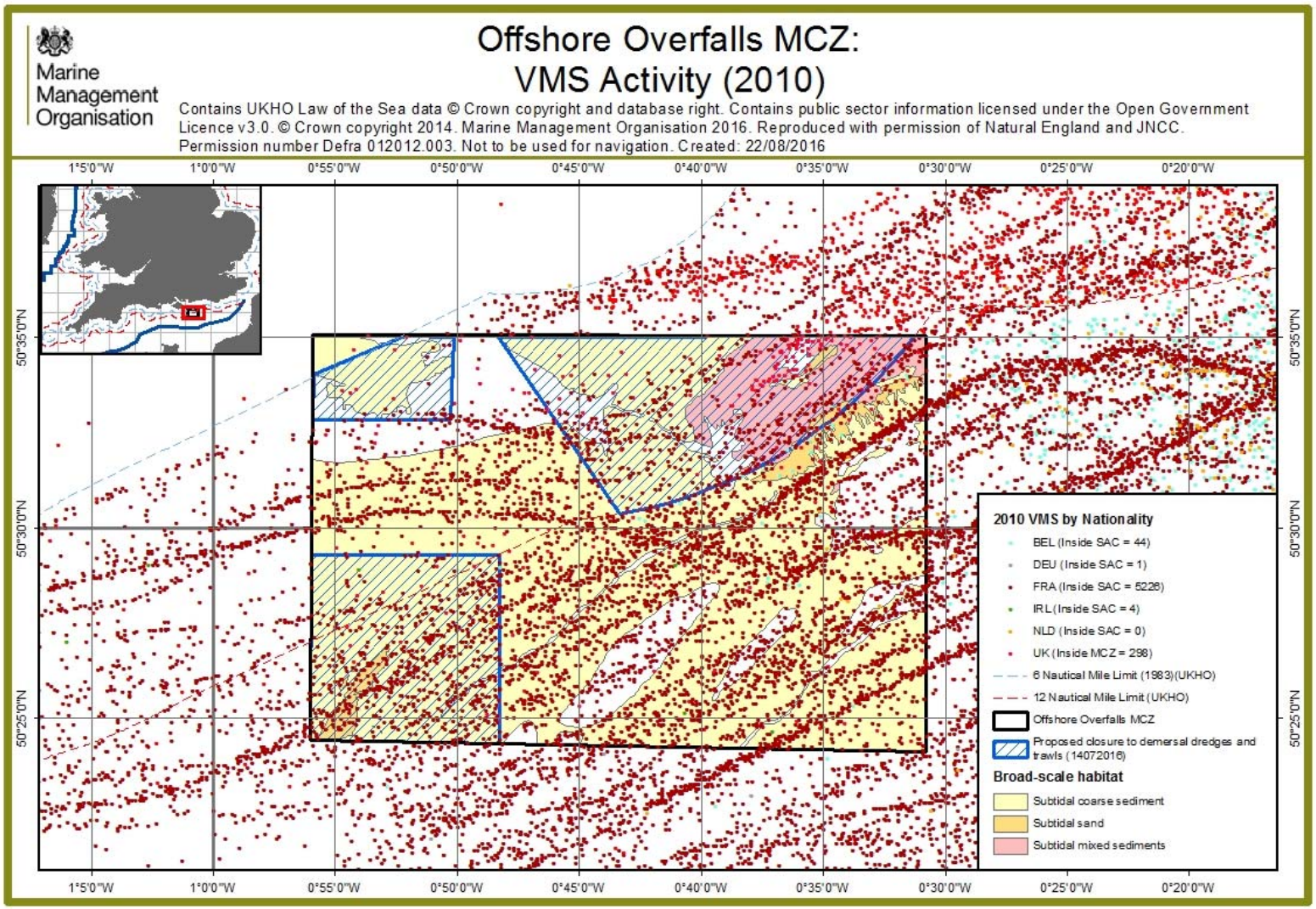


Figure 4: VMS reports indicating all fishing activity in the Offshore Overfalls MCZ 2011 by Nationality

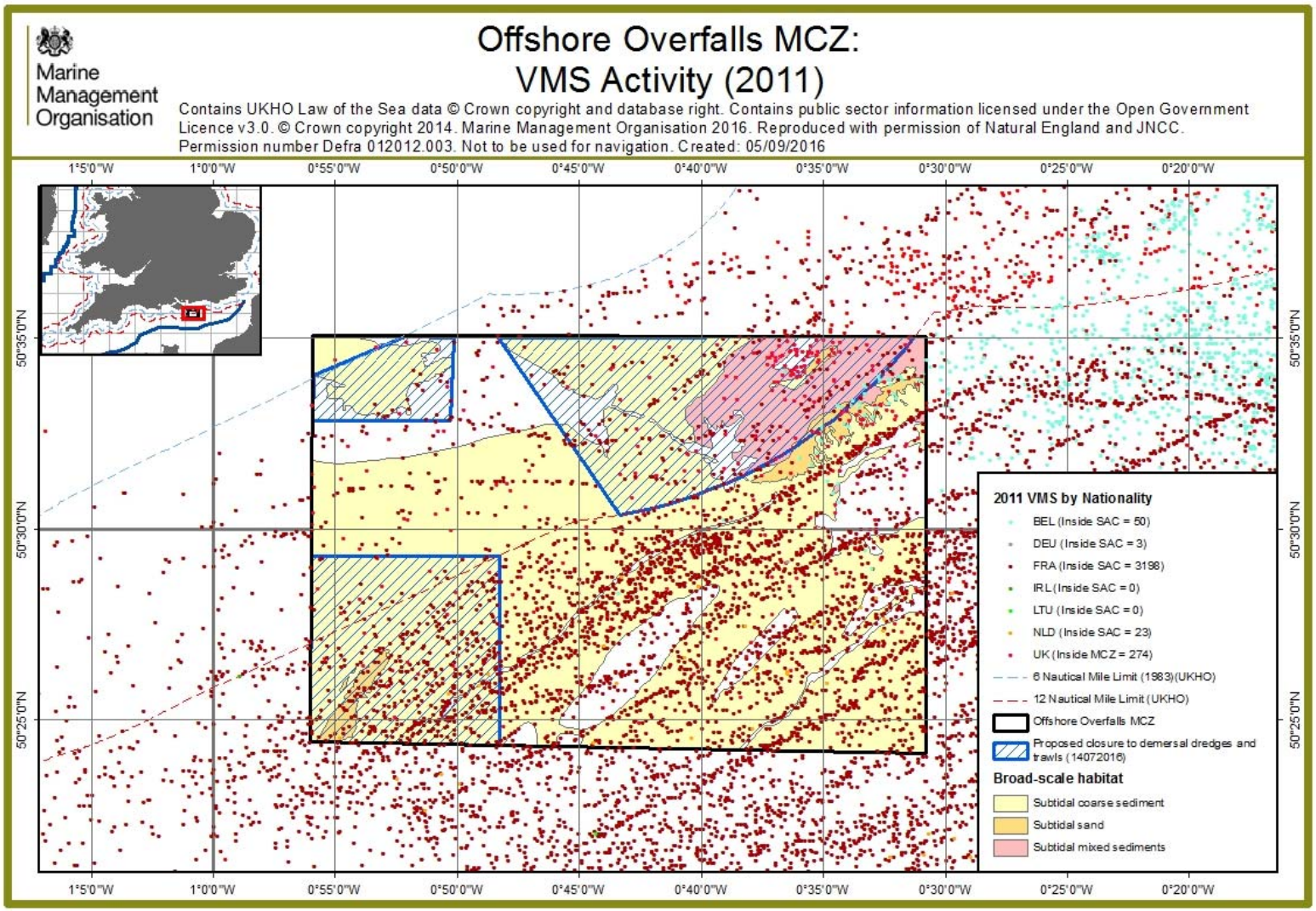


Figure 5: VMS reports indicating all fishing activity in the Offshore Overfalls MCZ 2012 by Nationality

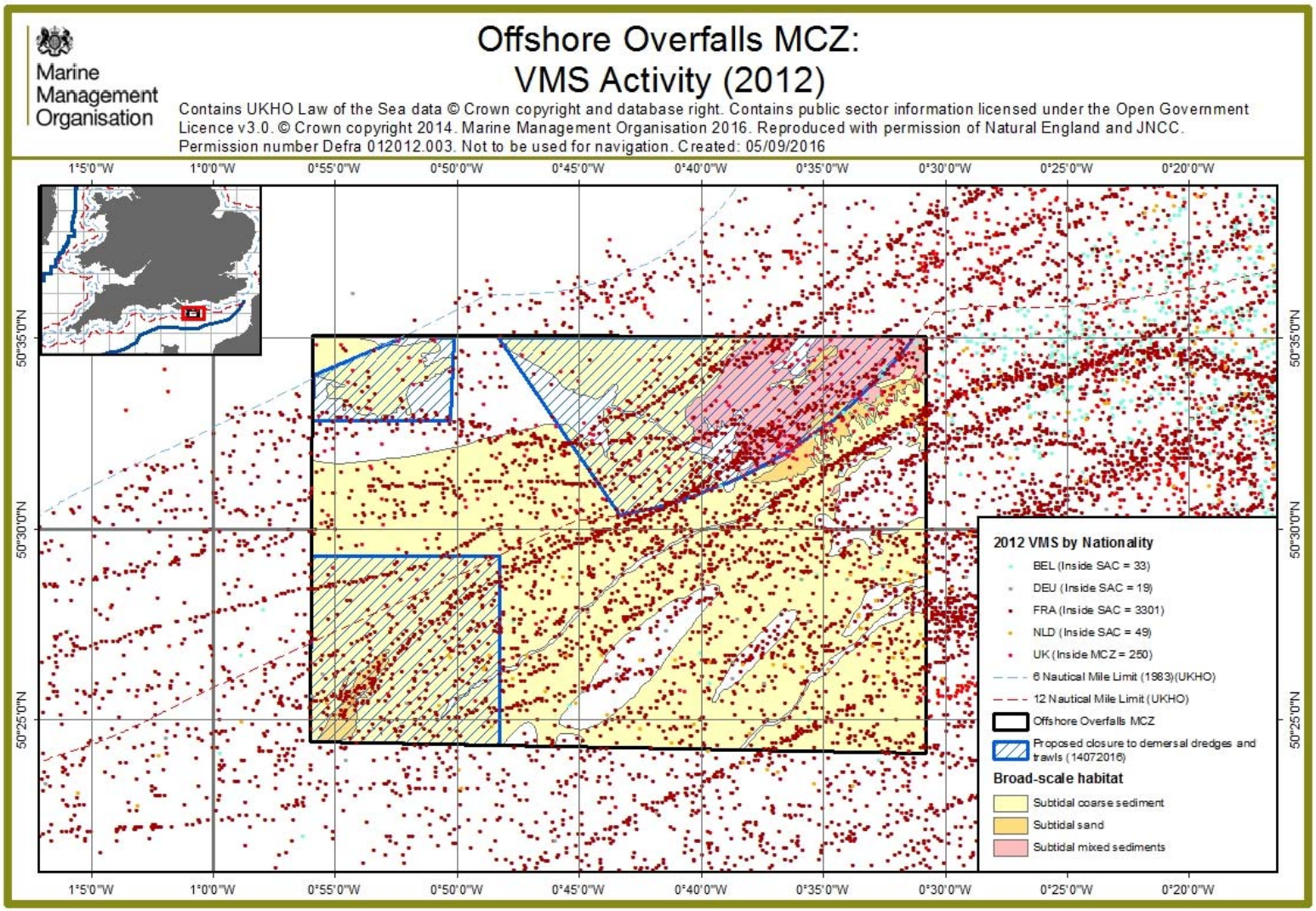


Figure 6: VMS reports indicating all fishing activity in the Offshore Overfalls MCZ 2013 by Nationality

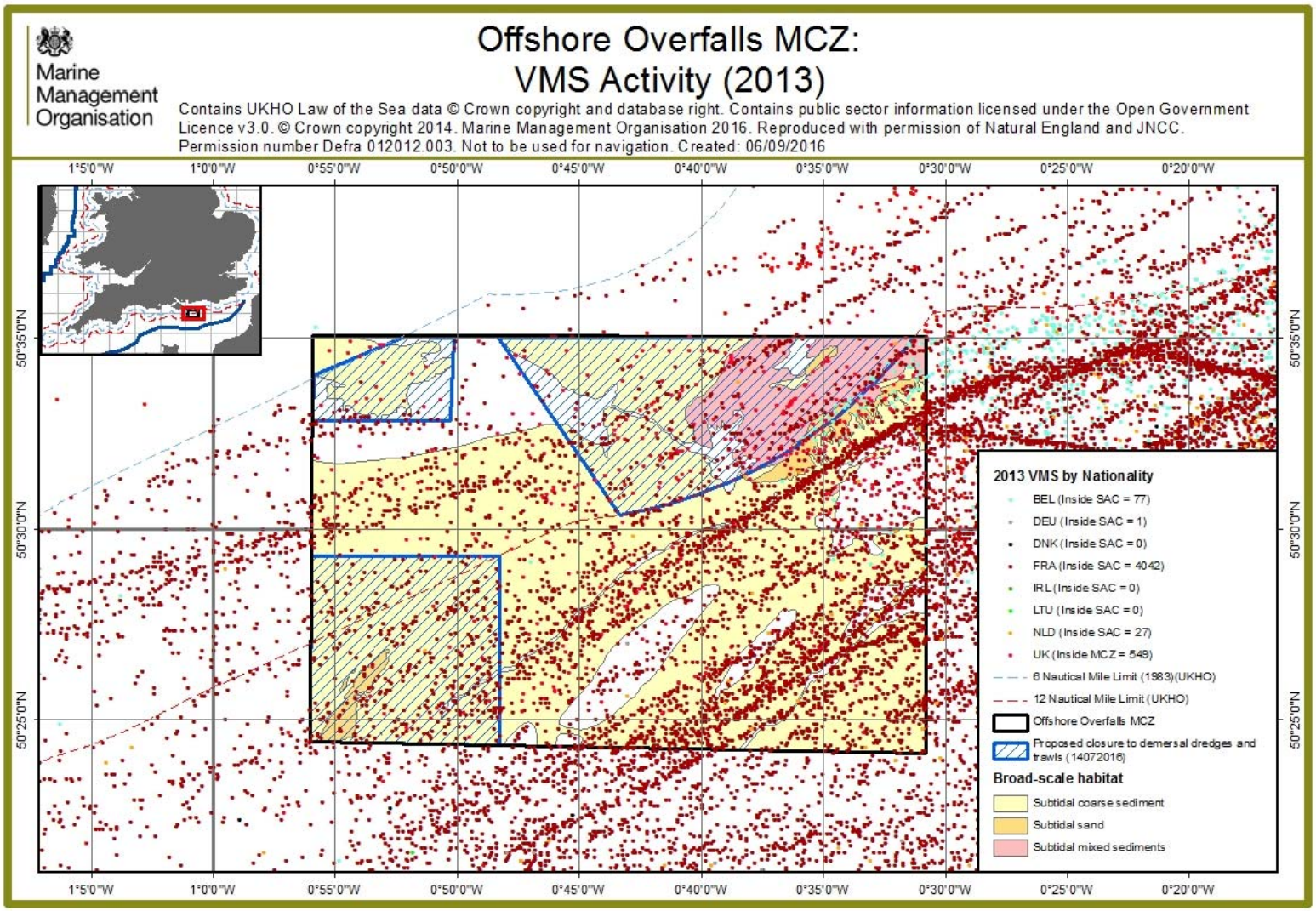


Figure 7: VMS reports indicating all fishing activity in the Offshore Overfalls MCZ 2014 by Nationality

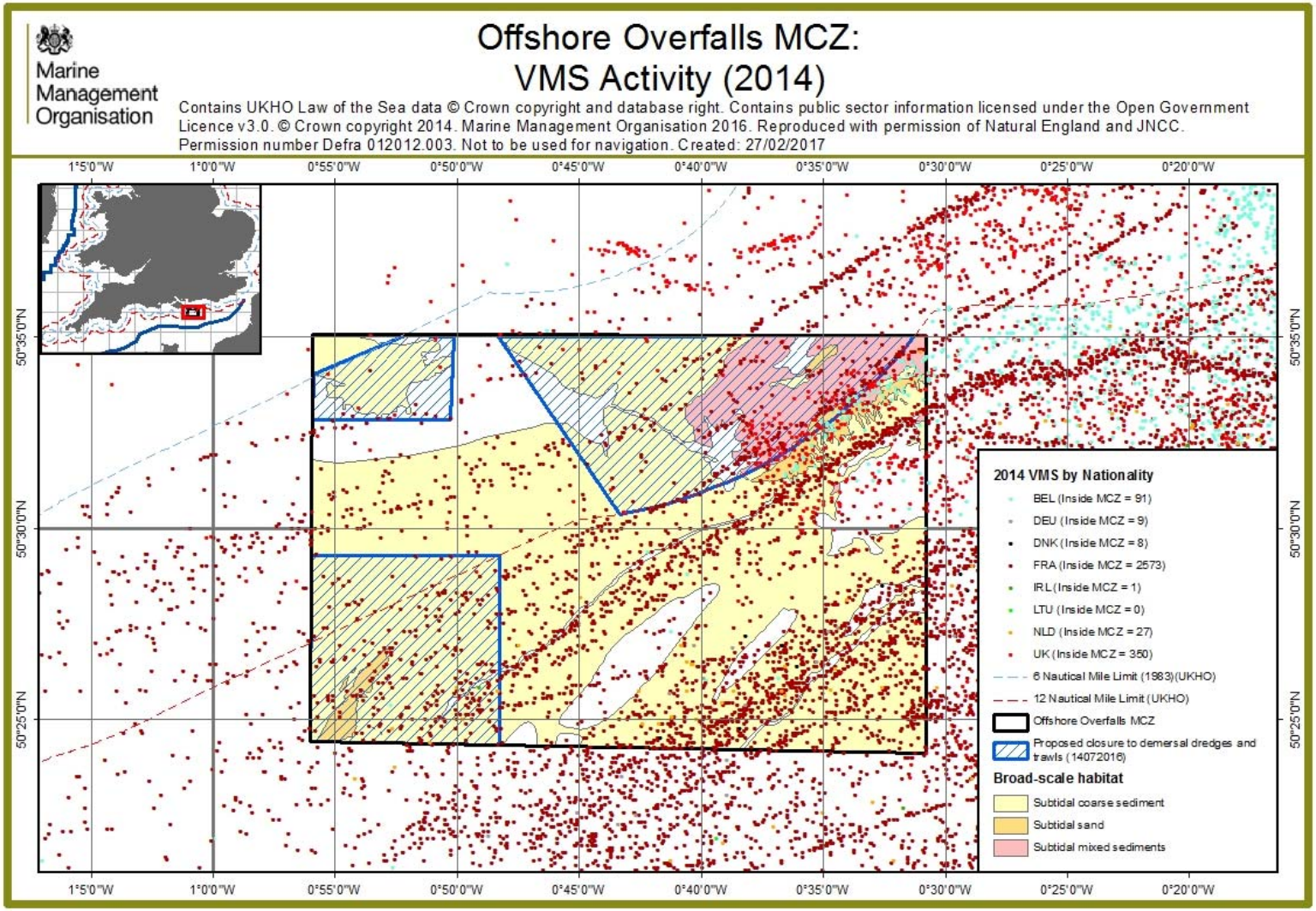
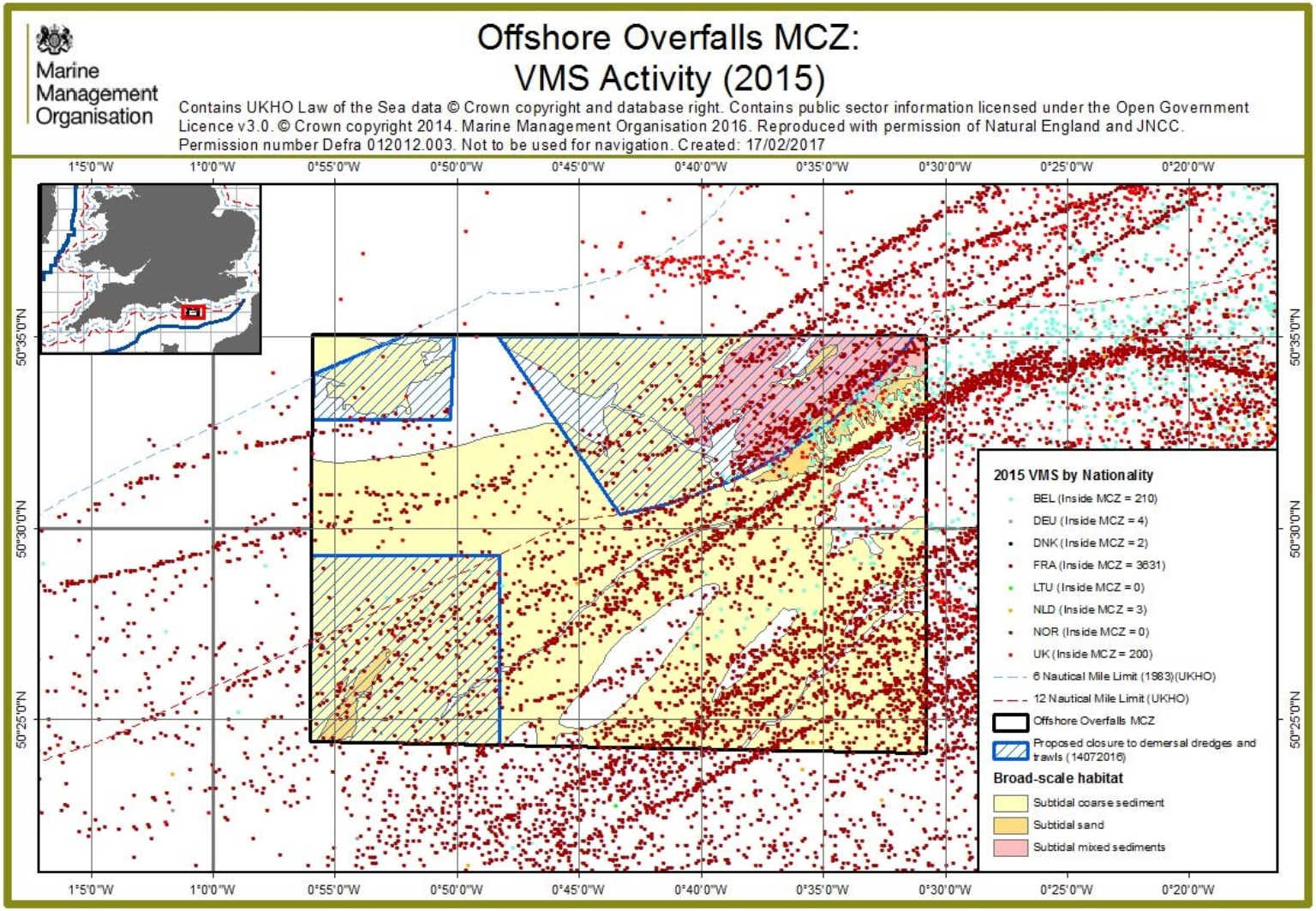


Figure 8: VMS reports indicating all fishing activity in the Offshore Overfalls MCZ 2015 by Nationality



5.5 Fleet activity by gear group – Geographical distribution

In the charts depicted in Section 5.6, demersal towed gears and dredges have been classed as all gear types which are to be excluded from the closed areas as stipulated in the gear table on page 8. The charts show all demersal and non-demersal gear types for each year and each Member State and where possible, the specific gear type recorded has been included.

Figure 9: VMS reports indicating demersal towed fishing activity in Offshore Overfalls MCZ 2010

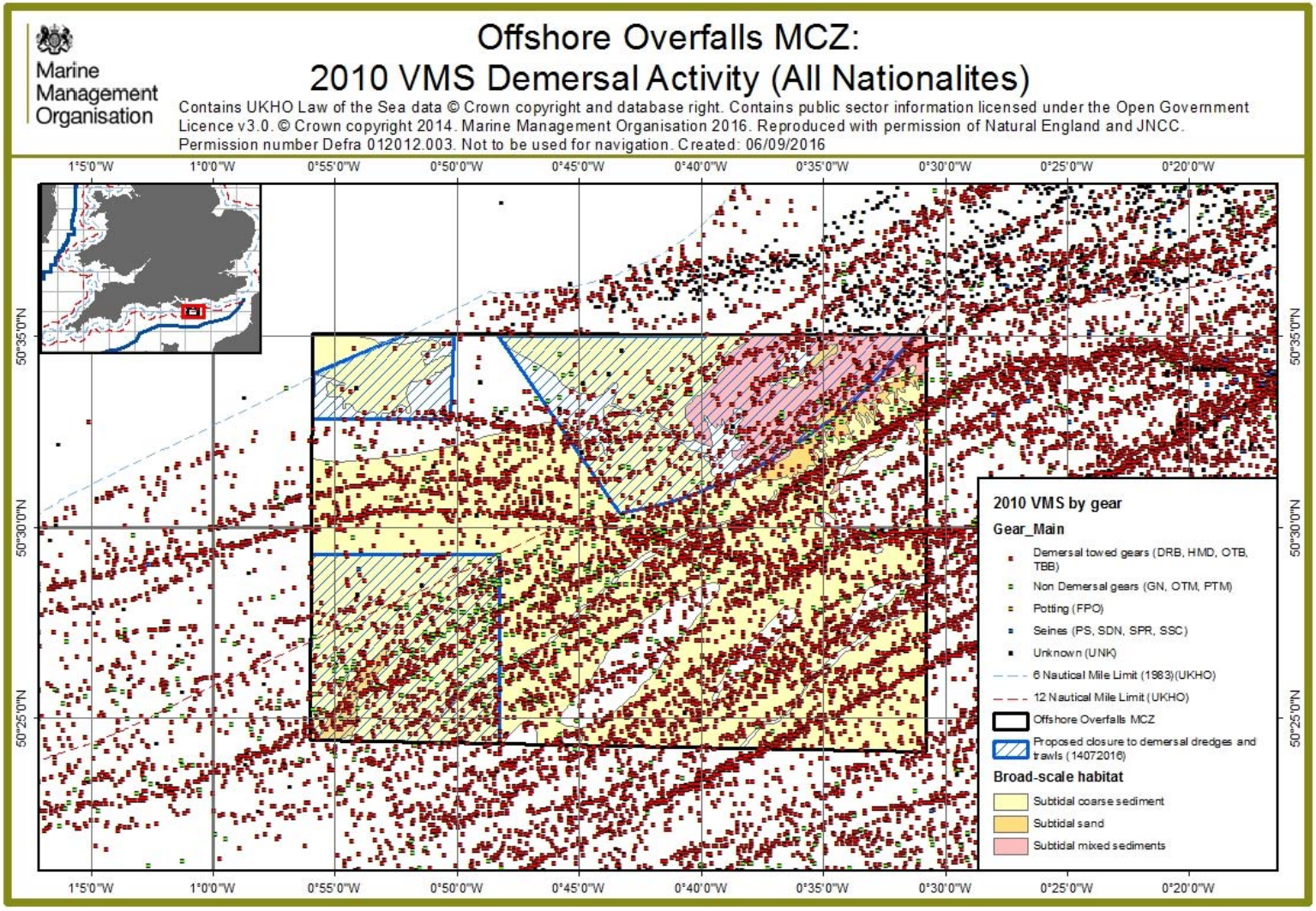


Figure 10: VMS reports indicating demersal towed fishing activity in Offshore Overfalls MCZ 2011

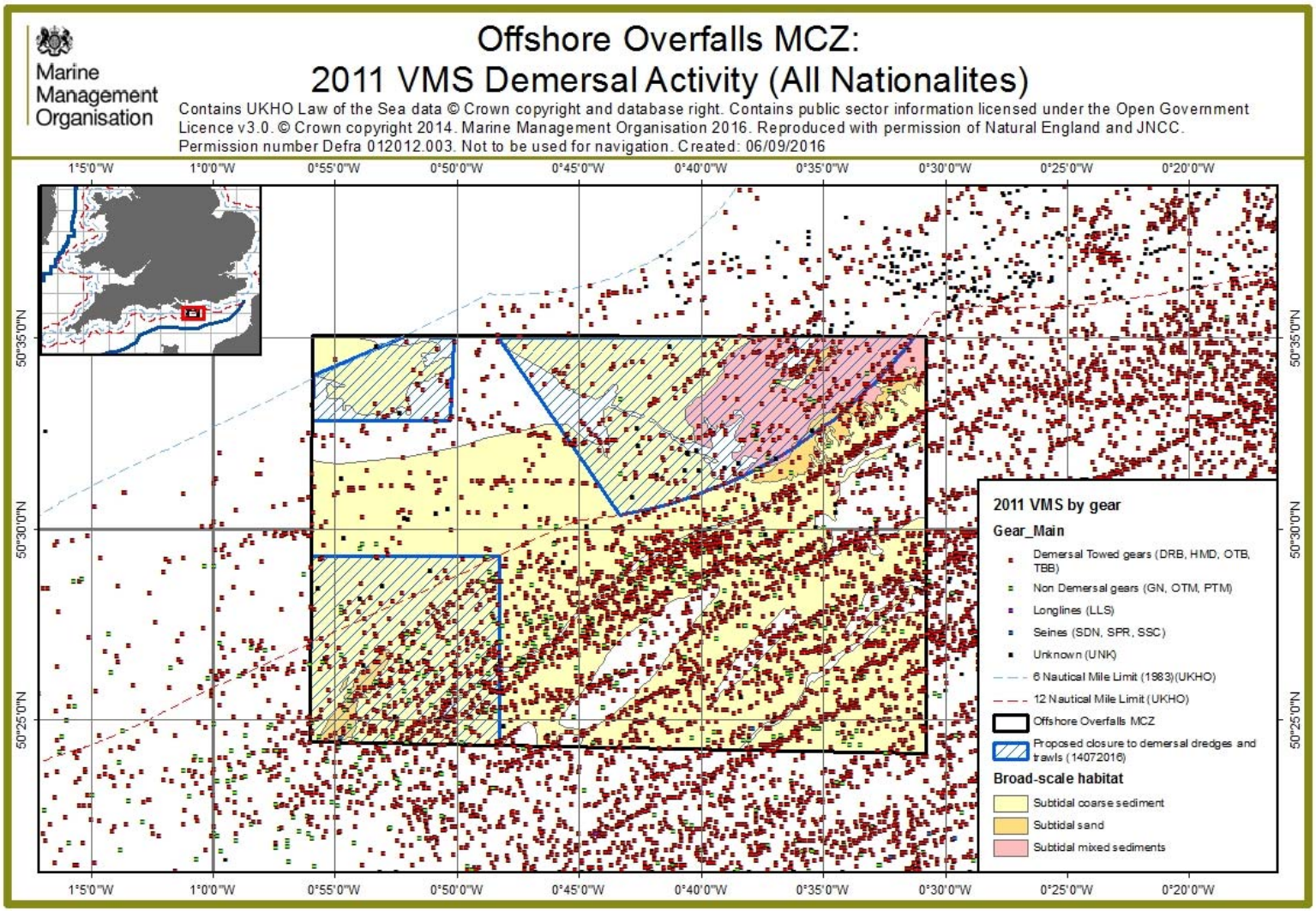


Figure 11: VMS reports indicating demersal towed fishing activity in Offshore Overfalls MCZ 2012

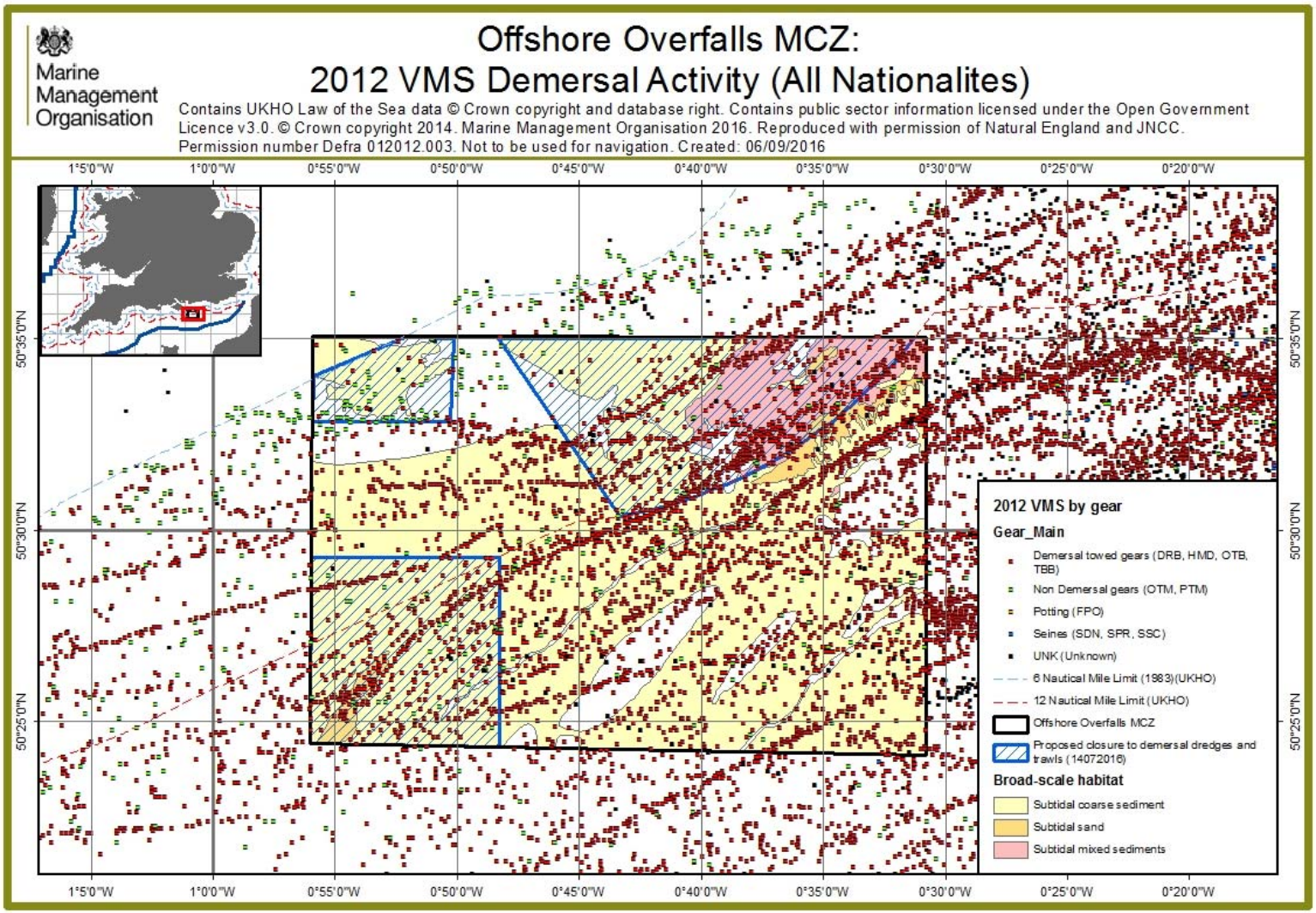


Figure 12: VMS reports indicating demersal towed fishing activity in Offshore Overfalls MCZ 2013

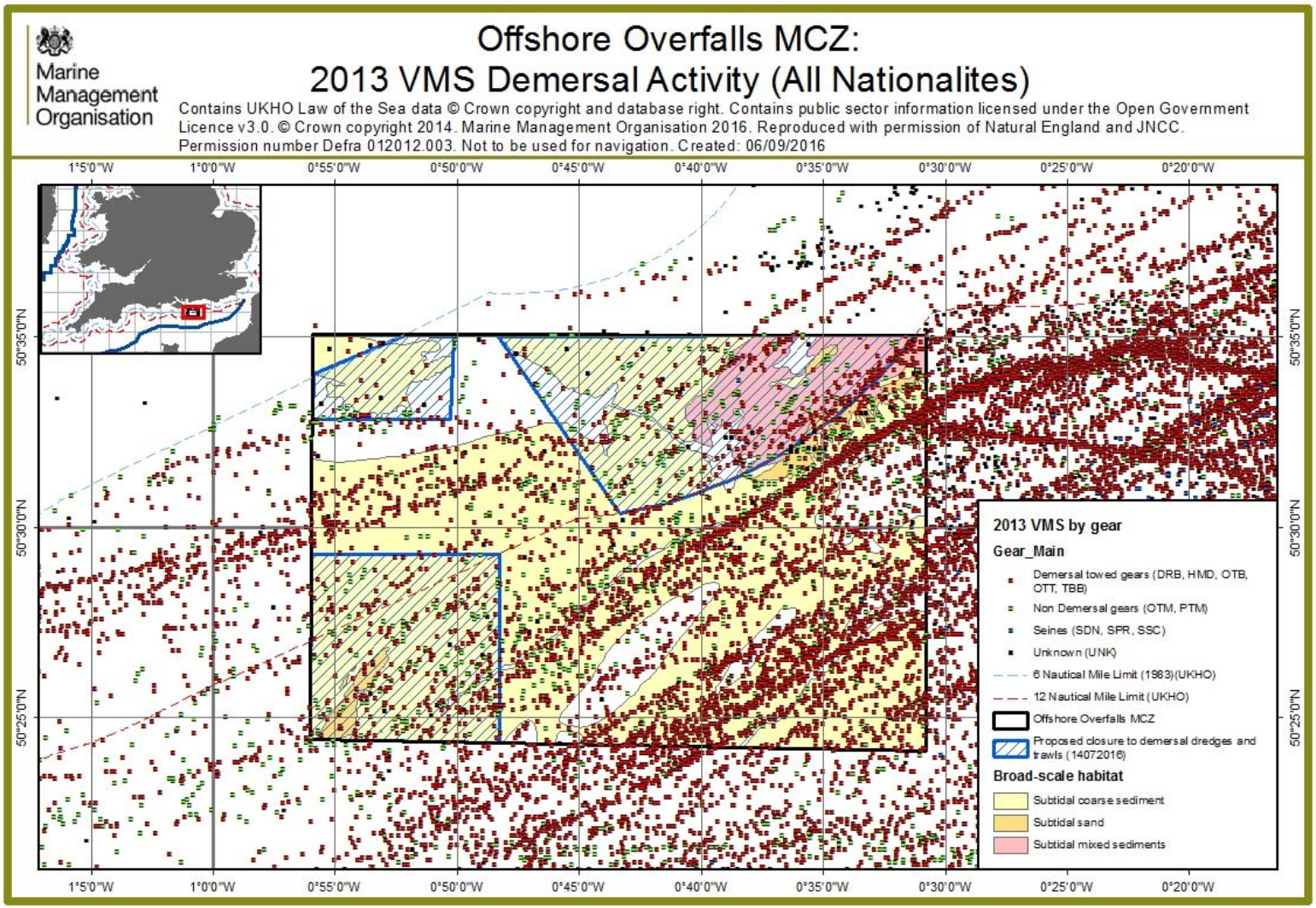


Figure 13: VMS reports indicating demersal towed fishing activity in Offshore Overfalls MCZ 2014

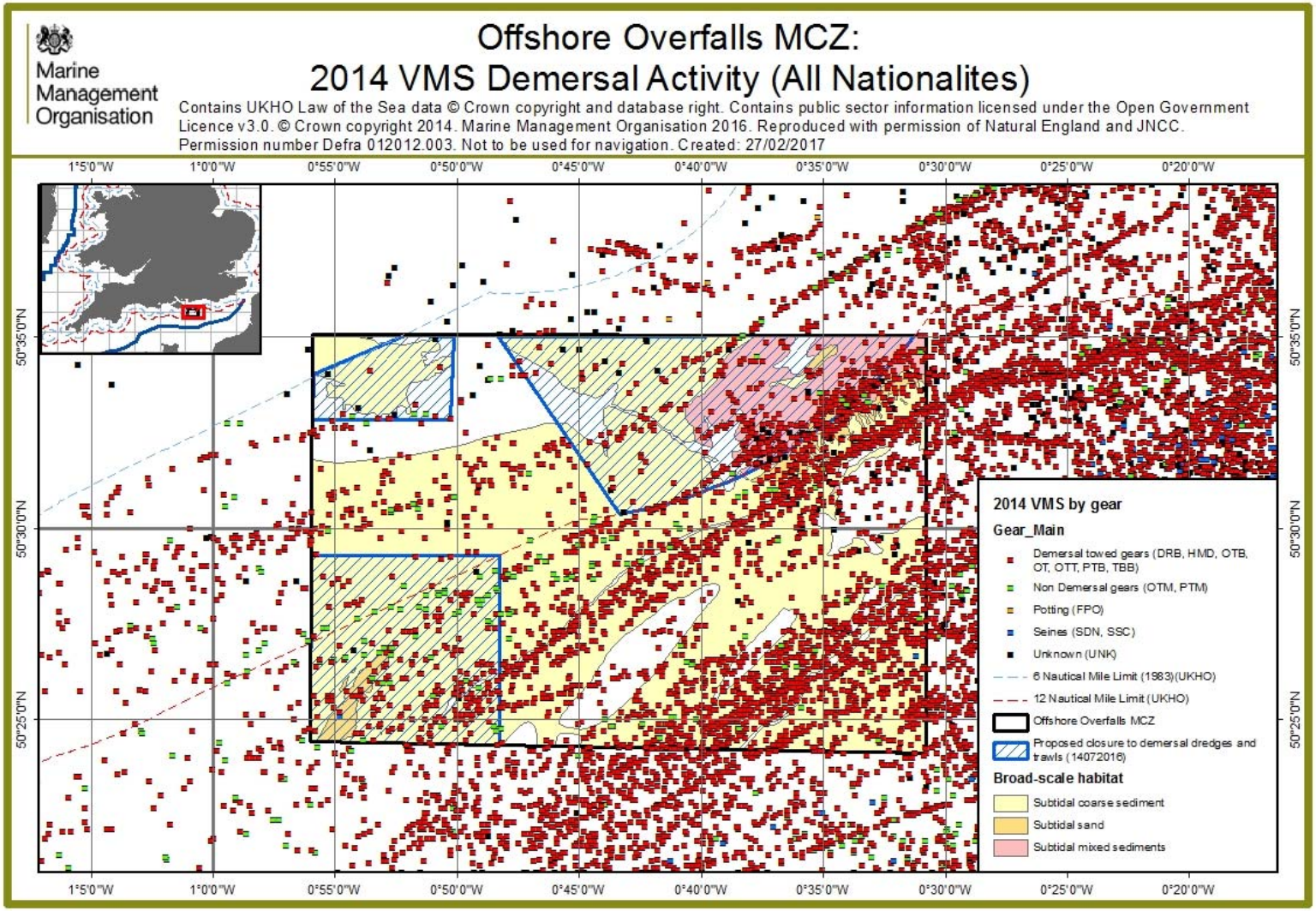
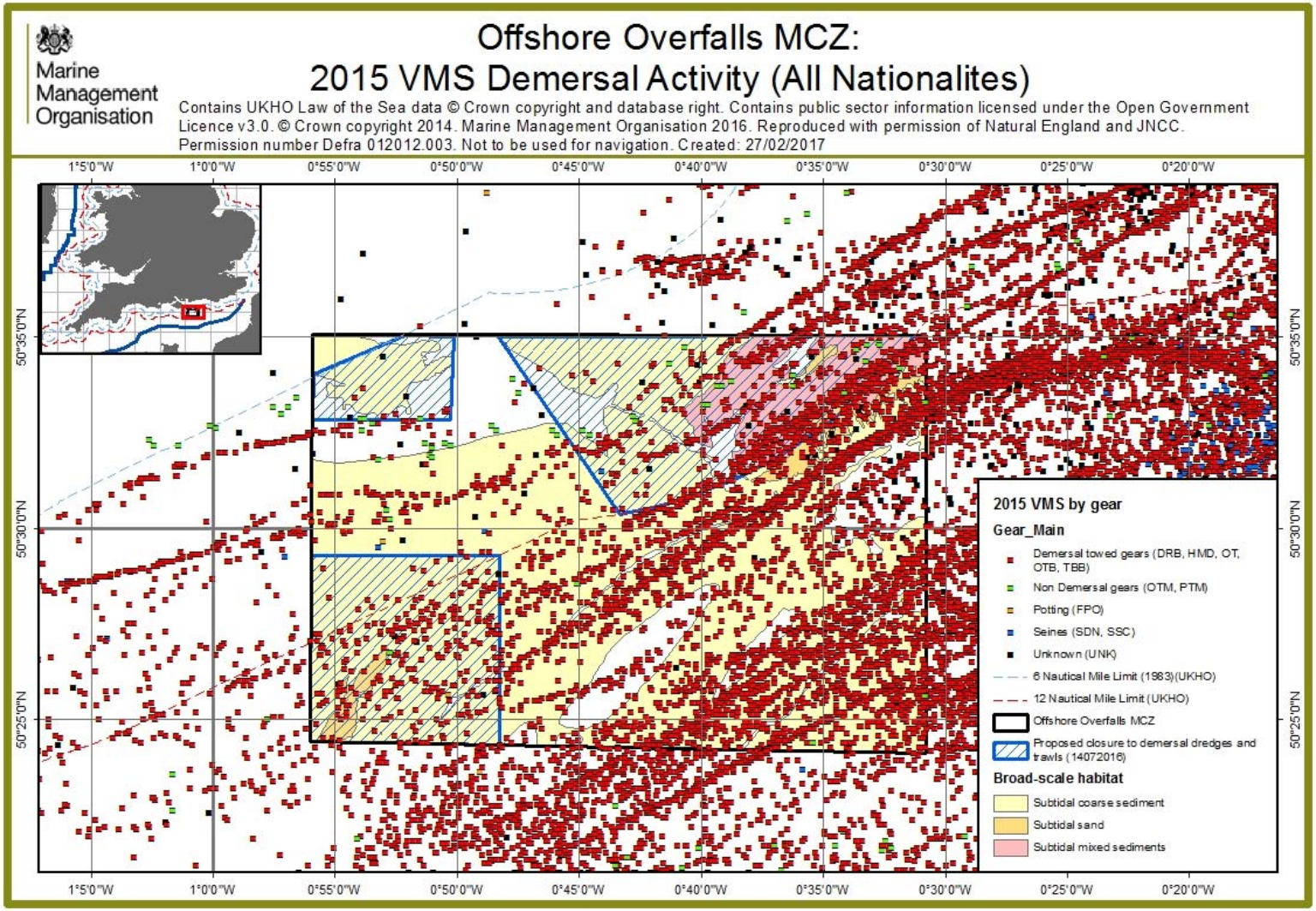


Figure 14: VMS reports indicating demersal towed fishing activity in Offshore Overfalls MCZ 2015



5.6 By-catch

Both mid-water (pelagic) and bottom (demersal) trawling using otter trawls are the most common activities by taking place in the site based on landings. Beam and bottom otter board trawl land a number of other species as by-catch (e.g. cod, lemon sole). Where these species are landed these are included in the total gross landing value statistics. Additional species may also be caught as bycatch but are not landed and there are no current systematic statistics available for these catch components. France mainly focused on bottom trawling (OTB) over the past years analysed (see charts 6.4).

The fishery focuses on both demersal and pelagic species.

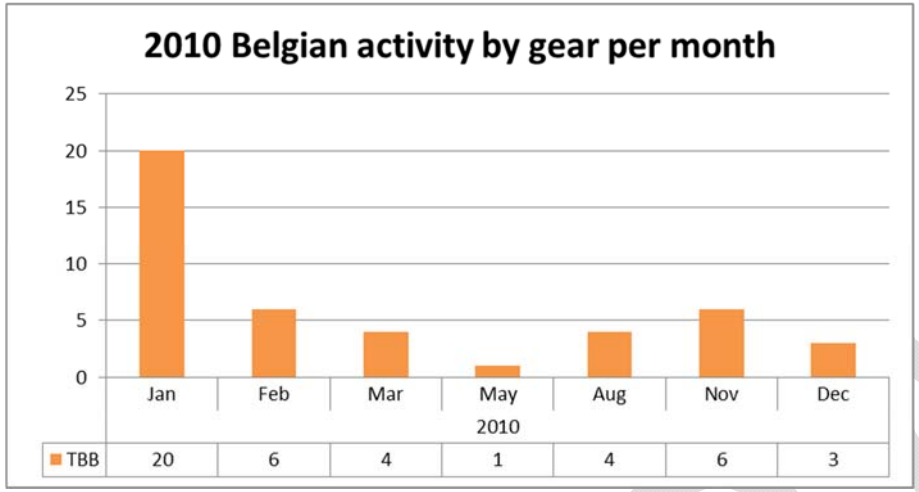
- UK Demersal top species landed in terms of weight are Plaice and Sole with Herring and Horse Mackerel being the pelagic species. Whelks, Scallops, Black Sea bream and Bass are also the main landed species but these are associated with the inshore areas of ICES rectangle 30E9 and are unlikely to be associated with Offshore Overfalls MCZ.
- Other member states generally land Sea Bream, Plaice, Gurnard, Pollack, and Sea Bass.

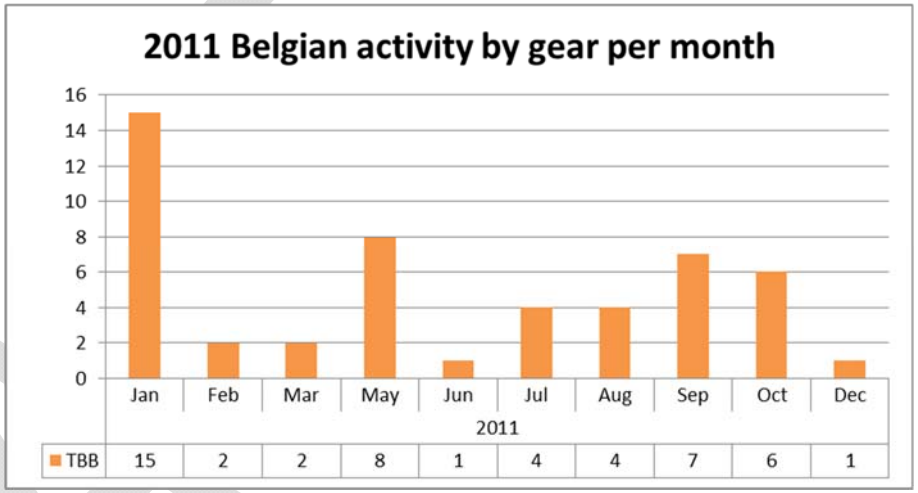
With the introduction of Common Fisheries Policy reform, which includes a landing obligation(namely a ban on the discard of certain species by certain vessels/within certain circumstances), it could become possible in the future to collate information on bycatch that could contribute to the overall catch and landings statistics in certain areas. A ban on demersal fish discards was introduced at the end of 2015, following a discard ban on pelagic fish introduced at the end of 2014, with a ban on discarding all other quota species by 2016.[7]

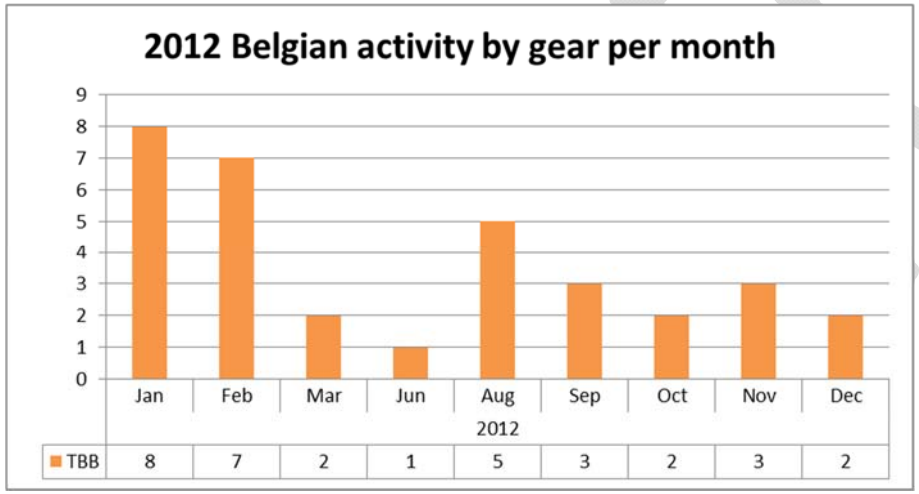
[7] http://ec.europa.eu/fisheries/reform/docs/discards_en.pdf

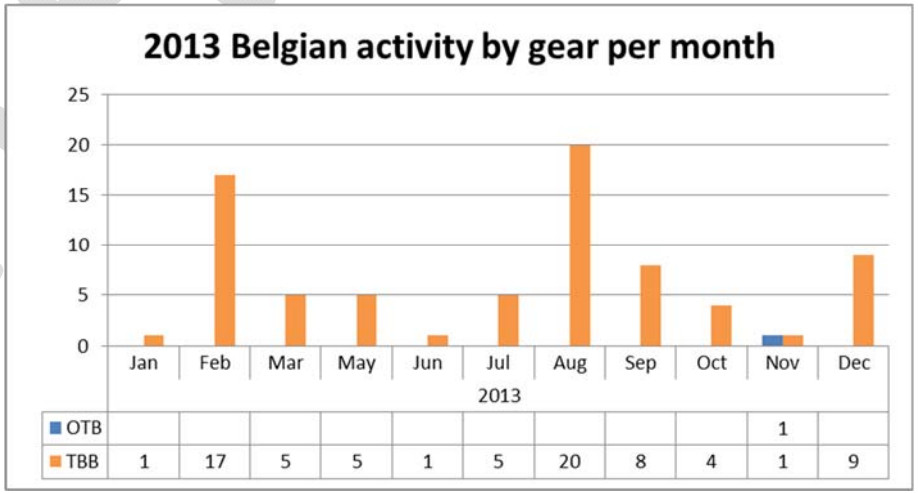
6 Seasonal trends in fisheries over years 2010 to 2015 inclusive

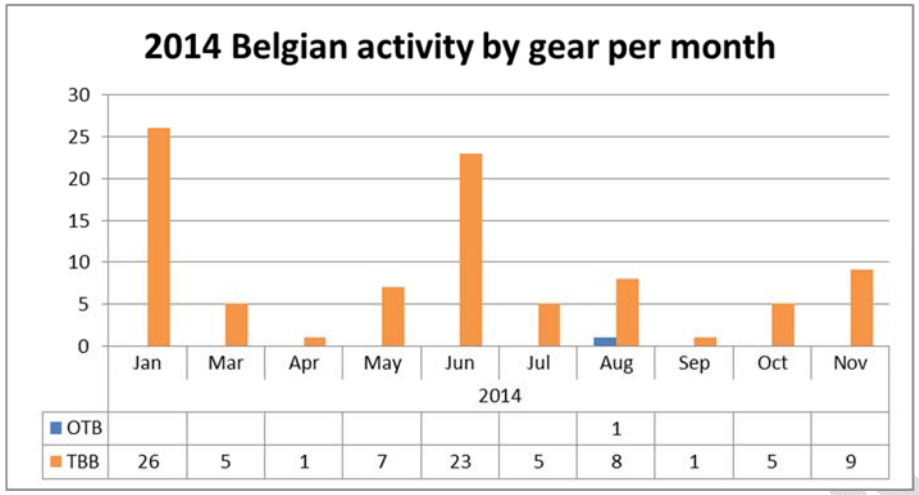
Charts 6.1: Belgian seasonal fishing activity (all gears) in Offshore Overfalls MCZ

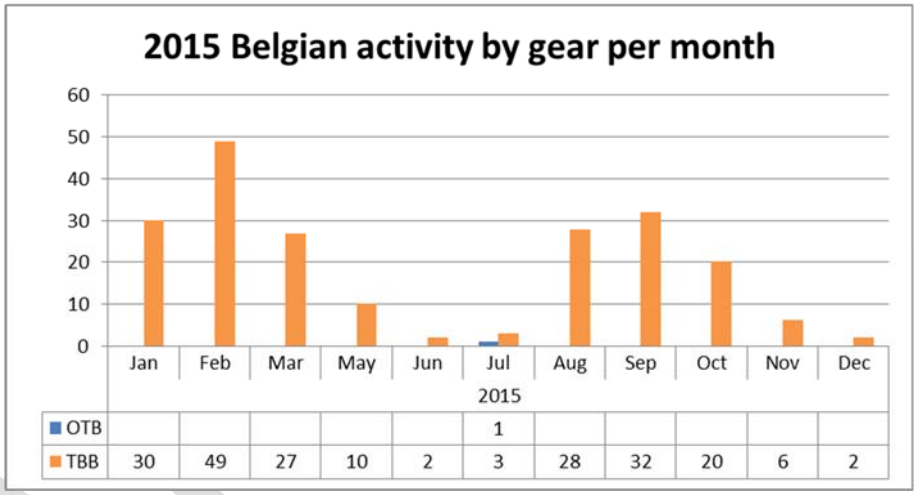












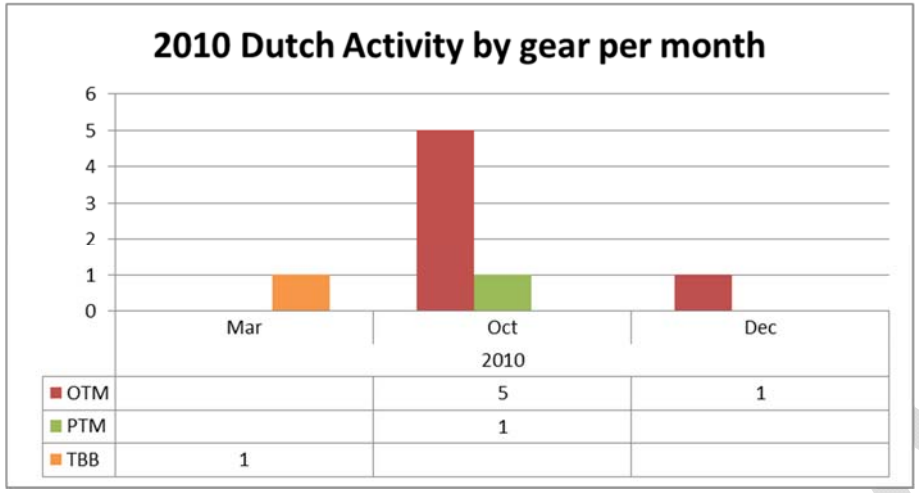
Charts 6.2: Danish seasonal fishing activity (all gears) in Offshore Overfalls MCZ

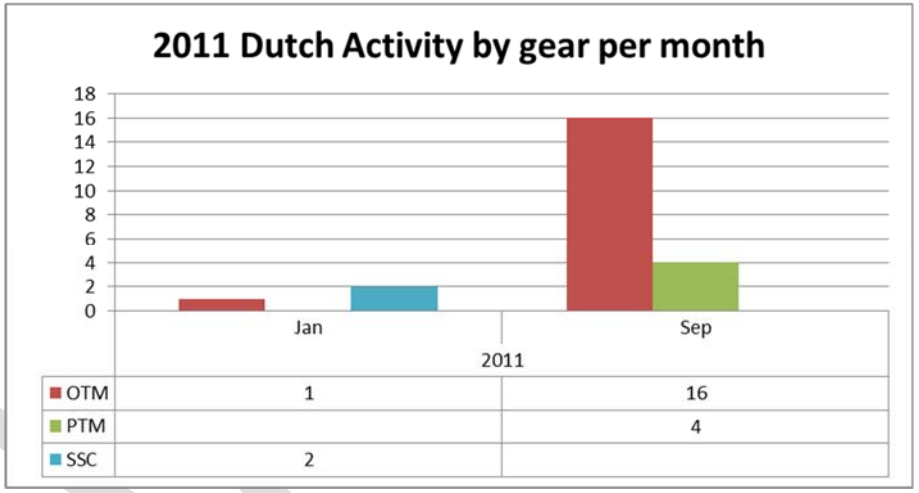
No Danish VMS activity observed in 2010, 2011, 2012 and 2013.

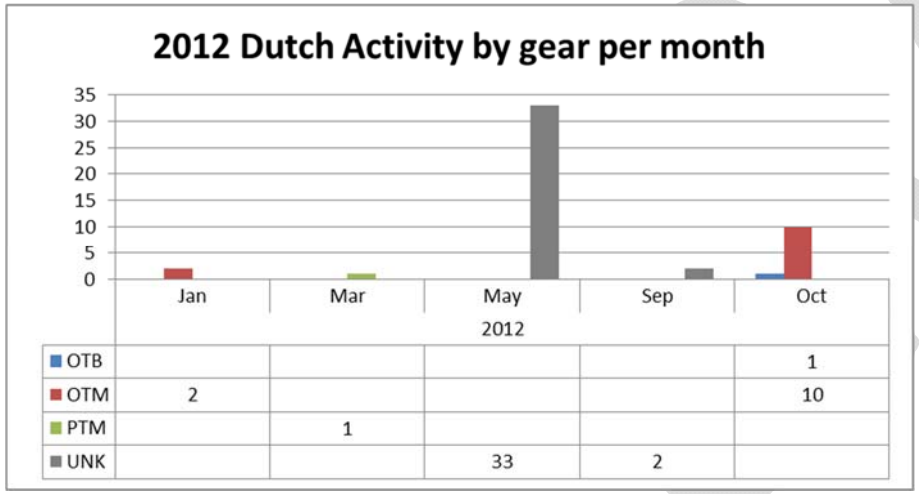
4 Danish VMS pings in both October and November 2014 only (otter trawl midwater).

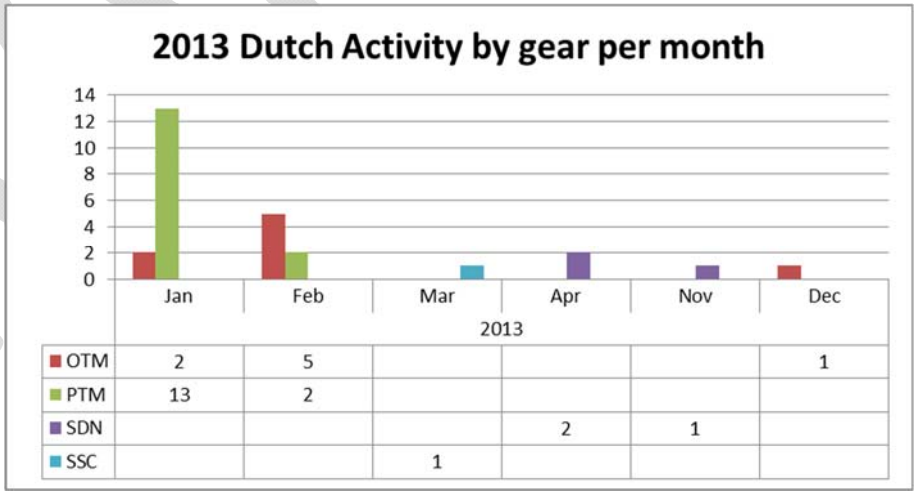
2 Danish VMS pings in October 2015 only (otter trawl bottom) .

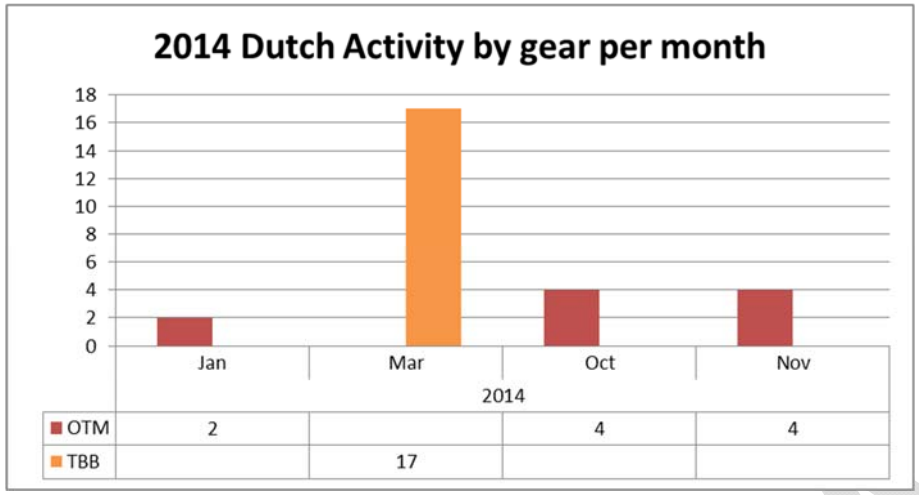
Charts 6.3: Dutch seasonal fishing activity (all gears) in Offshore Overfalls MCZ

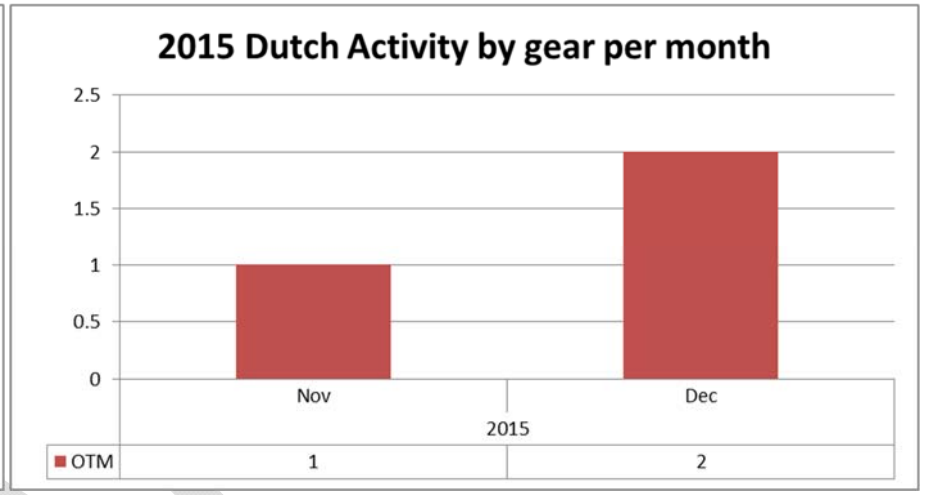




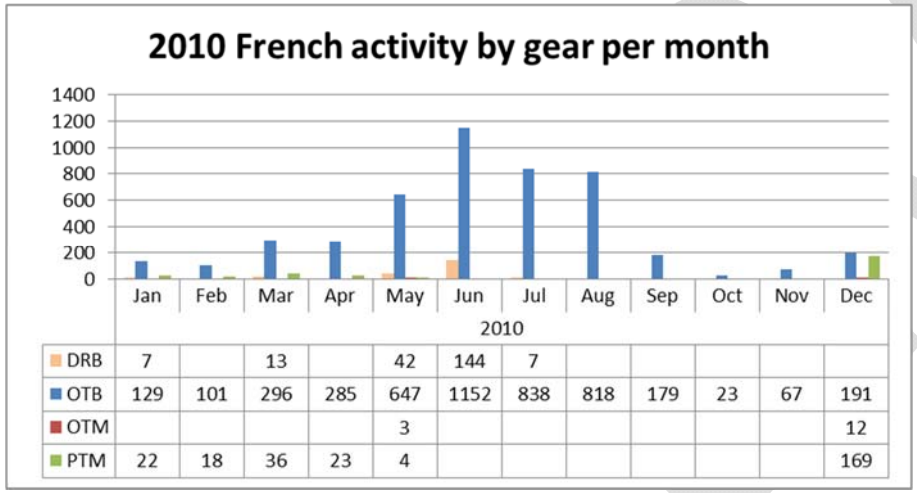


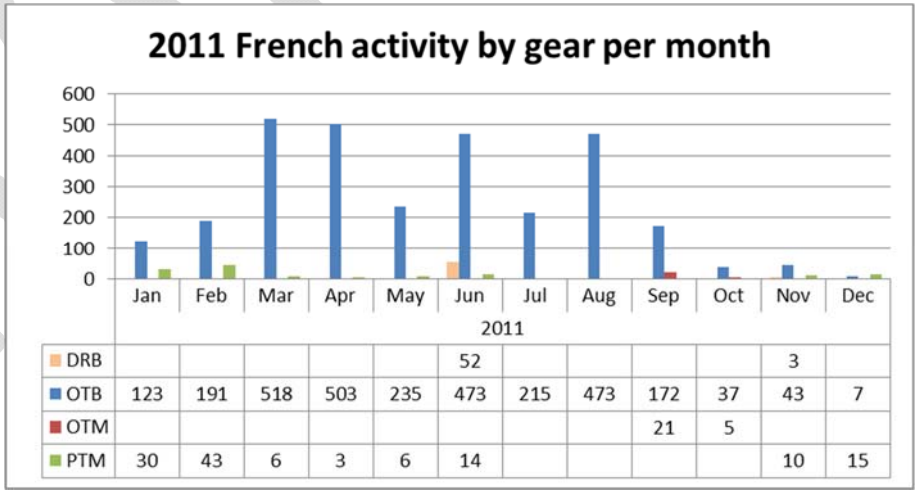




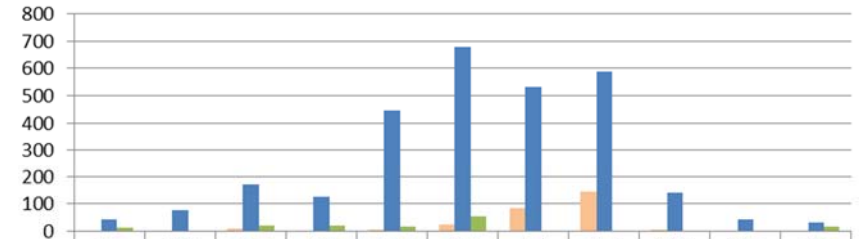


Charts 6.4: French seasonal fishing activity (all gears) in Offshore Overfalls MCZ



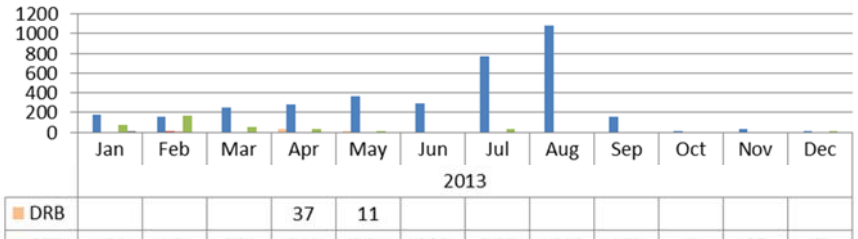


2012 French activity by gear per month



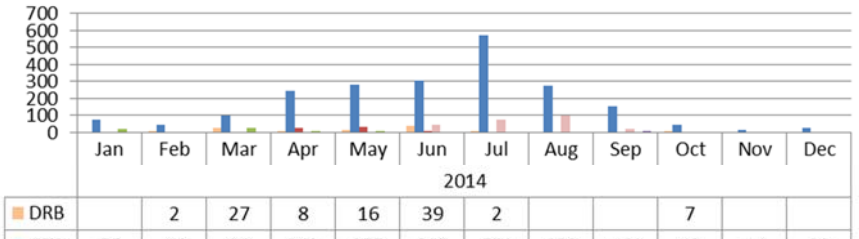
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Nov	Dec
DRB			8	4	6	23	83	146	7		
OTB	42	79	170	127	446	677	532	588	140	45	33
PTM	13		22	20	17	53		2			18

2013 French activity by gear per month



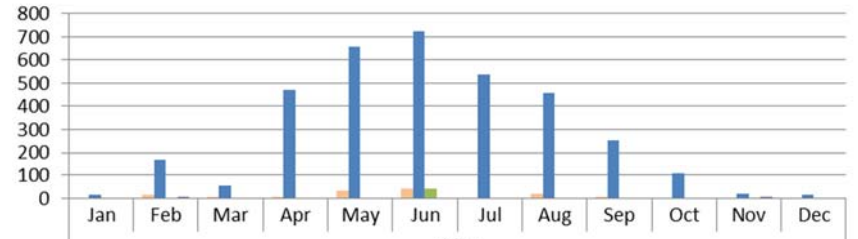
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRB				37	11							
OTB	174	161	251	282	364	298	766	1084	153	9	37	7
OTM		1										
OTT		7										
PTM	79	171	56	37	13		32					10
UNK	2											

2014 French activity by gear per month



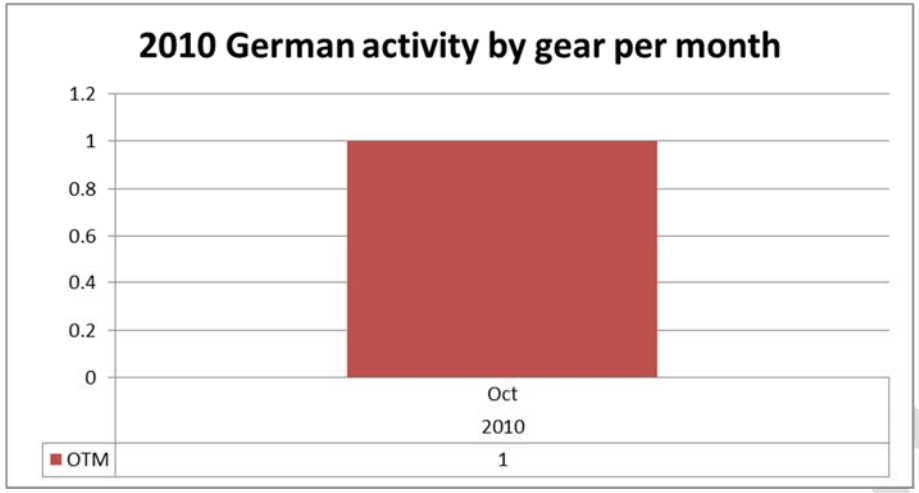
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRB		2	27	8	16	39	2			7		
OTB	75	44	99	242	277	307	572	272	150	45	14	28
OTM				26	29	9						
OTT						41	74	96	18			
PTM	18		27	2	6							
SDN									1			

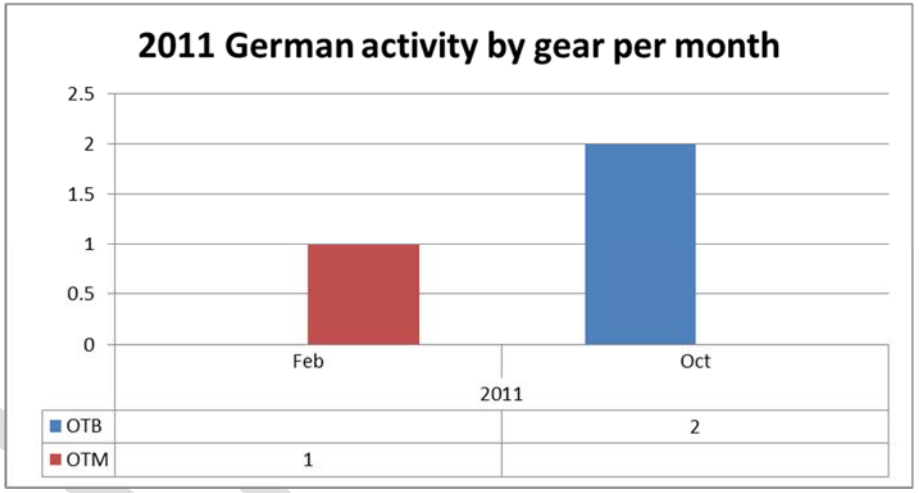
2015 French activity by gear per month

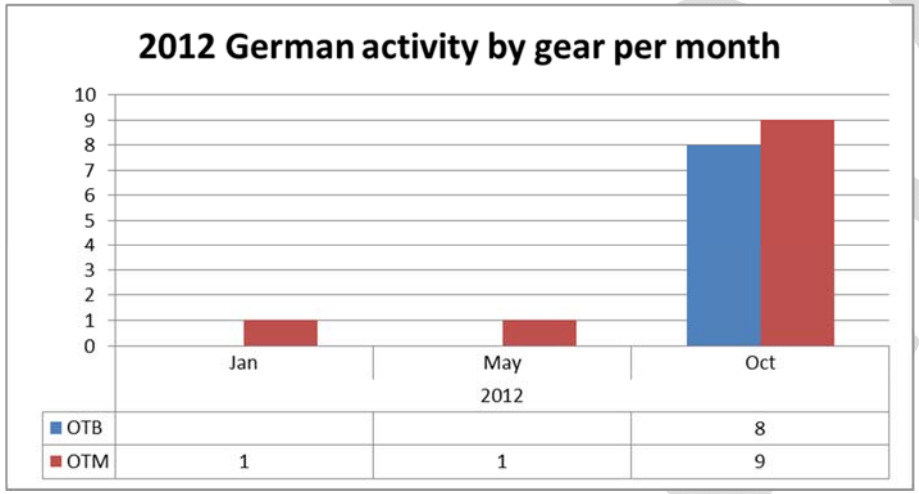


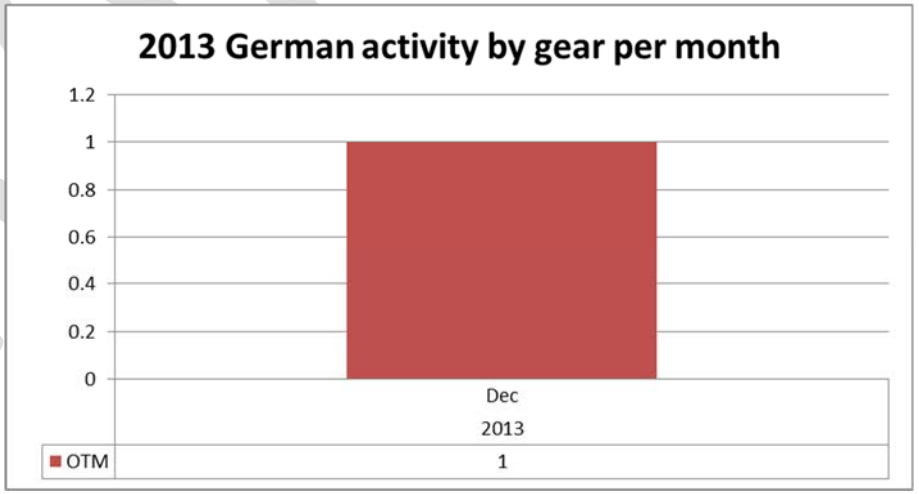
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRB		14	7	5	31	40		17	7			
OTB	13	171	52	470	655	723	536	456	255	105	18	12
PTM						40						
SDN		3									1	

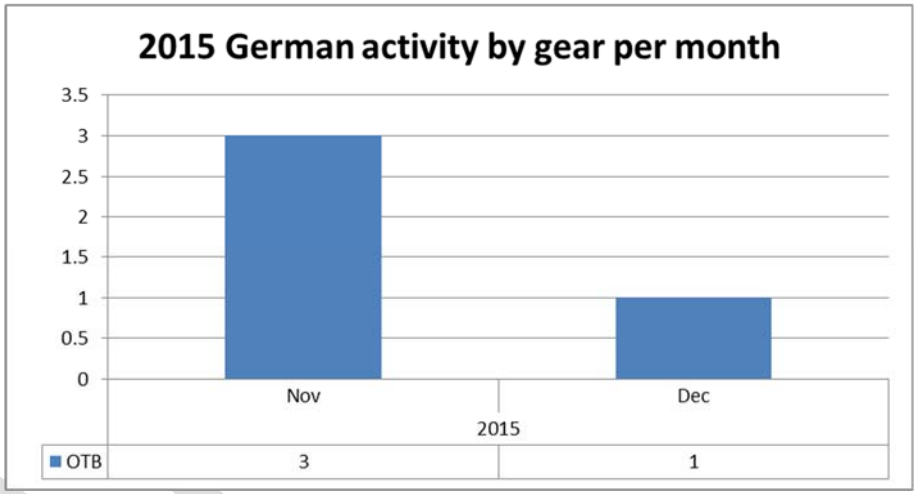
Charts 6.5: German seasonal fishing activity (all gears) in Offshore Overfalls MCZ





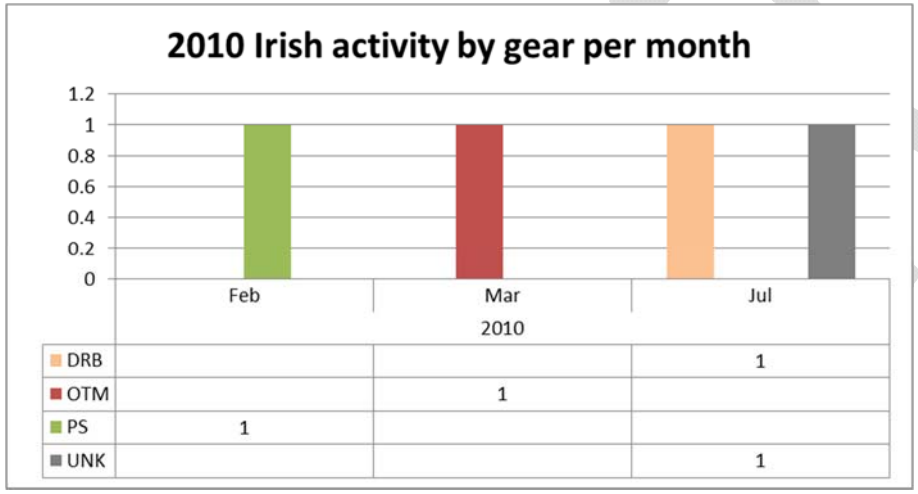




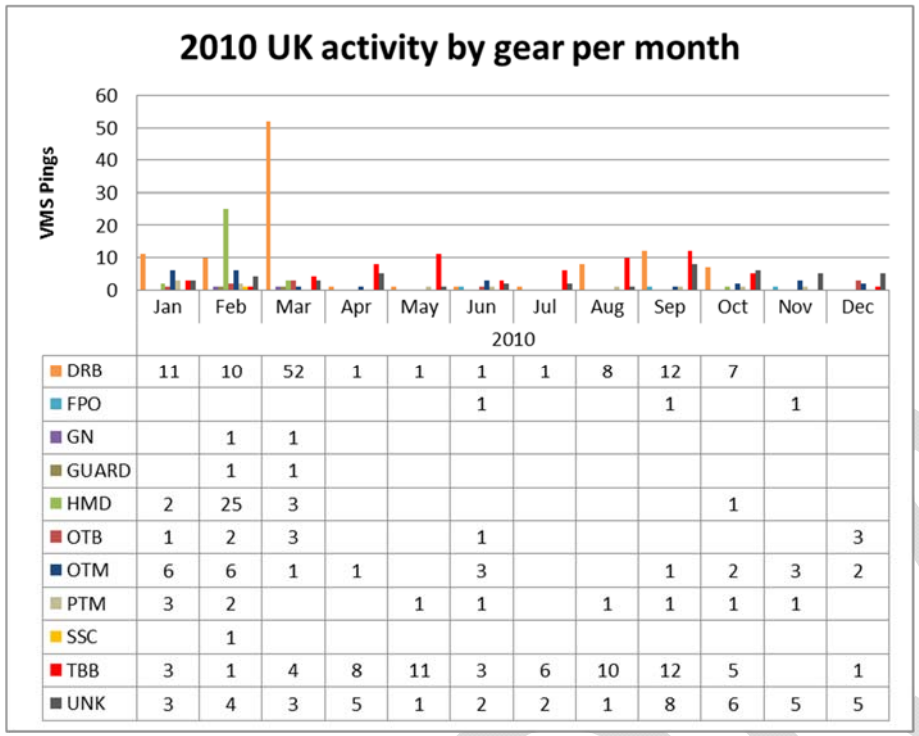


Charts 6.6: Irish seasonal fishing activity (all gears) in Offshore Overfalls MCZ

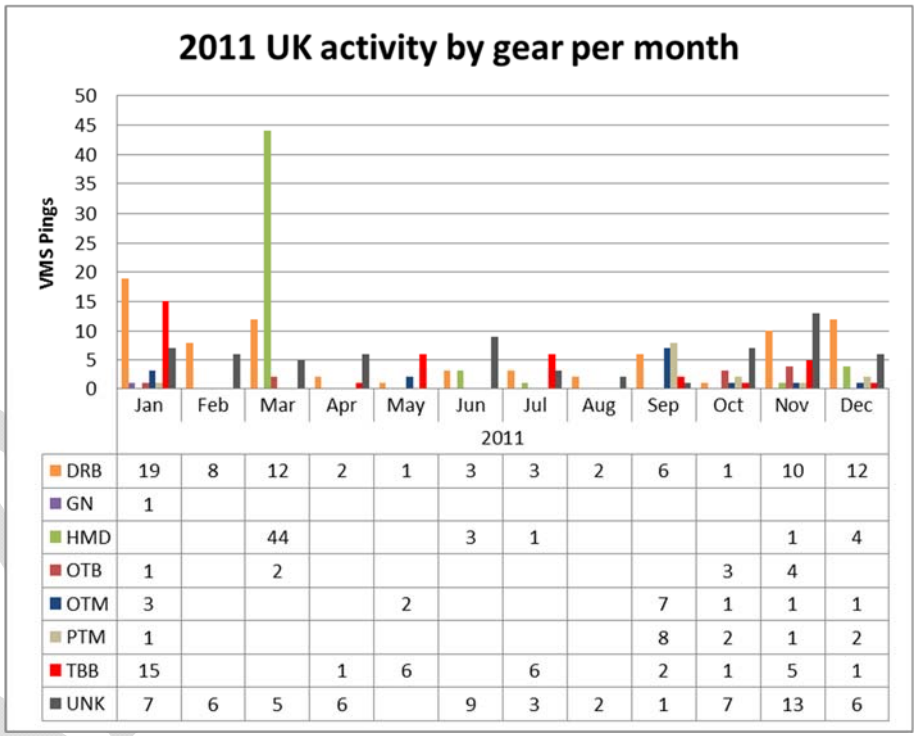
No Irish VMS activity observed in 2011, 2012, 2013 and 2015.



Charts 6.6: UK seasonal fishing activity (all gears) in Offshore Overfalls MCZ

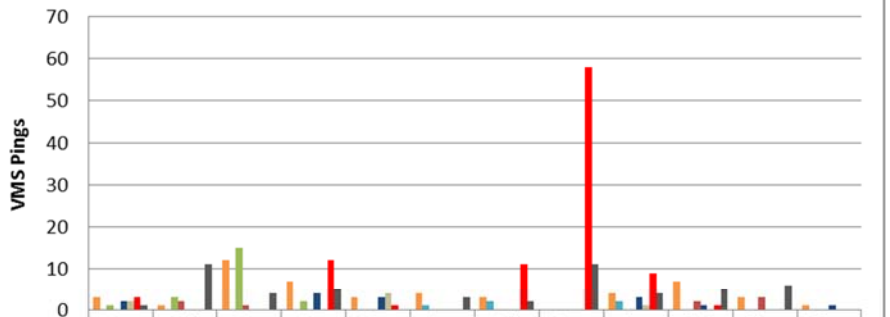


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRB	11	10	52	1	1	1	1	8	12	7		
FPO						1			1		1	
GN		1	1									
GUARD		1	1									
HMD	2	25	3							1		
OTB	1	2	3			1						3
OTM	6	6	1	1		3			1	2	3	2
PTM	3	2			1	1		1	1	1	1	
SSC		1										
TBB	3	1	4	8	11	3	6	10	12	5		1
UNK	3	4	3	5	1	2	2	1	8	6	5	5



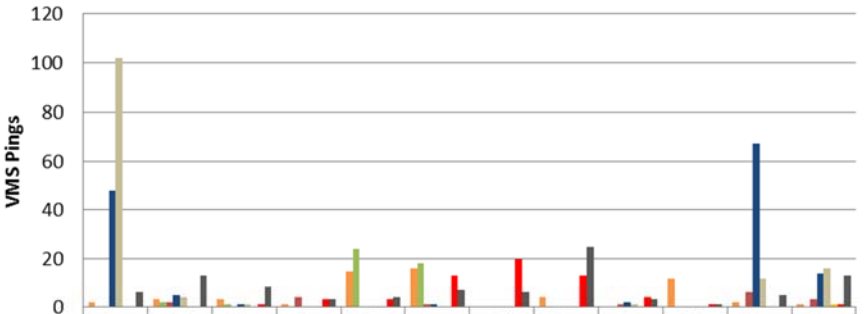
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRB	19	8	12	2	1	3	3	2	6	1	10	12
GN	1											
HMD			44			3	1				1	4
OTB	1		2							3	4	
OTM	3				2				7	1	1	1
PTM	1								8	2	1	2
TBB	15			1	6		6		2	1	5	1
UNK	7	6	5	6		9	3	2	1	7	13	6

2012 UK activity by gear per month

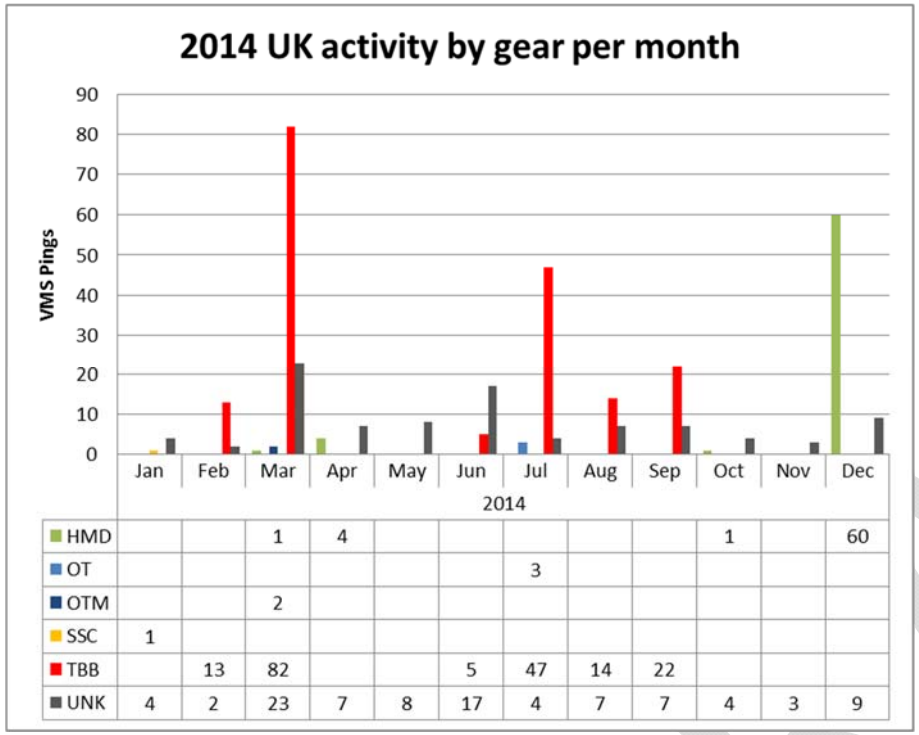


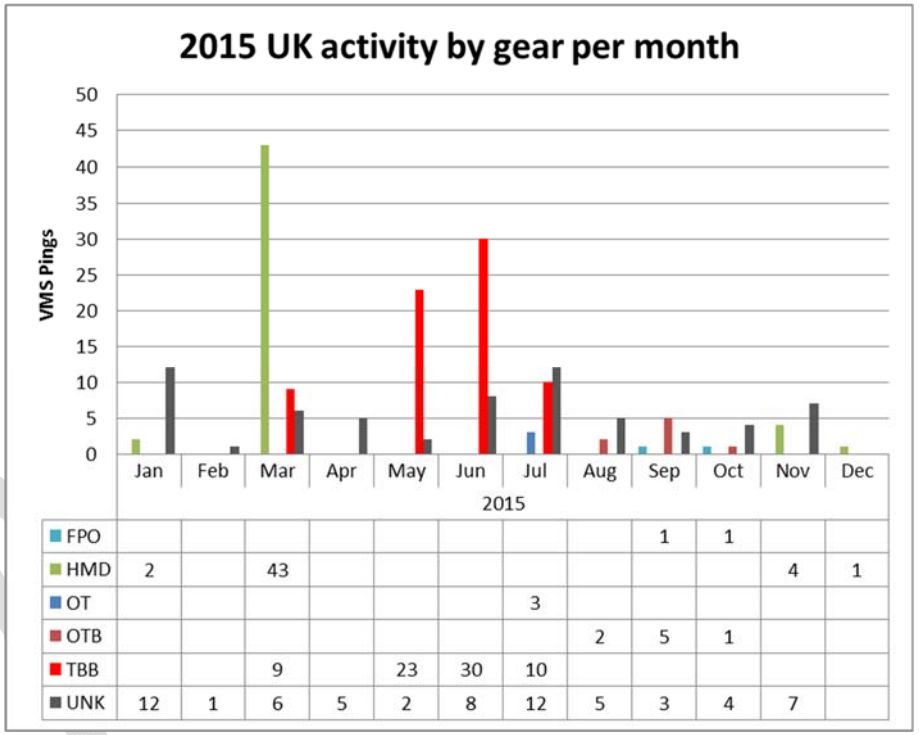
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRB	3	1	12	7	3	4	3		4	7	3	1
FPO						1	2		2			
HMD	1	3	15	2								
OTB		2	1							2	3	
OTM	2			4	3				3	1		1
PTM	2				4				1			
TBB	3			12	1		11	58	9	1		
UNK	1	11	4	5		3	2	11	4	5	6	

2013 UK activity by gear per month



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRB	2	3	3	1	15	16		4		12	2	1
HMD		2	1		24	18						
OTB		2		4		1			1		6	3
OTM	48	5	1			1			2		67	14
PTM	102	4	1						1		12	16
SSC												1
TBB			1	3	3	13	20	13	4	1		1
UNK	6	13	8	3	4	7	6	25	3	1	5	13


2014 UK activity by gear per month
VMS Pings
90
80
70
60
50
40
30
20
10
0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2014
HMD 1 4 1 60
OT 3
OTM 2
SSC 1
TBB 13 82 5 47 14 22
UNK 4 2 23 7 8 17 4 7 7 4 3 9


2015 UK activity by gear per month
VMS Pings
50
45
40
35
30
25
20
15
10
5
0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2015
FPO 1 1
HMD 2 43 4 1
OT 3
OTB 2 5 1
TBB 9 23 30 10
UNK 12 1 6 5 2 8 12 5 3 4 7

7 Proposed fisheries management measures to maintain the habitat features in favourable condition. Are they proportionate and enforceable? Other conservation measures that apply to the areas [Defra, with input and agreement from JNCC and MMO]

7.1 Options for fisheries management

A range of MPA fisheries management options are available to managers, differing in the degree of restriction they would play on fishing operations, and the risk they would pose to achieving the conservation objectives. These have been grouped into three broad categories of possible management: No additional management, additional management to reduce/limit pressures and additional management to remove pressures.

Although it is not generally possible to quantify the degree of risk to achieving the conservation objectives posed by each option, it is possible to identify where risks may exist, and where this could be reduced through the introduction of management measures.

Risks have been evaluated using existing data and information on protected features and our understanding of the relationships between the feature and relevant activities.

Broad management options categories

1) **No additional management** – where fisheries managers choose to apply no additional site specific fisheries management within a site. For some gear/feature combinations, where the feature is not considered sensitive to the pressures associated with demersal fishing activity, this management option may pose little or no risk to achievement of the conservation objectives. For features which are considered sensitive to the pressures associated with certain demersal fishing activities, the risk posed to achieving the conservation objectives will increase as the sensitivity of the feature increases. As outlined in the features fisheries impacts section, this will vary between features and gear types.

2) **Additional management to reduce/limit pressures** – where fisheries managers may wish to consider a range of measures that could be used to reduce the risk posed by fishing activity to achieving the conservation objectives. These could include:

    - Area restrictions: This would involve closing some or all of a specific feature's area. Restrictions could be permanent in some cases or temporary/adaptive in others. The risk of the conservation objectives not being met will increase as the size of areas restricting pressure decrease, or if the pressure reduction across the site relative to natural change is low.
    - Gear restrictions: This could involve restricting the use of gears to which a feature is more sensitive.

    In situations where there is high uncertainty regarding the impacts of fishing on features, management measures to reduce/limit pressures could be "adaptive", i.e. changes in the feature's condition following the introduction of management measures will be monitored and future management may be adapted accordingly.

3) **Additional management to remove pressures** – where managers choose to exclude fishing activities known to adversely affect a feature. Such exclusions may apply to the parts of the site where the feature is present, or to an entire site. This would reduce the risk of not achieving the conservation objectives to the lowest possible level.

7.2 Proposed management option

Management measures proposed for Offshore Overfalls MCZ

The proposed management option is to reduce/limit pressure by restricting fishing activity with demersal trawls and dredges across a proportion of the site to include a proportion of each protected feature (see figure 11).

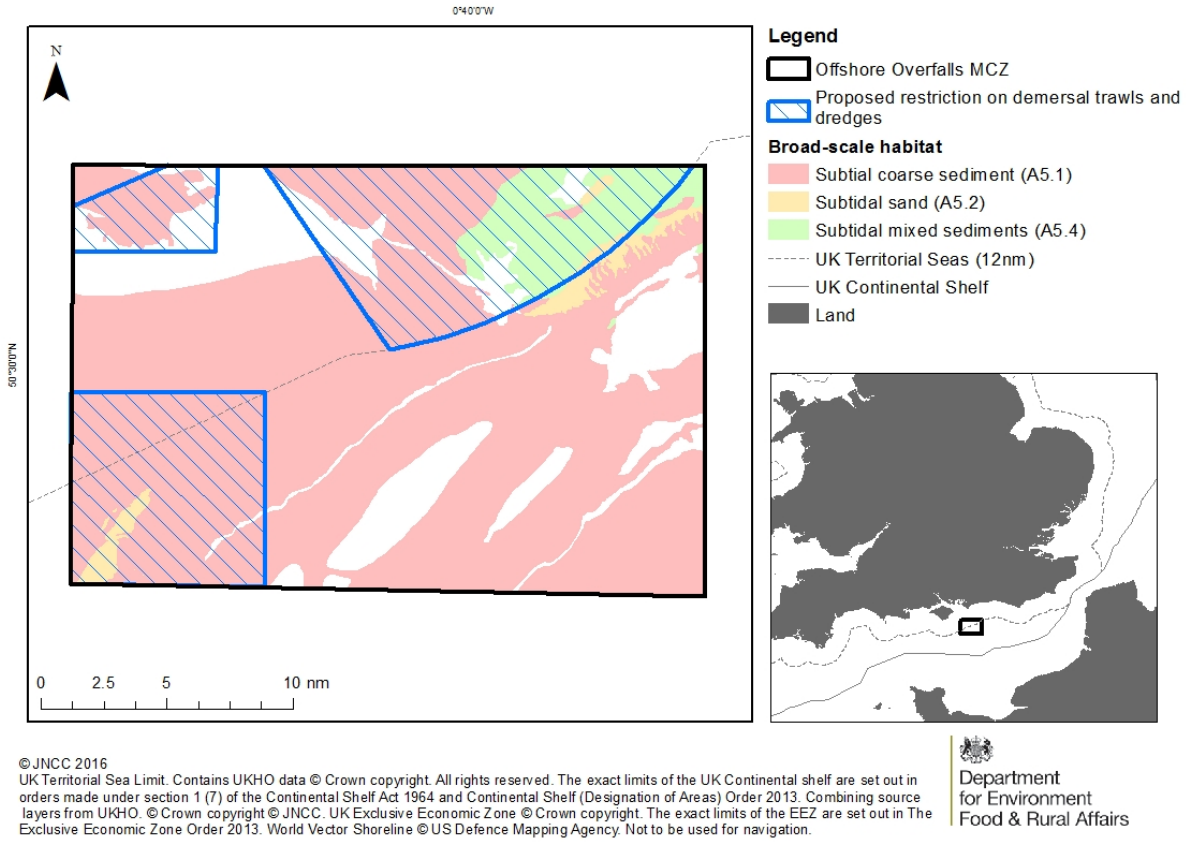


Figure 11: Offshore Overfalls MCZ site map including protected features for which management is being proposed.

7.3 Other fisheries measures which apply to the sites

Offshore Overfalls MCZ is within the Cod Recovery Area (423/2004 Art 9) and Hake Effort Areas (EC Reg 811/2004 Art 7), Theses recovery zones are decided monthly so are not always active. There are no recovery zones in September each year.

8 Control measures envisaged by the Member State, possible ecological and control buffer zones to ensure site protection and/or effective control and monitoring measures

8.1 Measures envisaged by Member states for Control, Enforcement and Compliance

The proposed control, enforcement and compliance regime for Offshore Overfalls MCZ consists of a reporting zone around the prohibited area, increased reporting within zones, remote monitoring of vessel position and at-sea surveillance measures. Such a regime would be in line with future control and enforcement challenges of the Common Fisheries Policy.

8.1.1 Surface surveillance

Surface surveillance of Offshore Overfalls MCZ will be continued under the existing surveillance plans for the English Channel and Celtic Sea. This plans will coordinate the at-sea surveillance capacity of the UK (which may include Navy fisheries protection vessels, or other enforcement vessels and aerial response). Changes to surveillance will be in line with the MMO's risk based compliance and enforcement strategy.

8.1.2 Remote Vessel Monitoring

Increased Positioning Reporting

Vessels entering the Offshore Overfalls MCZ prohibited zone will be subject to increased vessel position reporting (every 10 minutes). EU fishing vessels over 12m in length are required to report, through satellite, every two hours. Reports can be viewed in real time but this reporting frequency would allow vessels to cross the prohibited area of the MCZ without being identified between the two hourly reporting times. Increased reporting within the prohibited zone will reduce this risk.

Vessels will be allowed to transit the prohibited zone. Increased reporting will also allow the MMO FMC to identify fishing or transiting patterns and identify non-compliance.

Increased reporting zone

Vessels fishing within 1nm of the prohibited zone will be subject to 10min reporting.

Fishing patterns are likely to result in vessels 'clipping' the prohibited zone, or cutting across a corner rather than transiting across the entire site. A reporting zone which surrounds the prohibited area adds additional feature protection and ensures non-compliant vessels can be identified.

Vessels will still be allowed to fish in the increased reporting zone.

8.2 Vessel position monitoring system requirements

Increasing the frequency of vessel position reporting is integral to the preferred control, enforcement and compliance plan.

Increased reporting can be set up using geofences[8] recognised by the vessel's VMS devices, which would trigger higher frequency reporting if a vessel enters the reporting zone.

In order to improve monitoring and compliance, fishing vessels within the Offshore Overfalls MCZ and the reporting zone should be required to carry a system capable of:

- Recording high frequency position reports (up to one report per ten minute interval) when within the prohibited area or reporting zone around the Offshore Overfalls MCZ.
- Transmitting position reports via GPRS/GSM [9](when available).
- When GPRS/GSM signal is not available: storing positions and forwarding stored reports when the signal is available.
- Recreate prohibited area and reporting zone coordinates and associated reporting frequency rules in the form of geofences.
- Transmitting an email and/or text message alert via GPRS/GSM (when signal available) to the flag state and FMC when a vessel activates the geofence by entering the reporting zone for the Offshore Overfalls MCZ.
- High frequency reporting would end when a vessel leaves the reporting area around the Offshore Overfalls MCZ
- Increased reporting via GPRS/GSM is recommended to reduce the reporting cost (which will be borne by the fishing vessels) as charges are made per report. Satellite reporting, currently used, is costly at high frequency.

Mobile network signal is not currently widely available for offshore sites; enforcement action using this system will therefore be retrospective.

[8] A geofence is a spatial virtual barrier. Programs that incorporate geofencing allow an administrator to set up triggers such as increased reporting so when a device enters (or exits) the boundaries defined by the administrator it performs the trigger and if required a text message or email alert.

[9] General Packet Radio System (GPRS) and Global System for Mobile communications (GSM): These are types of mobile phone technology which meet European telecommunications standards.

In the UK, vessels which are fitted with a VMS+ device can meet all the above system requirements. The VMS+ device is also capable of transmitting increased reporting either through satellite or GPRS/GSM. There is also development work on another device known as I-VMS (inshore vessel monitoring system) which although designed primarily for the English inshore fleet (those vessels under 12m in length), can also meet the above requirements.

Estimation of the increased reporting costings for offshore Marine Protected Areas in English waters.

This information relates to the UK estimates of the increased reporting proposals.

The cost of a VMS report through GPRS[10] is approximately **$0.06**[11] (As of April 2015). Please find below a table of the total cost of increased after a period of X minutes.

GPRS Costs	Total duration cost after X minutes					
Reporting rate (X minutes)	**60**	**120**	**180**	**240**	**300**	**360**
1 minute	$3.60	$7.20	$10.80	$14.40	$18.00	$21.60
10 minutes	**$0.36**	**$0.72**	**$1.08**	**$1.44**	**$1.80**	**$2.16**
30 minutes	$0.12	$0.24	$0.36	$0.48	$0.60	$0.72
60 minutes	$0.06	$0.12	$0.18	$0.24	$0.30	$0.36

To note: The UK proposes a reporting rate of ten minutes.

Increased reporting caveats:

- These costs are based on a 'pay as you go' (PAYG) service and correct as April 2015.
- Costs will vary depending individual member states VMS service providers.
- GRPS Network roaming may affect overall costs

It should be noted that fishing vessels affected by the proposed closures may potentially modify or change their activities, along with fishing patterns as a result of the implementation of an increased reporting zone.

[10] General Packet Radio System (GPRS) and Global System for Mobile communications (GSM): These are types of mobile phone technology which meet European telecommunications standards.

[11] GPRS values are presented in US dollars

8.3 Key provisions to include in EC regulation to manage the Offshore Overfalls MCZ

Key provisions which should be included in an EC regulation to facilitate control enforcement and compliance include:

- A prohibition on any demersal trawls and dredges being deployed in the management area of the MCZ.

- Establishment of a 1 nm (1.852km) increased reporting zone around the management area of the Offshore Overfalls MCZ. All fishing vessels within this area shall be required to record or report vessel positions at 10 minute intervals. This area shall be defined by the reporting zone and coordinates displayed in Annex F.

- A requirement for all fishing vessels entering the reporting zone to have a system for recording and reporting vessel position which meets prescribed specifications (see Section 8.2 for minimal requirements) and is installed and operative. Any fishing vessel entering the management area of the Offshore Overfalls MCZ or the reporting zone without such a system will be committing an offence.

- A requirement for all fishing vessels transiting the management areas carrying prohibited gears to have all gears on board lashed and stowed.

- A requirement for all fishing vessels transiting the restricted area carrying prohibited gears to ensure that the speed during transit is not less than 6 knots except in the case of force majeure or adverse conditions. In such cases, the master shall immediately inform the fisheries monitoring centre of the flag member state which shall then inform the UK FMC.

The proposal on which gears to prohibit is formulated in terms of Gear Codes in Annex XI in EU Regulation 404/2011. In general prohibited gear types are demersal towed gears and dredges. Formulation of the regulation requires clear and precise definitions which distinguish allowed gear types from prohibited gear types. This includes, for trawls which can be operated both with and without bottom contact, distinguishing between these different gear riggings (if such a distinction is not feasible, these gears should be prohibited).

Management measures for the site will be periodically reviewed in line with advancements in technology, specifically the development of improved remote vessel monitoring and gear in/out technologies.

9 Measures to monitor and assess the maintenance and/or recovery of the features within the sites

Cefas/JNCC are currently leading a research and development programme to develop an integrated system of monitoring for marine biodiversity. The ambition is to cost-effectively encompass Defra's policy and statutory obligations, such as the:

- Marine and Coastal Access Act
- OSPAR Convention;
- EC Habitats Directive; and
- EC Marine Strategy Framework Directive (MSFD)

For benthic marine habitats, the task of developing monitoring options is extremely complex. The UK has 48 offshore Marine Protected Areas designated for benthic habitats covering an area of over 126,000 km^2. This presents a challenge due to the diversity of benthic habitats occurring in UK waters and the number, size and geographic spread of offshore MPAs, the paucity of data on the range, extent and condition of many habitat types (especially in the offshore environment) and the underdeveloped nature of suitable state and pressure indicators for monitoring.

The draft offshore habitats monitoring options evaluate the risk of damage to habitats in UK offshore MPAs, assess the type of monitoring required for each MPA and estimate the indicators, equipment and number of samples required to assess change in the condition of the habitats within MPAs. Due to the number of UK offshore MPAs, the area of seabed encompassed within the offshore MPAs, the diversity of offshore habitats and the cost of offshore monitoring surveys, it may not be possible to monitor every MPA within a single reporting cycle. In certain cases, monitoring studies to assess the effectiveness of management measures in one MPA may be used as a proxy for assessing the effectiveness of management measures in MPAs with similar features and management measures in the same regional sea.

10 Coordination with other Member States as appropriate

Fisheries management measures were developed in close coordination with other Member States with a direct management interest in the sites.

Draft management proposals were subject to a six week period of consultation with Member States with a direct management interest in the sites and the Northwest Waters Advisory Council.

Finalised management proposals were then presented to other Member States with a direct management interest in the sites for agreement that sufficient information had been provided in order to commence the formal agreement of the proposals as Joint Recommendations. [Following this, ad hoc meetings of the Northwest Waters Article 11 sub-group were held to start formal agreement proceedings for the Joint Recommendations. Any outstanding issues were then addressed before agreement was reached on the Joint Recommendations by members of the Northwest Waters High-Level Group and they were submitted to the European Commission for adoption.]

11 Evaluation of possible displacement of fishing effort and impact on new areas

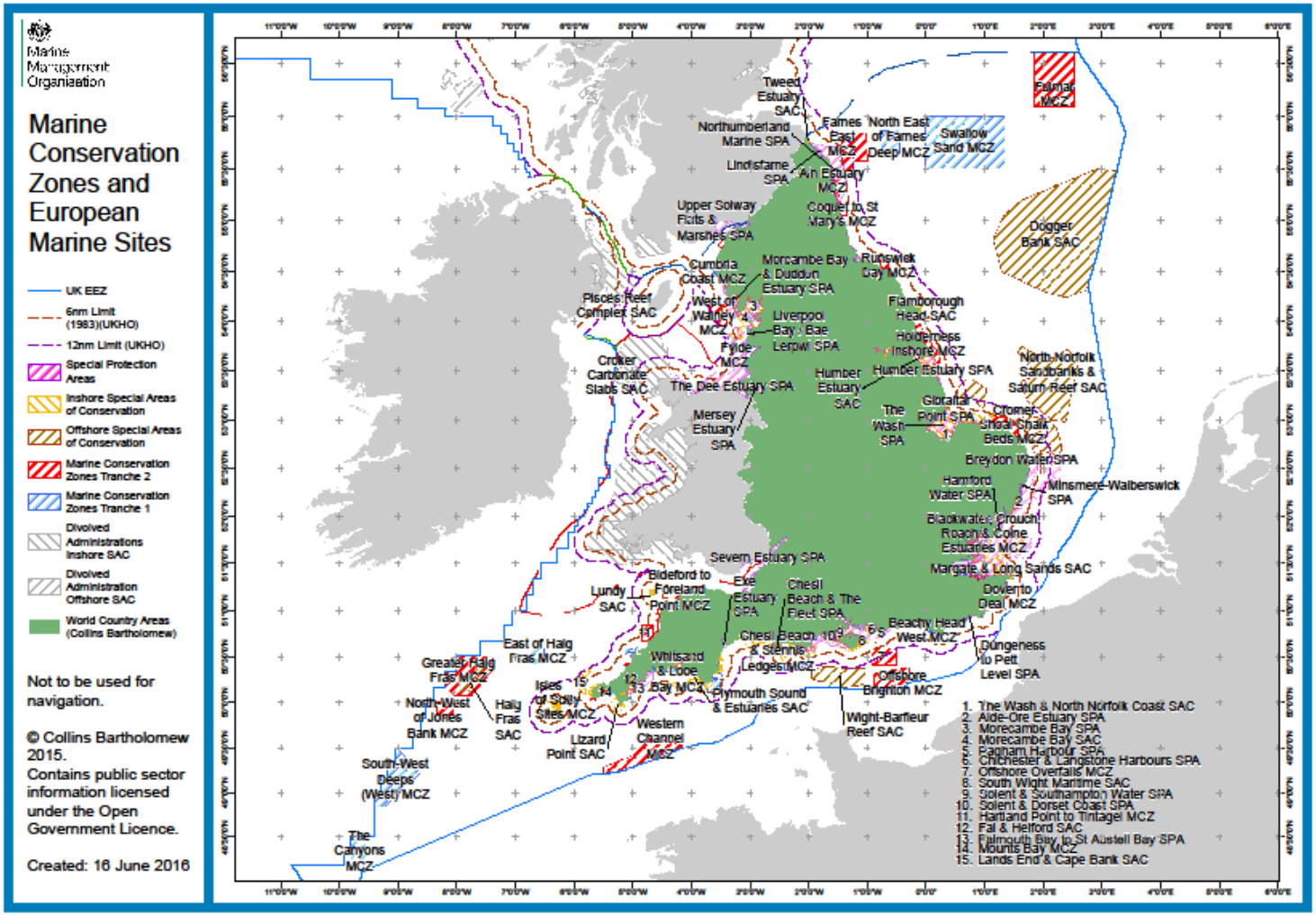
As the MCZ will be closed to demersal trawls and dredges, some displacement is likely to occur both within and outside the MCZ.

Displacement is difficult to quantify, and it is impossible to predict where exactly activities will be displaced to. As a result of stakeholder input in the management process, many of the areas currently fished within the site will remain open to fishing thus reducing the potential for displacement. As a result of stakeholder input in the management process, many of the areas currently fished within the site will remain open to fishing thus reducing the potential for displacement

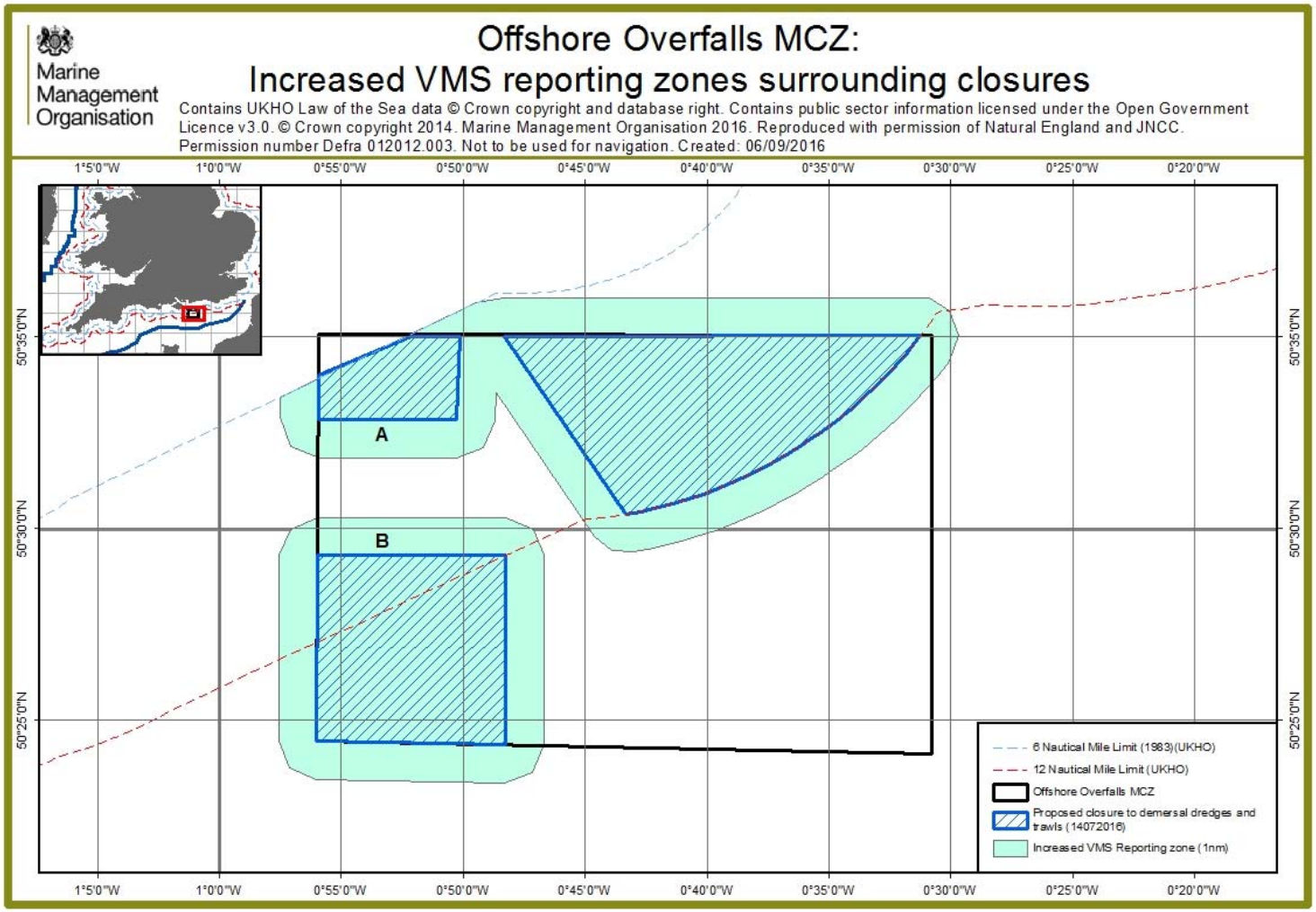
Displacement is dependent on the intensity and distribution of fishing activities within the site before the closure and on external factors (such as fish distribution, TAC/quota, fuel prices, other spatial claims).

As part of the MMOs risk-based enforcement, regular monitoring of fishing activity is collated on a Monitoring Control and Surveillance System (MCSS). MCSS does not analyse fishing trends and activity, but stores information, which can be accessed at any time. The MMOs monitoring of activity in each site could assist in any future considerations relating to displacement and could be used to indicate any changes in fishing trends and activity.

Annex C – Map of English MPA network



Annex D – Map and Coordinates for the Offshore Overfalls MCZ reporting zone with increased reporting



Offshore Overfalls MCZ reporting zone 'A' coordinates

Reporting zone 'A'	Degrees Minutes		Degrees Minutes Seconds	
Point	Lat (North)	Lon (West)	Lat (North)	Lon (West)
1	50°35.91000'	000°49.44960'	50°35'54.6000"	000°49'26.9760"
2	50°36.01740'	000°48.33840'	50°36'01.0440"	000°48'20.3040"
3	50°36.04020'	000°31.26660'	50°36'02.4120"	000°31'15.9960"
4	50°36.01500'	000°30.89160'	50°36'00.9000"	000°30'53.4960"
5	50°35.70300'	000°30.06720'	50°35'42.1800"	000°30'04.0320"
6	50°35.04180'	000°29.67600'	50°35'02.5080"	000°29'40.5600"
7	50°34.39380'	000°30.05400'	50°34'23.6280"	000°30'03.2400"
8	50°34.18440'	000°30.31080'	50°34'11.0640"	000°30'18.6480"
9	50°33.96300'	000°30.59640'	50°33'57.7800"	000°30'35.7840"
10	50°33.77580'	000°30.84780'	50°33'46.5480"	000°30'50.8680"
11	50°33.59280'	000°31.10340'	50°33'35.5680"	000°31'06.2040"
12	50°33.38580'	000°31.40400'	50°33'23.1480"	000°31'24.2400"
13	50°33.19740'	000°31.68960'	50°33'11.8440"	000°31'41.3760"
14	50°33.01800'	000°31.97220'	50°33'01.0800"	000°31'58.3320"
15	50°32.85600'	000°32.23680'	50°32'51.3600"	000°32'14.2080"
16	50°32.63640'	000°32.61120'	50°32'38.1840"	000°32'36.6720"
17	50°32.45640'	000°32.93280'	50°32'27.3840"	000°32'55.9680"
18	50°32.24940'	000°33.32100'	50°32'14.9640"	000°33'19.2600"
19	50°32.07720'	000°33.65880'	50°32'04.6320"	000°33'39.5280"
20	50°31.89120'	000°34.03980'	50°31'53.4720"	000°34'02.3880"
21	50°31.72140'	000°34.40580'	50°31'43.2840"	000°34'24.3480"
22	50°31.53000'	000°34.83780'	50°31'31.8000"	000°34'50.2680"
23	50°31.36860'	000°35.22300'	50°31'22.1160"	000°35'13.3800"

24	50°31.08180'	000°35.95260'	50°31'04.9080"	000°35'57.1560"
25	50°30.91500'	000°36.40020'	50°30'54.9000"	000°36'24.0120"
26	50°30.79620'	000°36.73680'	50°30'47.7720"	000°36'44.2080"
27	50°30.64800'	000°37.17720'	50°30'38.8800"	000°37'10.6320"
28	50°30.52020'	000°37.58160'	50°30'31.2120"	000°37'34.8960"
29	50°30.31860'	000°38.26620'	50°30'19.1160"	000°38'15.9720"
30	50°30.13980'	000°38.93700'	50°30'08.3880"	000°38'56.2200"
31	50°29.97060'	000°39.63960'	50°29'58.2360"	000°39'38.3760"
32	50°29.79600'	000°40.46340'	50°29'47.7600"	000°40'27.8040"
33	50°29.69100'	000°41.02260'	50°29'41.4600"	000°41'01.3560"
34	50°29.56320'	000°41.79060'	50°29'33.7920"	000°41'47.4360"
35	50°29.46840'	000°42.44760'	50°29'28.1040"	000°42'26.8560"
36	50°29.39760'	000°43.05660'	50°29'23.8560"	000°43'03.3960"
37	50°29.45040'	000°43.91280'	50°29'27.0240"	000°43'54.7680"
38	50°29.81520'	000°44.63280'	50°29'48.9120"	000°44'37.9680"
39	50°33.54900'	000°48.65460'	50°33'32.9400"	000°48'39.2760"
40	50°32.83020'	000°48.69120'	50°32'49.8120"	000°48'41.4720"
41	50°32.13180'	000°49.18980'	50°32'07.9080"	000°49'11.3880"
42	50°31.86240'	000°50.26560'	50°31'51.7440"	000°50'15.9360"
43	50°31.86300'	000°55.90680'	50°31'51.7800"	000°55'54.4080"
44	50°32.16540'	000°57.06240'	50°32'09.9240"	000°57'03.7440"
45	50°32.90700'	000°57.50340'	50°32'54.4200"	000°57'30.2040"
46	50°33.44760'	000°57.49440'	50°33'26.8560"	000°57'29.6640"

Then from point 46, re-join following the 6nm limit boundary to Point 1

Offshore Overfalls MCZ reporting zone 'B' coordinates

Reporting zone 'B'	Degrees Minutes		Degrees Minutes Seconds	
Point	Lat (North)	Lon (West)	Lat (North)	Lon (West)
1	50°23.34840'	000°48.33300'	50°23'20.9040"	000°48'19.9800"
2	50°23.45100'	000°56.04900'	50°23'27.0600"	000°56'02.9400"
3	50°23.75880'	000°57.14880'	50°23'45.5280"	000°57'08.9280"
4	50°24.45240'	000°57.58140'	50°24'27.1440"	000°57'34.8840"
5	50°29.30400'	000°57.54360'	50°29'18.2400"	000°57'32.6160"
6	50°29.99280'	000°57.10320'	50°29'59.5680"	000°57'06.1920"
7	50°30.29880'	000°55.97280'	50°30'17.9280"	000°55'58.3680"
8	50°30.29820'	000°48.25080'	50°30'17.8920"	000°48'15.0480"
9	50°29.99160'	000°47.12100'	50°29'59.4960"	000°47'07.2600"
10	50°29.30220'	000°46.68600'	50°29'18.1320"	000°46'41.1600"
11	50°24.36240'	000°46.68780'	50°24'21.7440"	000°46'41.2680"
12	50°23.62860'	000°47.16660'	50°23'37.7160"	000°47'09.9960"

Then re-join to Point 1

Annex E – References

Anon. 2010. Ecosystem concepts for sustainable bivalve mariculture. Committee on best practices for shellfish mariculture and the effects of commercial activities in Drakes Estero, Pt. Reyes National Seashore, California. ISBN: 0-309-14696-8, 190 pp. Downloaded from: http://www.nap.edu/catalog/12802.html (March 2011).

Bergmann, M.J.N. and Van Santbrink, J.W. (2000). Fishing mortality and populations of megafauna in sandy sediments. In: Kaiser M.J. and de Groot S.J. (eds.) Effects of fishing on non-target species and habitats. Blackwell, Oxford.

Collie, J.S., Hermsen, J.M., Valentine, P.C. and Almeida, F.P. (2005). Effects of fishing on gravel habitats: assessment and recovery of benthic megafauna on Georges Bank. American Fisheries Society Symposium. American Fisheries Society. 325pp.

Dernie, K.M., Kaiser, M.J. and Warwick, R.M. (2003). Recovery rates of benthic communities following physical disturbance. Journal of Animal Ecology, 72: 1043– 1056.

Donaldson, A., Gabriel, C., Harvey, B.J., & Carolsfield, J. (2010). Impacts of fishing gears other than bottom trawls, dredges, gillnets and longlines on aquatic biodiversity and Vulnerable Marine Ecosystems. DFO Can. Sci. Advis. Sec. Res. Doc. 2010/011. Vi+84pp.

Eleftheriou, A. and Robertson, M.R. (1992). The effects of experimental scallop dredging on the fauna and physical environment of a shallow sandy community. *Netherlands Journal of Sea Research 30:289-299*

Foden, J., Rogers, S.I. & Jones, A.P. (2010). Recovery of UK seabed habitats from benthic fishing and aggregate extraction- towards a cumulative impact assessment. Marine Ecology Progress Series, 411: 259–270.

Hall, K., Paramor, O.A.L., Robinson L.A., Winrow-Giffin, A., Frid C.L.J., Eno, N.C., Dernie, K.M., Sharp, R.A.M., Wyn, G.C. and Ramsay, K. (2008). Mapping the sensitivity of benthic habitats to fishing in Welsh waters- development of a protocol. CCW [Policy Research] Report No: [8/12], 85pp.

Hiddink, J.G., Jennings, S., Kaiser, M.J., Queirós, A.M., Duplisea, D.E. and Piet G.J. (2006). Cumulative impacts of seabed trawl disturbance on benthic biomass, production, and species richness in different habitats. Canadian Journal of Fisheries and Aquatic Science **63**: 721–736

JNCC. 2004. *Guidance for Common Standards Monitoring*. Peterborough: JNCC. Available from: http://jncc.defra.gov.uk/page-2199 [accessed July 2012]

Kaiser M.J., Clarke, K.R., Hinz, H., Austen, M.C.V., Somerfield P.J. & Karakassis, I. (2006). Global analysis of response and recovery of benthic biota to fishing. Marine Ecology Progress Series, 311, 1–14.

Roberts, C., Smith, C., Tillin, H. Tyler-Walters, H, 2010. Review of existing approaches to evaluate marine habitat vulnerability to commercial fishing activities. Environment Agency report No SC080016/R3

Suuronen, P., Chopin, F., Glass, C., Løkkeborg, S., Matsushita, Y., Queirolo, D., & Rihan, D. (2012). Low impact and fuel efficient fishing – looking beyond the horizon. *Fisheries Research.* 119-120: 135-146.