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SR664 - Summary of the potential impacts of the network of English Marine Conservation Zones on the UK fishing industry

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1. EXECUTIVE SUMMARY

This report combines three sources of information to help inform industry and Seafish decision makers about the potential impacts of the Marine Conservation Zone (MCZ) network on fishing through using; 1) the information provided by the four MCZ projects (Net Gain, Balanced Seas, Finding Sanctuary, and the Irish Seas project) on the conservation objectives (COs) of each of the 127 MCZs, 2) JNCC and NE advice to the government on the sensitivity of the broadscale habitats and habitat FOCI to fishing, and 3) the four regional MCZ socio-economic impact assessments (SEIAs). The SEIAs show the potential annual value of fish landings[1] that might be affected if potential MCZs are managed in a way that restrict fishing.

Using the guidance provided by the Joint Nature Conservation Council (JNCC) and Natural England (NE) on the sensitivity of habitats to commercial fishing, this report has devised a scoring system o indicate which fishing activities had a high likelihood of requiring management depending on the sensitivity of a habitat to six types of fishing activity and the conservation objectives of that habitat (recover or maintain). The SAP scores, along with additional information from the SEIA of each regional MCZ network, has been incorporated into a spreadsheet which is available from the Seafish website.

This report presents an analysis and ranking of MCZs to reveal the areas and fishing gear types most likely to experience the greatest impacts if MCZs are managed as proposed. MCZs were grouped by region and by the gear category assigned based on most common gear types used in the area. MCZs were ranked first according to their potential annual value of landings affected if zone management was implemented for each given gear type, and second by the area and impact score of their conservation features (the score attributed by the SAP). According to the Socio-economic Impact Assessment (SEIA), MCZ 29 East Meridian would have the highest potential annual value of landings affected if management measures are implemented. The region that will likely have the greatest impact on commercial fishing is the English Channel (Balanced Seas) region (Table 1).

MCZs were grouped according to type of fishing gear likely to be affected if management is implemented. For demersal trawl gears and for static gears, MCZs were ranked according to the potential annual value of landings affected if management measures are implemented. MCZs in the English Channel and Irish Sea would have the greatest impact on value of landings by UK vessels (the impact of MCZs on foreign vessels was not quantified) using mobile demersal gear and these MCZs are predominantly offshore (>12 nm) (Table 2). MCZs in the English Channel and South West (Finding Sanctuary) regions would have the greatest impact on vessels using static gear and these MCZs are predominantly to be located in the inshore area (<12 nm) (Table 3).

[1] Estimated annual value of UK vessel landings affected is the figure presented in the economic impact assessments prepared for each potential MCZ. It represents the annual gross value of landings estimated to arise from catches in the area of the potential MCZ. This is not equivalent to an estimate of likely reduction in gross revenues (landings value) if the MCZ is designated as it takes no account of alternative sources of revenue that may replace some of the revenues no longer generated in the MCZ.

Table 1 MCZs ranked according to their potential annual value of landings affected (only the top 20 shown) based solely on information provided by the four regional economic impact assessments. *Based on the management recommendation from the regional stakeholder group (RSG).

Rank	Region	MCZ ID	Name	Area (km²)	Location	Potential annual value of landings affected if management measures implemented (£million)
1	BS	MCZ 29	East Meridian	407.67	Offshore	1.756
2	ISCZ	ISCZ 6	South Rigg	146.2	Offshore	1.044
3	BS	MCZ 29.2	East Meridian (east)	201.46	Offshore	0.565
4	ISCZ	ISCZ 7	Slieve Na Griddle	57.79	Offshore	0.531
5	ISCZ	ISCZ 2	West of Walney	156.37	Inshore	0.425
6	NG	NG 7	Markham's Triangle	200.13	Offshore	0.405*
7	ISCZ	ISCZ 3	North St George's Channel	1388.03	Offshore	0.391
8	FS		Cape Bank	472.66	Inshore	0.272
9	BS	MCZ 13.1	Beachy Head East	193.27	Inshore	0.202
10	FS		North-East Haig Fras	463.72	Offshore	0.201
11	FS		Western Channel	1,613.50	Offshore	0.194
12	BS	MCZ 14	Offshore Brighton	861.97	Offshore	0.179
13	NG	NG 6	Silver Pit	168.09	Offshore	0.155*
14	BS	MCZ 16	Kingmere	47.84	Inshore	0.137
15	BS	MCZ 10	The Swale Estuary	51.05	Inshore	0.117
16	NG	NG 9	Holderness Offshore	1,176.10	Offshore	0.106*
17	FS		South West Deeps (west)	1,824.30	Offshore	0.097
18	BS	MCZ 22	Bembridge	84.59	Inshore	0.048
19	BS	MCZ 19	Norris to Ryde	19.82	Inshore	0.047
20	BS	MCZ 11.4	Folkestone Pomerania	33.71	Inshore	0.046

Table 2 National summary of MCZs that are likely to have the greatest impact on vessels using mobile demersal gears (D= dredgers, BT= bottom trawls). For explanation of the SAP score see page 14.

						Annual value of landings affected (£million)			
Rank	Region	Activity	MCZ ID	MCZ name	Location	RSG recommendation	Zoned management	All gear banned	SAP score
1	BS	D	MCZ 29	East Meridian	Offshore	NA	1.252	1.252	3.33
2	ISCZ	BT	ISCZ 6	South Rigg	Offshore	NA	1.015	1.015	4.5
3	ISCZ	BT	ISCZ 7	Slieve Na Griddle	Offshore	NA	0.531	0.531	4.5
4	BS	BT	MCZ 29	East Meridian	Offshore	NA	0.504	0.504	3.33
5	NG	BT	NG 7	Markham's Triangle	Offshore	0.405	NA	0.405	3.33
6	ISCZ	BT	ISCZ 2	West of Walney	Inshore	NA	0.383	0.383	4.5
7	ISCZ	BT	ISCZ 3	North St. George's Channel	Offshore	NA	0.311	0.311	4
8	BS	D	MCZ 29.2	East Meridian (eastern half)	Offshore	NA	0.264	0.264	3
9	FS	BT		North-East of Haig Fras	Offshore	NA	0.2	0.2	2.5
10	NG	BT	NG 6	Silver Pit	Offshore	0.155	NA	0.155	2.75
11	FS	BT		Western Channel Offshore	Offshore	NA	0.001	0.001	3.5
12	BS	BT	MCZ 14	Brighton	Offshore	NA	0.114	0.837	2.67
13	NG	D	NG 9	Holderness Offshore	Offshore	0.106	NA	0.106	3
14	BS	D	MCZ 10	The Swale Estuary	Inshore	0.103	NA	0.103	2.33
15	FS	BT		South West Deeps (West)	Offshore	NA	0.097	0.097	3.5

Table 3 National summary of MCZs that are likely to have the greatest impact on vessels using static gears (N= static nets, PT= pots and traps). For explanation of the SAP score see page 14.

						Annual value of landings affected (£million)			
Rank	Region	Activity	MCZ ID	MCZ name	Location	RSG recommendation	Zoned management	All gear banned	SAP score
1	BS	N	MCZ 13.1	Beachy Head East	Inshore	NA	0.104	0.809	3
2	FS	HL		Cape Bank	Inshore	NA	0.1	0.1	4
3	BS	PT	MCZ 16	Kingmere	Inshore	0.031	0.065	0.065	4
4	FS	N		Cape Bank	Inshore	NA	0.064	0.088	4
5	BS	PT	MCZ 13.1	Beachy Head East	Inshore	NA	0.044	0.554	3
6	FS	N		Western Channel	Offshore	NA	0.042	0.048	3.5
7	BS	PT	MCZ 22	Bembridge	Inshore	0.028	0.034	0.034	3.33
8	BS	N	MCZ 11.4	Folkestone Pomerania	Inshore	NA	0.025	0.047	3.5
9	FS	PT		South Dorset	Inshore	NA	0.019	0.02	3
10	FS	PT		Cape Bank	Inshore	NA	0.018	0.357	3
11	BS	PT	MCZ 19	Norris to Ryde	Inshore	NA	0.018	0.086	2.67

12	BS	N	MCZ 16	Kingmere	Inshore	0.018	0.018	0.035	4
13	BS	PT	MCZ 23	Yarmouth to Cowes	Inshore	0.001	0.011	0.06	3.33
14	FS	PT		Western Channel	Offshore	NA	0.008	0.01	3.5
15	FS	N		East of Jones Bank	Offshore	NA	0.007	0.007	2.5

Based on the information provided in the Socio-economic Impact Assessment (SEIA) produced by the MCZ projects, the ports likely to be most impacted along the North Sea coast are Whitby, Amble, Blyth, Bridlington and North Shields (Table 4). Interestingly, only six MCZs in this region were identified in this report as likely to have an impact on fishing. In the English Channel region Folkestone, Lymington, Portsmouth and Shoreham (Table 5). In the Irish Sea Kilkeel, Ardglass and Portavogie are most likely to be impacted by MCZs (Table 6). It was not possible to infer which ports were most likely to be impacted from the Finding Sanctuary SEIA. None of the SEIAs indicated the proportion of the catch that each sector lands at these ports. However, based on the information in table 1, ports in the south east are likely to be impacted the most.

Industry members and other interested parties can use the information contained in this report and the associated Excel spreadsheet to query the conservation features and objectives for which highly ranked MCZs have been proposed. For example, the conservation features and objectives of MCZ 29 East Meridian (being the most costly MCZ) can be examined by referring back to tables 19 & 20 (pages 35 & 37). This MCZ has been proposed to protect two broad scale habitats; A5.2 Subtidal sand (128.37km^2) (Conservation Objective (CO) set to recover and impact score of 6), and A5.4 Subtidal mixed sediments (279.36km^2) (CO is set to recover and impact score is labelled as site dependent). The implementation of this MCZ could potentially be challenged on the basis that 70% of its area has been identified as subtidal mixed sediment; as the JNCC and NE advice has indicated that management measures for this habitat type can only be decided at the level of the individual site, this gives the fishing industry more room to negotiate over the restrictions that will be put in place.

Table 4 North Sea MCZs and likely impact on ports (initials indicate fishing sector that may potentially be impacted by the designation of an MCZ that lands at a particular port; D= dredgers, BT= bottom trawls, N= static nets, PT= pots and traps, HL= hooks and lines).

	MCZ ID					
Port	NG 1b	NG 6	NG 7	NG 9	NG 12	NG 14
Aldeburgh	N, PT, HL					
Amble		BT	BT	BT	BT	BT
Blyth		BT	BT	BT		D, BT
Brancaster Staithe		BT				
Bridlington		BT, N, PT		D, BT, N, PT, HL	BT, N, PT	D, BT
Eyemouth		BT	BT	BT		
Felixstowe						
Flamborough				N, BT		
Great Yarmouth						
Grimsby		BT, N, PT, HL		BT, N, PT, HL	BT	
Hartlepool					BT	BT
Hornsea				N, PT		
Kings Lynn		BT				
Leigh-on-Sea	BT	BT				
Lowestoft	BT, N, PT, HL					
North Shields		BT	BT	BT		BT
Orfordness	PT, HL					
Peterhead			BT	BT		
Scarborough				D, BT		
Seahouses						D, BT
Shoreham	BT					
South Shields		BT	BT	BT		
Southwold	BT, N, PT, HL					
Tunstall				N, PT		
Wells		PT		PT		
Whitby	BT	BT	BT	D, BT	BT	D
Withernsea				N, PT		

Table 5 English Channel MCZs and likely impact on ports. The SEIA for this region did not give a clear breakdown of which fishing sectors were landing in which port. X marks ports that are likely to be impacted.

	MCZ ID																				
Port	2	7	9	10	11.1	11.2	11.4	13.1	14	16	17	19	20	22	23	26	28	29	29.2	30	31
Bembridge														X			X				
Bonchurch														X							
Brixham							X											X	X		
Cowes												X			X						
Deal					X																
Dover					X	X															
Dungeness							X									X					X
Eastbourne								X													
Faversham		X		X																	
Felixstowe Ferry	X																				
Folkestone			X		X	X	X									X					
Hamble												X			X						
Harwich	X																				
Hastings								X													
Hythe																X					
Keyhaven													X		X						
Leigh-on-Sea				X																X	
Littlehampton										X											
Lymington												X	X	X	X						
Newhaven								X		X								X	X		
Newlyn																		X	X		
Plymouth																		X	X		
Portsmouth												X		X	X		X				
Queenborough				X																	

Ramsgate		X			X	X															
Rye								X													
Selsey														X			X				
Shoreham								X		X								X	X		X
Shotley	X																				
Southampton												X			X						
Southend																				X	
Steephill														X							
Ventnar														X							
West Mersea																				X	
Whitstable		X		X																X	
Yarmouth													X								

Table 6 Irish Sea MCZs and likely impacts on ports (initials indicate fishing sector that may potentially be impacted by the designation of an MCZ that lands at a particular port; D= dredgers, BT= bottom trawls, N= static nets, PT= pots and traps, HL= hooks and lines).

	MCZ ID							
Port	MCZ 1	MCZ 2	MCZ 3	MCZ 4	MCZ 6	MCZ 7	MCZ 11	MCZ 13
Ardglass	BT	BT	BT		BT	BT		
Barrow	BT, D	BT, D					BT	
Chester								BT, N
Fleetwood	BT	BT					BT	
Greenfield								N, PT
Holyhead			PT	HL				
Kilkeel	BT, D	BT, D	BT		BT, D	BT		
Kirkcudbright					D			
Liverpool								N, PT
Lytham St Annes								BT
Maryport	BT	BT					BT, N	
Milford Haven				N				
New Brighton								BT, HL, N
Portavogie	BT	BT	BT		BT	BT		
Southport								N
Thurstaston								BT, N
Whitehaven	BT, D	BT					BT, N	
Workington							BT	

The impact assessments devised by this report are based on information provided by the MCZ projects, Natural England and JNCC. There is inherent uncertainty in the sources of information that have been used (particularly with regards to current information gaps on the susceptibility of different species and geological features to fishing), and there are also likely to be differences in the quality of information used in the planning of MCZs for each project area. Finding Sanctuary was running for twice as long as the other three projects, meaning there was more time for this project to gather information and consult with stakeholders on the location of MCZs. There is also uncertainty over the COs of MCZs in certain regions and whether it will be legal to enforce restrictions on foreign fleets in relation to MCZs located offshore (see Table 7).

Though not a statutory requirement of the Marine and Coastal Access Act, 25 no-take reference areas (RAs) are also being established for the purpose of offering control locations for the monitoring of MCZs. The 25 no-take RAs were not taken into account during this analysis; but a from a glance of the SEIAs their cost implicationsfor the UK fishing fleet are likely be marginal compared to the wider MCZ network due to the relative small size of the RAs.

Table 7 Uncertainties associated with data used by the MCZ projects.

Category	Uncertainty	Description
Empirical	Data showing the distribution of conservation features.	This uncertainty is reflected by the SAP score and also in the narrative of certain projects (e.g. Net Gain).
	Susceptibility of different habitat types to fishing.	JNCC and NE advice may be too generic, and this may only be resolved at a site by site basis.
	Economic impact.	Economic impact may be underestimated if certain fishermen were overlooked by the FisherMap exercise or overestimated if fishermen can make up their catches elsewhere. Information on the likely impact on landings made at local ports is sparse.
Political	Conservation objectives.	There is concern by the SAP of the COs of certain regions that have been predominantly set to maintain. If the COs were changed to recover this could have implications for the SEIA.
	Management measures.	Management measures may not necessarily follow the susceptibility of a conservation feature to fishing; if a feature sensitive to fishing is thought to occur at several places in an MCZ then a uniform ban may be implemented for pragmatic (i.e. enforceability) and precautionary reasons.
	Offshore MCZs.	There is uncertainty over whether the UK has the power to restrict the activities of foreign vessels outside 12nm.

2. INTRODUCTION

The impacts of the English MCZ network could be significant but currently there is uncertainty over what management measures will be implemented and how big the impacts will be on the UK fishing industry. This report combines three sources of information to help inform industry and Seafish decision makers about the potential impacts of the MCZ network on fishing through using; 1) the information provided by the four Marine Conservation Zones (MCZs) projects (Net Gain, Balanced Seas, Finding Sanctuary, and the Irish Seas project) on the conservation objectives (COs) of each of the 127 MCZs, 2) JNCC and NE advice to the government on the sensitivity of the broadscale habitats and habitat FOCI to fishing, and 3) the four regional MCZ SEIAs.

This report enables the fishing industry to identify MCZs that could potentially have the biggest impact on the industry and prioritise these sites in their discussions with government and the statutory conservation agencies. The findings of this report can also inform dialogue about site-specific management measures that would be needed in order for each MCZ to achieve its conservation objectives.

This report fulfils the following project objectives:

1) To interpret the JNCC and NE guidance and devise a scoring system that reflects the likelihood of a fishing activity having to be managed for a given habitat type and CO of *recover* or *maintain*.
2) To combine the scoring system with information provided in the four regional project reports on the COs of each MCZ, and information provided in the four regional economic impact assessments into a comprehensive database.
3) To use the database to assess which MCZs are likely to have the greatest impact on different fishing sectors and ports.

The analysis contained in this report is based on the assumption that designated broadscale habitats and habitat features of conservation interest (FOCI) will be the conservation features that will largely determine the management that needed for each site. However, sites have also been proposed to protect sedentary and mobile species and geological features whose protection may require further restrictions on fishing activity in addition to those required to meet the habitat COs for each MCZ.

This report could be used to help identify MCZs that are likely to have the greatest economic impact on the activities of the fishing industry based on the habitat features and COs alone. Members of the fishing industry and Seafish can refer to the associated Excel spreadsheet for information on additional COs (i.e. species and geology) and uncertainty/knowledge gaps (reflected by the SAP score) to make a more informed judgement on the management measures that they think will need to be implemented.

3. METHODS

3. 1 Broad scale habitat and habitat FOCI sensitivity

Classification of fishing activity

The first step was to categorise fishing activity, using the advice provided by JNCC and Natural England (NE), into the following six categories:

1. Dredging
2. Demersal towed gears (excluding dredging)
3. Pots and traps
4. Static netting
5. Hand gathering
6. Bait digging

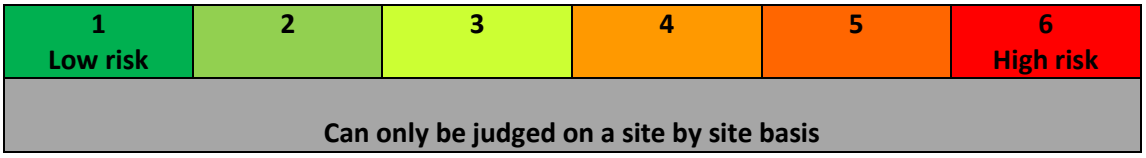
In the discussion of the impact of fishing, for most habitat types in the report "*Advice from the Joint Nature Conservation Committee and Natural England with regard to fisheries impacts on Marine Conservation Zone habitat features"* (JNCC & NE 2011) fishing gear was grouped into two categories: mobile demersal gear or static gear. Dredging is considered as a separate activity in the discussion of fishing impacts on intertidal sand and muddy sand (A2.2), and blue mussel and native oyster beds. The impacts of pots and traps are discussed separately from static netting in the discussion of fishing impacts on high, moderate, and low energy intertidal rock (A1.1-1.3). Hand gathering and bait digging are considered separately for blue mussel beds; hand gathering can be viewed as an activity that involves the collection of animals off the surface of a substrate with no penetration involved.

Sensitivity of habitats to the six fishing activities

The second step in the ranking procedure for this report was to ask "If a fishing activity was still allowed to occur in an MCZ what would be the likelihood of the MCZ failing to achieve its conservation objectives?" From the guidance provided by JNCC & NE (2011) the following six categories were used by the author to define the risk of a habitat feature not meeting its conservation objectives of *maintain* or *recover* if current levels of fishing activity were allowed to continue.

1. This option (i.e. current fishing allowed to continue) may help to achieve the conservation objective.
2. This option may help to achieve the conservation objective but with a potential risk of habitat deterioration.
3. This option may help to achieve the conservation objective but with a risk of habitat deterioration.
4. This option may help to achieve the conservation objective but with a significant risk of habitat deterioration.
5. The conservation objective is unlikely to be achieved under this option.
6. The conservation objective could not be achieved under this option.

The six categories were used to construct a scale showing the likelihood of a fishing activity having to be managed.



For some habitats, e.g. subtidal mixed sediments and sheltered muddy gravels, the JNCC guidance suggests that the impact of fishing can only be judged at the level of the individual site. In this case the likelihood is coloured grey in the habitat feature-fishing activity sensitivity matrix. In the Excel spreadsheet the potential impact is listed as *site dependent*.

Certain broad scale habitats and habitat FOCI (e.g. Intertidal mud, file shell beds, subtidal sands and gravels) were not considered at all in JNCCs & NEs sensitivity assessment. These categories are left blank in the habitat feature-fishing activity sensitivity matrix. In the Excel spreadsheet the potential impact is listed as *unstated*.

Based on the JNCC guidance, coloured cells are labelled as “high”, “medium”, or “low”. These labels refer to JNCC’s own judgement on the robustness of evidence used to calculate the sensitivity of a habitat to a given fishing activity.

Assumptions

There are concerns that the information provided by JNCC and NE is too general to allow any meaningful decisions to be made on the management actions required in each MCZ. First, the JNCC and NE guidance on gear classification is overly broad particularly with respect to the demersal towed gear category. Secondly the JNCC and NE guidance on the sensitivity of the broad-scale habitats and habitat FOCI has been criticised by the industry for being too general. Nevertheless these criteria might be used as the basis by which the MMO decides on the management measures for MCZs if they are not challenged by the fishing industry.

Construction of matrix

The information above was used by the author to construct a habitat feature-fishing activity sensitivity matrix showing the likelihood of a fishing activity having to be managed/ restricted in order for the MCZ to achieve its conservation objectives.

Two sensitivity matrices were drawn up for the two possible conservation objectives for each habitat feature; “maintain” (tables 7 & 9) or “recover” (tables 8 & 10). In addition to the type of fishing, the intensity of fishing activity occurring at a site also determines the likelihood of it having to be managed. JNCC have only explicitly incorporated this into their risk assessment when looking at the effects of the following:

- demersal gears on sea-pen and burrowing megafauna communities;
- the effects of demersal gears and hand and bait collection on blue mussel beds;
- the effects of demersal gears on horse mussel beds;
- the effects of demersal and static gears and bait digging on *Sabellaria* reefs; and
- the effects of demersal gears and hand gathering on peat and clay exposures.

Trying to incorporate the above information into the habitat matrix would overcomplicate the scoring system; however this information will be still recorded in note form in the Excel spreadsheet.

JNCC and NE have also further categorised intertidal sand and muddy sand (A2.2) and subtidal sand (A5.2) as "high energy" or "low energy", and categorised subtidal course sediment (A5.1) as "unstable" or "stable". It is assumed that the impact of mobile demersal gears will have more impact on low energy or sheltered sediments as the associated biological community will not be adapted to disturbance. In most of the site reports the exposure of these two habitat types is not stated, in which cases it was assumed that the habitats were low energy and therefore further assumed that they were vulnerable to fishing disturbance, so as to err on the side of caution.

Scoring the likelihood of a fishing activity being restricted

In order to judge the potential impact of each MCZ on fishing, the author devised a scoring system was developed to take into account the fishing activities likely to be impacted by a specific designated feature using tables 1-4 below. The 6-point sensitivity scale was used to score the likelihood of a fishing activity being restricted as a function of the conservation features' sensitivity to a given fishing pressure. This was used to create sensitivity matrices showing the likelihood of a fishing activity being restricted if management objectives were set to "maintain" (tables 8 and 10) or to "recover" (tables 9 and 11). The score was then totalled for each conservation feature; the total score reflected the conservation objective, the number of fishing activities potentially affected, and the likelihood of a fishing activity having to be managed. For the purpose of each MCZ assessment it was deemed unnecessary to list activities with a low likelihood of being restricted (e.g. those whose score was 1).

Confidence in underlying data showing feature location

In cases for which the MCZ site reports referred to the likely accuracy of the data underpinning the location's presence/ absence of habitat features, the accuracy assessment was noted in the spreadsheet (see Appendix 1).

Four categories were used to categorise the reliability of the underlying data:

- "High"; stakeholder's confidence in the evidence supporting the existence and location of the feature is strong.
- "Medium"; there are a few issues with the accuracy of spatial data on whether it reflects the true location or extent of the conservation feature.
- "Low"; stakeholder's confidence in the evidence supporting the existence and location of the feature is weak.
- "Unstated"; it is not possible to infer the likely reliability of the data from the report.

This categorisation involved the subjective judgement of the author, however this information will be useful to allow us to identify quickly those MCZs that may have a high potential impact but where confidence in the underlying data is low.

The scientific advisory panel (SAP) scored each MCZ according to how well it was supported by evidence on a scale of 1-5 (1 being poor and 5 being excellent)[2]. Each MCZ was assessed by at least two members of the SAP and the mean score was inserted into the Excel spreadsheet.

Confidence in feature sensitivity to different fishing methods

The information on the confidence in a habitats sensitivity to different types of fishing method was collected from the JNCC and NE report "*Advice from the Joint Nature Conservation Committee and Natural England with regard to fisheries impacts on Marine Conservation Zone habitat features"* (JNCC & NE 2011), and recorded in the Excel spreadsheet.

[2] See the Science Advisory Panel assessment of the marine conservation zone regional projects final recommendations Part B (15th Nov 2011). The SAP scoring system was based on the scientists' evaluation of three criteria: 1) the different types of evidence used (e.g. journal literature, grey literature, web sites etc); 2) the amount of evidence used; and 3) the linkages made between the evidence offered and the specific site.

Broad scale habitat types		Fishing method					
Broad scale habitat types	**EUNIS level 3 habitat code**	**Dredging**	**Demersal towed gears (exc dredging)**	**Pots and traps**	**Static netting**	**Hand gathering**	**Bait digging**
High energy intertidal rock	A1.1				Low	Medium	Medium
Moderate energy intertidal rock	A1.2				Low	Medium	Medium
Low energy intertidal rock	A1.3				Low	Medium	Medium
Intertidal coarse sediment	A2.1	Medium	Medium	Medium	Medium		
High energy Intertidal sand and muddy sand	A2.2	High	Medium			Medium	Medium
Low energy Intertidal sand and muddy sand	A2.2	High	Medium			Medium	Medium
Intertidal mud	A2.3						
Intertidal mixed sediments	A2.4	Low	Low	Low	Low		Medium
Coastal salt marshes and saline reedbeds	A2.5						
Intertidal sediments dominated by aquatic angiosperms	A2.6						
Intertidal biogenic reefs	A2.7						
High energy infralittoral rock	A3.1	Medium	Medium	High	High		
Moderate energy infralittoral rock	A3.2	Medium	Medium	High	High		
Low energy infralittoral rock	A3.3	Medium	Medium	High	High		
High energy circalittoral rock	A4.1	Medium	Medium	High	High		
Moderate energy circalittoral rock	A4.2	Medium	Medium	High	High		
Low energy circalittoral rock	A4.3	Medium	Medium	High	High		
Unstable subtidal coarse sediment	A5.1	High	High	Low	Low		
Stable subtidal coarse sediment	A5.1	High	High	Low	Low		
High energy subtidal sand	A5.2	High	High	Low	Low		
Low energy subtidal sand	A5.2	High	High	Low	Low		
Subtidal mud	A5.3	High	High	Medium	Medium		
Subtidal mixed sediments	A5.4	High	High	High	High		
Subtidal macrophyte dominated sediment	A5.5						
Subtidal biogenic reefs	A5.6						
Deep-sea bed	A6	Low	Low	Low	Low		

Rows left blank are due to the broad scale habitat not being explicitly mentioned in JNCC's guidance, though the habitat FOCI that may correspond to these broad scale categories are referred to in tables 3 & 4.

1 Low risk
2
3
4
5
6 High risk
Site dependent

High (high certainty in JNCC's risk calculation)
Medium (medium certainty in JNCC's risk calculation)
Low (low certainty in JNCC's risk calculation)

Table 8 Likelihood of commercial fishing activities having to be managed if conservation objectives for each broad scale habitat are set to **"maintain"**. Cells in subtidal mixed sediments row are grey because the JNCC guidance suggests that these can only be judged at the level of the individual site. Text in table highlights confidence in habitat feature sensitivity to a given fishing activity according to JNCC NE guidance.

Broad scale habitat types		Fishing method					
Broad scale habitat types	**EUNIS level 3 habitat code**	**Dredging**	**Demersal towed gears (exc dredging)**	**Pots and traps**	**Static netting**	**Hand gathering**	**Bait digging**
High energy intertidal rock	A1.1				Low	Medium	Medium
Moderate energy intertidal rock	A1.2				Low	Medium	Medium
Low energy intertidal rock	A1.3				Low	Medium	Medium
Intertidal coarse sediment	A2.1	Medium	Medium	Medium	Medium		
High energy Intertidal sand and muddy sand	A2.2	High	Medium			Medium	Medium
Low energy Intertidal sand and muddy sand	A2.2	High	Medium			Medium	Medium
Intertidal mud	A2.3						
Intertidal mixed sediments	A2.4	Low	Low	Low	Low		Medium
Coastal salt marshes and saline reedbeds	A2.5						
Intertidal sediments dominated by aquatic angiosperms	A2.6						
Intertidal biogenic reefs	A2.7						
High energy infralittoral rock	A3.1	Medium	Medium	High	High		
Moderate energy infralittoral rock	A3.2	Medium	Medium	High	High		
Low energy infralittoral rock	A3.3	Medium	Medium	High	High		
High energy circalittoral rock	A4.1	Medium	Medium	High	High		
Moderate energy circalittoral rock	A4.2	Medium	Medium	High	High		
Low energy circalittoral rock	A4.3	Medium	Medium	High	High		
Unstable subtidal coarse sediment	A5.1	High	High	Low	Low		
Stable subtidal coarse sediment	A5.1	High	High	Low	Low		
High energy subtidal sand	A5.2	High	High	Low	Low		
Low energy subtidal sand	A5.2	High	High	Low	Low		
Subtidal mud	A5.3	High	High	Medium	Medium		
Subtidal mixed sediments	A5.4	High	High	High	High		
Subtidal macrophyte dominated sediment	A5.5						
Subtidal biogenic reefs	A5.6						
Deep-sea bed	A6	Low	Low	Low	Low		

1 Low risk
2
3
4
5
6 High risk
Site dependent

High (high certainty in JNCC's risk calculation)
Medium (medium certainty in JNCC's risk calculation)
Low (low certainty in JNCC's risk calculation)

Table 9 Likelihood of commercial fishing activities having to be managed if conservation objectives for each broad scale habitat are set to **"recover"**. Cells in subtidal mixed sediments row are grey because the JNCC guidance suggests that these can only be judged at the level of the individual site. Text in table highlights confidence in habitat feature sensitivity to a given fishing activity according to JNCC NE guidance.

	Fishing method					
Habitats of conservation importance (Habitat FOCI)	**Dredging**	**Demersal towed gears (exc dredging)**	**Pots and traps**	**Static netting**	**Hand gathering**	**Bait digging**
Blue mussel beds (including intertidal beds on mixed and sand sediments)	Medium	Low	Low	Low	Low	Medium
Cold-water coral reefs	High	High	High	High		
Coral gardens						
Deep sea sponge aggregations						
Estuarine rocky habitats	Medium	Medium	Medium	Medium		
File shell beds						
Fragile sponge and anthozoan communities on subtidal rocky habitats	High	High	Medium	Medium		
Intertidal underboulder communities					Medium	Medium
Littoral chalk communities	Medium	Medium	Low	Low	Low	Low
Maerl beds	High	High	Medium	Medium		
Horse mussel (*Modiolus modiolus* beds)	High	High	Low	Low		
Mud habitats in deep water	High	High	Medium	Medium		
Sea-pen and burrowing megafauna communities	High	High	Medium	Medium		
Native oyster (*Ostrea edulis*) beds	Medium					
Peat and clay exposures	Low	Low	Low	Low	Medium	Medium
Honeycomb worm (*Sabellaria alveolata*) reefs	Medium	Medium	Low	Low		Medium
Ross worm (*Sabellaria spinulosa*) reefs	Medium	Medium	Low	Low		Medium
Seagrass beds	High	High	Medium	Medium		
Sheltered muddy gravels	High	High	High	High	High	High
Subtidal chalk	Medium	Medium	Low	Low	Low	Low
Subtidal sands and gravels						
Tide-swept channels	Medium	Medium	Medium	Medium	Medium	Medium

1 Low risk
2
3
4
5
6 High risk
Site dependent

High (high certainty in JNCC's risk calculation)
Medium (medium certainty in JNCC's risk calculation)
Low (low certainty in JNCC's risk calculation)

Table 10 Likelihood of commercial fishing activities having to be managed if conservation objectives for each habitat FOCI are set to **"maintain"**. Cells coloured grey indicate that the JNCC guidance suggests that these can only be judged at the level of the individual site. Text in table highlights confidence in habitat feature sensitivity to a given fishing activity according to JNCC NE guidance.

Habitats of conservation importance (Habitat FOCI)	Fishing method					
	Dredging	Demersal towed gears (exc dredging)	Pots and traps	Static netting	Hand gathering	Bait digging
Blue mussel beds (including intertidal beds on mixed and sand sediments)	Medium	Low	Low	Low	Low	Medium
Cold-water coral reefs	High	High	High	High		
Coral gardens						
Deep sea sponge aggregations						
Estuarine rocky habitats	Medium	Medium	Medium	Medium		
File shell beds						
Fragile sponge and anthozoan communities on subtidal rocky habitats	High	High	Medium	Medium		
Intertidal underboulder communities					Medium	Medium
Littoral chalk communities	Medium	Medium	Low	Low	Low	Low
Maerl beds	High	High	Medium	Medium		
Horse mussel (*Modiolus modiolus* beds)	High	High	Low	Low		
Mud habitats in deep water	High	High	Medium	Medium		
Sea-pen and burrowing megafauna communities	High	High	Medium	Medium		
Native oyster (*Ostrea edulis*) beds	Medium					
Peat and clay exposures	Low	Low	Low	Low	Medium	Medium
Honeycomb worm (*Sabellaria alveolata*) reefs	Medium	Medium	Low	Low		Medium
Ross worm (*Sabellaria spinulosa*) reefs	Medium	Medium	Low	Low		Medium
Seagrass beds	High	High	Medium	Medium		
Sheltered muddy gravels	High	High	High	High	High	High
Subtidal chalk	Medium	Medium	Low	Low	Low	Low
Subtidal sands and gravels						
Tide-swept channels	Medium	Medium	Medium	Medium	Medium	Medium

1 Low risk
2
3
4
5
6 High risk
Site dependent

High (high certainty in JNCC's risk calculation)
Medium (medium certainty in JNCC's risk calculation)
Low (low certainty in JNCC's risk calculation)

Table 11 Likelihood of commercial fishing activities having to be managed if conservation objectives for each habitat FOCI are set to **"recover"**. Cells coloured grey indicate that the JNCC guidance suggests that these can only be judged at the level of the individual site. Text in table highlights confidence in habitat feature sensitivity to a given fishing activity according to JNCC NE guidance.

3.2 Species FOCI sensitivity

There was no JNCC/ NE advice on the sensitivity of species FOCI to the six categories of fishing activities. It is assumed here that most species FOCI, if designated, will also be present in the habitat features that have been put forward for protection (e.g. oysters and maerl). However if a species is highly mobile (e.g. eel, smelt, and undulate ray) or commercially important (i.e. spiny lobster) additional management measures may be required to protect the species in question.

If a site had been put forward to protect species FOCI, the chance of the species requiring restrictions on fishing in addition to those required by the designation of broad scale habitats will be noted as "high" or "low". For example, if the native oyster species FOCI has been listed in addition to native oyster as a broadscale habitat (the primary basis on which management measures will be decided), the need for further management restrictions would be negligible.

Table 12 List of species FOCI. Additionally, stakeholders could in the four regional projects recommend other species (non-FOCI) that they perceived would benefit from protection by the MCZ (not shown in this list).

Species of conservation importance (Species FOCI)	
Common name	**Taxon**
Peacock's tail	Brown alga
Burgundy maerl paint weed	Red alga
Grateloup's little-lobed weed	Red alga
Coral maerl	Red alga
Common maerl	Red alga
Tentacled lagoon-worm	Annelid (worm)
Lagoon sandworm	Annelid (worm)
Giant goby	Bony fish
Couch's goby	Bony fish
Long snouted sea horse	Bony fish
Short snouted sea horse	Bony fish
Trembling sea mat	Brozoan (sea mat)
Sea-fan anemone	Cnidarian
Stalked jellyfish (*Haliclystus auricula*)	Cnidarian
Sunset cup coral	Cnidarian
Stalked jellyfish (*Lucernariopsis campanulata*)	Cnidarian
Stalked jellyfish (*Lucernariopsis cruxmelitensis*)	Cnidarian
Starlet sea anemone	Cnidarian
Lagoon sand shrimp	Crustacean
Amphipod shrimp	Crustacean
Gooseneck barnacle	Crustacean
Spiny lobster	Crustacean
Ocean quahog	Mollusc
Fan mussel	Mollusc
Defolin's lagoon snail	Mollusc
Native oyster	Mollusc
Sea snail	Mollusc
Lagoon sea snail	Mollusc
Smelt*	Bony fish
European eel*	Bony fish
Undulate ray*	Elasmobranch

3.3 Geology of conservation interest

MCZs that have been put forward to protect geological features are shown in table 13 however there has been no guidance on the sensitivity of these geological features to fishing. Descriptions of each geological feature are presented in the Excel spreadsheet available with this report.

Table 13 Geological features designated for protection.

Region	MCZ ID	MCZ name	Geological feature
Net Gain	NG 1c	Alde Ore Estuary	Orfordness (subtidal)
	NG 2	Cromer Shoal Chalk Beds	North Norfolk coast (Subtidal)
	NG 8	Holderness Inshore	Spurn head
	NG 16	Swallow Sand	North Sea glacial tunnel valleys (Swallow hole)
Balanced Seas	MCZ 3	Blackwater, Crouch, Roach and Colne Estuaries	Clacton Cliffs & Foreshore
	MCZ 8	Goodwin Sands	Eastern English Channel outburst flood features
	MCZ 9	Offshore Foreland	
	MCZ 17	Offshore Overfalls	
	MCZ 11.2	Dover to Folkestone	Folkestone Warren
	MCZ 25.2	Selsey Bill and the Hounds	Bracklesham Bay
Finding Sanctuary		South-West Deeps (West)	Celtic sea relict sandbanks
		South-West Deeps (East)	
		Greater Haig Fras	Haig Fras rock complex
		South of Portland	Portland Deep

3.4 Information on potential economic impacts on the fishing industry

The information on the potential loss of annual earnings through impact on landings was taken from the SEIAs for each of the four MCZ regions (see tables 14-35 in the results section).

For each MCZ and for five fishing sectors (dredgers, bottom trawls, nets, pots and traps, and hooks and lines[3]) the MCZ impact assessments included an estimate of the annual value of landings likely to be affected by an MCZ. These estimates were based on results derived from the MCZ Fisheries Model. This model distributed the value of landings that the UK fleet attributed to a particular ICES Rectangle using data on the spatial distribution of fishing effort. The model used three data sources:

1. Marine Management Organisation (MMO) iFISH data provided information on the value of landings by vessel, gear type, and ICES rectangle;
2. Processed Vessel Monitoring System (VMS) data provided an estimate of the spatial distribution of fishing effort by gear type for vessels of over 15 metres;

[3] This fishing method was not accounted for in JNCCs NEs advice presumably because it won't have any impact on habitat.

3. Fishermap data provided an estimate of the spatial distribution of fishing effort by gear type for vessels of less than 15 metres.

Due to uncertainty over the management measures to be implemented in each MCZ, data were modelled according to the following scenarios (these varied between sites and regions); regional stakeholder group (RSG) recommendations, zoned management based on the vulnerability of different habitats to different gear types[4], and a uniform ban on a particular gear type.

The ranking tables created for this report present three values showing potential annual value of UK vessel landings affected by three scenarios: RSG recommendation (Net Gain only), zoned management, and a uniform ban on a particular gear type (this may happen for pragmatic reasons where the patchiness of habitat in an MCZ would make enforcement very complicated if zoned management was implemented). The values presented all originate in the SEIAs for the MCZs, published by the MCZ projects.

When considering the scale of likely economic impact of management measures being implemented for MCZs, it is important to recognise that the estimated annual value of UK vessel landings affected is not equivalent to the estimated reduction in revenues or "losses" that UK vessels would experience. Owners whose vessels are no longer permitted to fish in MCZs will make a range of different decisions about whether, and if so, how, to replace the fishing activity no longer permitted and the revenues associated with it. Many owners are likely to decide to fish elsewhere and may be able to replace a substantial proportion of the revenues and associated profits that can no longer be realised in the area of the MCZ.

The following assumptions have been made when formulating the management scenarios (see Annex H6 of the IA).

1. When management is likely to be required of certain types of bottom trawls and dredges, the management scenario is assumed to apply to all types of bottom trawls and dredges.
2. For areas in MCZs where non-UK vessels are active, management of fishing activity will be implemented via the Common Fisheries Policy (CFP). However, there is uncertainty over whether the same management measures taken at the UK level would be legitimate under the CFP which can only permit or forbid fishing in a certain area using a specific gear type at particular times.
3. Zoned management assumes that the management required for a particular feature is only applied to that area within the MCZ that is occupied by that feature, and has not been suggested for the following circumstances; 1) for the additional management suggested for a feature that is scattered throughout a MCZ, or 2) if additional management is suggested for a number of overlapping features that occupy significant areas of the site, as this would create complex overlapping zones that would be difficult to enforce.

[4] Though this value may actually underestimate the cost on vessels that deploy static gears (see 3.3.5, pg 6, Annex H6. MCZ Technical Methods Commercial Fishing).

4. Uniform management assumes that for a given gear type, the most stringent management that is suggested for that gear type for any feature protected by an MCZ applies to the entire MCZ.
5. Where advice indicates that levels of pressure from commercial fishing might need to be limited to current levels, the IA assumes that no additional management will need to be put in place.

There may be some degree of uncertainty over the fishermap data. If some fishermen were overlooked by the survey then the economic impact of some MCZs may be underestimated. There is only qualitative information on the impact of displacement, in certain cases fishermen may be able to make up some of their catch lost in a MCZ in an area outside it so economic impact in certain cases may be overestimated.

3.5 Data analysis

Measuring impact on fishing sectors

One of the purposes of this report is to assess which MCZs in each region are likely to have the greatest impact on the fishing industry and allow industry and Seafish to prioritise the discussion of MCZs that are likely to have the biggest socio-economic impact.

From the information sources described above three criteria were used to measure the potential impact of an MCZ; 1) the annual value of landings of UK vessels likely to be affected if a gear type was banned across parts (zoned) or all (uniform ban) of the MCZ, 2) the likelihood of an activity being restricted on JNCCs and NEs advice on habitat sensitivity using the six point scale (page 5), and 3) the area of the designated conservation feature.

For each area five analyses were undertaken for each of the four regions; 1) dredgers, 2) bottom trawls, 3) nets, 4) pots and traps, and 5) hooks and lines. Only the Irish Seas area has been shown to have notable impacts on hand gathering. MCZs were ranked according to their economic impact, and secondly by the impact score (5-6 defined as “high risk”, and 3-4 as “moderate risk”).

To answer the question *Which MCZs will have the greatest potential impact on dredgers?;* information on dredging only was extracted from the broadscale habitats section from the spreadsheet entitled *MCZ impact assessment* into a new spreadsheet entitled *results*. Relating general information on each MCZ and economic impact was imported along with this. This procedure was then repeated for the habitat FOCI section, and this information was then pasted directly below the broadscale habitats information in the *results* spreadsheet. Data was then firstly ranked according to the predicted economic impact if zoned management or the RSG recommendation was implemented in the MCZ[5]. For MCZs

[5] MCZs were ranked primarily according to the cost associated with scenarios “RSG” or “zoned management” as these scenarios were thought to be more likely than a “uniform ban” placed on a fishing activity.

where no economic impact was predicted sites were then ranked according to the size of their designated conservation features[6].

The SEIA was used as the primary indicator of MCZs that will have greatest impact on the fishing industry due to the fact that the SEIA analysis used the best available knowledge on the distribution and type of fishing practices that are occurring in each MCZ.

The impacts of hooks and lines on habitats were not covered in the JNCC NE guidance, presumably because this gear type does not interact with the sea bottom. For hooks and lines only the information provided by the SEIA was used to determine the potential impact of an MCZ if this gear type were to be banned.

This report has primarily used the information provided in the SEIA and habitat conservation objectives of each MCZ to judge impact; MCZs have also been put forward to protect certain species which may require additional restrictions to those imposed to protect habitats.

MCZs could be ranked in numerous ways; when interpreting the SEIA impact score in the tables in the Results section, if there is a score under the *RSG* or *Zoned management* column, such a scenario was assumed to be more likely than that of a uniform ban. Sites that were ranked according to the area of the conservation features special attention must be paid to the score (see tables 2-5) reflecting the likelihood of a fishing activity having to be managed in some way. For example, a large area with a score of 4 may have less overall impact on fishing than a smaller area with a score of 6, due to it requiring less restrictive management measures.

Measuring impact on ports

Information on ports likely to be impacted by MCZs was gained from the four regional SEIAs. Only Net Gain and the Irish Sea projects stated the impact MCZs in these areas would have on the ports where vessels landed their catch, with this impact broken down byeach of the five categories of fishing method. The Balanced Seas project identified the ports that are currently used by vessels currently fishing in their proposed MCZs but did not disaggregate this information according to fishing method. Finding Sanctuary did not provide any information on ports likely to be impacted by MCZs in the SW region.

[6] For the purpose of this exercise habitats with areas <1km² were excluded from tables 6-27 to ease interpretation.

4. RESULTS

4.1 Net Gain MCZs

Impact on the mobile demersal gear sector

From the information provided by the socio-economic impact assessments (SEIA) three MCZs, NG 9, and potentially NG 14 and NG 6 are likely to have an economic impact on dredging (table 14) if management measures are implemented. There is uncertainty over whether dredging occurs in the remaining North Sea MCZs, however by virtue of their conservation objectives, NG 12, NG 7, NG 2, NG 13, and NG 1b would likely places restrictions on dredging if this activity was found to occur in these areas.

NG 7, NG 6, NG 12, NG 14, and NG 1b are likely to have some economic impact on bottom trawlers (table 15) if management measures are implemented. The conservation objectives and the relatively large size of NG 9, NG 2 and NG 13 indicate that these MCZs are likely to restrict trawling if trawling was found to occur in these areas.

Impact on the static gear sector

The SEIA suggests that NG 9, NG 1b, NG 6, and NG 12 are likely to have an economic impact on static netting (table 16); NG 9, NG 6 and NG 1b on fishermen using pots and traps (table 17); and NG 1b, NG 6 and NG 9 on fishermen using hooks and lines (table 18).

Impact on ports

Based on the SEIA six MCZs are likely to have an impact on the landings made at 27 ports in this region (table 19). The ports likely to be most impacted are Whitby, Amble, Blyth, Bridlington and North Shields.

Table 14 North Sea MCZs ranked according to their potential impact on dredging.

Rank importance	MCZ ID	MCZ name	Location	Annual value of landings affected (£million)			Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
				RSG recommendation	Zoned management	All dredgers banned				
1	NG 9	Holderness Offshore	Offshore	0.106	NA	0.106	A5.1 Subtidal coarse sediment	536.45	6	Recover
							A5.4 Subtidal mixed sediment	610.36	Site dependent	Recover
2	NG 14	Farnes East	Inshore	0	0	0.04	A4.2 Moderate energy circalittoral rock	517.59	6	Maintain
							A5.3 Subtidal mud	13.22	6	Recover
							Peat and clay exposures	4.05	6	Maintain
							A5.1 Subtidal coarse sediment	247.32	4	Maintain
							A5.2 Subtidal sand	177.59	4	Maintain
							A5.4 Subtidal mixed sediment	3.31	Site dependent	Maintain
3	NG 6	Silver Pit	Offshore	0	0	0.0002	A5.4 Subtidal mixed sediment	126.53	Site dependent	Recover
							A5.2 Subtidal sand	41.52	6	Recover
							Subtidal sands and gravels	16.88	Unstated	Recover
							Ross worm (*Sabellaria spinulosa*) reefs	0.05	6	Maintain
4	NG 16	Swallow Sand	Offshore	0	0	0	Subtidal sands and gravels	4,496.92	Unstated	Maintain
							A5.2 Subtidal sand	4,451.67	4	Maintain
							A5.1 Subtidal coarse sediment	293.26	4	Maintain
5	NG 17	Fulmar	Offshore	0	0	0	Subtidal sands and gravels	2,402.31	Unstated	Maintain
							A5.2 Subtidal sand	2,389.91	4	Maintain
							A5.1 Subtidal coarse sediment	45.32	4	Maintain
6	NG 4	Wash Approach	Inshore	0	0	0	A5.4 Subtidal mixed sediment	414.05	Site dependent	Maintain
							Subtidal sands and gravels	141.63	Unstated	Maintain
							A5.2 Subtidal sand	125.69	4	Maintain
7	NG 15	Rock Unique	Offshore	0	0	0	Subtidal sands and gravels	322.68	Unstated	Maintain
							A5.2 Subtidal sand	309.22	4	Maintain
							A5.1 Subtidal coarse sediment	161.26	4	Maintain
							A4.3 Low energy circalittoral rock	20.34	6	Maintain

8	NG 12	Compass Rose	Offshore	0	0	0	A4.2 Moderate energy circalittoral rock	244.88		6	Recover
9	NG 8	Holderness Inshore	Inshore	0	0	0	A5.1 Subtidal coarse sediment	217.54		4	Maintain
							Subtidal chalk	182.4		4	Maintain
							Subtidal sands and gravels	98.43	Unstated		Maintain
							A5.2 Subtidal sand	19.04		4	Maintain
							A2.4 Intertidal mixed sediments	1.66		4	Maintain
							Ross worm (*Sabellaria spinulosa*) reefs	4 points		6	Maintain
							Peat and clay exposures	1 point		5	Maintain
10	NG 7	Markham's Triangle	Offshore	0	0	0	A5.1 Subtidal coarse sediment	167.73		6	Recover
							A5.2 Subtidal sand	30.76		6	Recover
11	NG 2	Cromer Shoal Chalk Beds	Inshore	0	0	0	A3.2 Moderate energy infralittoral rock	145.71		6	Maintain
							A4.2 Moderate energy circalittoral rock	11.56		6	Maintain
							A3.1 High energy infralittoral rock	2.71		6	Maintain
							Subtidal chalk	22 points		4	Maintain
12	NG 5	Lincs Belt	Inshore	0	0	0	A5.2 Subtidal sand	74.3		4	Maintain
							A5.4 Subtidal mixed sediment	66.14	Site dependent		Maintain
							A5.1 Subtidal coarse sediment	33.83		4	Maintain
							Subtidal sands and gravels	4.42	Unstated		Maintain
							Peat and clay exposures	Local knowledge		5	Maintain
13	NG 13	Coquet to St Mary's	Inshore	0	0	0	A3.1 High energy infralittoral rock	73.39		6	Maintain
							A4.2 Moderate energy circalittoral rock	69.42		6	Maintain
							A3.2 Moderate energy infralittoral rock	48.33		6	Maintain
							A5.4 Subtidal mixed sediment	2.58	Site dependent		Maintain
							A5.1 Subtidal coarse sediment	1		4	Maintain
14	NG 1b	Orford Inshore	Inshore	0	0	0	A5.4 Subtidal mixed sediment	71.65	Site dependent		Recover

Table 15 North Sea MCZs according to their potential impact on bottom trawlers.

Rank importance	MCZ ID	MCZ name	Location	Annual value of landings affected (£million)			Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
				RSG recommendation	Zoned management	All BT banned				
1	NG 7	Markham's Triangle	Offshore	0.405	NA	0.405	A5.1 Subtidal coarse sediment	167.73	6	Recover
							A5.2 Subtidal sand	30.76	6	Recover
2	NG 6	Silver Pit	Offshore	0.155	NA	0.155	A5.4 Subtidal mixed sediment	126.53	Site dependent	Recover
							A5.2 Subtidal sand	41.52	6	Recover
							Subtidal sands and gravels	16.88	Unstated	Recover
							Ross worm (*Sabellaria spinulosa*) reefs	0.05	6	Maintain
3	NG 12	Compass Rose	Offshore	0.024	0.024	0.034	A4.2 Moderate energy circalittoral rock	244.88	6	Recover
4	NG 14	Farnes East	Inshore	0.017	0.022	0.09	A4.2 Moderate energy circalittoral rock	517.59	6	Maintain
							A5.1 Subtidal coarse sediment	247.32	4	Maintain
							A5.2 Subtidal sand	177.59	4	Maintain
							A5.3 Subtidal mud	13.22	6	Recover
							Peat and clay exposures	4.05	6	Maintain
							A5.4 Subtidal mixed sediment	3.31	Site dependent	Maintain
5	NG 1b	Orford Inshore	Inshore	0.0002	NA	0.026	A5.4 Subtidal mixed sediment	71.65	Site dependent	Recover
6	NG 16	Swallow Sand	Offshore	0	0	0	Subtidal sands and gravels	4,496.92	Unstated	Maintain
							A5.2 Subtidal sand	4,451.67	4	Maintain
							A5.1 Subtidal coarse sediment	293.26	4	Maintain
7	NG 17	Fulmar	Offshore	0	0	0	Subtidal sands and gravels	2,402.31	Unstated	Maintain
							A5.2 Subtidal sand	2,389.91	4	Maintain
8	NG 9	Holderness Offshore		0	0	0	A5.4 Subtidal mixed sediment	610.36	Site dependent	Recover
							A5.1 Subtidal coarse sediment	536.45	6	Recover
9	NG 4	Wash Approach	Inshore	0	0	0	A5.4 Subtidal mixed sediment	414.05	Site dependent	Maintain
							Subtidal sands and gravels	141.63	Unstated	Maintain
							A5.2 Subtidal sand	125.69	4	Maintain
10	NG 15	Rock Unique	Offshore	0	0	0	Subtidal sands and gravels	322.68	Unstated	Maintain
							A5.2 Subtidal sand	309.22	4	Maintain

							A5.1 Subtidal coarse sediment	161.26		4	Maintain
							A4.3 Low energy circalittoral rock	20.34		6	Maintain
11	NG 8	Holderness Inshore		0	0	0	A5.1 Subtidal coarse sediment	217.54		4	Maintain
							Subtidal chalk	182.4		4	Maintain
							Subtidal sands and gravels	98.43	Unstated		Maintain
							A5.2 Subtidal sand	19.04		4	Maintain
							A2.4 Intertidal mixed sediments	1.66		4	Maintain
							Ross worm (*Sabellaria spinulosa*) reefs	4 points		6	Maintain
							Peat and clay exposures	1 point		5	Maintain
12	NG 2	Cromer Shoal Chalk Beds	Inshore	0	0	0	A3.2 Moderate energy infralittoral rock	145.71		6	Maintain
							A4.2 Moderate energy circalittoral rock	11.56		6	Maintain
							A3.1 High energy infralittoral rock	2.71		6	Maintain
							Subtidal chalk	22 points		4	Maintain
13	NG 5	Lincs Belt	Inshore	0	0	0	A5.2 Subtidal sand	74.3		4	Maintain
							A5.4 Subtidal mixed sediment	66.14	Site dependent		Maintain
							A5.1 Subtidal coarse sediment	33.83		4	Maintain
							Subtidal sands and gravels	4.42	Unstated		Maintain
							Peat and clay exposures	Local knowledge		5	Maintain
14	NG 13	Coquet to St Mary's	Inshore	0	0	0	A3.1 High energy infralittoral rock	73.39		6	Maintain
							A4.2 Moderate energy circalittoral rock	69.42		6	Maintain
							A3.2 Moderate energy infralittoral rock	48.33		6	Maintain
							A5.4 Subtidal mixed sediment	2.58	Site dependent		Maintain
							A5.1 Subtidal coarse sediment	1		4	Maintain
15	NG 17	Fulmar	Offshore	0	0	0	A5.1 Subtidal coarse sediment	45.32		4	Maintain

Table 16 North Sea MCZs ranked according to their potential impact on static netting.

Rank importance	MCZ ID	MCZ name	Location	Annual value of landings affected (£million) RSG recommendation	Zoned management	All nets banned	Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
1	NG 9	Holderness Offshore	Offshore	0	NA	0.017	A5.4 Subtidal mixed sediment	610.36	Site dependent	Recover
2	NG 1b	Orford Inshore	Inshore	0	NA	0.002	A5.4 Subtidal mixed sediment	71.65	Site dependent	Recover
3	NG 6	Silver Pit	Offshore	0	NA	0.0001	A5.4 Subtidal mixed sediment	126.53	Site dependent	Recover
							Subtidal sands and gravels	16.88	Unstated	Recover
4	NG 12	Compass Rose	Offshore	0	NA	0.00001	A4.2 Moderate energy circalittoral rock	244.88	5	Recover
5	NG 16	Swallow Sand	Offshore	0	0	0	Subtidal sands and gravels	4,496.92	Unstated	Maintain
6	NG 17	Fulmar	Offshore	0	0	0	Subtidal sands and gravels	2,402.31	Unstated	Maintain
7	NG 14	Farnes East	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	517.59	3	Maintain
							Peat and clay exposures	4.05	3	Maintain
							A5.4 Subtidal mixed sediment	3.31	Site dependent	Maintain
8	NG 4	Wash Approach	Inshore	0	0	0	A5.4 Subtidal mixed sediment	414.05	Site dependent	Maintain
							Subtidal sands and gravels	141.63	Unstated	Maintain
9	NG 15	Rock Unique	Offshore	0	0	0	Subtidal sands and gravels	322.68	Unstated	Maintain
							A4.3 Low energy circalittoral rock	20.34	3	Maintain
10	NG 8	Holderness Inshore	Inshore	0	0	0	Subtidal sands and gravels	98.43	Unstated	Maintain
							A2.4 Intertidal mixed sediments	1.66	3	Maintain
							Peat and clay exposures	1 point	3	Maintain
11	NG 13	Coquet to St Mary's	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	69.42	3	Maintain
							A5.4 Subtidal mixed sediment	2.58	Site dependent	Maintain
12	NG 5	Lincs Belt	Inshore	0	0	0	A5.4 Subtidal mixed sediment	66.14	Site dependent	Maintain
							Subtidal sands and gravels	4.42	Unstated	Maintain
							Peat and clay exposures	Local knowledge	3	Maintain
13	NG 11	Runswick Bay	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	19.55	3	Maintain
							A5.4 Subtidal mixed sediment	7.8	Site dependent	Maintain
14	NG 2	Cromer Shoal Chalk Beds	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	11.56	3	Maintain

Table 17 North Sea MCZs ranked according to their potential impact on potting.

				Annual value of landings affected (£million)						
Rank importance	MCZ ID	MCZ name	Location	RSG recommendation	Zoned management	All pots & traps banned	Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
1	NG 9	Holderness Offshore	Offshore	0	NA	2.586	A5.4 Subtidal mixed sediment	610.36	Site dependent	Recover
2	NG 6	Silver Pit	Offshore	0	NA	0.147	A5.4 Subtidal mixed sediment	126.53	Site dependent	Recover
			Offshore				Subtidal sands and gravels	16.88	Unstated	Recover
3	NG 1b	Orford Inshore	Inshore	0	NA	0.005	A5.4 Subtidal mixed sediment	71.65	Site dependent	Recover
4	NG 16	Swallow Sand	Offshore	0	0	0	Subtidal sands and gravels	4,496.92	Site dependent	Maintain
5	NG 17	Fulmar	Offshore	0	0	0	Subtidal sands and gravels	2,402.31	Unstated	Maintain
6	NG 14	Farnes East	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	517.59	3	Maintain
							Peat and clay exposures	4.05	3	Maintain
							A5.4 Subtidal mixed sediment	3.31	Site dependent	Maintain
7	NG 4	Wash Approach	Inshore	0	0	0	A5.4 Subtidal mixed sediment	414.05	Site dependent	Maintain
							Subtidal sands and gravels	141.63	Unstated	Maintain
8	NG 15	Rock Unique	Offshore	0	0	0	Subtidal sands and gravels	322.68	Unstated	Maintain
							A4.3 Low energy circalittoral rock	20.34	3	Maintain
9	NG 12	Compass Rose	Offshore	0	0	0	A4.2 Moderate energy circalittoral rock	244.88	5	Recover
10	NG 8	Holderness Inshore	Inshore	0	0	0	Subtidal sands and gravels	98.43	Unstated	Maintain
							Peat and clay exposures	1 point	3	Maintain
							A2.4 Intertidal mixed sediments	1.66	3	Maintain
11	NG 13	Coquet to St Mary's	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	69.42	3	Maintain
							A5.4 Subtidal mixed sediment	2.58	Site dependent	Maintain
12	NG 5	Lincs Belt	Inshore	0	0	0	A5.4 Subtidal mixed sediment	66.14	Site dependent	Maintain
							Subtidal sands and gravels	4.42	Unstated	Maintain
							Peat and clay exposures	Local knowledge	3	Maintain
13	NG 11	Runswick Bay	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	19.55	3	Maintain
							A5.4 Subtidal mixed sediment	7.8	Site dependent	Maintain

14	NG 2	Cromer Shoal Chalk Beds	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	11.56	3	Maintain

Table 18 North Sea MCZs ranked according to their potential impact on hooks and lines.

				Annual value of landings affected (£million)		
Rank importance	MCZ ID	MCZ name	Location	RSG recommendation	Zoned management	All hooks and lines banned
1	NG 1b	Orford Inshore	Inshore	0	NA	0.032
2	NG 6	Silver Pit	Offshore	0	NA	0.002
3	NG 9	Holderness Offshore	Offshore	0	NA	0.008

Table 19 North Sea MCZs and likely impact on ports (initials indicate fishing sector that may potentially be impacted by the designation of an MCZ that lands at a particular port).

	MCZ ID					
Port	NG 1b	NG 6	NG 7	NG 9	NG 12	NG 14
Aldeburgh	N, PT, HL					
Amble		BT	BT	BT	BT	BT
Blyth		BT	BT	BT		D, BT
Brancaster Staithe		BT				
Bridlington		BT, N, PT		D, BT, N, PT, HL	BT, N, PT	D, BT
Eyemouth		BT	BT	BT		
Felixstowe						
Flamborough				N, BT		
Great Yarmouth						
Grimsby		BT, N, PT, HL		BT, N, PT, HL	BT	
Hartlepool					BT	BT
Hornsea				N, PT		
Kings Lynn		BT				
Leigh-on-Sea	BT	BT				
Lowestoft	BT, N, PT, HL					
North Shields		BT	BT	BT		BT
Orfordness	PT, HL					
Peterhead			BT	BT		
Scarborough				D, BT		
Seahouses						D, BT
Shoreham	BT					
South Shields		BT	BT	BT		
Southwold	BT, N, PT, HL					
Tunstall				N, PT		
Wells		PT		PT		
Whitby	BT	BT	BT	D, BT	BT	D
Withernsea				N, PT		

4.2 Balanced Seas MCZs

Impact on the mobile demersal gear sector

MCZ 29, 29.2, 10 and potentially MCZ 17, 14 and MCZ 31 will have the largest economic impact on dredging (table 20).

MCZ 29, MCZ 14, and potentially MCZ 31 will have the largest economic impact on bottom trawling (table 21).

Impact on the static gear sector

MCZ 13.1, 11.4 and potentially MCZ 7 will have the largest economic impact on static netting (table 22).

MCZ 16, 13.1, 11.4 and potentially MCZ 7 will have the largest impact on fishermen using pots and traps (table 23).

MCZ 13.1, 16 and potentially MCZ 17 will have the largest impact on fishermen using hooks and lines (table 24).

Impact on ports

21 MCZs are likely to have an impact on the landings made at 36 ports in the Balanced Seas region (table 25), Folkestone, Lymington, Portsmouth and Shoreham potentially being impacted by four or more MCZs.

Table 20 English Channel MCZs ranked according to their likely impact on dredging.

Rank importance	MCZ ID	MCZ name	Location	Annual value of landings affected (£million) RSG recommendation	Zoned management	All dredgers banned	Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
1	MCZ 29	East Meridian	Offshore	1.252	NA	1.252	A5.2 Subtidal sand	128.37	6	Recover
							A5.4 Subtidal mixed sediments	279.36	Site dependent	Recover
2	MCZ 29.2	East Meridian (eastern half)	Offshore	0.264	NA	0.264	A5.2 Subtidal sand	58.67	6	Recover
							A5.4 Subtidal mixed sediments	142.79	Site dependent	Recover
3	MCZ 10	The Swale Estuary	Inshore	0.103	NA	0.103	A5.2 subtidal sand	9.23	4	Maintain
							A5.3 subtidal mud	6.84	4	Maintain
							A5.4 subtidal mixed sediments	13.53	Site dependent	Maintain
							Sheltered muddy gravels	11 records	Site dependent	Maintain
4	MCZ 14	Offshore Brighton	Offshore	NA	0.065	0.356	A4.1 high energy circalittoral rock	175.67	6	Recover
							A4.2 mod energy circalittoral rock	11.04	6	Recover
							A5.4 subtidal mixed sediments	675.92	Site dependent	Recover
							Subtidal sands and gravels	458.19	Unstated	Maintain
5	MCZ 7	Thanet Coast	Inshore	0.044	NA	0.044	A4.2 mod energy circalittoral rock	8.37	6	Unstated
							A5.1 subtidal coarse sediment	8.74	4	Unstated
							A5.2 subtidal sand	5.61	4	Unstated
							A5.4 subtidal mixed sediments	13.46	Site dependent	Unstated
							Subtidal chalk	8.85	4	Unstated
							Subtidal sands and gravels	6.04	Unstated	Unstated
6	MCZ 19	Norris to Ryde	Inshore	NA	0.025	0.094	A5.3 subtidal mud	11.37	Unstated	Unstated
7	MCZ 16	Kingmere	Inshore	0.005	0.014	0.014	A5.4 subtidal mixed sediments	26.44	Site dependent	Recover
8	MCZ 23	Yarmouth to Cowes	Inshore	0.001	0.01	0.042	A5.1 subtidal coarse sediment	11.99	4	Maintain
							Native oyster beds	21 records	4	Maintain
							Peat and clay exposures	8 records	6	Recover
							Seagrass beds	1 record	6	Recover

9	MCZ 22	Bembridge	Inshore	0.009		0.01	0.027	A5.2 subtidal sand	12.35	4	Maintain
								A5.3 subtidal mud	1.36	4	Maintain
								A5.4 subtidal mixed sediments	61.31	Site dependent	Maintain
								Maerl (Phymatolithon calcareum) bed	1 record	6	Recover
								Mud habitats in deep water	1 record	4	Maintain
								Native oyster beds	Unstated	6	Recover
								Seapens & burrowing megafauna	1 record	6	Recover
10	MCZ 13.1	Beachy Head East	Inshore	0.01		0.006	0.076	A5.2 subtidal sand	134.28	4	Unstated
								A5.4 subtidal mixed sediments	18.23	Site dependent	Unstated
11	MCZ 11.4	Folkestone Pomerania	Inshore	0.004		0.006	0.02	A4.2 mod energy circalittoral rock	1.6	6	Recover
								A5.1 subtidal coarse sediment	24.58	4	Maintain
								A5.2 subtidal sand	7.12	6	Recover
								Fragile sponge and anthozoan communities	3 records	6	Recover
								Subtidal sands and gravels	29.15	Unstated	Recover
12	MCZ 9	Offshore Foreland	Offshore	NA		0.002	0.004	A3.1 high energy infralittoral rock	3.1	6	Recover
								A4.1 high energy circalittoral rock	72.86	6	Recover
								A4.2 mod energy circalittoral rock	12.68	6	Recover
								A5.1 subtidal coarse sediment	93.65	4	Maintain
								A5.2 subtidal sand	68.61	4	Maintain
13	MCZ 17	Offshore Overfalls	Offshore	0		0	0.375	A5.1 subtidal coarse sediment	5.94	6	Recover
								A5.2 subtidal sand	38.83	6	Recover
								A5.4 subtidal mixed sediments	548.74	Site dependent	Recover
								Subtidal sands and gravels	438.94	Unstated	Recover
14	MCZ 31	Inner Bank	Inshore	0	NA		0.175	A5.1 subtidal coarse sediment	2.96	6	Recover
								A3.2 mod energy infralittoral rock	19.8	6	Recover
								A4.2 mod energy circalittoral rock	96.45	6	Recover
								A5.2 subtidal sand	79.78	6	Recover
								Native oyster beds	1 record	6	Recover
15	MCZ 26	Hythe Bay	Inshore	0		0	0.008	A5.3 subtidal mud	37.02	6	Recover
								Mud habitats in deep water	79	6	Recover

								records			
							Seapens & burrowing megafauna	28 records		6	Recover
16	MCZ 11.2	Dover to Folkestone	Inshore	NA	0	0.004	A3.1 high energy infralittoral rock	1.47		6	Recover
							A5.1 subtidal coarse sediment	17.5		4	Maintain
							Subtidal sands and gravels	1.25	Unstated		Maintain
17	MCZ 8	Goodwin Sands	Inshore	0	0	0	A5.2 subtidal sand	159.97		4	Maintain
							A5.1 subtidal coarse sediment	115.55		4	Maintain
18	MCZ 21	Wight-Barfleur Extension	Offshore	0	0	0	Subtidal sands and gravels	91.76	Unstated		Maintain
							A5.4 subtidal mixed sediments	70.13	Unstated		Maintain
							A5.1 subtidal coarse sediment	22.24		4	Maintain
19	MCZ 30	Kentish Knock East	Inshore	0	0	0	A5.1 subtidal coarse sediment	81.65		6	Recover
							A5.4 Subtidal mixed sediments	11.52	Site dependent		Unstated
							A5.2 subtidal sand	2.82		6	Recover

Table 21 English Channel MCZs ranked according to their likely impact on bottom trawling.

				Annual value of landings affected (£million)						
Rank importance	MCZ ID	MCZ name	Location	RSG recommendation	Zoned management	BT banned	Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
1	MCZ 29	East Meridian	Offshore	0.504	NA	0.504	A5.2 Subtidal sand	128.37	6	Recover
							A5.4 Subtidal mixed sediments	279.36	Site dependent	Recover
2	MCZ 14	Offshore Brighton	Offshore	NA	0.114	0.837	A4.1 high energy circalittoral rock	175.67	6	Recover
							A4.2 mod energy circalittoral rock	11.04	6	Recover
							A5.4 subtidal mixed sediments	675.92	Site dependent	Recover
							Subtidal sands and gravels	458.19	Unstated	Maintain
3	MCZ 13.1	Beachy Head East	Inshore	0.044	0.024	0.26	A5.2 subtidal sand	134.28	4	Unstated
							A5.4 subtidal mixed sediments	18.23	Site dependent	Unstated
4	MCZ 16	Kingmere	Inshore	0.023	0.039	0.039	A5.4 subtidal mixed sediments	26.44	Site dependent	Recover
5	MCZ 7	Thanet Coast	Inshore	0.025	NA	0.025	A4.2 mod energy circalittoral rock	8.37	6	Maintain

								A5.1 subtidal coarse sediment	8.74	4	Maintain
								A5.2 subtidal sand	5.61	4	Maintain
								A5.4 subtidal mixed sediments	13.46	Site dependent	Maintain
								Subtidal chalk	8.85	4	Maintain
								Subtidal sands and gravels	6.04	Unstated	Maintain
6	MCZ 10	The Swale Estuary	Inshore		0.014	NA	0.014	A5.2 subtidal sand	9.23	4	Maintain
								A5.3 subtidal mud	6.84	4	Maintain
								A5.4 subtidal mixed sediments	13.53	Site dependent	Maintain
								Sheltered muddy gravels	11 records	Site dependent	Maintain
7	MCZ 11.4	Folkestone Pomerania	Inshore		0.006	0.01	0.026	A4.2 mod energy circalittoral rock	1.6	6	Recover
								A5.1 subtidal coarse sediment	24.58	4	Maintain
								A5.2 subtidal sand	7.12	6	Recover
								Fragile sponge and anthozoan communities	3 records	6	Recover
								Subtidal sands and gravels	29.15	Unstated	Recover
8	MCZ 30	Kentish Knock East	Inshore		0	0.004	0.042	A5.1 subtidal coarse sediment	81.65	6	Recover
								A5.2 subtidal sand	2.82	6	Recover
								A5.4 Subtidal mixed sediments	11.52	Site dependent	Unstated
9	MCZ 22	Bembridge	Inshore		0.003	0.004	0.023	A5.2 subtidal sand	12.35	4	Maintain
								A5.3 subtidal mud	1.36	4	Maintain
								A5.4 subtidal mixed sediments	61.31	Site dependent	Maintain
								Maerl (Phymatolithon calcareum) bed	1 record	6	Recover
								Mud habitats in deep water	1 record	4	Maintain
								Native oyster beds	Unstated	Site dependent	Recover
								Seapens & burrowing megafauna	1 record	6	Recover
10	MCZ 19	Norris to Ryde	Inshore		NA	0.004	0.018	A5.3 subtidal mud	11.37	Unstated	Unstated
11	MCZ 23	Yarmouth to Cowes	Inshore		0	0.003	0.013	A5.1 subtidal coarse sediment	11.99	4	Maintain
								Native oyster beds	21 records	Site dependent	Maintain
								Peat and clay exposures	8 records	6	Recover
								Seagrass beds	1 record	6	Recover

12	MCZ 17	Offshore Overfalls	Offshore	0.002		0.002	0.299	A5.1 subtidal coarse sediment	5.94	6	Recover
								A5.2 subtidal sand	38.83	6	Recover
								A5.4 subtidal mixed sediments	548.74	Site dependent	Recover
								Subtidal sands and gravels	438.94	Unstated	Recover
13	MCZ 26	Hythe Bay	Inshore	0		0.002	0.1	A5.3 subtidal mud	37.02	6	Recover
								Mud habitats in deep water	79 records	6	Recover
								Seapens & burrowing megafauna	28 records	6	Recover
14	MCZ 9	Offshore Foreland	Offshore	NA		0.002	0.016	A3.1 high energy infralittoral rock	3.1	6	Recover
								A4.1 high energy circalittoral rock	72.86	6	Recover
								A4.2 mod energy circalittoral rock	12.68	6	Recover
								A5.1 subtidal coarse sediment	93.65	4	Maintain
								A5.2 subtidal sand	68.61	4	Maintain
15	MCZ 2	Stour & Orwell Estuaries	Inshore	0		0.002	0.012	A5.1 Subtidal coarse sediment	31.11	4	Maintain
								Sheltered muddy gravels	28 point records	Site dependent	Recover
								Subtidal sands and gravels	1.05	Unstated	Maintain
16	MCZ 28	Utopia	Inshore	0.001	NA		0.001	Fragile sponge and anthozoan communities	1 record	6	Recover
17	MCZ 31	Inner Bank	Inshore	0	NA		0.154	A5.1 subtidal coarse sediment	2.96	6	Recover
								A3.2 mod energy infralittoral rock	19.8	6	Recover
								A4.2 mod energy circalittoral rock	96.45	6	Recover
								A5.2 subtidal sand	79.78	6	Recover
								Native oyster beds	1 record	Site dependent	Recover
18	MCZ 11.2	Dover to Folkestone	Inshore	NA		0	0.007	A3.1 high energy infralittoral rock	1.47	6	Recover
								A5.1 subtidal coarse sediment	17.5	4	Maintain
								Subtidal sands and gravels	1.25	Unstated	Maintain
19	MCZ 11.1	Dover to Deal	Inshore	NA		0	0.002	A3.1 high energy infralittoral rock	2.06	6	Recover
								A5.1 subtidal coarse sediment	1.8	4	Maintain
								A5.4 subtidal mixed sediments	5.17	Site dependent	Maintain
								Littoral chalk communities	1.35	5	Recover
20	MCZ 8	Goodwin Sands	Inshore	0		0	0	A5.2 subtidal sand	159.97	4	Maintain

							A5.1 subtidal coarse sediment	115.55		4	Maintain
21	MCZ 21	Wight-Barfleur Extension	Offshore	0	0	0	Subtidal sands and gravels	91.76	Unstated		Maintain
							A5.4 subtidal mixed sediments	70.13	Unstated		Maintain
							A5.1 subtidal coarse sediment	22.24		4	Maintain

Table 22 English Channel MCZs ranked according to their likely impact on static netting.

				Annual value of landings affected (£million)							
Rank importance	MCZ ID	MCZ name	Location	RSG recommendation	Zoned management	Nets banned	Broadscale habitat/ habitat FOCI	Area		Impact score	Conservation objectives
1	MCZ 13.1	Beachy Head East	Inshore	NA	0.104	0.809	A5.4 subtidal mixed sediments	18.23		Site dependent	Unstated
2	MCZ 11.4	Folkestone Pomerania	Inshore	NA	0.025	0.047	A4.2 mod energy circalittoral rock	1.6		5	Recover
							Fragile sponge and anthozoan communities	3 records		6	Recover
							Subtidal sands and gravels	29.15	Unstated		Recover
3	MCZ 16	Kingmere	Inshore	0.018	0.018	0.035	A5.4 subtidal mixed sediments	26.44		Site dependent	Recover
4	MCZ 11.2	Dover to Folkestone	Inshore	NA	0.001	0.035	A3.1 high energy infralittoral rock	1.47		5	Recover
							Subtidal sands and gravels	1.25	Unstated		Maintain
5	MCZ 7	Thanet Coast	Inshore	NA	NA	0.053	A4.2 mod energy circalittoral rock	8.37		3	Maintain
							A5.4 subtidal mixed sediments	13.46		Site dependent	Maintain
							Subtidal sands and gravels	6.04	Unstated		Maintain
6	MCZ 2	Stour & Orwell Estuaries	Inshore	0	NA	0.032	Sheltered muddy gravels	28 point records		Site dependent	Recover
							Subtidal sands and gravels	1.05	Unstated		Maintain
7	MCZ 29.2	East Meridian (eastern half)	Offshore	NA	NA	0.027	A5.4 Subtidal mixed sediments	142.79		Site dependent	Recover
8	MCZ 23	Yarmouth to Cowes	Inshore	NA	NA	0.014	Peat and clay exposures	8 records		5	Recover
							Seagrass beds	1 record		6	Recover
9	MCZ 14	Offshore Brighton	Offshore	NA	NA	0.009	A4.1 high energy circalittoral rock	175.67		5	Recover
							A4.2 mod energy circalittoral rock	11.04		5	Recover
							A5.4 subtidal mixed sediments	675.92	Site		Recover

									dependent	
							Subtidal sands and gravels	458.19	Unstated	Maintain
10	MCZ 29	East Meridian	Offshore	NA	NA	0.009	A5.4 Subtidal mixed sediments	279.36	Site dependent	Recover
11	MCZ 11.1	Dover to Deal	Inshore	NA	NA	0.008	A3.1 high energy infralittoral rock	2.06	5	Recover
							A5.4 subtidal mixed sediments	5.17	Site dependent	Maintain
							Littoral chalk communities	1.35	5	Recover
12	MCZ 9	Offshore Foreland	Offshore	NA	NA	0.006	A3.1 high energy infralittoral rock	3.1	5	Recover
							A4.1 high energy circalittoral rock	72.86	5	Recover
							A4.2 mod energy circalittoral rock	12.68	5	Recover
13	MCZ 10	The Swale Estuary	Inshore	NA	NA	0.005	A5.4 subtidal mixed sediments	13.53	Site dependent	Maintain
							Sheltered muddy gravels	11 records	Site dependent	Maintain
14	MCZ 17	Offshore Overfalls	Offshore	NA	NA	0.005	A5.4 subtidal mixed sediments	548.74	Site dependent	Recover
							Subtidal sands and gravels	438.94	Unstated	Recover
15	MCZ 28	Utopia	Inshore	NA	NA	0.002	Fragile sponge and anthozoan communities	1 record	6	Recover
16	MCZ 31	Inner Bank	Inshore	0	0	0	A4.2 mod energy circalittoral rock	96.45	5	Recover
							A3.2 mod energy infralittoral rock	19.8	5	Recover
							Native oyster beds	1 record	Site dependent	Recover
17	MCZ 21	Wight-Barfleur Extension	Offshore	0	0	0	Subtidal sands and gravels	91.76	Unstated	Maintain
							A5.4 subtidal mixed sediments	70.13	Site dependent	Maintain
18	MCZ 22	Bembridge	Inshore	0	0	0	A5.4 subtidal mixed sediments	61.31	Site dependent	Maintain
							Native oyster beds	Unstated	Site dependent	Recover
							Maerl (Phymatolithon calcareum) bed	1 record	6	Recover

Table 23 English Channel MCZs ranked according to their likely impact on pots and traps.

Rank importance	MCZ ID	MCZ name	Location	Annual value of landings affected (£million) RSG recommendation	Zoned management	PT banned	Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
1	MCZ 16	Kingmere	Inshore	0.031	0.065	0.065	A5.4 subtidal mixed sediments	26.44	Site dependent	Recover
2	MCZ 13.1	Beachy Head East	Inshore	NA	0.044	0.554	A5.4 subtidal mixed sediments	18.23	Site dependent	Unstated
3	MCZ 22	Bembridge	Inshore	0.028	0.034	0.034	A5.4 subtidal mixed sediments	61.31	Site dependent	Maintain
							Maerl (Phymatolithon calcareum) bed	1 record	6	Recover
							Native oyster beds	Unstated	Site dependent	Recover
4	MCZ 19	Norris to Ryde	Inshore	NA	0.018	0.086	A5.3 subtidal mud	11.37	Unstated	Unstated
5	MCZ 23	Yarmouth to Cowes	Inshore	0.001	0.011	0.06	Native oyster beds	21 records	Site dependent	Maintain
							Peat and clay exposures	8 records	5	Recover
							Seagrass beds	1 record	6	Recover
6	MCZ 11.4	Folkestone Pomerania	Inshore	NA	0.005	0.012	A4.2 mod energy circalittoral rock	1.6	5	Recover
							Fragile sponge and anthozoan communities	3 records	6	Recover
							Subtidal sands and gravels	29.15	Unstated	Recover
7	MCZ 14	Offshore Brighton	Offshore	NA	NA	0.062	A4.1 high energy circalittoral rock	175.67	5	Recover
							A4.2 mod energy circalittoral rock	11.04	5	Recover
							A5.4 subtidal mixed sediments	675.92	Site dependent	Maintain
							Subtidal sands and gravels	458.19	Unstated	Recover
8	MCZ 17	Offshore Overfalls	Offshore	NA	NA	0.047	A5.4 subtidal mixed sediments	548.74	Site dependent	Recover
							Subtidal sands and gravels	438.94	Unstated	Recover
9	MCZ 7	Thanet Coast	Inshore	NA	NA	0.021	A4.2 mod energy circalittoral rock	8.37	3	Maintain
							A5.4 subtidal mixed sediments	13.46	Site dependent	Maintain
							Subtidal sands and gravels	6.04	Unstated	Maintain
10	MCZ 11.2	Dover to Folkestone	Inshore	NA	0	0.012	A3.1 high energy infralittoral rock	1.47	5	Recover
							Subtidal sands and gravels	1.25	Unstated	Maintain

11	MCZ 29.2	East Meridian (eastern half)	Offshore	NA	NA	0.011	A5.4 Subtidal mixed sediments	142.79	Site dependent	Recover
12	MCZ 29	East Meridian	Offshore	NA	NA	0.01	A5.4 Subtidal mixed sediments	279.36	Site dependent	Recover
13	MCZ 28	Utopia	Inshore	0	NA	0.008	Fragile sponge and anthozoan communities	1 record	6	Recover
14	MCZ 11.1	Dover to Deal	Inshore	NA	NA	0.005	A3.1 high energy infralittoral rock	2.06	5	Recover
							A5.4 subtidal mixed sediments	5.17	Site dependent	Maintain
							Littoral chalk communities	1.35	5	Recover
15	MCZ 10	The Swale Estuary	Inshore	NA	NA	0.002	A5.4 subtidal mixed sediments	13.53	Site dependent	Maintain
							Sheltered muddy gravels	11 records	Site dependent	Maintain
16	MCZ 9	Offshore Foreland	Offshore	NA	NA	0.001	A3.1 high energy infralittoral rock	3.1	5	Recover
							A4.1 high energy circalittoral rock	72.86	5	Recover
							A4.2 mod energy circalittoral rock	12.68	5	Recover
17	MCZ 31	Inner Bank	Inshore	0	0	0	A4.2 mod energy circalittoral rock	96.45	5	Recover
							A3.2 mod energy infralittoral rock	19.8	5	Recover
							Native oyster beds	1 record	Site dependent	Recover
18	MCZ 21	Wight-Barfleur Extension	Offshore	0	0	0	Subtidal sands and gravels	91.76	Unstated	Maintain
							A5.4 subtidal mixed sediments	70.13	Site dependent	Maintain
19	MCZ 30	Kentish Knock East	Inshore	0	0	0	A5.4 Subtidal mixed sediments	11.52	Site dependent	Unstated

Table 24 English Channel MCZs ranked according to their likely impact on hooks and lines.

				Annual value of landings affected (£million)		
Rank importance	MCZ ID	MCZ name	Location	RSG recommendation	Zoned management	Hooks and lines banned
1	MCZ 13.1	Beachy Head East	Inshore	NA	0.004	0.031
2	MCZ 16	Kingmere	Inshore	0.001	NA	0.001
3	MCZ 17	Offshore Overfalls	Offshore	NA	NA	0.375
4	MCZ 14	Offshore Brighton	Offshore	NA	NA	0.009
5	MCZ 29.2	East Meridian (eastern half)	Offshore	NA	NA	0.006
6	MCZ 23	Yarmouth to Cowes	Inshore	NA	NA	0.005
7	MCZ 9	Offshore Foreland	Offshore	NA	NA	0.004
8	MCZ 29	East Meridian	Offshore	NA	NA	0.004
9	MCZ 2	Stour & Orwell Estuaries	Inshore	0	NA	0.001

Table 25 English Channel MCZs and likely impact on ports.

	MCZ ID																				
Port	2	7	9	10	11.1	11.2	11.4	13.1	14	16	17	19	20	22	23	26	28	29	29.2	30	31
Bembridge														X			X				
Bonchurch														X							
Brixham							X											X	X		
Cowes												X			X						
Deal					X																
Dover					X	X															
Dungeness							X									X					X
Eastbourne								X													
Faversham		X		X																	
Felixstowe Ferry	X																				
Folkestone			X		X	X	X									X					
Hamble												X			X						
Harwich	X																				

Hastings						X											
Hythe												X					
Keyhaven									X		X						
Leigh-on-Sea			X													X	
Littlehampton							X										
Lymington								X	X	X	X						
Newhaven						X	X							X	X		
Newlyn														X	X		
Plymouth														X	X		
Portsmouth								X		X	X		X				
Queenborough			X														
Ramsgate		X		X	X												
Rye						X											
Selsey										X			X				
Shoreham						X	X							X	X		X
Shotley	X																
Southampton								X			X						
Southend																X	
Steephill										X							
Ventnar										X							
West Mersea																X	
Whitstable		X	X													X	
Yarmouth									X								

4.3 Finding Sanctuary MCZs

Impact on the mobile demersal gear sector

MCZs Chesil Beach and Stennis Ledges, Cape Bank and potentially Torbay will have the largest impact on dredgers (table 26).

MCZs North East of Haig Fras, Western Channel and South-West Deeps (West) will have the largest impact on bottom trawlers (table 27).

Impact on the static gear sector

MCZs Cape Bank, Western Channel, and potentially Greater Haig Fras will have the largest impact on fishermen using static nets (table 28).

MCZs South Dorset and Cape Bank will have the largest impact on fishermen using pots and traps (table 29).

MCZ Cape Bank will have the largest impact on fishermen using hooks and lines (table 30).

Impact on ports

There was no information provided by the Finding Sanctuary SEIA on the ports likely to be most affected by MCZs in this region.

Table 26 South west MCZs ranked according to their likely impact on dredging.

Rank importance	MCZ name	Location	Annual value of landings affected (£million) RSG recommendation	Zoned management	All dredgers banned	Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
1	Chesil Beach and Stennis Ledges	Inshore	NA	0.021	0.055	A5.1 Subtidal coarse sediment	26.15	6	Recover
						A5.2 Subtidal sand	4.27	6	Recover
2	Cape Bank	Inshore	NA	0.005	0.005	A4.2 Moderate energy circalittoral rock	19.5	6	Recover
						A5.1 Subtidal coarse sediment	308.11	6	Recover
3	Whitsand and Looe Bay	Inshore	NA	0.003	0.009	A5.1 Subtidal coarse sediment	25.61	4	Maintain
						A5.2 Subtidal sand	22.35	4	Maintain
						A4.2 Moderate energy circalittoral rock	Unstated	6	Maintain
						A3.1 High energy infralittoral rock	1.26	6	Maintain
4	South Dorset	Inshore	NA	0.002	0.002	A4.1 High energy circalittoral rock	30.62	6	Recover
						A4.2 Moderate energy circalittoral rock	7.43	6	Recover
						A5.1 Subtidal coarse sediment	27.67	4	Maintain
						A5.4 Subtidal mixed sediments	127.06	Site dependent	Maintain
						Subtidal chalk	4 records	5	Recover
5	South of Falmouth	Inshore	NA	0.002	0.002	A4.2 Moderate energy circalittoral rock	2.69	6	Recover
						A5.1 Subtidal coarse sediment	22.29	6	Recover
6	Western Channel	Offshore	NA	0.001	0.001	A5.1 Subtidal coarse sediment	756.2	6	Recover
						A5.4 Subtidal mixed sediments	175.42	Site dependent	Recover
						A4.2 Moderate energy circalittoral rock	676.23	6	Recover
7	Torbay	Inshore	NA	NA	0.011	A5.3 Subtidal mud	8.83	6	Recover
						Honeycomb worm (Sabellaria alveolata) reefs	1 record	6	Maintain
8	South of the Isles of Scilly	Offshore	NA	NA	0.003	A5.1 Subtidal coarse sediment	115.21	6	Recover
						A5.2 Subtidal sand	16.98	6	Recover
9	South-East of Falmouth	Offshore	NA	0	0.003	A5.1 Subtidal coarse sediment	24.35	6	Recover
10	South-West Deeps (East)	Offshore	0	0	0	A5.2 Subtidal sand	3934.32	4	Maintain
						A5.1 Subtidal coarse sediment	1747.24	6	Recover
						A6 Deep-sea bed	126.73	6	Recover
11	South-West Deeps (West)	Offshore	0	0	0	A5.2 Subtidal sand	1574.27	6	Recover

						A5.1 Subtidal coarse sediment	239.4	6	Recover
						A5.4 Subtidal mixed sediments	6.99	Site dependent	Recover
12	Greater Haig Fras	Offshore	0	0	0	A4.2 Moderate energy circalittoral rock	688.98	6	Recover
						A5.1 Subtidal coarse sediment	413.46	6	Recover
						A5.2 Subtidal sand	316.79	6	Recover
						A5.3 Subtidal mud	236.39	6	Recover
						A5.4 Subtidal mixed sediments	115.79	Site dependent	Recover
						Fragile sponge and anthozoan communities on subtidal rocky habitats	Unstated	Unstated	Maintain
13	The Canyons	Offshore	0	0	0	A6 Deep-sea bed	655.54	6	Recover
						A5.2 Subtidal sand	3.95	6	Recover
14	North-West of Jones Bank	Offshore	0	0	0	A5.3 Subtidal mud	388.45	6	Recover
						A5.1 Subtidal coarse sediment	3.75	6	Recover
15	Celtic Deep	Offshore	0	0	0	A5.3 Subtidal mud	347.79	6	Recover
						Mud habitats in deep water	127.25	6	Recover
16	East of Jones Bank	Offshore	0	0	0	A4.2 Moderate energy circalittoral rock	342.75	6	Recover
						A5.3 Subtidal mud	14.44	6	Recover
						A5.2 Subtidal sand	2.19	6	Recover
17	South of Celtic Deep	Offshore	0	0	0	A5.1 Subtidal coarse sediment	308.06	6	Recover
						A5.2 Subtidal sand	193.47	6	Recover
						A5.4 Subtidal mixed sediments	46.67	Site dependent	Recover
18	North of Lundy (Atlantic Array area)	Offshore	0	0	0	A5.1 Subtidal coarse sediment	294.06	4	Maintain
						A4.2 Moderate energy circalittoral rock	27.93	6	Maintain
						A5.2 Subtidal sand	24.86	4	Maintain
19	East of Haig Fras	Offshore	0	0	0	A5.1 Subtidal coarse sediment	235.53	6	Recover
						A5.2 Subtidal sand	154.65	6	Recover
						A4.2 Moderate energy circalittoral rock	9.79	6	Recover
20	North-East of Haig Fras	Offshore	0	0	0	A5.3 Subtidal mud	192.33	6	Recover
						A5.2 Subtidal sand	190.83	4	Maintain
						A5.1 Subtidal coarse sediment	56.34	4	Maintain
						A5.4 Subtidal mixed sediments	24.01	Site dependent	Recover

Table 27 South west MCZs ranked according to their likely impact on bottom trawling.

Rank importance	MCZ name	Location	Annual value of landings affected (£million) RSG recommendation	Zoned management	All BT banned	Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
1	North-East of Haig Fras	Offshore	NA	0.2	0.2	A5.1 Subtidal coarse sediment	56.34	4	Maintain
						A5.2 Subtidal sand	190.83	4	Maintain
						A5.3 Subtidal mud	192.33	6	Recover
						A5.4 Subtidal mixed sediments	24.01	Site dependent	Recover
2	Western Channel	Offshore	NA	0.143	0.143	A5.1 Subtidal coarse sediment	756.2	6	Recover
						A5.4 Subtidal mixed sediments	175.42	Site dependent	Recover
						A4.2 Moderate energy circalittoral rock	676.23	6	Recover
3	South-West Deeps (West)	Offshore	NA	0.097	0.097	A5.1 Subtidal coarse sediment	239.4	6	Recover
						A5.2 Subtidal sand	1574.27	6	Recover
						A5.4 Subtidal mixed sediments	6.99	Site dependent	Recover
4	Cape Bank	Inshore	NA	0.085	0.085	A4.2 Moderate energy circalittoral rock	19.5	6	Recover
						A5.1 Subtidal coarse sediment	308.11	6	Recover
5	South-West Deeps (East)	Offshore	NA	0.049	0.09	A5.1 Subtidal coarse sediment	1747.24	6	Recover
						A5.2 Subtidal sand	3934.32	4	Maintain
						A6 Deep-sea bed	126.73	6	Recover
6	East of Haig Fras	Offshore	NA	0.035	0.035	A4.2 Moderate energy circalittoral rock	9.79	6	Recover
						A5.1 Subtidal coarse sediment	235.53	6	Recover
						A5.2 Subtidal sand	154.65	6	Recover
7	North of Lundy (Atlantic Array area)	Offshore	NA	0.019	0.138	A4.2 Moderate energy circalittoral rock	27.93	6	Maintain
						A5.1 Subtidal coarse sediment	294.06	4	Maintain
						A5.2 Subtidal sand	24.86	4	Maintain
8	Whitsand and Looe Bay	Inshore	NA	0.012	0.035	A5.1 Subtidal coarse sediment	25.61	4	Maintain
						A5.2 Subtidal sand	22.35	4	Maintain
						A4.2 Moderate energy circalittoral rock	Unstated	6	Maintain
						A3.1 High energy infralittoral rock	1.26	6	Maintain
9	East of Jones Bank	Offshore	NA	0.006	0.006	A4.2 Moderate energy circalittoral rock	342.75	6	Recover
						A5.2 Subtidal sand	2.19	6	Recover
						A5.3 Subtidal mud	14.44	6	Recover

10	South of Celtic Deep	Offshore	NA		0.005	0.005	A5.1 Subtidal coarse sediment	308.06	6	Recover
							A5.4 Subtidal mixed sediments	46.67	Site dependent	Recover
							A5.2 Subtidal sand	193.47	6	Recover
11	South Dorset	Inshore	NA		0.004	0.01	A4.1 High energy circalittoral rock	30.62	6	Recover
							A4.2 Moderate energy circalittoral rock	7.43	6	Recover
							A5.1 Subtidal coarse sediment	27.67	4	Maintain
							A5.4 Subtidal mixed sediments	127.06	Site dependent	Maintain
							Subtidal chalk	4 records	5	Recover
12	Morte Platform	Inshore	NA		0.004	0.005	A4.1 High energy circalittoral rock	4.86	6	Maintain
							A4.2 Moderate energy circalittoral rock	14.5	6	Maintain
							A5.1 Subtidal coarse sediment	6.11	4	Maintain
13	The Canyons	Offshore	NA		0.004	0.004	A6 Deep-sea bed	655.54	6	Recover
							A5.2 Subtidal sand	3.95	6	Recover
14	South of Falmouth	Inshore	NA		0.003	0.003	A4.2 Moderate energy circalittoral rock	2.69	6	Recover
							A5.1 Subtidal coarse sediment	22.29	6	Recover
15	Chesil Beach and Stennis Ledges	Inshore	NA		0.002	0.005	A5.1 Subtidal coarse sediment	26.15	6	Recover
							A5.2 Subtidal sand	4.27	6	Recover
16	Greater Haig Fras	Offshore	NA		0.002	0.002	A4.2 Moderate energy circalittoral rock	688.98	6	Recover
							A5.1 Subtidal coarse sediment	413.46	6	Recover
							A5.2 Subtidal sand	316.79	6	Recover
							A5.3 Subtidal mud	236.39	6	Recover
							A5.4 Subtidal mixed sediments	115.79	Site dependent	Recover
							Fragile sponge and anthozoan communities on subtidal rocky habitats	Unstated	Unstated	Unstated
17	Bideford to Foreland Point	Inshore	NA		0.001	0.014	A5.1 Subtidal coarse sediment	54.2	4	Maintain
							A5.2 Subtidal sand	20.99	4	Maintain
							A3.2 Moderate energy infralittoral rock	3.99	6	Maintain
							A4.1 High energy circalittoral rock	1.42	6	Recover
							A3.1 High energy infralittoral rock	8.6	6	Maintain
							A2.3 Intertidal mud	7.71	Unstated	Maintain
							Honeycomb worm (Sabellaria alveolata) reefs	1 record	6	Maintain
18	South of the Isles of Scilly	Offshore	NA	NA		0.064	A5.1 Subtidal coarse sediment	115.21	6	Recover

						A5.2 Subtidal sand	16.98		6	Recover
19	Celtic Deep	Offshore	NA	NA	0.024	A5.3 Subtidal mud	347.79		6	Recover
						Mud habitats in deep water	127.25		6	Recover
20	South-East of Falmouth	Inshore	NA	0	0.018	A5.1 Subtidal coarse sediment	24.35		6	Recover
21	Torbay	Inshore	NA	NA	0.011	A5.3 Subtidal mud	8.83		6	Recover
						Honeycomb worm (Sabellaria alveolata) reefs	1 record		6	Maintain
22	Hartland Point to Tintagel	Inshore	NA	NA	0.006	A5.1 Subtidal coarse sediment	155.64		4	Maintain
						A5.2 Subtidal sand	141.07		4	Maintain
						A3.1 High energy infralittoral rock	1.43		6	Maintain
						A2.3 Intertidal mud	1.4	Unstated		Maintain
						Fragile sponge and anthozoan communities on subtidal rocky habitats	1 record	Unstated		Maintain
						Honeycomb worm (Sabellaria alveolata) reefs	1 record		6	Maintain
23	East of Celtic Deep	Offshore	NA	NA	0.002	A5.2 Subtidal sand	84.01		6	Recover
						A5.3 Subtidal mud	10.18		6	Recover
24	The Manacles	Inshore	NA	NA	0.002	A5.5 Subtidal macrophyte dominated sediment	1.03	Unstated		Maintain
						Maerl beds	1.01		6	Maintain
25	North-West of Jones Bank	Offshore	NA	NA	0.001	A5.2 Subtidal sand	5.9		6	Recover
						A5.3 Subtidal mud	388.45		6	Recover
						A5.1 Subtidal coarse sediment	3.75		6	Recover
26	Isles of Scilly	Inshore	0	0	0.001	A3.1 High energy infralittoral rock	3.57		6	Maintain
						A4.2 Moderate energy circalittoral rock	2.79		6	Maintain
						Fragile sponge and anthozoan communities on subtidal rocky habitats	Unstated	Unstated		Maintain
27	Skerries Bank and surrounds	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	101.79		6	Maintain
						A5.2 Subtidal sand	41.55		4	Maintain
						A5.1 Subtidal coarse sediment	12.5		4	Maintain
						A3.2 Moderate energy infralittoral rock	4.41		6	Maintain
						A5.3 Subtidal mud	4.06		4	Maintain
28	Padstow Bay and surrounds	Inshore	0	0	0	A3.1 High energy infralittoral rock	44.45		6	Maintain
						A5.1 Subtidal coarse sediment	23.59		4	Maintain
						A4.2 Moderate energy circalittoral rock	12.18		6	Maintain
						A4.1 High energy circalittoral rock	9.71		6	Maintain

Table 28 South west MCZs ranked according to their likely impact on static netting.

Rank importance	MCZ name	Location	Annual value of landings affected (£million)			Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
			RSG recommendation	Zoned management	All nets banned				
1	Cape Bank	Inshore	NA	0.064	0.088	A4.2 Moderate energy circalittoral rock	19.5	5	Recover
2	Western Channel	Offshore	NA	0.042	0.048	A5.4 Subtidal mixed sediments	175.42	Site dependent	Recover
						A4.2 Moderate energy circalittoral rock	676.23	5	Recover
3	East of Jones Bank	Offshore	NA	0.007	0.007	A4.2 Moderate energy circalittoral rock	342.75	5	Recover
4	South of Celtic Deep	Offshore	NA	0.006	0.032	A5.4 Subtidal mixed sediments	46.67	Site dependent	Recover
5	North-East of Haig Fras	Offshore	NA	0.001	0.013	A5.4 Subtidal mixed sediments	24.01	Site dependent	Recover
6	South of Falmouth	Inshore	NA	0.001	0.004	A4.2 Moderate energy circalittoral rock	2.69	5	Recover
7	Greater Haig Fras	Offshore	NA	0	0.158	A4.2 Moderate energy circalittoral rock	688.98	5	Recover
						A5.4 Subtidal mixed sediments	115.79	Site dependent	Recover
						Fragile sponge and anthozoan communities on subtidal rocky habitats	Unstated	Unstated	Unstated
8	East of Haig Fras	Offshore	NA	0	0.014	A4.2 Moderate energy circalittoral rock	9.79	5	Recover
9	Bideford to Foreland Point	Inshore	NA	0	0.012	A4.1 High energy circalittoral rock	1.42	5	Recover
						A2.3 Intertidal mud	7.71	Unstated	Maintain
10	South-West Deeps (East)	Offshore	NA	0	0.003	A6 Deep-sea bed	126.73	6	Recover
11	The Canyons	Offshore	NA	0	0.002	A6 Deep-sea bed	655.54	6	Recover
12	South-West Deeps (West)	Offshore	NA	0	0.001	A5.4 Subtidal mixed sediments	6.99	Site dependent	Recover
13	South Dorset	Inshore	0	0	0	A5.4 Subtidal mixed sediments	127.06	Site dependent	Maintain
						A4.1 High energy circalittoral rock	30.62	5	Recover
						A4.2 Moderate energy circalittoral rock	7.43	5	Recover
14	Skerries Bank and surrounds	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	101.79	3	Maintain
15	North of Lundy (Atlantic Array area)	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	27.93	3	Maintain
16	Bristows to the Stones	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	18.12	5	Recover
						A3.2 Moderate energy infralittoral rock	3.05	5	Recover

						A3.1 High energy infralittoral rock	Unstated	5	Recover
						A4.1 High energy circalittoral rock	Unstated	5	Recover
17	Morte Platform	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	14.5	3	Maintain
						A4.1 High energy circalittoral rock	4.86	3	Maintain
18	Padstow Bay and surrounds	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	12.18	3	Maintain
						A4.1 High energy circalittoral rock	9.71	3	Maintain
19	South of Portland	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	7.63	3	Maintain
						A5.4 Subtidal mixed sediments	3	Site dependent	Maintain
						A4.1 High energy circalittoral rock	1.54	3	Maintain

Table 29 South west MCZs ranked according to their likely impact on pots and traps.

			Annual value of landings affected (£million)						
Rank importance	MCZ name	Location	RSG recommendation	Zoned management	All pots banned	Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
1	South Dorset	Inshore	NA	0.019	0.02	A4.2 Moderate energy circalittoral rock	7.43	5	Recover
						A5.4 Subtidal mixed sediments	127.06	Site dependent	Maintain
						Subtidal chalk	4 records	5	Recover
2	Cape Bank	Inshore	NA	0.018	0.357	A4.2 Moderate energy circalittoral rock	19.5	5	Recover
3	Western Channel	Offshore	NA	0.008	0.01	A5.4 Subtidal mixed sediments	175.42	Site dependent	Recover
						A4.2 Moderate energy circalittoral rock	676.23	5	Recover
4	Bideford to Foreland Point	Inshore	NA	0.004	0.027	A2.3 Intertidal mud	7.71	Unstated	Maintain
5	South of Falmouth	Inshore	NA	0.003	0.017	A4.2 Moderate energy circalittoral rock	2.69	5	Recover
6	Greater Haig Fras	Offshore	0	0	0	A4.2 Moderate energy circalittoral rock	688.98	5	Recover
						A5.4 Subtidal mixed sediments	115.79	Site dependent	Recover
						Fragile sponge and anthozoan communities on subtidal rocky habitats	Unstated	Unstated	Unstated
7	The Canyons	Offshore	0	0	0	A6 Deep-sea bed	655.54	6	Recover
8	East of Jones Bank	Offshore	0	0	0	A4.2 Moderate energy circalittoral rock	342.75	5	Recover
9	South-West Deeps (East)	Offshore	0	0	0	A6 Deep-sea bed	126.73	6	Recover
						A5.4 Subtidal mixed sediments	6.99	Site	Recover

								dependent	
10	Skerries Bank and surrounds	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	101.79	3	Maintain
11	South of Celtic Deep	Offshore	0	0	0	A5.4 Subtidal mixed sediments	46.67	Site dependent	Recover
12	North of Lundy (Atlantic Array area)	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	27.93	3	Maintain
13	North-East of Haig Fras	Offshore	0	0	0	A5.4 Subtidal mixed sediments	24.01	Site dependent	Recover
14	Bristows to the Stones	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	18.12	5	Recover
						A3.2 Moderate energy infralittoral rock	3.05	5	Recover
						A3.1 High energy infralittoral rock	Unstated	5	Recover
						Fragile sponge and anthozoan communities on subtidal rocky habitats	Unstated	Unstated	Recover
15	Morte Platform	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	14.5	3	Maintain
16	Padstow Bay and surrounds	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	12.18	3	Maintain
17	East of Haig Fras	Offshore	0	0	0	A4.2 Moderate energy circalittoral rock	9.79	5	Recover
18	South of Portland	Inshore	0	0	0	A4.2 Moderate energy circalittoral rock	7.63	3	Maintain
						A5.4 Subtidal mixed sediments	3	Site dependent	Maintain
19	Studland Bay	Inshore	0	0	0	A5.4 Subtidal mixed sediments	3.74	Site dependent	Maintain

Table 30 South west MCZs and impact on hooks and lines.

Rank importance	MCZ name	Location	Annual value of landings affected (£million)		
			RSG recommendation	Zoned management	All pots banned
1	Cape Bank	Inshore	NA	0.1	0.1
2	Chesil Beach and Stennis Ledges	Inshore	NA	0.004	0.013
3	The Canyons	Offshore	NA	0	0.011
4	South-West Deeps (East)	Offshore	NA	0	0.003
5	Western Channel	Offshore	NA	0	0.001
6	Bideford to Foreland Point	Inshore	NA	0	0.001

4.4 Irish Sea MCZs

Impact on the mobile demersal gear sector

MCZs 3, 2 and 6 will have the greatest impact on dredging (table 31).

MCZs 6, 7, 2 and potentially MCZ 1 will have the greatest impact on bottom trawling (table 32).

Impact on the static gear sector

MCZ 11 is predicted to have an impact on static nets. The SEIA suggest that all remaining MCZs are unlikely to have an economic impact on fishermen using static nets (table 33).

MCZs 11, 3 and potentially MCZ 13 will have an impact on fishermen using pots and traps (table 34).

Hooks and lines are unlikely to be restricted in this region.

Impact on hand collectors

MCZs 11 and 14 could potentially have some economic impact on the activities of hand gatherers/ bait collectors but this has not been quantified by the SEIA.

Impact on ports

Eight MCZs are likely impact the landings made at eighteen ports in the Irish Sea region. Kilkeel, Ardglass and Portavogie are the ports likely to be most affected (table 35).

Table 31 Irish Sea MCZs ranked according to their likely impact on dredging.

Rank importance	MCZ ID	MCZ name	Location	Annual value of landings affected (£million)			Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
				RSG recommendation	Zoned management	All dredgers banned				
1	ISCZ 3	North St. George's Channel	Offshore	NA	0.08	0.08	A4.1 High energy circalittoral rock	9.48	6	Maintain
							A4.2 Moderate energy circalittoral rock	40.07	6	Maintain
							A5.1 Subtidal coarse sediment	901.06	4	Maintain
							A5.2 Subtidal sand	336.2	6	Recover
							A5.4 Subtidal mixed sediments	30.88	Site dependent	Maintain
							A5.6 Subtidal biogenic reefs	20.07	Unstated	Recover
							Subtidal sands and gravels	1222.49	Unstated	Recover
							Horse mussel beds	20.07	6	Recover
2	ISCZ 2	West of Walney	Inshore	NA	0.042	0.042	A5.2 Subtidal sand	71.98	6	Recover
							A5.3 Subtidal mud	156.37	6	Recover
							Mud habitats in deep water	80.38	6	Recover
							Sea-pens and burrowing megafauna	Overlaps with above	6	Recover
3	ISCZ 6	South Rigg	Offshore	NA	0.029	0.029	A4.3 Low energy circalittoral rock	21.09	6	Recover
							A5.2 Subtidal sand	28.83	6	Recover
							A5.3 Subtidal mud	96.28	6	Recover
							Mud habitats in deep water	42.09	6	Recover
							Sea-pens and burrowing megafauna	Overlaps with above	6	Recover
4	ISCZ 1	Mud Hole	Offshore	NA	NA	0.012	A5.3 Subtidal mud	72.65	6	Recover
							Mud habitats in deep water	34.8	6	Recover
							Sea-pens and burrowing megafauna	33.8	6	Recover
5	ISCZ 7	Slieve Na Griddle	Offshore	NA	0	0.009	A4.3 Low energy circalittoral rock	4.18	6	Recover
							A5.3 Subtidal mud	53.34	6	Recover
							Mud habitats in deep water	57.79	6	Recover
6	ISCZ 4	Mid st. Georges Channel	Offshore	0	0	0	Subtidal sands and gravels	760.86	Unstated	Recover
							A5.1 Subtidal coarse sediment	368.24	6	Recover
							A5.4 Subtidal mixed sediments	246.31	Site dependent	Recover

							A5.2 Subtidal sand	114.42		6	Recover
							A4.2 Moderate energy circalittoral rock	26.67		6	Maintain
7	ISCZ 5	North of Celtic Deep	Offshore	0	0	0	A5.1 Subtidal coarse sediment	616.88		6	Recover
							Subtidal sands and gravels	599.9	Unstated		Recover
							A5.2 Subtidal sand	32.62		6	Recover
8	ISCZ 8	Fylde Offshore	Inshore	0	0	0	A5.2 Subtidal sand	260.27		4	Maintain
							Subtidal sands and gravels	199.71	Unstated		Maintain
9	ISCZ 10	Allonby Bay	Inshore	0	0	0	Subtidal sands and gravels	35.04	Unstated		Maintain
							A5.1 Subtidal coarse sediment	22.05		4	Maintain
							A5.2 Subtidal sand	11.26		4	Maintain
							A2.7 Intertidal biogenic reefs	4.47	Unstated		Maintain
							Honeycomb worm (Sabellaria alveolata) reef	1.01		6	Maintain
							Blue mussel beds	Unstated		5	Maintain
							Peat and clay exposures	Unstated		5	Maintain
10	ISCZ 11	Cumbria Coast	Inshore	0	0	0	A2.2 Intertidal sand and muddy sand	5.01		4	Maintain
							A2.7 Intertidal biogenic reefs	1	Unstated		Recover
							Blue mussel beds	Unstated		5	Maintain
							Peat and clay exposures	Unstated		5	Maintain
11	ISCZ 5	North of Celtic Deep	Offshore	0	0	0	A4.2 Moderate energy circalittoral rock	2.33		6	Maintain
12	ISCZ 13	Sefton Coast	Inshore	0	0	0	Peat and clay exposures	Unstated		6	Recover

Table 32 Irish Sea MCZs ranked according to their likely impact on bottom trawling.

Rank importance	MCZ ID	MCZ name	Location	Annual value of landings affected (£million)			Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
				RSG recommendation	Zoned management	All BT banned				
1	ISCZ 6	South Rigg	Offshore	NA	1.015	1.015	A4.3 Low energy circalittoral rock	21.09	6	Recover
							A5.2 Subtidal sand	28.83	6	Recover
							A5.3 Subtidal mud	96.28	6	Recover
							Mud habitats in deep water	42.09	6	Recover
							Sea-pens and burrowing megafauna	Overlaps with above	6	Recover
2	ISCZ 7	Slieve Na Griddle	Offshore	NA	0.531	0.531	A4.3 Low energy circalittoral rock	4.18	6	Recover
							A5.3 Subtidal mud	53.34	6	Recover
							Mud habitats in deep water	57.79	6	Recover
3	ISCZ 2	West of Walney	Inshore	NA	0.383	0.383	A5.2 Subtidal sand	71.98	6	Recover
							A5.3 Subtidal mud	156.37	6	Recover
							Mud habitats in deep water	80.38	6	Recover
							Sea-pens and burrowing megafauna	Overlaps with above	6	Recover
4	ISCZ 3	North St. George's Channel	Offshore	NA	0.311	0.311	A4.1 High energy circalittoral rock	9.48	6	Maintain
							A4.2 Moderate energy circalittoral rock	40.07	6	Maintain
							A5.1 Subtidal coarse sediment	901.06	4	Maintain
							A5.2 Subtidal sand	336.2	6	Recover
							A5.4 Subtidal mixed sediments	30.88	Site dependent	Maintain
							A5.6 Subtidal biogenic reefs	20.07	Unstated	Recover
							Subtidal sands and gravels	1222.49	Unstated	Recover
							Horse mussel beds	20.07	6	Recover
5	ISCZ 13	Sefton Coast		NA	0.001	0.004	Peat and clay exposures	Unstated	6	Recover
6	ISCZ 1	Mud Hole	Offshore	NA	NA	1.056	A5.3 Subtidal mud	72.65	6	Recover
							Mud habitats in deep water	34.8	6	Recover
							Sea-pens and burrowing megafauna	33.8	6	Recover
7	ISCZ 11	Cumbria Coast	Inshore	NA	0	0.069	A2.2 Intertidal sand and muddy sand	5.01	4	Maintain
							A2.7 Intertidal biogenic reefs	1	Unstated	Recover

						Blue mussel beds	Unstated			4	Maintain
						Peat and clay exposures	Unstated			5	Maintain
8	ISCZ 4	Mid st. Georges Channel	0	0	0	Subtidal sands and gravels		760.86	Unstated		Recover
						A5.1 Subtidal coarse sediment		368.24		6	Recover
						A5.4 Subtidal mixed sediments		246.31	Site dependent		Recover
						A5.2 Subtidal sand		114.42		6	Recover
						A4.2 Moderate energy circalittoral rock		26.67		6	Maintain
9	ISCZ 5	North of Celtic Deep	0	0	0	A5.1 Subtidal coarse sediment		616.88		6	Recover
						Subtidal sands and gravels		599.9	Unstated		Recover
						A5.2 Subtidal sand		32.62		6	Recover
						A4.2 Moderate energy circalittoral rock		2.33		6	Maintain
10	ISCZ 8	Fylde Offshore	0	0	0	A5.2 Subtidal sand		260.27		4	Maintain
						Subtidal sands and gravels		199.71	Unstated		Maintain
11	ISCZ 10	Allonby Bay	0	0	0	Subtidal sands and gravels		35.04	Unstated		Maintain
						A5.1 Subtidal coarse sediment		22.05		4	Maintain
						A5.2 Subtidal sand		11.26		4	Maintain
						A2.7 Intertidal biogenic reefs		4.47	Unstated		Maintain
						Honeycomb worm (Sabellaria alveolata) reef		1.01		6	Maintain
						Blue mussel beds	Unstated			4	Maintain
						Peat and clay exposures	Unstated			5	Maintain

Table 33 Irish Sea MCZs ranked according to their likely impact on static netting.

				Annual value of landings affected (£million)						
Rank importance	MCZ ID	MCZ name	Location	RSG recommendation	Zoned management	All nets banned	Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
1	ISCZ 11	Cumbria Coast	Inshore	NA	0.001	0.015	A2.7 Intertidal biogenic reefs	1	Unstated	Recover
							Peat and clay exposures	Unstated	3	Maintain
2	ISCZ 3	North St. George's Channel	Offshore	0	0	0	Subtidal sands and gravels	1222.49	Unstated	Recover
							A4.2 Moderate energy circalittoral rock	40.07	3	Maintain
							A5.4 Subtidal mixed sediments	30.88	Site dependent	Maintain
							A5.6 Subtidal biogenic reefs	20.07	Unstated	Recover
							A4.1 High energy circalittoral rock	9.48	3	Maintain
3	ISCZ 4	Mid st. Georges Channel	Offshore	0	0	0	Subtidal sands and gravels	760.86	Unstated	Recover
							A5.4 Subtidal mixed sediments	246.31	Site dependent	Recover
							A4.2 Moderate energy circalittoral rock	26.67	3	Maintain
4	ISCZ 10	Allonby Bay	Inshore	0	0	0	Peat and clay exposures	Unstated	3	Maintain
							Subtidal sands and gravels	35.04	Unstated	Maintain
							A2.7 Intertidal biogenic reefs	4.47	Unstated	Maintain
5	ISCZ 5	North of Celtic Deep	Offshore	0	0	0	Subtidal sands and gravels	599.9	Unstated	Recover
							A4.2 Moderate energy circalittoral rock	2.33	3	Maintain
6	ISCZ 8	Fylde Offshore	Inshore	0	0	0	Subtidal sands and gravels	199.71	Unstated	Maintain
7	ISCZ 6	South Rigg	Offshore	0	0	0	A4.3 Low energy circalittoral rock	21.09	5	Recover
8	ISCZ 7	Slieve Na Griddle	Offshore	0	0	0	A4.3 Low energy circalittoral rock	4.18	5	Recover
9	ISCZ 13	Sefton Coast	Inshore	0	0	0	Peat and clay exposures	Unstated	5	Recover

Table 34 Irish Sea MCZs ranked according to their likely impact on pots and traps.

Rank importance	MCZ ID	MCZ name	Location	Annual value of landings affected (£million)			Broadscale habitat/ habitat FOCI	Area	Impact score	Conservation objectives
				RSG recommendation	Zoned management	All pots banned				
1	ISCZ 11	Cumbria Coast	Inshore	NA	0.001	0.015	A2.7 Intertidal biogenic reefs	1	Unstated	Recover
							Peat and clay exposures	Unstated	3	Maintain
2	ISCZ 3	North St. George's Channel	Offshore	NA	0.0001	0.0001	A4.1 High energy circalittoral rock	9.48	3	Maintain
							A4.2 Moderate energy circalittoral rock	40.07	3	Maintain
							A5.4 Subtidal mixed sediments	30.88	Site dependent	Maintain
							A5.6 Subtidal biogenic reefs	20.07	Unstated	Recover
							Subtidal sands and gravels	1222.49	Unstated	Recover
3	ISCZ 13	Sefton Coast	Inshore	0	0	0.002	Peat and clay exposures	Unstated	5	Recover
4	ISCZ 4	Mid st. Georges Channel	Offshore	0	0	0	Subtidal sands and gravels	760.86	Unstated	Recover
							A5.4 Subtidal mixed sediments	246.31	Site dependent	Recover
							A4.2 Moderate energy circalittoral rock	26.67	3	Maintain
5	ISCZ 5	North of Celtic Deep	Offshore	0	0	0	Subtidal sands and gravels	599.9	Unstated	Recover
							A4.2 Moderate energy circalittoral rock	2.33	3	Maintain
6	ISCZ 8	Fylde Offshore	Offshore	0	0	0	Subtidal sands and gravels	199.71	Unstated	Maintain
7	ISCZ 10	Allonby Bay	Inshore	0	0	0	Subtidal sands and gravels	35.04	Unstated	Maintain
							A2.7 Intertidal biogenic reefs	4.47	Unstated	Maintain
							Peat and clay exposures	Unstated	3	Maintain
8	ISCZ 6	South Rigg	Offshore	0	0	0	A4.3 Low energy circalittoral rock	21.09	5	Recover
9	ISCZ 7	Slieve Na Griddle	Offshore	0	0	0	A4.3 Low energy circalittoral rock	4.18	5	Recover

Table 35 Irish Sea MCZs and likely impacts on ports.

	MCZ ID							
Port	MCZ 1	MCZ 2	MCZ 3	MCZ 4	MCZ 6	MCZ 7	MCZ 11	MCZ 13
Ardglass	BT	BT	BT		BT	BT		
Barrow	BT, D	BT, D					BT	
Chester								BT, N
Fleetwood	BT	BT					BT	
Greenfield								N, PT
Holyhead			PT	HL				
Kilkeel	BT, D	BT, D	BT		BT, D	BT		
Kirkcudbright					D			
Liverpool								N, PT
Lytham St Annes								BT
Maryport	BT	BT					BT, N	
Milford Haven				N				
New Brighton								BT, HL, N
Portavogie	BT	BT	BT		BT	BT		
Southport								N
Thurstaston								BT, N
Whitehaven	BT, D	BT					BT, N	
Workington							BT	

5. SUMMARY

5.1 Impact on fishermen using mobile demersal gears

MCZs in the Balanced Seas and Irish Seas regions are likely to have the greatest impact on the activity of vessels using mobile demersal gears. This reflects the habitat COs of MCZs in these two regions (predominantly set to recover for MCZs in the ISCZ, and less so for MCZs in the Balanced Seas region), and also the intensity of vessels using mobile demersal gears in these two regions. MCZs that will have the greatest impact on dredgers and demersal trawlers will be predominantly offshore (table 36).

MCZ 29 East Meridian in the Balanced Seas region is expected to have large economic impacts on both dredging and bottom trawling.

The SAP score (1 being poor and 5 being excellent) suggests that the data underpinning the designation of MCZs in the Irish Sea is robust (4-5) whereas there is more uncertainty (2.67-4.3) surrounding the data that has been used to plan MCZs in the Balanced Seas (English Channel) region.

Table 36 National summary of MCZs that are likely to have the greatest impact on vessels using mobile demersal gears (D= dredgers, BT= bottom trawls).

						Annual value of landings affected (£million)			
Rank	Region	Activity	MCZ ID	MCZ name	Location	RSG recommendation	Zoned management	All gear banned	SAP score
1	BS	D	MCZ 29	East Meridian	Offshore	NA	1.252	1.252	3.33
2	ISCZ	BT	ISCZ 6	South Rigg	Offshore	NA	1.015	1.015	4.5
3	ISCZ	BT	ISCZ 7	Slieve Na Griddle	Offshore	NA	0.531	0.531	4.5
4	BS	BT	MCZ 29	East Meridian	Offshore	NA	0.504	0.504	3.33
5	NG	BT	NG 7	Markham's Triangle	Offshore	0.405	NA	0.405	3.33
6	ISCZ	BT	ISCZ 2	West of Walney	Inshore	NA	0.383	0.383	4.5
7	ISCZ	BT	ISCZ 3	North St. George's Channel	Offshore	NA	0.311	0.311	4
8	BS	D	MCZ 29.2	East Meridian (eastern half)	Offshore	NA	0.264	0.264	3
9	FS	BT		North-East of Haig Fras	Offshore	NA	0.2	0.2	2.5
10	NG	BT	NG 6	Silver Pit	Offshore	0.155	NA	0.155	2.75
11	FS	BT		Western Channel	Offshore	NA	0.001	0.001	3.5
12	BS	BT	MCZ 14	Offshore Brighton	Offshore	NA	0.114	0.837	2.67
13	NG	D	NG 9	Holderness Offshore	Offshore	0.106	NA	0.106	3
14	BS	D	MCZ 10	The Swale Estuary	Inshore	0.103	NA	0.103	2.33
15	FS	BT		South West Deeps (West)	Offshore	NA	0.097	0.097	3.5

5.2 Impact on vessels using static gears

The economic impact assessment general methods section hints that it may underestimate the impact of MCZs on revenues generated by static gears (see 3.3.5, pg 6, Annex H6). MCZs predominantly in the Balanced Seas and Finding Sanctuary regions are likely to have the greatest impact on the activity of vessels using static gears, and these are mainly inshore (table 37).

MCZs 31.1 Beachy Head East, and Cape Bank are the two MCZs that will have the greatest impact on static netting. MCZs 16 Kingmere and 13.1 Beachy Head East in the Balanced Seas region will have the greatest impact of fishermen using pots and traps. MCZ Cape Bank will have the greatest impact on the activities of fishermen using hooks and lines.

The SAP score suggests that for MCZs having the greatest impact on vessels using static gear in the BS, FS and NG regions that confidence in the data underpinning the conservation features of these MCZs is moderate (2.67-4.3).

Table 37 National summary of MCZs that are likely to have the greatest impact on vessels using static gears (N= static nets, PT= pots and traps).

						Economic cost (£million/yr)*			
Rank	Region	Activity	MCZ ID	MCZ name	Location	RSG recommendation	Zoned management	All gear banned	SAP score
1	BS	N	MCZ 13.1	Beachy Head East	Inshore	NA	0.104	0.809	3
2	FS	HL		Cape Bank	Inshore	NA	0.1	0.1	4
3	BS	PT	MCZ 16	Kingmere	Inshore	0.031	0.065	0.065	4
4	FS	N		Cape Bank	Inshore	NA	0.064	0.088	4
5	BS	PT	MCZ 13.1	Beachy Head East	Inshore	NA	0.044	0.554	3
6	FS	N		Western Channel	Offshore	NA	0.042	0.048	3.5
7	BS	PT	MCZ 22	Bembridge	Inshore	0.028	0.034	0.034	3.33
8	BS	N	MCZ 11.4	Folkestone Pomerania	Inshore	NA	0.025	0.047	3.5
9	FS	PT		South Dorset	Inshore	NA	0.019	0.02	3
10	FS	PT		Cape Bank	Inshore	NA	0.018	0.357	3
11	BS	PT	MCZ 19	Norris to Ryde	Inshore	NA	0.018	0.086	2.67
12	BS	N	MCZ 16	Kingmere	Inshore	0.018	0.018	0.035	4
13	BS	PT	MCZ 23	Yarmouth to Cowes	Inshore	0.001	0.011	0.06	3.33
14	FS	PT		Western Channel	Offshore	NA	0.008	0.01	3.5
15	FS	N		East of Jones Bank	Offshore	NA	0.007	0.007	2.5

5.3 Impact on ports

In addition to the impact on catches, MCZs could potentially have a negative impact on landings made at local ports and subsequent impact on jobs associated with the onshore activities of the industry, at least in the short term.

The four regional SEIAs differed in the amount of information they gave on the ports that were likely to be impacted through the designation of MCZs. For each MCZ Net Gain and the Irish Seas projects commented on the landings made at ports by fishing sector (i.e. dredging, bottom trawling, static nets etc), however no quantitative information on how the potential loss of landings would be split between ports in each of these regions. The information provided by the Balanced Seas project was more generic and not broken down by sector. Finding Sanctuary provided very little information on the ports most likely to be impacted in this region.

Tables 14, 20 and 30 provide an indication of which MCZs are likely to impact the landings made at regional ports. Whilst the tables seem to suggest that Whitby, Amble, Blyth, Bridlington and North Shields in the Net Gain region; Folkestone, Lymington, Portsmouth and Shoreham in the Balanced Seas region; and Kilkeel, Ardglass and Portavogie in the Irish Sea region could potentially be impacted by four or more MCZs it is not possible on the basis of the current information to make a sound judgement on which of these ports are likely to be hardest hit from an economic standpoint.

5.4 Uncertainty

The purpose of this report is to allow the fishing industry to objectively judge MCZs which could potentially have the greatest impact on commercial fisheries; however there is inherent uncertainty in the information that has been used to arrive at the results shown here. Additionally, there is uncertainty over what management objectives will be implemented. This empirical and political uncertainty is summarised in table 37.

Table 37 Uncertainties associated with the MCZ project.

Category	Uncertainty	Description
Empirical	Data showing the distribution of conservation features.	This uncertainty is reflected by the SAP score and also in the narrative of certain projects (e.g. Net Gain).
	Susceptibility of different habitat types to fishing.	JNCC and NE advice may be too generic, and this may only be resolved at a site by site basis.
	Economic impact.	Economic impact may be underestimated if certain fishermen were overlooked by the FisherMap exercise or overestimated if fishermen can make up their catches elsewhere. Information on the likely impact on landings made at local ports is sparse.
Political	Conservation objectives.	There is concern by the SAP of the COs of certain regions that have been predominantly set to maintain. If the COs were changed to recover this could have implications for the SEIA.
	Management measures.	Management measures may not necessarily follow the susceptibility of a conservation feature to fishing; if a feature sensitive to fishing is thought to occur at several places in an MCZ then a uniform ban may be implemented for pragmatic (i.e. enforceability) and precautionary reasons.
	Offshore MCZs.	There is uncertainty over whether the UK has the power to restrict the activities of foreign vessels outside 12nm.

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