

Marine Conservation Zones

Natural England's advice to Defra on proposed
Marine Conservation Zones for designation in 2013

Annex 5: Site-specific advice

November 2013

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This is a part of the publication 'Natural England's advice to Defra on proposed Marine Conservation Zones for designation in 2013' published separately to make downloading easier.

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A5.1 Introduction

A5.1.1 Purpose of the site specific advice

This annex contains site specific advice for the 25 inshore MCZs proposed by Defra in the 2012 Public Consultation in order for interested stakeholders to quickly view all relevant site information. This advice builds on, but does not repeat, the site-specific information given in the Selection Assessment Documents compiled by each regional MCZ project and submitted as part of the Final Recommendations Reports, the site-specific advice given in the 2012 SNCB advice and subsequent Amendments Report, and the site documents compiled by Defra for the Public Consultation.

For each pMCZ, the information provided in the tables in Section 4 of the main advice document (Summary of Results) has been extracted and any additional advice provided to Defra (see Section 3.4) is explained. The advice is based on the pMCZ boundaries as given in the consultation documents unless otherwise stated.

A5.1.2 Contents of the site-specific advice

Each site document contains the following information:

1. Map(s) of the features within the pMCZ for which advice is being provided.

The maps show presence and extent, where known, of all of the features¹ for which we have provided advice to Defra, including those features that Defra did not propose for designation in the 2012 Public Consultation due to insufficient evidence, other than those for which it is advised that there is no confidence in their presence in the site.

Features for which there are georeferenced extent data have been mapped as polygons. Where such extent data are not available, features have been mapped as points. For some sites, both polygon extent data and point data are available and in these cases both types are displayed, and the feature appears twice in the legend.

Features for which we have no spatial georeferenced data, or for which such data are confidential (for example, for commercial reasons), have not been mapped and are not listed in the legend. Information about these features can be found in the text about the site and in the Summary of Results tables (Section 4).

Due to the scale used, and the need for the maps to show the whole pMCZ, some features of very limited spatial extent, such as intertidal habitats, are not easily visible. However, their presence in the site is confirmed by the feature being listed in the legend.

It should be noted that the maps do not indicate the confidence of the feature data. The assessment of the confidence in the evidence for feature presence and extent is given in the following section of the site-specific advice.

For pMCZs with many features, BSHs and FOCI have been presented on two separate maps for clarity. Due to the complex nature of pMCZ Isles of Scilly, the feature mapping for this site has been split into the 11 sub-sites, with an overview map showing the locations of each sub-site within the pMCZ as a whole.

¹ The single exception to this is subtidal sand in the AIn Estuary – the reason this has not been mapped is explained in the advice for this site.

2. Table summarising Natural England’s advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature of the site

This table is extracted from the summary tables in Section 4 (Summary of Results). In the first table for each pMCZ, which summarises our 2013 confidence assessments and conservation objectives for each feature, we have included the feature status at the time of the 2012 Defra Public Consultation. This refers to whether Defra proposed the feature for designation in 2013 or if Defra stated that the feature required further evidence prior to designation. If Defra proposed the feature for designation, we have used the terminology ‘Sufficient evidence for designation’. If Defra stated further evidence was required, we have used the terminology ‘Further evidence required for designation’. In some instances, Defra has proposed features for where our confidence in presence and/or extent is low, this is due to these features being considered highly sensitive.

3. Table listing supporting documentation and reference materials

This table lists the key documents and datasets relevant to each pMCZ. Where appropriate, the datasets are listed in code form and the full reference can be obtained from Table 4 (Section 4.3).

4. Audit trail for the development of the site-specific advice

This section contains two tables that set out the rationale for any changes in assessments since Natural England’s advice published in July 2012 or the Amendments Report published in December 2012, and the advice given in 2013 for:

- Confidence assessments of presence and extent of features
- Recommended conservation objectives and assessment of certainty of these.

5. Additional advice

This covers additional advice provided on request to Defra on features and boundaries. For features, clarification is given on the presence and extent:

- Where evidence has resulted in significant changes to which features are proposed for protection within the site
- In response to queries from Defra arising from responses to the Public Consultation or input from other sources during the Defra final decision-making process, as described in Section 3.4.2 of the main document.

Additional advice on features is given for the following pMCZs: AIn Estuary, Stour and Orwell Estuaries, Blackwater, Crouch, Roach and Colne Estuaries, Beachy Head West, Pagham Harbour, Hythe Bay, Chesil Beach and Stennis Ledges, Tamar Estuary, Whitsand and Looe Bay, Upper Fowey and Pont Pill, Isles of Scilly, Padstow Bay and Surrounds, Fylde Offshore, Hilbre Island and Cumbria Coast.

For boundaries, the advice describes the responses provided to Defra in relation to their queries as described in Section 3.4.2. These responses include:

- More precise delineation of the landward boundary of coastal pMCZs as required for designation orders. This applies to AIn Estuary, Blackwater, Crouch, Roach and Colne Estuaries, Medway Estuary and Pagham Harbour.
- Advice to Defra on the ecological implications of changes to the pMCZ boundaries proposed through the Public Consultation. This applies to pMCZs Stour and Orwell Estuaries, Beachy Head West, Torbay, Whitsand and Looe Bay, The Manacles and Padstow Bay and Surrounds.

- A proposal for a small boundary change to extend Cumbria Coast pMCZ to include the full known extent of two recommended features.

6. Additional surveys

Following submission of the regional MCZ project final recommendations, and the SAP's advice on these recommendations, it was recognised that further verification work was needed for the sites to provide the best understanding of the presence and extent of features within each site. Defra therefore commissioned verification surveys under contract MB120 to improve the evidence base for the sites. In addition, for some sites, specific surveys were commissioned where features needed specialist knowledge for the identification and survey techniques (for example, Defolin's snail for Paghham Harbour pMCZ).

7. Assessment of risk to the site

This section provides a brief summary of the assessment of risk to the pMCZ, as described in Section 4.6. Sites are considered to be at a higher risk of damage or deterioration either as a result of a risk score of 50% or more, or because of the presence of a highly sensitive feature.

A5.2 AIn Estuary NG 13a

A5.2.1 Site feature maps

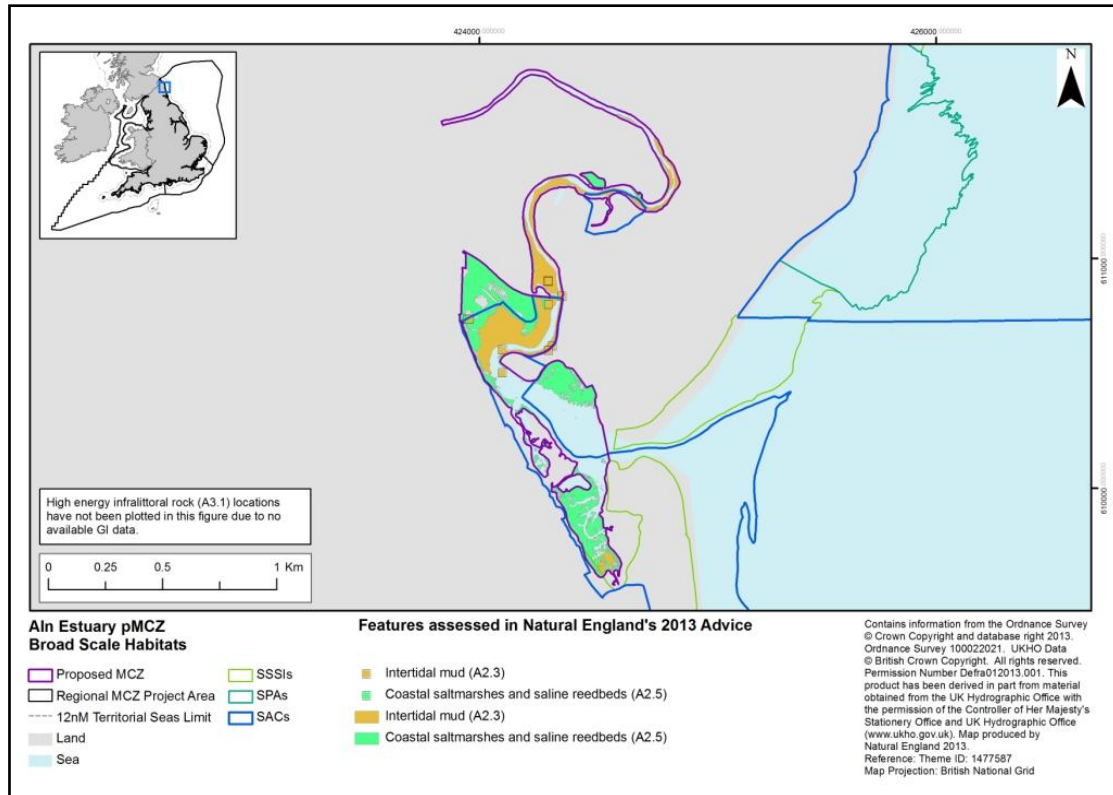


Figure 1 Location of mapped broad-scale habitats in pMCZ AIn Estuary NG 13a

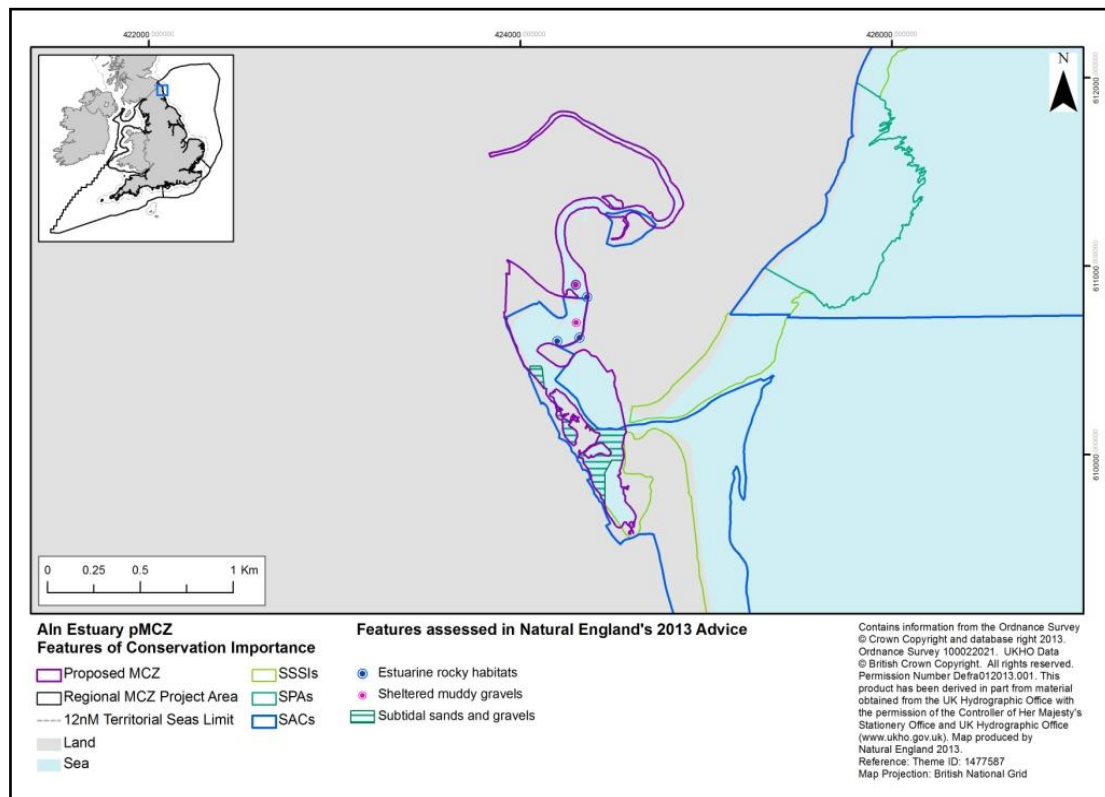


Figure 2 Location of mapped features of conservation importance in pMCZ AIn Estuary NG 13a

A5.2.2 Summary of Natural England's advice

Table 1 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature of the site for pMCZ Aln Estuary NG 13a

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A2.3 Intertidal mud	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A2.5 Coastal saltmarsh and saline reedbeds	Sufficient evidence for designation	High	High	Maintain	More certain
Broad-scale habitat	A3.1 High energy infralittoral rock	Further evidence required for designation	No confidence	No confidence	No confidence in CA so no CO given	No CO so no assessment of certainty
Broad-scale habitat	A5.2 Subtidal sand	Not assessed, proposed as a potential replacement feature for the subtidal sands and gravels HOCI	Low	Low	Maintain	Less certain Natural England does not recommend this feature for designation due to a current lack of evidence
Habitat of conservation importance	Estuarine rocky habitat	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Habitat of conservation importance	Sheltered muddy gravels	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Habitat of conservation importance	Subtidal sands and gravels	Further evidence required for designation	Low	Low	Maintain	Less certain Natural England does not recommend this feature for designation due to a preference to

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
						designate the underlying BSH and a current lack of evidence

Table 2 Supporting documentation, reference materials and relevant survey details for pMCZ AIn Estuary NG 13a

Document title/survey code	Document/survey purpose	Location
JNCC. <i>Marine nature conservation review sector 5. South-east Scotland and north-east England</i> . Peterborough: JNCC, 1998	Biotope classification	http://jncc.defra.gov.uk/page-2742
Net Gain. <i>The North Sea Marine Conservation Zone Project: Final Recommendations Submission to Natural England & JNCC</i> . Hull: Net Gain, 2011	Final report from Net Gain detailing the final rMCZs for the Net Gain region	http://publications.naturalengland.org.uk/file/1811014
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 5. – Net Gain – Sites proposed for designation in 2013</i> . London: Defra, 2012e	Defra's Public Consultation on the rMCZs in the Net Gain region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82725/mcz-annex-a1-part5-121213.pdf
M_00059	MB102 Sample Point Data for HOCl (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference

M_00308	MESH data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00361	MCZ Photo Evidence Database. Coordinate format in decimal degrees	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.2.3 Audit trail for the development of Natural England's advice

Table 3 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ AIn Estuary NG 13a

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A2.3 Intertidal mud	High	Moderate	High	Moderate	No change
A2.5 Coastal saltmarsh and saline reedbeds	High	Moderate	High	High	New data from data source unavailable at time of consultation: georeferenced photographs and aerial photography added in 2013 (M_00361)
A3.1 High energy infralittoral rock	Low	Low	No confidence	No confidence	Modelled data for this feature are contradicted by higher-quality dataset
A5.2 Subtidal sand	Not assessed. Proposed new feature	Not assessed. Proposed new feature	Low	Low	Feature not assessed in 2012 as it was not recommended by the regional project; however, SNCB advice is that the underlying BSH should be designated in preference to overlapping HOCI and so this feature was assessed in 2013 as the underlying BSH of the HOCI subtidal sands and gravels. It has low confidence and is not recommended for designation by Natural England due to a current lack of evidence
Estuarine rocky habitat	High	Moderate	High	Moderate	No change

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
Sheltered muddy gravels	Moderate	Low	Moderate	Moderate	New data from data source unavailable in 2012: georeferenced photographs added in 2013 (M_00361)
Subtidal sands and gravels	Low	Low	Low	Low	No change. This feature is not recommended for designation due to a preference to designate the underlying BSH and a current lack of evidence

Table 4 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ AIn Estuary NG 13a

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A2.3 Intertidal mud	Maintain	Maintain	No change	Relatively certain	More certain	No change
A2.5 Coastal saltmarsh and saline reedbeds	Maintain	Maintain	No change	Relatively certain	More certain	No change
A3.1 High energy infralittoral rock	Maintain	No confidence in feature so no CO given	Modelled data for this feature are contradicted by higher-quality dataset	Relatively uncertain	No CO given so no assessment of certainty	No confidence in feature presence and extent so no CO given and no assessment of certainty
A5.2 Subtidal sand	Not assessed. Proposed new feature	Maintain	Feature not proposed in 2012. This feature is proposed as a potential replacement feature for HOCI_21 subtidal sands and gravels	Not assessed. Proposed new feature	Less certain	Feature not assessed in 2012 as it was not recommended by the regional project, however, SNCB advice is that the underlying BSH should be designated in preference to overlapping HOCI and so this feature was assessed in 2013 as the underlying BSH of the HOCI subtidal sands and gravels. It has low confidence and is not recommended for designation by Natural England due to a current lack of evidence
Estuarine rocky habitat	Maintain	Maintain	No change	Relatively certain	More certain	No change
Sheltered muddy gravels	Maintain	Maintain	No change	Relatively certain	More certain	No change
Subtidal sands and gravels	Maintain	Maintain	No change	Relatively uncertain	Less certain	No change. This feature is not recommended for designation due to a preference to designate the underlying BSH and a

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
						current lack of evidence

A5.2.4 Additional advice

A5.2.4.1 Advice on specific features

The SNCBs have advised that when the HOCl subtidal sands and gravels (HOCl_21) and either of the underlying broad-scale habitats, subtidal coarse sediment (A5.1) and/or subtidal sand (A5.2), are both recommended for designation within a given MCZ, there is no need to designate the HOCl as a feature of the site, as it will already be protected by the broad-scale habitat. However, the Net Gain regional project recommended the inclusion of the subtidal sands and gravels HOCl feature within the Aln Estuary rMCZ, but not BSH A5.2 (because of the large amounts of this BSH in other Net Gain rMCZs).

There is low confidence in the presence and extent of the HOCl subtidal sands and gravels within the Aln Estuary pMCZ. There is also low confidence in the presence and extent of BSH subtidal sand in the pMCZ. What evidence is available for subtidal sand only provides evidence of the presence of the parent feature, not specifically subtidal sand. On the basis of the intertidal habitat data we have for the site, it seems equally likely that the subtidal habitat within the MCZ comprises subtidal mud and subtidal gravel instead of (or as well as) sand. In addition, it is worth noting that there is only a narrow band of subtidal habitat in the pMCZ (the River Aln channel itself). It is therefore debatable whether there is a viable patch of subtidal sand within the site, even if it is present.

Natural England advises that where evidence of presence and extent exists, the broad-scale habitat subtidal sands would be designated in preference to the HOCl subtidal sands and gravels. In pMCZ Aln Estuary, there is a current lack of evidence to recommend designating either the BSH or the HOCl, but should such evidence be gathered to demonstrate the existence of the feature, we would recommend that the appropriate BSH be designated rather than the HOCl.

A5.2.4.2 Advice on boundaries

The MCZ boundary presented in the December 2012 Defra Public Consultation was incorrect, as it omitted two areas of coastal saltmarsh recently created by a managed realignment scheme and lying above the mapped MHW line, which the regional project stakeholders specifically sought to include within the MCZ.

These two areas were brought into the rMCZ to protect A2.5 coastal saltmarsh habitats created by managed realignment of flood defences carried out by the Environment Agency's FourShores project. The MCZ partially overlaps with the Alnmouth Saltmarsh and Dunes SSSI, which already protects over 50% of the coastal saltmarsh within the MCZ. However, the two managed realignment areas, an additional area of saltmarsh adjacent to Alnmouth village (although this is shown on maps as below MHW), and thin bands of saltmarsh north of the road bridge all fall outwith the SSSI. If areas above MHW were not protected within the MCZ it would considerably reduce the conservation value of the MCZ.

A5.2.4.3 Additional surveys

No new survey work has been carried out on this site.

A5.2.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive features: coastal saltmarshes and saline reedbeds, and sheltered muddy gravels. Neither of these has a conservation objective of Recover.

A5.3 Stour and Orwell Estuaries BS 02

A5.3.1 Site feature maps

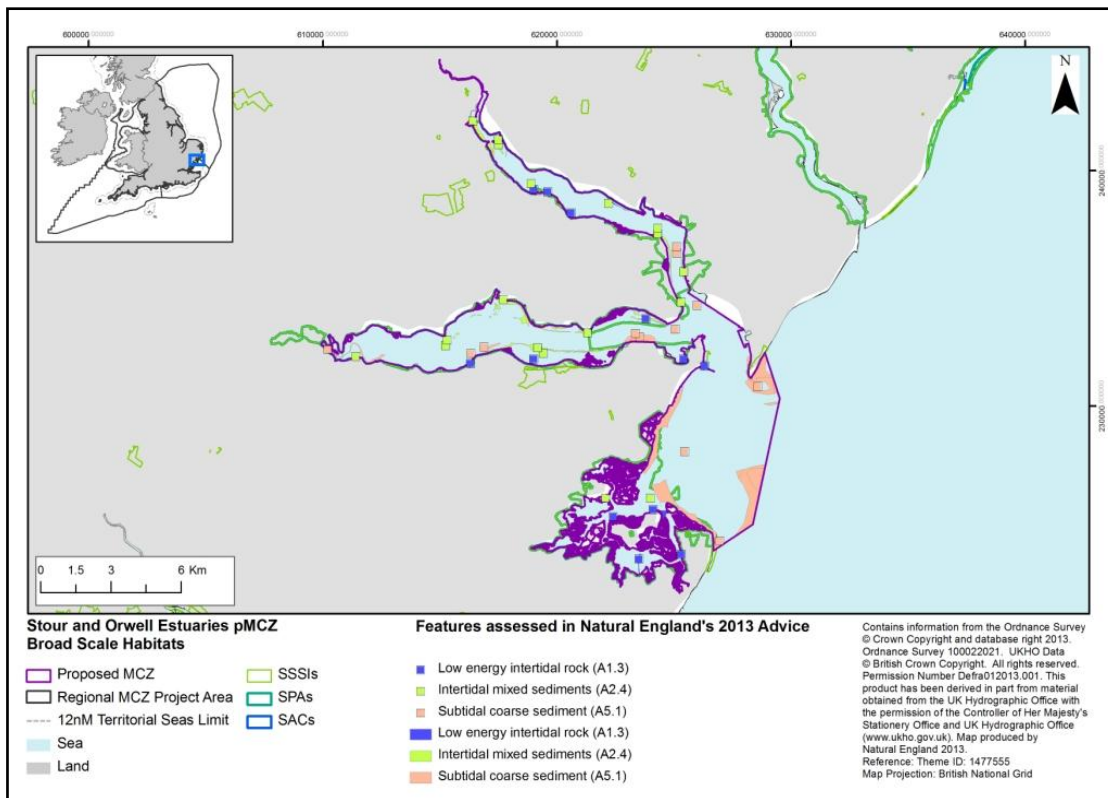


Figure 3 Location of mapped broad-scale habitats in pMCZ Stour and Orwell Estuaries BS 02

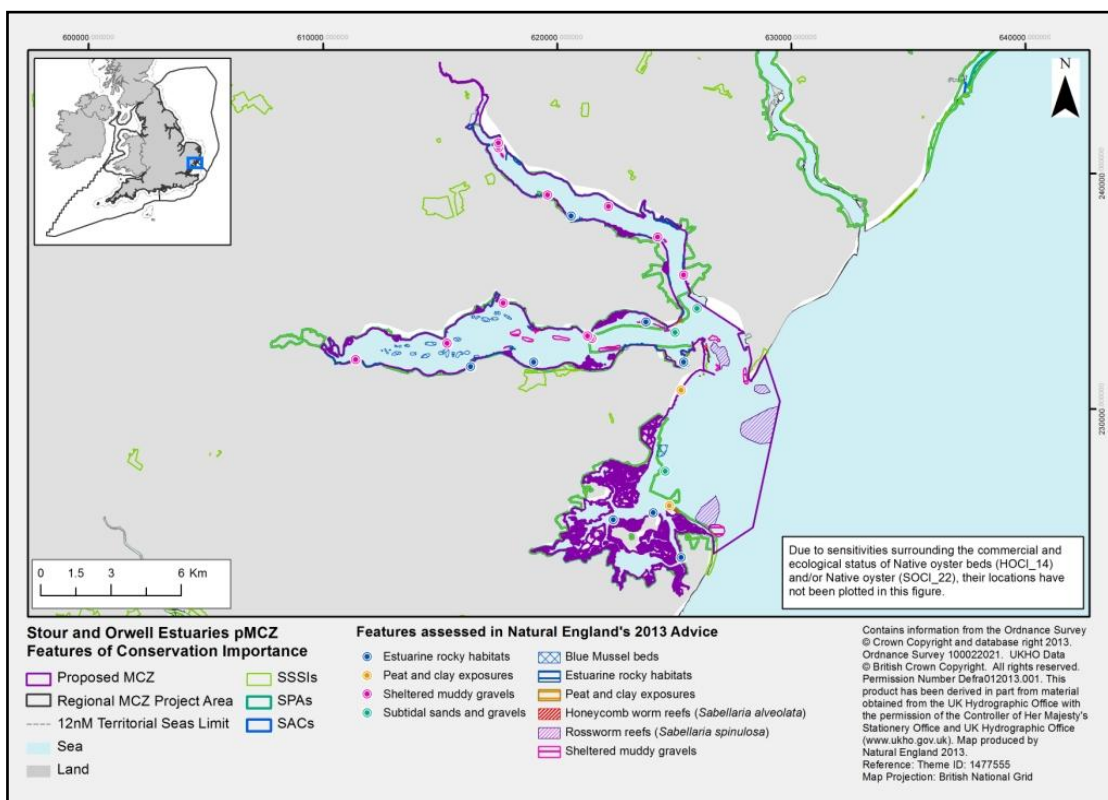


Figure 4 Location of mapped features of conservation importance in pMCZ Stour and Orwell Estuaries BS 02

A5.3.2 Summary of Natural England's advice

Table 5 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for pMCZ Stour and Orwell Estuaries BS 02

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A1.3 Low energy intertidal rock	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A2.4 Intertidal mixed sediments	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A5.1 Subtidal coarse sediment	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Habitat of conservation importance	Blue mussel beds	Further evidence required for designation	Low	Low	Maintain	More certain
Habitat of conservation importance	Estuarine rocky habitats	Further evidence required for designation	High	High	Maintain	More certain
Habitat of conservation importance	Honeycomb worm reef (<i>Sabellaria alveolata</i>)	Sufficient evidence for designation	Low	Low	Recover	More certain
Habitat of conservation importance	Native oyster beds	Sufficient evidence for designation	Moderate	Moderate	Recover	More certain
Habitat of conservation importance	Peat and clay exposures	Further evidence required for designation	High	High	Maintain	More certain
Habitat of conservation importance	Ross worm reef (<i>Sabellaria spinulosa</i>)	Sufficient evidence for designation	High	High	Recover	More certain
Habitat of conservation importance	Sheltered muddy gravels	Further evidence required for designation	High	High	Recover	Less certain
Habitat of conservation	Subtidal sands and gravels	Sufficient evidence for	Moderate	Moderate	Maintain - This feature is no	More certain

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
importance		designation			longer recommended for designation as the habitat description overlaps with the recommended feature subtidal coarse sediment A5.1	

Table 6 Supporting documentation, reference materials and relevant survey details for pMCZ Stour and Orwell Estuaries BS 02

Document title/survey code	Document /survey purpose	Location
Balanced Seas. <i>Balanced Seas Marine Conservation Zone Project: Final Recommendations</i> . Canterbury: Balanced Seas, 2011	Final report from Balanced Seas detailing the final rMCZs for the Balanced Seas region	http://publications.naturalengland.org.uk/file/1571352
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report</i> . Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 1. – Balanced Seas – Sites proposed for designation in 2013</i> . London: Defra, 2012a	Defra's Public Consultation on the rMCZs in the Balanced Seas region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82722/mcz-annex-a1-part1-121213.pdf
M_00007	English Heritage Coastal Peat	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00025	1983–2009 Environment Agency Biotope Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH Data: 2004 to current date	See Table 4 in Section 4.3 of the main advice document for the full reference

Document title/survey code	Document /survey purpose	Location
M_00310	Marine Recorder 1986–2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00317	Natural England Stour and Orwell rMCZ Verification Survey	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00332	Consultation Response from Harwich Haven Authority	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00085	Outer Thames Estuary Habitat Map – MALSF	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00334	Unicomarine 2005 Harwich Harbour Authority Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00336	Unicomarine 2005 Orwell Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00337	Unicomarine 2005 Stour Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00340	Environment Agency Water Framework Directive Subtidal Benthic Infauna Survey 2011 – Stour Estuary	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00059	MB102 Sample Point Data for HOCl (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00351	Eastern IFCA 2004 Stour and Orwell Oyster Survey	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00352	Eastern IFCA 2006 Stour and Orwell Oyster Survey	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00353	Eastern IFCA 2007 Stour and Orwell Oyster Survey	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00354	Eastern IFCA 2009 Stour and Orwell Oyster Survey	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00355	Eastern IFCA 2010 Stour and Orwell Oyster survey	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00356	Eastern IFCA 2012 Stour and Orwell Oyster Survey	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00055	MB102 British Geological Survey (BGS) Modelled Habitat Map for Subtidal Sands and Gravels (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.3.3 Audit trail for the development of Natural England's advice

Table 7 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Stour and Orwell Estuaries BS 02

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A1.3 Low energy intertidal rock	Moderate	Low	High	High	Increase in extent confidence due to verification survey and data from Harwich Haven Authority. Relevant survey codes: M_00317, M_00332, M_00308, M_00310
A2.4 Intertidal mixed sediments	Moderate	Low	High	High	Increase in extent confidence due to verification survey and data from Harwich Haven Authority. Relevant survey codes: M_00317, M_00332, M_00308, M_00310
A5.1 Subtidal coarse sediment	Moderate	Moderate	High	Moderate	Increase in extent confidence due to data from Harwich Haven Authority. Relevant survey codes: M_00332, M_00332, M_00334, M_00336, M_00340
Blue mussel beds	Low	Low	Low	Low	No change
Estuarine rocky habitats	Low	Low	High	High	Increase in extent confidence due to verification survey. Relevant survey code: M_00317
Honeycomb worm reef (<i>Sabellaria alveolata</i>)	Moderate	Low	Low	Low	Decrease in extent confidence due to verification survey. Relevant survey code: M_00317
Native oyster beds	High	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and new data from the Eastern IFCA. Relevant survey codes: M_00354, M_00355, M_00356
Peat and clay exposures	Low	Low	High	High	Increase in extent confidence due to verification survey. Relevant survey code: M_00317
Ross worm reef	Low	Low	High	High	Increase in extent confidence

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
(<i>Sabellaria spinulosa</i>)					due to verification survey. Relevant survey code: M_00317
Sheltered muddy gravels	High	Low	High	High	Increase in extent confidence due to verification survey. Relevant survey code: M_00317
Subtidal sands and gravels	High	Moderate	Moderate	Moderate	Change due to application of new guidance on use of Protocol E. This feature is no longer recommended for designation as the habitat description overlaps with the recommended feature subtidal coarse sediment A5.1

Table 8 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Stour and Orwell Estuaries BS 02

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A1.3 Low energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.4 Intertidal mixed sediments	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.1 Subtidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Blue mussel beds	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Estuarine rocky habitats	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Honeycomb worm reef (<i>Sabellaria alveolata</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
Native oyster beds	Recover	Recover	No change	Reasonably certain	More certain	No change
Peat and clay exposures	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Ross worm reef (<i>Sabellaria spinulosa</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
Sheltered muddy gravels	Recover	Recover	No change	Reasonably certain	Less certain	There is conflicting information on exposure for this feature. The original VA suggests potentially damaging fishing activity overlapping with feature. Local adviser knowledge, local group and RSG suggest low exposure

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
						to fishing activity
Subtidal sands and gravels	Maintain	Maintain	This feature is no longer recommended for designation as the habitat description overlaps with the recommended feature subtidal coarse sediment A5.1	Reasonably certain	More certain	Low levels of activity overlap feature resulting in low vulnerability

A5.3.4 Additional advice

A5.3.4.1 Advice on specific features

Natural England gave specific advice to Defra on our assessment for low energy intertidal rock. New data from the verification survey (M_00317) show that the extent of this feature within the area known as Bathside Bay is greater than understood in 2012. Bathside Bay is the subject of an approved planning consent for port development, involving reclamation of an intertidal area. As the development has yet to be progressed, our advice on the site and boundary is based on the current position of the MHW mark in this area. However, as the planning consent was granted prior to the original Balanced Seas recommendations in 2011, it has always been recognised that the upper boundary of the pMCZ in this area would follow the actual position of MHW either before (or after) the port development. In the event of the development going ahead, our advice for this feature may therefore change as the development may affect the condition of this feature.

New data obtained by Natural England (M_00308) have shown that the extent of ross worm reef (*Sabellaria spinulosa*) is greater than understood in 2012. It is now known that there is an additional area of *Sabellaria spinulosa* adjacent to the main dredged channel.

Please note JNCC and Natural England have provided guidance that the HOCl subtidal sands and gravels (HOCl_21) and the broad-scale habitats subtidal sand (A5.2) and/or subtidal coarse sediment (A5.1) overlap, and that where the HOCl was recommended only the broad-scale habitats should be designated and given a conservation objective. As a result, subtidal sands and gravels are no longer recommended for this site in preference for the designation of subtidal coarse sediment.

A5.3.4.2 Advice on boundaries

Discussions took place with Defra regarding the significantly reduced extent of subtidal coarse sediment highlighted by new data (M_00332, M_00334, M_M_00336, M_00340), meaning that this feature no longer meets the viability criteria. Defra also requested advice from Natural England in response to the port sector's consultation response requesting that the areas of port operation should be excluded from the pMCZ. The discussions sought to identify a proposed new boundary that addressed both these issues.

However, given new data that show an increase in the extent of other features in the outer estuary such as *Sabellaria spinulosa*, it was not possible to suggest a revised boundary excluding some, or all, of the port operational areas, that would not have a significant impact on the viability of the site.

Natural England's advice therefore remains that the consultation boundary is the most appropriate for the range of features within this site.

A5.3.4.3 Additional surveys

A verification survey has been carried out by APEM and Marine Ecological Surveys Ltd to verify intertidal features and the results have been used in the development of this advice. The survey code is M_00317, please see Table 4 in Section 4.3 of the main document for the full reference.

A5.3.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive features: honeycomb worm reef (*Sabellaria alveolata*), native oyster beds, peat and clay exposures, ross worm reef (*Sabellaria spinulosa*) and sheltered muddy gravels. Of these, honeycomb worm reef (*Sabellaria alveolata*), native oyster beds, ross worm reef (*Sabellaria spinulosa*) and sheltered muddy gravels all have a conservation objective of Recover.

A5.4 Blackwater, Crouch, Roach and Colne Estuaries BS 03

A5.4.1 Site feature maps

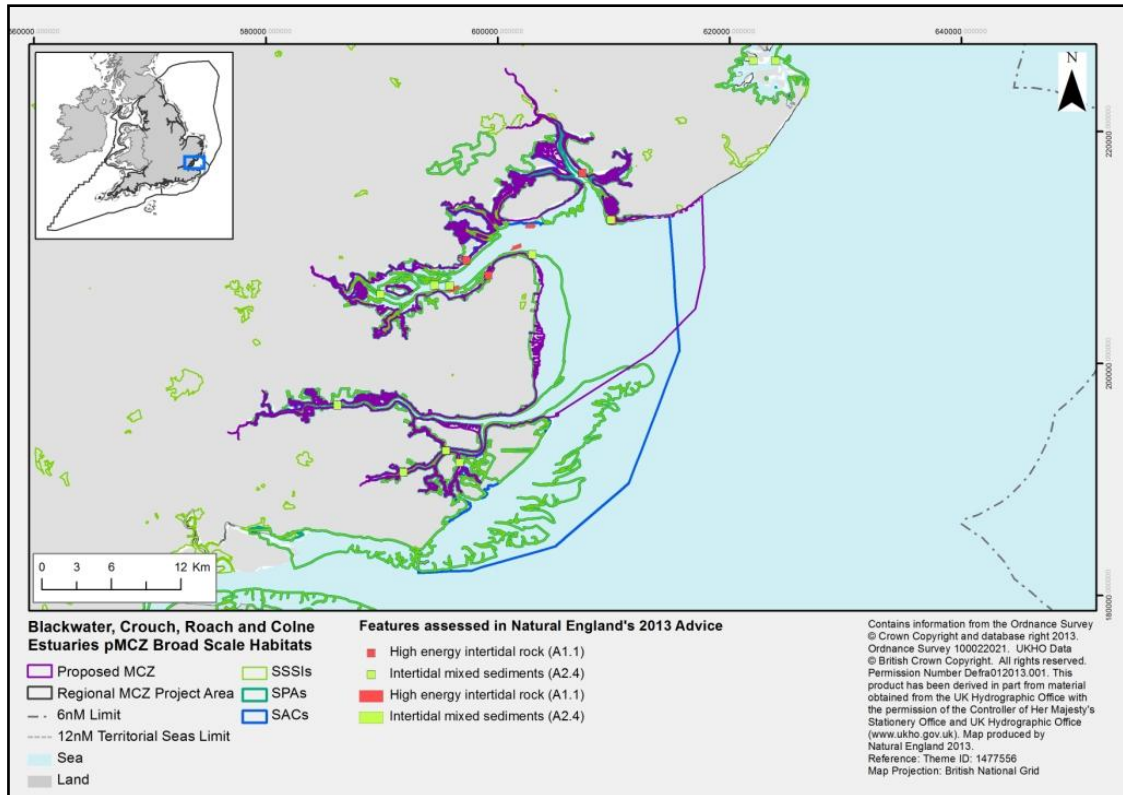


Figure 5 Location of mapped broad-scale habitats in pMCZ Blackwater, Crouch, Roach and Colne Estuaries BS 03

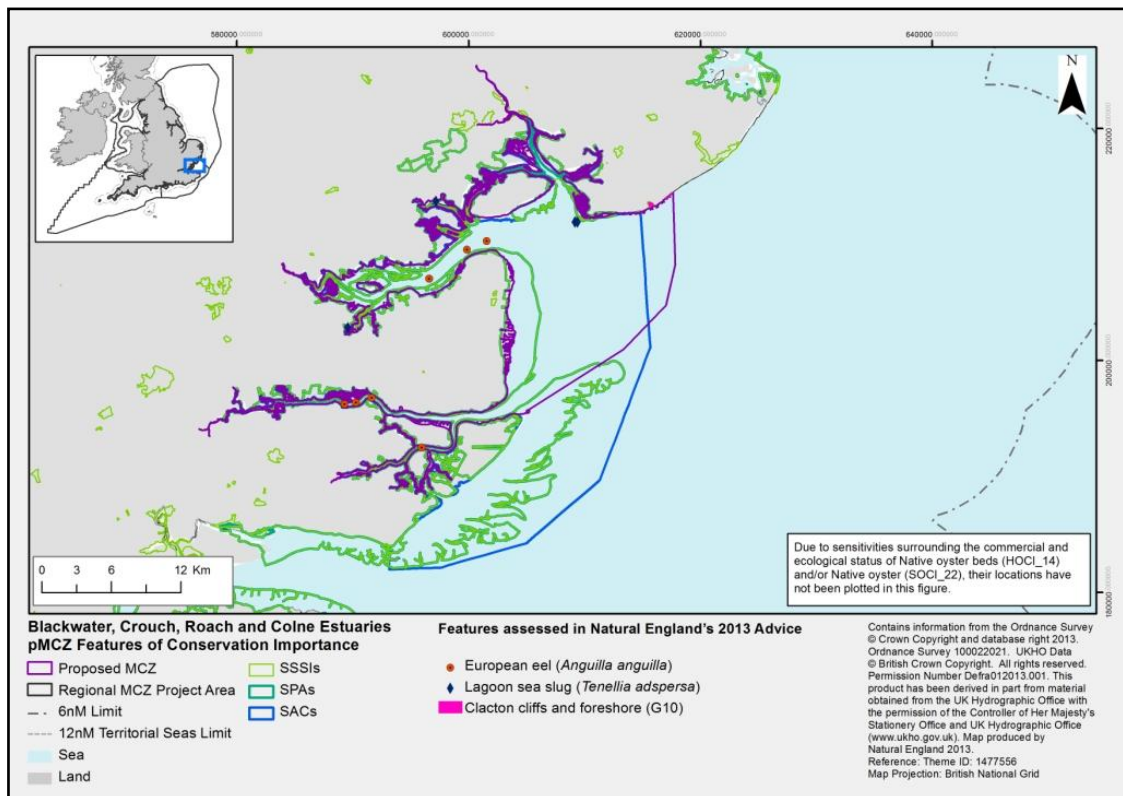


Figure 6 Location of mapped features of conservation importance in pMCZ Blackwater, Crouch, Roach and Colne Estuaries BS 03

A5.4.2 Summary of Natural England's advice

Table 9 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for pMCZ Blackwater, Crouch, Roach and Colne Estuaries BS 03

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A1.1 High energy intertidal rock	Further evidence required for designation	Low	Low	Maintain	More certain
Broad-scale habitat	A2.4 Intertidal mixed sediments	Sufficient evidence for designation	High	High	Maintain	More certain
Habitat of conservation importance	Native oyster beds	Further evidence required for designation	Moderate	Moderate	Recover	More certain
Species of conservation importance	Native oyster (<i>Ostrea edulis</i>)	Further evidence required for designation	High	High	Recover	More certain
Species of conservation importance	Lagoon sea slug (<i>Tenellia adspersa</i>)	Sufficient evidence for designation	Low	Low	Maintain	More certain
Species of conservation importance	European eel (<i>Anguilla anguilla</i>)	Sufficient evidence for designation	High	High	Maintain	More certain
Geological or geomorphological feature of interest	Clacton Cliffs and Foreshore	Sufficient evidence for designation	High	High	Maintain	More certain

Table 10 Supporting documentation, reference materials and relevant survey details for pMCZ Blackwater, Crouch, Roach and Colne Estuaries BS 03

Document title/survey code	Document/survey purpose	Location
Balanced Seas. <i>Balanced Seas Marine Conservation Zone Project: Final Recommendations</i> . Canterbury: Balanced Seas, 2011	Final report from Balanced Seas detailing the final rMCZs for the Balanced Seas region	http://publications.naturalengland.org.uk/file/1571352
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082

Document title/survey code	Document/survey purpose	Location
England, 2012a		
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report</i> . Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 1. – Balanced Seas – Sites proposed for designation in 2013</i> . London: Defra, 2012a	Defra's Public Consultation on the rMCZs in the Balanced Seas region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82722/mcz-annex-a1-part1-121213.pdf
M_00101	Cefas Habitat Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00056	MB102 Sample Points for Non-mobile Species (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00025	1983–2009 Environment Agency Biotope Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00198	Environment Agency National Water Framework Directive Benthic Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00273	Blackwater Oystermen's Association Oyster Survey Blackwater 2011/13	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH Data: 2004 to current date	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder 1986–2013 Species FOCI. Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 1986–2013 Broad-scale Habitats/HOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00357	Kent and Essex IFCA Blackwater Oyster Dredge Survey 2012	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00317	2013 Natural England Stour and Orwell rMCZ Verification Survey	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00364	Environment Agency (2012) National Fish Populations Database output, accessed 30/01/12	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.4.3 Audit trail for the development of Natural England's advice

Table 11 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Blackwater, Crouch, Roach and Colne Estuaries BS 03

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A1.1 High energy intertidal rock	Low	Low	Low	Low	No change although new data from verification survey unavailable at time of consultation incorporated. Relevant survey code: M_00317
A2.4 Intertidal mixed sediments	High	Moderate	High	Moderate	No change
Native oyster beds	High	Low	Moderate	Moderate	Supported by new data from data source unavailable at time of consultation. Relevant survey codes: M_00273, M_00357
Native oyster (<i>Ostrea edulis</i>)	High	Low	High	High	Supported by new data from data source unavailable at time of consultation. Relevant survey codes: M_00273, M_00357
Lagoon sea slug (<i>Tenellia adspersa</i>)	Moderate	Moderate	Low	Low	Change due to application of new guidance on use of Protocol E
European eel (<i>Anguilla anguilla</i>)	Moderate	Moderate	Moderate	Moderate	No change
Clacton Cliffs and Foreshore	High	High	High	High	No change

Table 12 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England’s advice published in 2012 for pMCZ Blackwater, Crouch, Roach and Colne Estuaries BS 03

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A1.1 High energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.4 Intertidal mixed sediments	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Native oyster beds	Recover	Recover	No change	Reasonably certain	More certain	No change
Native oyster (<i>Ostrea edulis</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
Lagoon sea slug (<i>Tenellia adspersa</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
European eel (<i>Anguilla anguilla</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Clacton Cliffs and Foreshore	Maintain	Maintain	No change	Reasonably certain	More certain	No change

A5.4.4 Additional advice

A5.4.4.1 Advice on specific features

Defra requested further clarification around the conservation objective for the European eel (*Anguilla anguilla*) in all pMCZs where the species is a recommended feature. In JNCC and Natural England's 2012 advice, in some sites the European eel had been given a Recover conservation objective, whereas in others it had been given a conservation objective of Maintain.

In the production of our 2013 advice to Defra the conservation objective for the species has been re-assessed and this has resulted in a conservation objective of Maintain being applied to the European eel across all pMCZs where it is a recommended feature.

This is due to:

- The European eel being subject to recovery management plans due to the current status of the species. In compliance with the European Council (Regulation No. 1100/2007), the Environment Agency has developed management plans for the South West and South East River Basins².

The vulnerability assessment has not identified any pressures within the sites to which the local eel populations may be vulnerable, nor that may be contributing to the wider unfavourable status of eels.

Direct evidence on condition was available for one feature in this site (native oyster) from a paper submitted by the Essex Wildlife Trust and Blackwater Oystermen in their response to the Public Consultation (M_00273). This showed a decline in native oysters in the Ray Sands part of the site. This evidence was used, in combination with a revised vulnerability assessment, to assess the condition of the feature following the 'combined approach' described in Protocol F.

A5.4.4.2 Advice on boundaries

DEFRA requested advice on why an area above MHW has been included within the pMCZ. This area was included within the regional project recommendation for this pMCZ as it is one of the very few locations within the Balanced Seas project area where the SOCI lagoon sea slug (*Tenellia adspersa*) is found. This species occurs at borrow dykes (drainage ditches behind the sea wall) at Abbots Hall Farm, an Essex Wildlife Trust Reserve. The feature occurs above MHW but the dykes are connected to the Blackwater Estuary through a sluice gate. We advise that due to the age of the data supporting the presence of this species, confidence in the presence and extent of this species is low.

A5.4.4.3 Additional surveys

A verification survey has been carried out on this site and the results have been used in the development of this advice. The survey was carried out by APEM to verify rock habitats. The survey code is M_00317. Please see Table 4 in Section 4.3 of the main document for the full reference.

Further surveys have been carried out on this site and the results have been used in the development of this advice. One survey was carried out by Kent and Essex Inshore Fisheries and Conservation Authority to verify native oyster species and native oyster beds. The survey code is M_00357. Another survey was carried out by the Blackwater Oysterman Association with Essex Wildlife Trust to verify native oyster species and native oyster beds. The survey code is M_00273. Please see Table 4 in Section 4.3 of the main document for the full reference.

² <http://archive.defra.gov.uk/foodfarm/fisheries/documents/fisheries/emp/southeast.pdf>

<http://archive.defra.gov.uk/foodfarm/fisheries/documents/fisheries/emp/southwest.pdf>

A5.4.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive features: native oysters (*Ostrea edulis*) and native oyster beds. Both of these features have a conservation objective of Recover.

A5.5 Medway Estuary BS 06

A5.5.1 Site feature maps

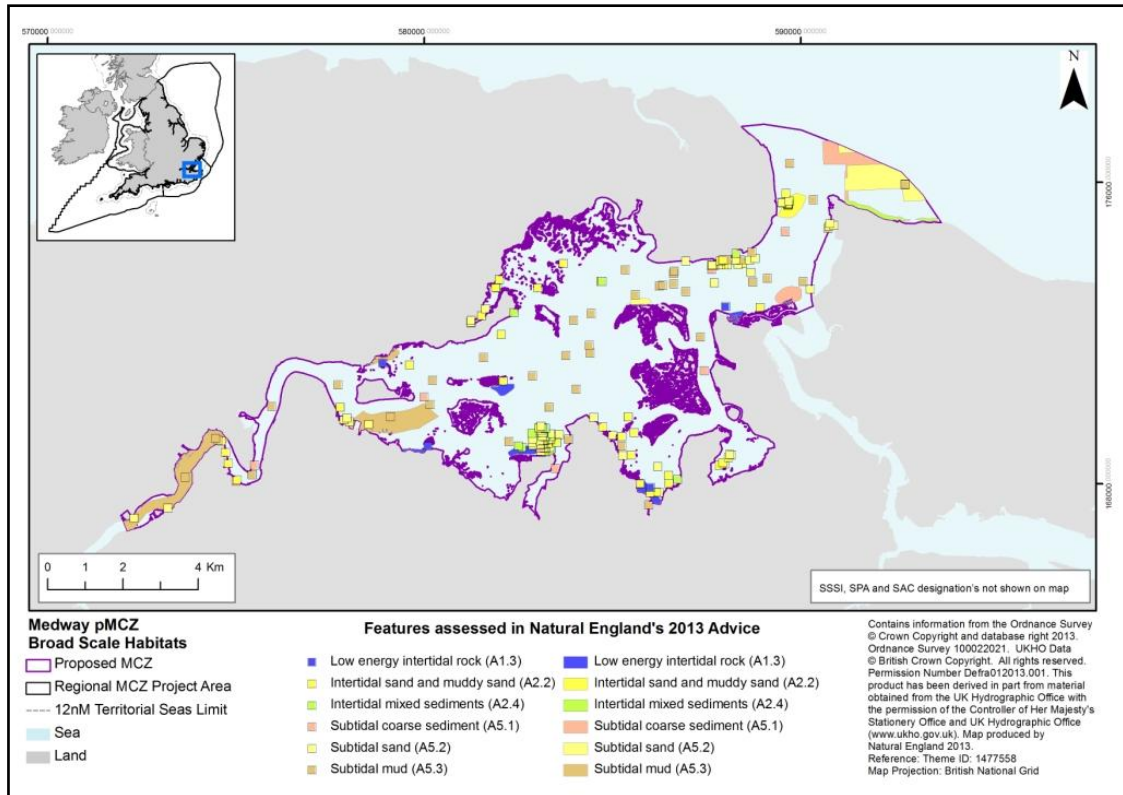


Figure 7 Location of mapped broad-scale habitats in pMCZ Medway Estuary BS 06

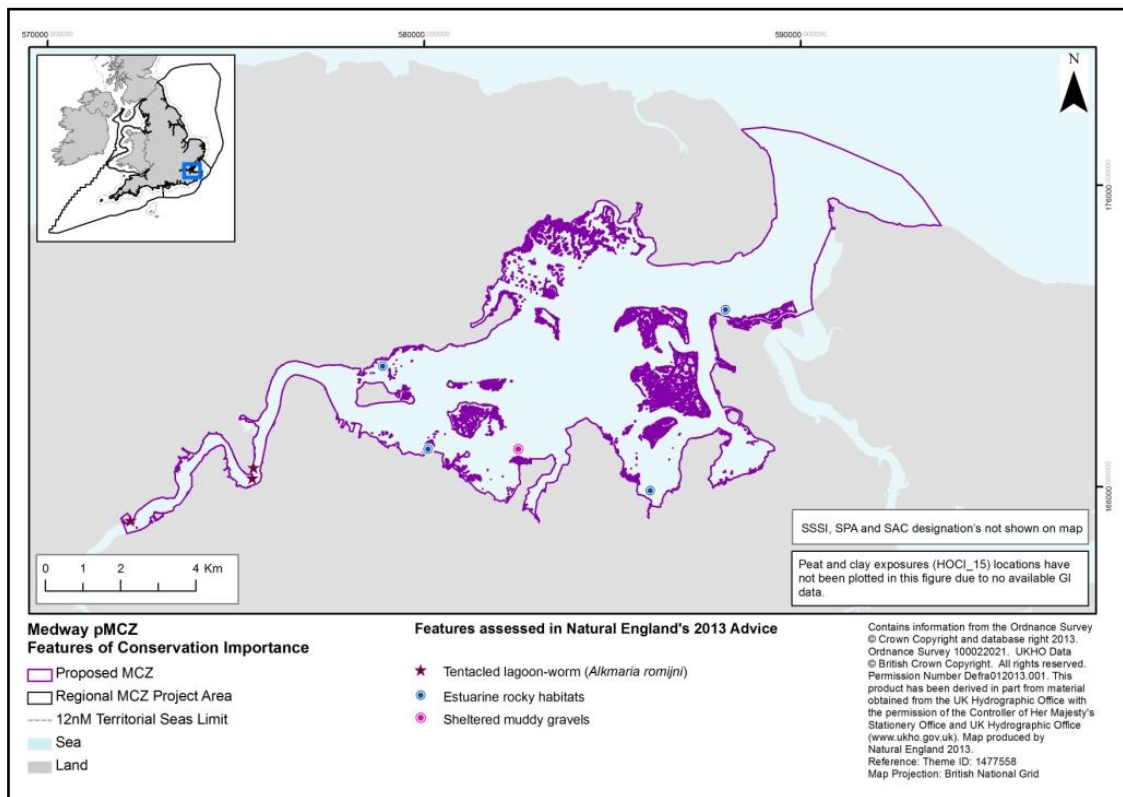


Figure 8 Location of mapped features of conservation importance in pMCZ Medway Estuary BS 06

A5.5.2 Summary of Natural England's advice

Table 13 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for pMCZ Medway Estuary BS 06

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A1.3 Low energy intertidal rock	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A2.2 Intertidal sand/muddy sand	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A2.4 Intertidal mixed sediments	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A5.1 Subtidal coarse sediment	Further evidence required for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A5.2 Subtidal sand	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A5.3 Subtidal mud	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Habitat of conservation importance	Estuarine rocky habitats	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Habitat of conservation importance	Peat and clay exposures	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Habitat of conservation importance	Sheltered muddy gravels	Further evidence required for designation	Low	Low	Recover	Less certain
Species of conservation importance	Tentacled lagoon worm (<i>Alkmaria romijni</i>)	Sufficient evidence for designation	Low	Low	Maintain	More certain

Table 14 Supporting documentation, reference materials and relevant survey details for pMCZ Medway Estuary BS 06

Document title/survey code	Document/survey purpose	Location
Balanced Seas. <i>Balanced Seas Marine Conservation Zone Project: Final Recommendations</i> . Canterbury: Balanced Seas, 2011	Final report from Balanced Seas detailing the final rMCZs for the Balanced Seas region	http://publications.naturalengland.org.uk/file/1571352
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report</i> . Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 1. – Balanced Seas – Sites proposed for designation in 2013</i> . London: Defra, 2012a	Defra's Public Consultation on the rMCZs in the Balanced Seas region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82722/mcz-annex-a1-part1-121213.pdf
M_00025	1983–2009 Environment Agency, Biotope data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00026	1900–2007 Environment Agency, <i>Alkmaria romijni</i>	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00093	UKSeaMap V8 – JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	Mapping European Seabed Habitats Data: 2004 to current date.	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 1986013 Broad-scale Habitat / Habitat FOCI.	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00338	Environment Agency Water Framework Directive Operational Benthic Infauna Survey – Medway Estuary	See Table 4 in Section 4.3 of the main advice document for the full reference

M_00362	MCZ Photo Evidence database. Coordinate format in OS grid reference	See Table 4 in Section 4.3 of the main advice document for the full reference
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A5.5.3 Audit trail for the development of Natural England's advice

Table 15 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Medway Estuary BS 06

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A1.3 Low energy intertidal rock	Low	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
A2.2 Intertidal sand/muddy sand	Moderate	Moderate	Moderate	Moderate	No change
A2.4 Intertidal mixed sediments	Low	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and new data. Relevant survey code: M_00025
A5.1 Subtidal coarse sediment	Low	Low	High	Moderate	Change due to application of new guidance on use of Protocol E and new data. Relevant survey codes: M_00025
A5.2 Subtidal sand	Moderate	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and new data. Relevant survey code: M_00025
A5.3 Subtidal mud	Moderate	Moderate	High	Moderate	Change due to application of new guidance on use of Protocol E and new data. Relevant survey code: M_00025
Estuarine rocky habitats	Low	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
Peat and clay exposures	Moderate	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
Sheltered muddy gravels	High	Moderate	Low	Low	Change due to application of new guidance on use of Protocol E
Tentacled lagoon worm	Moderate	Moderate	Low	Low	Age of data is now over the 12 year threshold, reducing

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
(Alkmaria romijn)					confidence

Table 16 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Medway Estuary BS 06

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A1.3 Low energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.2 Intertidal sand/muddy sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.4 Intertidal mixed sediments	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.1 Subtidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.2 Subtidal sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.3 Subtidal mud	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Estuarine rocky habitats	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Peat and clay exposures	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Sheltered muddy gravels	Recover	Recover	No change	Reasonably certain	Less certain	Following assessment against Protocol F
Tentacled lagoon worm (<i>Alkmaria romijni</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change

A5.5.4 Additional advice

A5.5.4.1 Advice on specific features

No advice given to Defra on specific features for this site. Note that, although it was not possible to include peat and clay on the feature map (Fig. 8), this feature is found [around Deadman's Island and Slayhills Marsh in the north eastern part of the MCZ](#).

A5.5.4.2 Advice on boundaries

DEFRA requested advice on why an area above MHW has been included within the pMCZ. This area was included within the regional project recommendation for this pMCZ as it is one of the very few locations within the Balanced Seas project area where the SOCI tentacled lagoon worm (*Alkmaria romijni*) is found. This species occurs in a brackish lagoon on Common Marsh, at Cuxton, above MHW. We advise that due to the age of the data supporting the presence of this species, confidence in the presence and extent of this species is low.

A5.5.4.3 Additional surveys

No new survey work has been carried out on this site.

A5.5.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%

It should be noted that this pMCZ contains the following highly sensitive features: peat and clay exposures, sheltered muddy gravels and tentacled lagoon worm (*Alkmaria romijni*). Of these, sheltered muddy gravels have a conservation objective of Recover.

A5.6 Thanet Coast BS 07

A5.6.1 Site feature maps

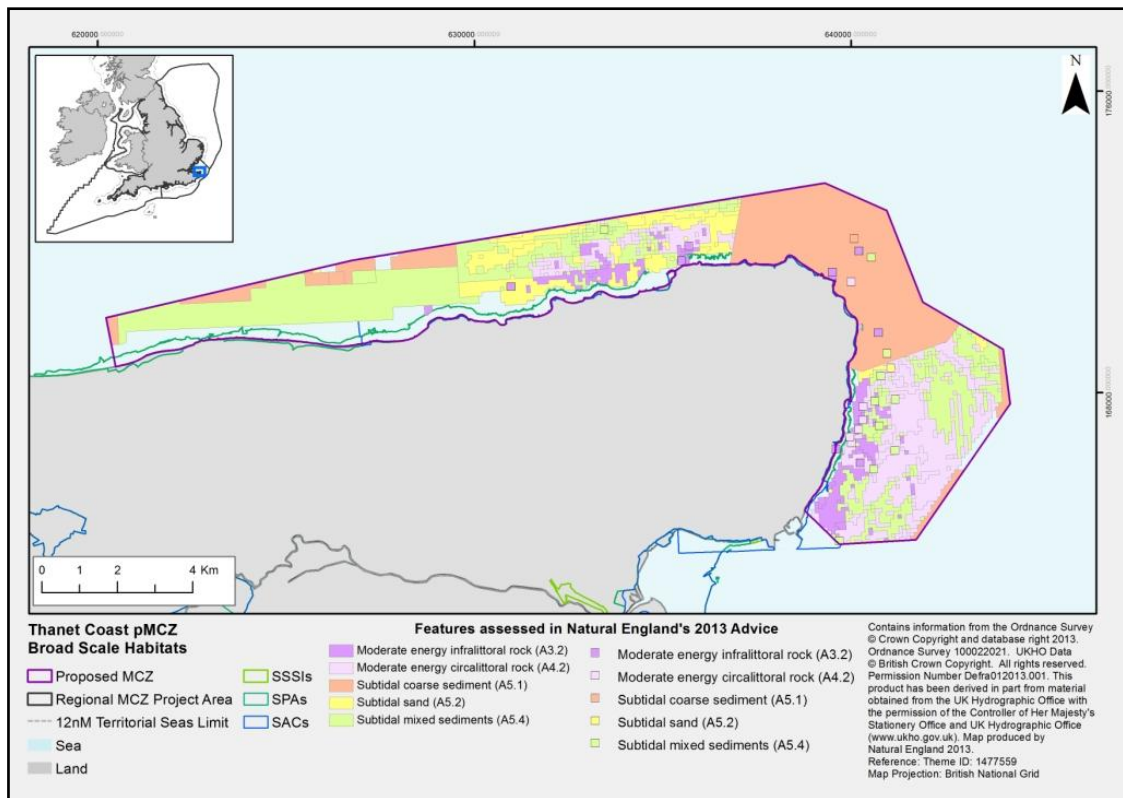


Figure 9 Location of mapped broad-scale habitats in pMCZ Thanet Coast BS 07

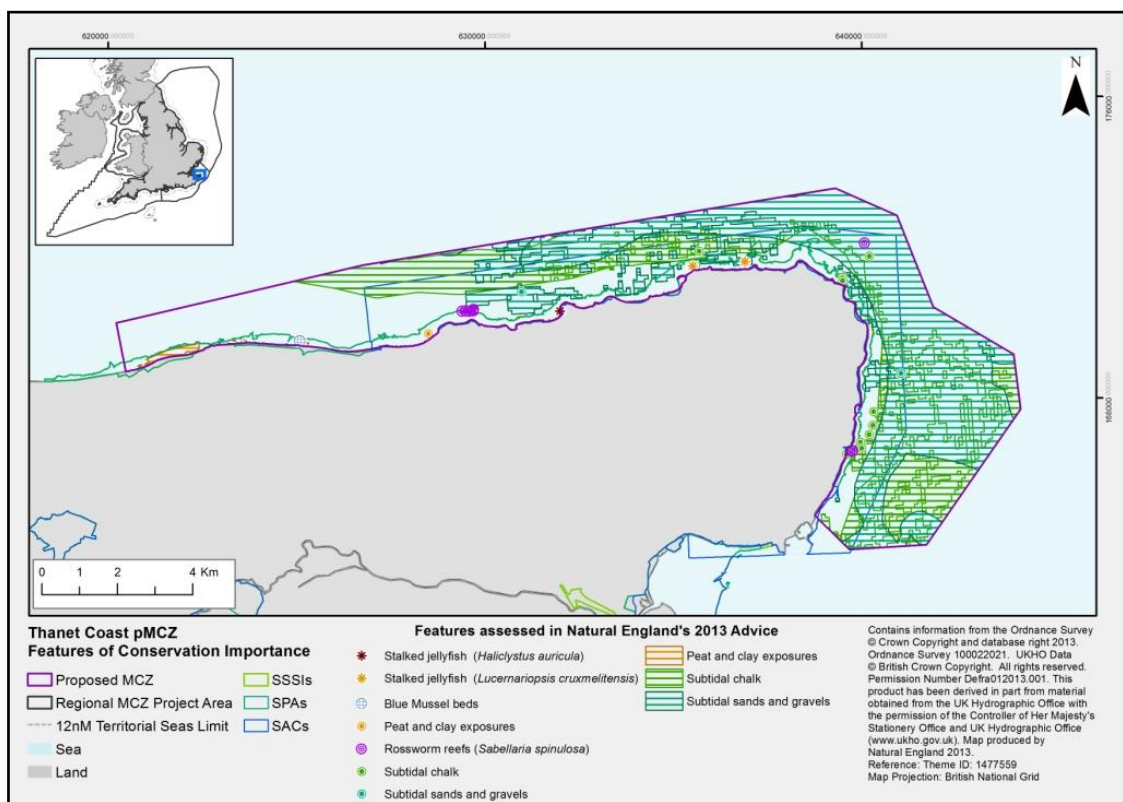


Figure 10 Location of mapped features of conservation importance in pMCZ Thanet Coast BS 07

A5.6.2 Summary of Natural England's advice

Table 17 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for pMCZ Thanet Coast BS 07

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A3.2 Moderate energy circalittoral rock	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A4.2 Moderate energy infralittoral rock	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A5.1 Subtidal coarse sediment	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A5.2 Subtidal sand	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A5.4 Subtidal mixed sediments	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Habitat of conservation importance	Blue mussel beds	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Habitat of conservation importance	Peat and clay exposures	Further evidence required for designation	High	High	Maintain	More certain
Habitat of conservation importance	Ross worm reefs (<i>Sabellaria spinulosa</i>)	Sufficient evidence for designation	High	Moderate	Recover	More certain
Habitat of conservation importance	Subtidal chalk	Sufficient evidence for designation	Moderate	Moderate	Maintain	Less certain
Habitat of conservation importance	Subtidal sands and gravels	Sufficient evidence for designation	Moderate	Moderate	Maintain - This feature is no longer recommended for designation as the habitat description overlaps with the recommended feature subtidal	More certain

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
					coarse sediment A5.1	
Species of conservation importance	Stalked jellyfish (<i>Haliclystus auricula</i>)	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Species of conservation importance	Stalked jellyfish (<i>Lucernariopsis cruxmelitensis</i>)	Further evidence required for designation	Moderate	Moderate	Maintain	More certain

Table 18 Supporting documentation, reference materials and relevant survey details for pMCZ Thanet Coast BS 07

Document title/survey code	Document/survey purpose	Location
Balanced Seas. <i>Balanced Seas Marine Conservation Zone Project: Final Recommendations</i> . Canterbury: Balanced Seas, 2011	Final report from Balanced Seas detailing the final rMCZs for the Balanced Seas region	http://publications.naturalengland.org.uk/file/1571352
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report</i> . Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 1. – Balanced Seas – Sites proposed for designation in 2013</i> .	Defra's Public Consultation on the rMCZs in the Balanced Seas region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82722/mcz-annex-a1-part1-121213.pdf

London: Defra, 2012a		
M_00308	MESH Data: 2004 to current date	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 1986–2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00093	UKSeaMap V8 – JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00331	Thanet Coast SAC 2011 Intertidal Monitoring Report 2012 – Natural England	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00025	1983–2009 Environment Agency Biotope Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00085	Outer Thames Estuary Habitat Map – MALSF	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00361	MCZ Photo Evidence Database. Coordinate format in decimal degrees	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00007	English Heritage Coastal Peat	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00330	Natural England 2013 Verification Survey of Intertidal Sediments within the Thanet Coast rMCZ	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00013	Survey Data – Balanced Seas regional MCZ project	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00101	Cefas Habitat Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00362	MCZ Photo Evidence Database. Coordinate format in OS grid	See Table 4 in Section 4.3 of the main advice document for the full reference

	reference	
M_00059	MB102 Sample Point Data for HOCI (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00055	MB102 BGS Modelled Habitat Map for Subtidal Sands and Gravels (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder 1986–2013 Species FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.6.3 Audit trail for the development of Natural England’s advice

Table 19 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England’s advice published in 2012 for pMCZ Thanet Coast BS 07

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A3.2 Moderate energy circalittoral rock	Moderate	Moderate	Moderate	Moderate	No change
A4.2 Moderate energy infralittoral rock	Moderate	Moderate	Moderate	Moderate	No change
A5.1 Subtidal coarse sediment	High	High	High	Moderate	Change due to application of new guidance on use of Protocol E
A5.2 Subtidal sand	High	High	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
A5.4 Subtidal mixed sediments	High	Moderate	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
Blue mussel beds	High	Moderate	High	Moderate	No change
Peat and clay exposures	Low	Low	High	High	Additional data from verification survey. Relevant survey code: M_00330
Ross worm reefs (<i>Sabellaria spinulosa</i>)	High	Moderate	High	Moderate	No change

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
Subtidal chalk	High	High	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
Subtidal sands and gravels	High	High	Moderate	Moderate	Change due to application of new guidance on use of Protocol E. This feature is no longer recommended for designation as the habitat description overlaps with the recommended feature subtidal coarse sediment A5.1
Stalked jellyfish (<i>Haliclystus auricula</i>)	Low	Low	Moderate	Moderate	Additional data from data source. Relevant survey code: M_00309
Stalked jellyfish (<i>Lucernariopsis cruxmelitensis</i>)	Moderate	Low	Moderate	Moderate	Additional data from data source. Relevant survey code: M_00309

Table 20 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Thanet Coast BS 07

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A3.2 Moderate energy circalittoral rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A4.2 Moderate energy infralittoral rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.1 Subtidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.2 Subtidal sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.4 Subtidal mixed sediments	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Blue mussel beds	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Peat and clay exposures	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Ross worm reefs (<i>Sabellaria spinulosa</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
Subtidal chalk	Maintain	Maintain	No change	Reasonably certain	Less certain	Owing to further interpretation of existing data, gaps have been identified and as a result have lowered our certainty in the extent of the feature. Relevant survey code: M_00331
Subtidal sands and gravels	Maintain	Maintain	This feature is no longer recommended for designation as the habitat description	Reasonably certain	More certain	VA indicates low exposure to fishing activity across the whole site, aside from moderate

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
			overlaps with the recommended feature subtidal coarse sediment A5.1			activity in the northern corner. Fisheries standardisation in 2013 confirms low levels of activity. IFCA also confirms low exposure Not exposed to other activities.overlaps with the recommended feature subtidal coarse sediment A5.1
Stalked jellyfish (<i>Haliclystus auricula</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Stalked jellyfish (<i>Lucernariopsis cruxmelitensis</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change

A5.6.4 Additional advice

A5.6.4.1 Advice on specific features

No advice given to Defra on specific features for this site. However, please note, JNCC and Natural England has provided guidance that the HOCl subtidal sands and gravels (HOCl_21) and the broad-scale habitats subtidal sand (A5.2) and/or subtidal coarse sediment (A5.1) overlap, and that where the HOCl was recommended only the broad-scale habitats should be designated and given a conservation objective. As a result, subtidal sands and gravels is no longer recommended for this site in preference for the designation of subtidal coarse sediment.

A5.6.4.2 Advice on boundaries

No advice given to Defra on boundaries for this site.

A5.6.4.3 Additional surveys

A verification multibeam survey was carried out on this site by the Environment Agency in 2013 but the results have not been used in the development of this advice because they were not available in time for inclusion into the confidence assessment analysis as they were in the process of being collected or analysed. The survey code is A4. Please see verification evidence not used in Table 5 in Section 4.4.

A verification survey was carried out on this site by Marine Ecological Solutions (commissioned by Natural England) in March 2013 and the results have been used in the development of this advice. The verification survey focused on peat and clay exposures within the Thanet pMCZ site. The survey code is M_00330. Please see Table 4 in Section 4.3 of the main advice document for further information.

Additional data were received to increase the confidence in presence and extent of the two species of stalked jellyfish identified for designation in the Thanet coast pMCZ. This additional data were provided by the Kent Wildlife Trust from surveys undertaken in June 2013. The survey code is M_00309. Please see Table 4 in Section 4.3 of the main advice document for further information.

A5.6.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive features: peat and clay exposures, ross worm reefs (*Sabellaria spinulosa*), subtidal chalk and stalked jellyfish (*Haliclystus auricula*). Of these, ross worm reefs (*Sabellaria spinulosa*), have a conservation objective of Recover.

A5.7 Folkestone Pomerania BS 11.4

A5.7.1 Site feature maps

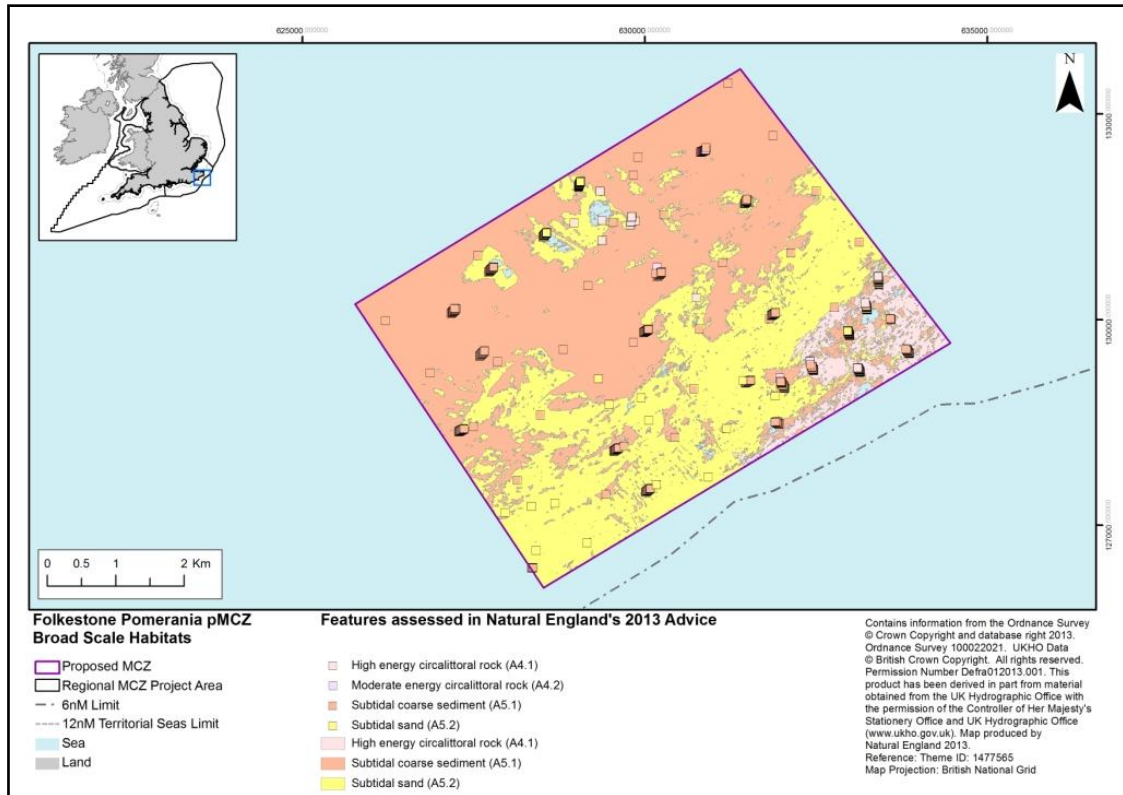


Figure 11 Location of mapped broad-scale habitats in pMCZ Folkestone Pomerania BS 11.4

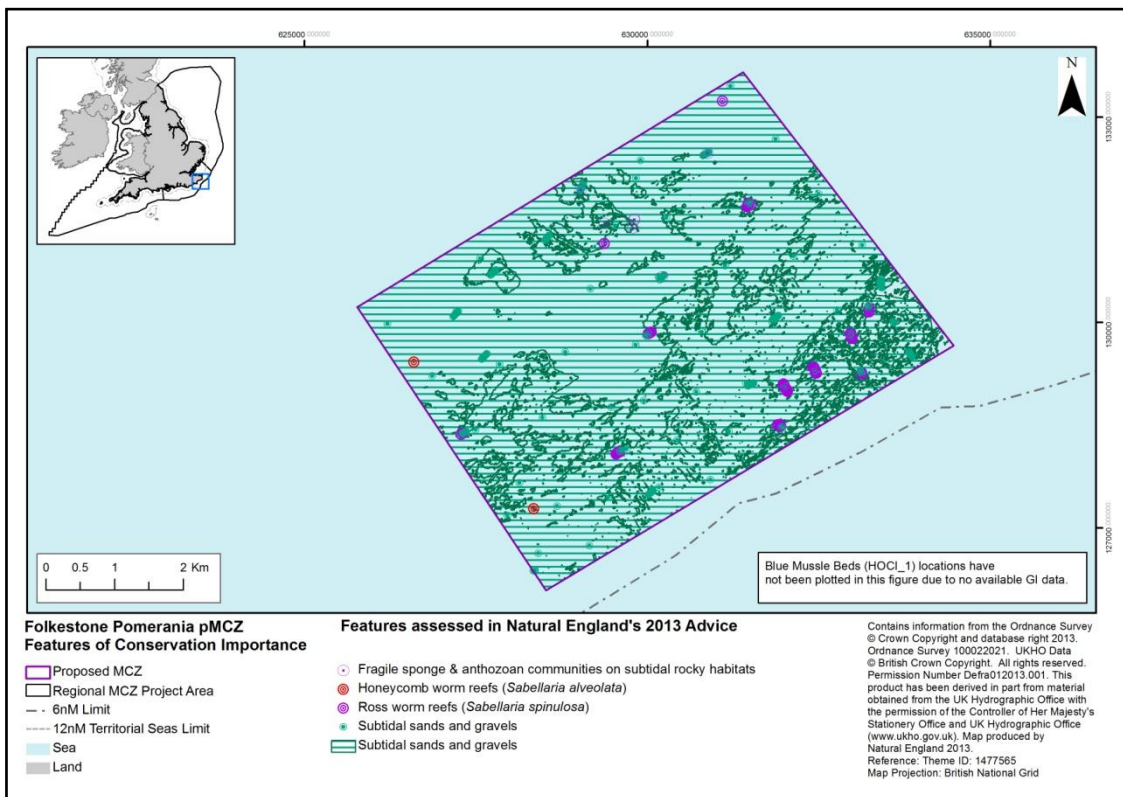


Figure 12 Location of mapped features of conservation importance in pMCZ Folkestone Pomerania BS 11.4

A5.7.2 Summary of Natural England's advice

Table 21 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for pMCZ Folkestone Pomerania BS 11.4

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A4.1 High energy circalittoral rock	Not assessed. Proposed new feature	High	High	Recover	More certain
Broad-scale habitat	A4.2 Moderate energy circalittoral rock	Further evidence required for designation	Moderate	Moderate	Recover	Less certain
Broad-scale habitat	A5.1 Subtidal coarse sediment	Sufficient evidence for designation	High	High	Maintain	Less certain
Broad-scale habitat	A5.2 Subtidal sand	Sufficient evidence for designation	High	High	Maintain	More certain
Habitat of conservation importance	Blue mussel beds	Further evidence required for designation	No confidence	No confidence	No CO as no data	No assessment as no CO
Habitat of conservation importance	Fragile sponge and anthozoan communities on subtidal rock habitat	Sufficient evidence for designation	High	Moderate	Recover	More certain
Habitat of conservation importance	Honeycomb worm reef (<i>Sabellaria alveolata</i>)	Sufficient evidence for designation	Low	Low	Recover	Less certain
Habitat of conservation importance	Ross worm reefs (<i>Sabellaria spinulosa</i>)	Sufficient evidence for designation	High	Moderate	Recover	More certain
Habitat of conservation importance	Subtidal sands and gravels	Further evidence required for designation	High	High	Maintain - This feature is no longer recommended for designation as the habitat description overlaps with the recommended feature subtidal	More certain

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
					coarse sediment A5.1	

Table 22 Supporting documentation, reference materials and relevant survey details for pMCZ Folkestone Pomerania BS 11.4

Document title/survey code	Document/survey purpose	Location
Balanced Seas. <i>Balanced Seas Marine Conservation Zone Project: Final Recommendations</i> . Canterbury: Balanced Seas, 2011	Final report from Balanced Seas detailing the final rMCZs for the Balanced Seas region	http://publications.naturalengland.org.uk/file/1571352
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report</i> . Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 1. – Balanced Seas – Sites proposed for designation in 2013</i> . London: Defra, 2012a	Defra's Public Consultation on the rMCZs in the Balanced Seas region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82722/mcz-annex-a1-part1-121213.pdf
M_00320	2012 A29 Cefas MCZ Verification Survey of Folkestone Pomerania	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00341	Cefas MCZ Verification Survey – Folkestone Pomerania	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00348	Cefas MCZ Verification Survey – Folkestone Pomerania	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00358	Cefas MCZ Verification Survey – Folkestone	See Table 4 in Section 4.3 of the main advice document for the full reference

	Pomerania	
M_00025	1983–2009 Environment Agency Biotope Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00093	UKSeaMap V8 – JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00362	MCZ Photo Evidence Database. Coordinate format in OS grid reference	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.7.3 Audit trail for the development of Natural England's advice

Table 23 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Folkestone Pomerania BS 11.4

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A4.1 High energy circalittoral rock	Not assessed	Not assessed	High	High	Proposed new feature identified through recent MCZ verification survey (M_00348)
A4.2 Moderate energy circalittoral rock	Low	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E with assessment based on parent data only. Recent Cefas verification survey (M_00348) did not report presence of feature in site. Propose replace feature with A4.1 high energy circalittoral rock
A5.1 Subtidal coarse sediment	Moderate	Moderate	High	High	Increase in confidence as a result of the 2012 A29 Cefas MCZ verification survey of Folkestone Pomeranian data in addition to UKSeaMap V8 – JNCC survey data. Relevant survey codes: M_00320, M_00341, M_00348, M_00358, M_00093
A5.2 Subtidal sand	Moderate	Moderate	High	High	Increase in confidence as a result of 2012 A29 Cefas MCZ verification survey of Folkestone Pomerania in addition to UKSeaMap V8 – JNCC survey and 1983–2009 Environment Agency Biotope data. Relevant survey codes: M_00320, M_00341, M_00348, M_00358, M_00093, M_00025
Blue mussel beds	Low	Low	No confidence	No confidence	No data exist for this feature and it was not identified in the verification surveys. Relevant survey codes: M_00320, M_00341, M_00348, M_00358
Fragile sponge and anthozoan communities on subtidal rock habitat	Moderate	Low	High	Moderate	Increase in confidence due to 2012 Cefas MCZ verification survey of Folkestone Pomerania and supported by georeferenced photos taken by Natural England staff. Relevant survey codes:

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
					M_00320, M_00341, M_00348, M_00358
Honeycomb worm reef (<i>Sabellaria alveolata</i>)	Low	Low	Low	Low	No change
Ross worm reefs (<i>Sabellaria spinulosa</i>)	Moderate	Moderate	High	Moderate	Increase in confidence due to 2012 Cefas MCZ verification survey of Folkestone Pomerania data. Relevant survey codes: M_00320, M_00341, M_00348, M_00358
Subtidal sands and gravels	Low	Low	High	High	Increase in confidence due to 2012 Cefas MCZ verification survey of Folkestone Pomerania data. Relevant survey codes: M_00320, M_00341, M_00348 M_00358. This feature is no longer recommended for designation as the habitat description overlaps with the recommended feature subtidal coarse sediment A5.1

Table 24 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Folkestone Pomerania BS 11.4

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A4.1 High energy circalittoral rock	Not assessed	Recover	Proposed new feature identified through recent MCZ verification survey replacing A4.2 moderate energy circalittoral rock	Not assessed	More certain	Proposed new feature identified through recent MCZ verification survey replacing moderate energy circalittoral rock A4.2
A4.2 Moderate energy circalittoral rock	Recover	Recover	No change	Reasonably certain	Less certain	Assessment based on parent data only. Recent Cefas verification survey (M_00348) did not report presence of feature in site. Propose replace feature with high energy circalittoral rock A4.1.
A5.1 Subtidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	Less certain	Following Protocol F there was a low confidence in the feature condition so a less certain CO was assigned
A5.2 Subtidal sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Blue mussel beds	Maintain	No CO as no data to support feature	Unable to identify feature and unable to assess feature condition	Reasonably certain	No assessment	No CO as no data to support feature, so no certainty assigned
Fragile sponge and anthozoan communities on subtidal rock habitat	Recover	Recover	No change	Reasonably certain	More certain	No change
Honeycomb worm reef (<i>Sabellaria alveolata</i>)	Recover	Recover	No change	Reasonably uncertain	Less certain	No change
Ross worm reefs	Recover	Recover	No change	Reasonably	More certain	No change

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
<i>(Sabellaria spinulosa)</i>				certain		
Subtidal sands and gravels	Maintain	Maintain	This feature is no longer recommended for designation as the habitat description overlaps with the recommended feature subtidal coarse sediment A5.1	Reasonably certain	More certain	Fisheries standardisation in 2013 has shown bottom gear to be low intensity therefore a conservation objective of Maintain is appropriate.

A5.7.4 Additional advice

A5.7.4.1 Advice on specific features

No advice given to Defra on specific features for this site. However, please note JNCC and Natural England have provided guidance that the HOCl subtidal sands and gravels (HOCl_21) and the broad-scale habitats subtidal sand (A5.2) and/or subtidal coarse sediment (A5.1) overlap, and that where the HOCl was recommended only the broad-scale habitats should be designated and given a conservation objective. As a result, subtidal sands and gravels are no longer recommended for this site in preference for the designation of subtidal coarse sediment.

A5.7.4.2 Advice on boundaries

No advice given to Defra on boundaries for this site.

A5.7.4.3 Additional surveys

One verification survey, undertaken by Cefas, was carried out in this site and the results have been used in the development of this advice. The survey code is M_00358, please see Table 4 in Section 4.3 of the main document for the full reference.

A5.7.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive features: fragile sponge and anthozoan communities, honeycomb worm reefs (*Sabellaria alveolata*) and ross worm reefs (*Sabellaria spinulosa*). All three of these highly sensitive features have a conservation objective of Recover.

A5.8 Beachy Head West BS 13.2

A5.8.1 Site feature maps

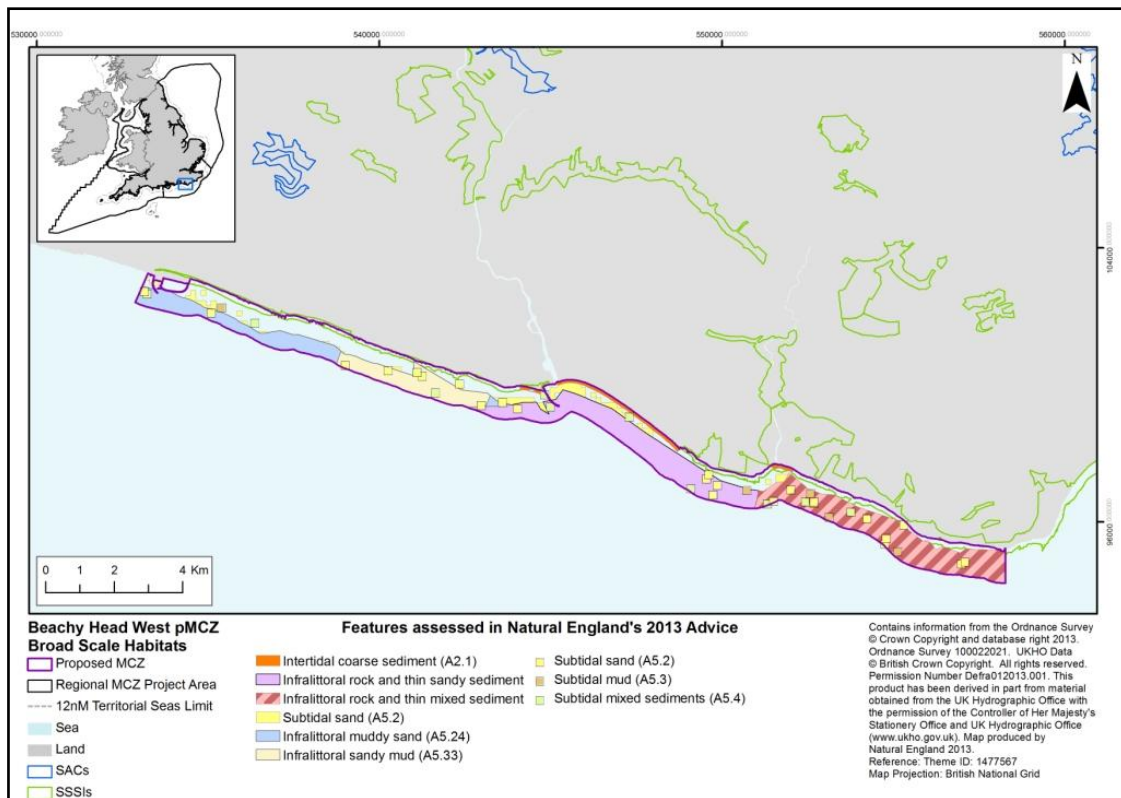


Figure 13 Location of mapped broad-scale habitats in pMCZ Beachy Head West BS 13.2

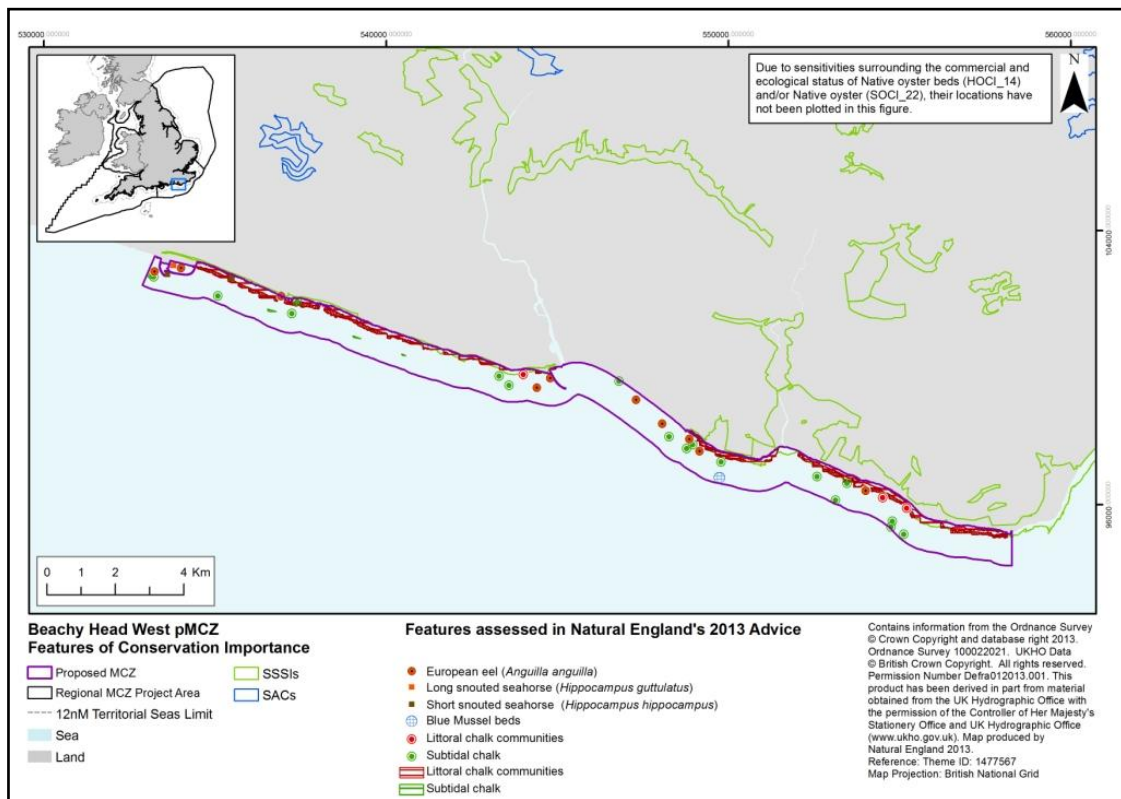


Figure 14 Location of mapped features of conservation importance in pMCZ Beachy Head West BS 13.2

A5.8.2 Summary of Natural England's advice

Table 25 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for pMCZ Beachy Head West BS 13.2

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A2.1 Intertidal coarse sediment	Further evidence required for designation	High	High	Maintain	Low
Broad-scale habitat	A5.2 Subtidal sand	Sufficient evidence for designation	High	High	Maintain	Low
Broad-scale habitat	A5.3 Subtidal mud	Further evidence required for designation	Moderate	Moderate	Maintain	Low
Broad-scale habitat	A5.4 Subtidal mixed sediments	Further evidence required for designation	Moderate	Moderate	Maintain	Low
Habitat of conservation importance	Blue mussel beds	Further evidence required for designation	Moderate	Moderate	Maintain	Low
Habitat of conservation importance	Littoral chalk communities	Sufficient evidence for designation	Moderate	Moderate	Recover	Low
Habitat of conservation importance	Subtidal chalk	Further evidence required for designation	Moderate	Moderate	Maintain	Low
Species of conservation importance	Long snouted seahorse (<i>Hippocampus guttulatus</i>)	Further evidence required for designation	Low	Low	Maintain	Less Certain
Species of conservation importance	Short snouted seahorse (<i>Hippocampus hippocampus</i>)	Sufficient evidence for designation	Moderate	Moderate	Maintain	Low
Species of conservation importance	Native oyster (<i>Ostrea edulis</i>)	Sufficient evidence for designation	Moderate	Moderate	Maintain	Low
Species of conservation	European eel (<i>Anguilla</i>)	Further evidence	Low	Low	Maintain	Low

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
importance	<i>anguilla</i>)	required for designation				
Non-ENG feature – broad-scale habitat	Infralittoral rock and thin sandy sediment	Sufficient evidence for designation	High	High	Maintain	Low
Non-ENG feature	Infralittoral rock and thin mixed sediments	Further evidence required for designation	Low	Low	Maintain	Low
Non-ENG feature –	A5.24 Infralittoral muddy sand	Sufficient evidence for designation	High	High	Maintain	Low
Non-ENG feature –	A5.33 Infralittoral sandy mud	Sufficient evidence for designation	Moderate	Moderate	Maintain	Low

Table 26 Supporting documentation, reference materials and relevant survey details for pMCZ Beachy Head West BS 13.2

Document title/survey code	Document/survey purpose	Location
Balanced Seas. <i>Balanced Seas Marine Conservation Zone Project: Final Recommendations</i> . Canterbury: Balanced Seas, 2011	Final report from Balanced Seas detailing the final rMCZs for the Balanced Seas region	http://publications.naturalengland.org.uk/file/1571352
Balanced Seas. <i>Marine Conservation Zone Project Final Recommendations. Amendments Report</i> . Canterbury: Balanced Seas, 2011	MCZ recommendations and amendments	http://publications.naturalengland.org.uk/publication/1463173
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones:</i>	JNCC and Natural England's amendments to their July published advice	http://publications.naturalengland.org.uk/file/4255584

Document title/survey code	Document/survey purpose	Location
<i>Amendments Report.</i> Peterborough: JNCC and Natural England, 2012b	(JNCC and Natural England 2012a)	
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 1. – Balanced Seas – Sites proposed for designation in 2013.</i> London: Defra, 2012a	Defra's Public Consultation on the rMCZs in the Balanced Seas region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82722/mcz-annex-a1-part1-121213.pdf
M_00308	MESH Data: 2004 to current date	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00318	2013 Natural England Verification Survey of Intertidal Sediments within Beachy Head West rMCZ	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 1986–2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00022	Sussex IFCA – Broad-scale Habitat Survey Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00088	South Coast Habitat Map – MALSF	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00161	MALSF 2007 Broad-scale Habitat Point Data – Sussex IFCA	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00059	MB102 Sample Point Data for HOCl (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder 1986–2013 Species FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00009	Seahorse Trust Data – Kent Wildlife Trust	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00056	MB102 Sample Points for Non-mobile Species (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00363	Biological Survey of Intertidal Chalk Reef	See Table 4 in Section 4.3 of the main advice document for the full reference

Document title/survey code	Document/survey purpose	Location
	at Seaford to Beachy Head and Brighton to Newhaven Cliff	
M_00093	UKSeaMap V8 – JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00361	MCZ Photo Evidence Database. Coordinate format in decimal degrees	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.8.3 Audit trail for the development of Natural England's advice

Table 27 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Beachy Head West BS 13.2

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A2.1 Intertidal coarse sediment	Moderate	Low	High	High	Verification survey of intertidal sediment within Beachy Head West rMCZ (March 2013). Relevant survey code: M_00318
A5.2 Subtidal sand	High	High	High	High	No change
A5.3 Subtidal mud	Low	Low	Moderate	Moderate	New data from data source not used at the time of the consultation. Relevant survey codes: M_00310, M_00022, M_00088, M_00161, M_00308
A5.4 Subtidal mixed sediments	High	High	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
Blue mussel beds	High	High	Moderate	Moderate	Presence of feature supported by multiple (n=10) biotope translated ground truth data. Also supporting photographic evidence. However, only Moderate confidence as no georeferenced data
Littoral Chalk communities	High	High	Moderate	Moderate	Presence of feature supported by multiple (n=10) biotope translated ground truth data. Also supporting photographic evidence. Moderate confidence as no

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
					georeferenced data
Subtidal chalk	Low	Low	Moderate	Moderate	34 dive records describing subtidal chalk habitats spread over >90% of the site. Ten records have been biotope translated. Moderate confidence as no georeferenced data. Relevant survey codes: M_00059, M_00309
Long snouted seahorse (<i>Hippocampus guttulatus</i>)	Low	Low	Low	Low	No change
Short snouted seahorse (<i>Hippocampus hippocampus</i>)	Moderate	Moderate	Moderate	Moderate	No change
Native oyster (<i>Ostrea edulis</i>)	High	High	Moderate	Moderate	Duplication of data reduced the number of data points from 22 (in 2012) to 14 (in 2013)
European eel (<i>Anguilla anguilla</i>)	Low	Low	Low	Low	No change
Non-ENG feature Infralittoral rock and thin sandy sediment	High	High	High	High	No change
Non-ENG feature Infralittoral rock and thin mixed sediments	Low	Low	Low	Low	No change
Non-ENG feature A5.24 Infralittoral muddy sand	High	High	High	High	No change
Non-ENG feature A5.33 Infralittoral sandy mud	Moderate	Moderate	Moderate	Moderate	No change

Table 28 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Beachy Head West BS 13.2

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.4 Subtidal mixed sediments	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.3 Subtidal mud	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.2 Subtidal sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Blue mussel beds	Maintain	Maintain	No change	Reasonably uncertain	Less certain	No change
Littoral chalk communities	Recover	Recover	No change	Reasonably uncertain	Less certain	No change
Subtidal chalk	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Long snouted seahorse (<i>Hippocampus guttulatus</i>)	Maintain	Maintain	No change	Reasonably certain	Less certain	Owing to mobile nature of species and certain pressures not being able to be assessed
Short snouted seahorse (<i>Hippocampus hippocampus</i>)	Maintain	Maintain	No change	Reasonably certain	Less certain	Owing to mobile nature of species and certain pressures not being able to be assessed
Native oyster (<i>Ostrea edulis</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
European eel (<i>Anguilla anguilla</i>)	Maintain	Maintain	No change	Reasonably uncertain	More certain	Following the guidance provided by the Environment Agency.
Non-ENG feature Infralittoral rock and thin sandy sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Non-ENG feature Infralittoral rock and thin mixed sediments	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Non-ENG feature A5.24 Infralittoral muddy sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Non-ENG feature A5.33 Infralittoral sandy mud	Maintain	Maintain	No change	Reasonably certain	More certain	No change

A5.8.4 Additional advice

A5.8.4.1 Advice on specific features

Defra requested clarification on the non-ENG features ‘infralittoral rock and thin mixed sediments’, ‘infralittoral rock and thin sandy sediment’, ‘infralittoral sandy mud’ and infralittoral muddy sand’.

The broad-scale habitats proposed in rMCZs are classified to EUNIS Level 3. The Balanced Seas regional MCZ project proposed five habitats that are classified to the more detailed EUNIS Level 4. This was due to the use of the best available data, which was provided to Balanced Seas through an Aggregate Levy Sustainability Fund project (James et al 2011). In this project the authors argued that the existing EUNIS Level 3 classification was not adequate to describe the thin sediment veneers overlying bedrock that are prevalent in the Eastern Channel and areas described as rock in existing habitat maps were in fact rock with thin overlying sediments. Instead, they proposed additional EUNIS Level 4 habitats that included ‘infralittoral rock and thin mixed sediments’ and ‘infralittoral rock and thin sandy sediment’. The Balanced Seas Regional Stakeholder Group felt that this EUNIS Level 4 classification better reflected the reality of what was on the seabed and therefore which features to protect, and as a result used them in their recommendations as well as their EUNIS level 3 parent features.

The features proposed are:

- A5.2 Subtidal sand
 - A3.A2 Low energy infralittoral rock and thin sandy sediment
 - A5.24 Infralittoral muddy sand
- A5.3 Subtidal mud:
 - A5.33 Infralittoral sandy mud
- A5.4 Subtidal mixed sediments
 - A3.94 Moderate energy infralittoral rock and thin mixed sediments
 - A3.A4 Low energy infralittoral rock and thin mixed sediments

For the purposes of our 2013 confidence assessment for these features, where features have been defined with energy levels, Natural England grouped the energy levels to create the non-ENG features listed in the above tables for Beachy Head West. Low energy infralittoral rock and thin sandy sediment is therefore referred to as infralittoral rock and thin sandy sediment and both moderate energy and low energy infralittoral rock and thin mixed sediments is referred to as infralittoral rock and thin mixed sediments.

Defra requested further clarification around the conservation objective for the European eel (*Anguilla anguilla*) in all pMCZs where the species is a recommended feature. In JNCC and Natural England’s 2012 advice, in some sites the European eel had been given a Recover conservation objective, whereas in others it had been given a conservation objective of Maintain.

In the production of our 2013 advice to Defra the conservation objective for the species has been re-assessed and this has resulted in a conservation objective of Maintain being applied to the European eel across all pMCZs where it is a recommended feature.

This is due to:

- The European eel being subject to recovery management plans due to the current status of the species. In compliance with the European Council (Regulation No. 1100/2007), the Environment Agency has developed management plans for the South West and South East River Basins³.

³ <http://archive.defra.gov.uk/foodfarm/fisheries/documents/fisheries/emp/southeast.pdf>

<http://archive.defra.gov.uk/foodfarm/fisheries/documents/fisheries/emp/southwest.pdf>

- The vulnerability assessment not identifying any pressures within the sites to which the local eel populations may be vulnerable, nor that may be contributing to the wider unfavourable status of eels.

A5.8.4.2 Advice on boundaries

Defra requested advice on a proposal they made following a response to the Public Consultation from the port sector to exclude the area of Newhaven port operations from the pMCZ (Figure 15).

Natural England has assessed the impact of excluding the harbour limits and navigational channel on the proposed features and concludes that this would not significantly alter the features protected by the site, as shown in Table 29. The proposed change would lead to a slight loss in area of subtidal sand and subtidal mixed sediments within the site. Neither of these features has been flagged as highly sensitive.

Subtidal sands and subtidal mixed sediments are not considered to be priority features for protection. Beachy Head West was recommended as it is considered one of the best representations of subtidal chalk and littoral chalk in the region. Excluding the harbour limits and navigational channel within the pMCZ will not have any impact on these key features.

Please note that this assessment was done by eye, by Natural England staff, comparing the maps provided (new proposed boundary versus original boundary, with presence and extent of features as far as is known on the basis of currently available data), rather than by digital analysis and is therefore approximate rather than precise.

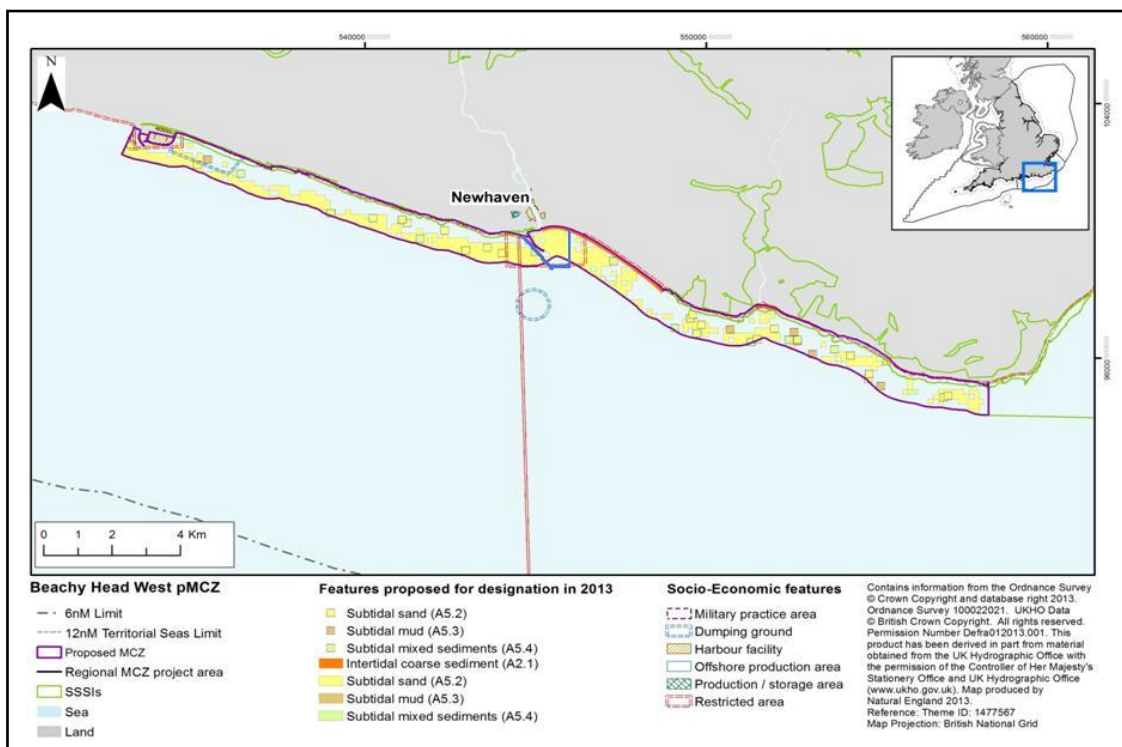


Figure 15 Original boundary of pMCZ Beachy Head West (purple) and the boundary change proposed by Defra (blue). Note that the feature map used here is the version that was available at the time discussions were initiated about the boundary change. The final feature map is given in Figures 13 and 14 above

Table 29 Impacts on features and implications for viability resulting from a boundary change in pMCZ Beachy Head West

Feature code	Feature	Approximate loss of known extent from pMCZ with revised boundary	Implications for viability ⁴
A2.1	Intertidal coarse sediment	No loss	No impact on viability
A5.2	Subtidal sand	Less than 5%	This was below the minimum viability size when proposed in 2012 with the harbour limits included
A5.3	Subtidal mud	No loss	No impact on viability
A5.4	Subtidal mixed sediments	Less 2%	This was below the minimum viability size when proposed in 2012 with the harbour limits included
HOCI_1	Blue mussel beds	No loss	No impact on viability
HOCI_11	Littoral chalk communities	No loss	No impact on viability
HOCI_20	Subtidal chalk	No loss	No impact on viability
SOCI_15	Long snouted seahorse (<i>Hippocampus guttulatus</i>)	No loss	No impact on viability
SOCI_16	Short snouted sea horse (<i>Hippocampus hippocampus</i>)	No loss	No impact on viability
SOCI_22	Native oyster (<i>Ostrea edulis</i>)	No loss	No impact on viability
SOCI_31	European eel (<i>Anguilla Anguilla</i>)	No loss	No impact on viability
Non-ENG feature 20	Infralittoral rock and thin sandy sediment	No loss	No impact on viability
Non-ENG feature 21	Infralittoral rock and thin mixed sediments	No loss	No impact on viability
Non-ENG feature 23 A5.24	Infralittoral muddy sand	No loss	No impact on viability
Non-ENG feature 24 A5.33	Infralittoral sand mud	No loss	No impact on viability

A5.8.4.3 Additional surveys

A verification survey has been carried out on this site, and the results have been used in the development of this advice. The survey was carried out by the Marine Biological Association to verify intertidal sediment features. The survey code is M_00318, please see Table 4 in Section 4.3 of the main document for the full reference.

A5.8.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

⁴ As described in the Ecological Network Guidance.

It should be noted that this pMCZ contains the following highly sensitive features: subtidal chalk, long snouted seahorse (*Hippocampus guttulatus*), short snouted seahorse (*Hippocampus hippocampus*) and native oysters (*Ostrea edulis*). None of these highly sensitive features have a conservation objective of Recover.

A5.9 Kingmere BS 16

A5.9.1 Site feature maps

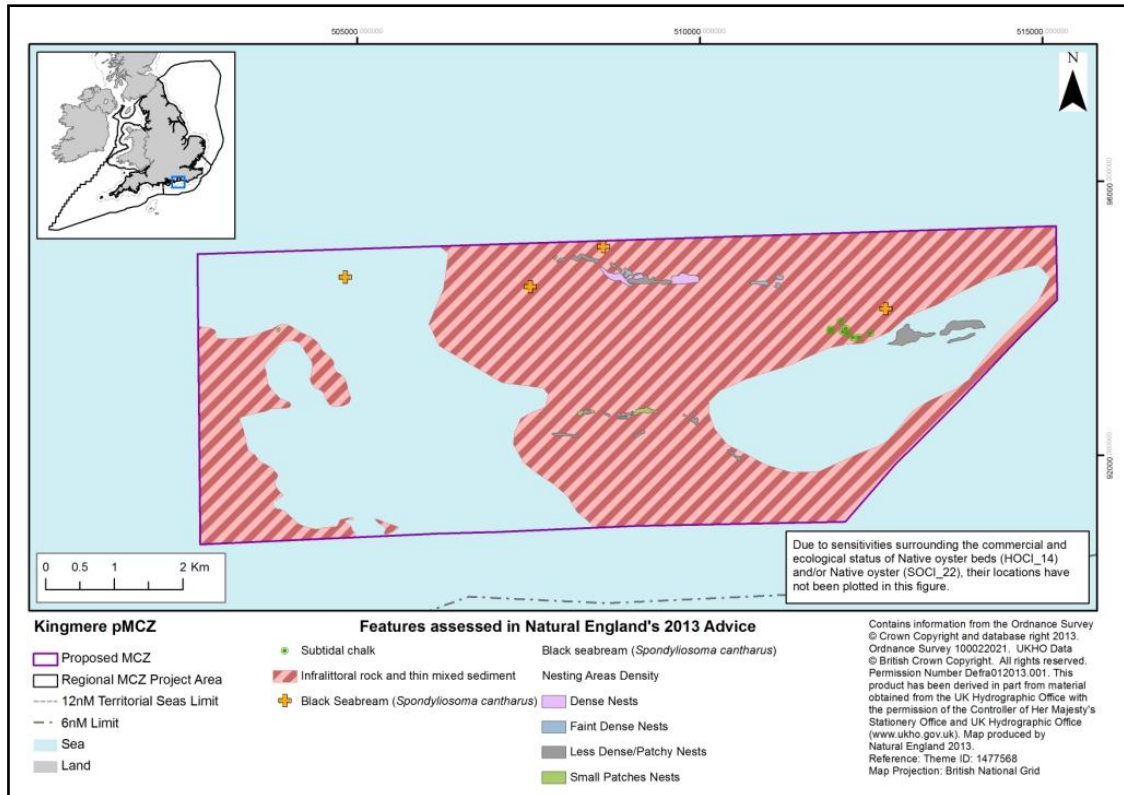


Figure 16 Location of mapped broad-scale habitats and features of conservation importance in pMCZ Kingmere BS 16

A5.9.2 Summary of Natural England's advice

Table 30 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for pMCZ Kingmere BS 16

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Habitat of Conservation Importance	Subtidal chalk	Sufficient evidence for designation	Moderate	Moderate	Recover	Moderate
Species of conservation importance	Native oyster (<i>Ostrea edulis</i>)	Sufficient evidence for designation	Low	Low	Maintain	Low
Non-ENG feature	Black bream (<i>Spondyllosoma cantharus</i>)	Sufficient evidence for designation	High	Moderate	Recover	Moderate
Non-ENG feature 21	A3.94 Infralittoral rock and thin mixed sediments	Sufficient evidence for designation	Low	Low	Recover	Low

Table 31 Supporting documentation, reference materials and relevant survey details for pMCZ Kingmere BS 16

Document title/survey code	Document/survey purpose	Location
Balanced Seas. <i>Balanced Seas Marine Conservation Zone Project: Final Recommendations</i> . Canterbury: Balanced Seas, 2011	Final report from Balanced Seas detailing the final rMCZs for the Balanced Seas region	http://publications.naturalengland.org.uk/file/1571352
Balanced Seas. <i>Marine Conservation Zone Project Final Recommendations. Amendments Report</i> , Canterbury: Balanced Seas, 2011	MCZ recommendations and amendments	http://publications.naturalengland.org.uk/publication/1463173
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended</i>	JNCC and Natural England's amendments to their	http://publications.naturalengland.org.uk/file/4255584

<i>Marine Conservation Zones: Amendments Report.</i> Peterborough: JNCC and Natural England, 2012b	July published advice (JNCC and Natural England 2012a)	
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 1. – Balanced Seas – Sites proposed for designation in 2013.</i> London: Defra, 2012a	Defra's Public Consultation on the rMCZs in the Balanced Seas region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82722/mcz-annex-a1-part1-121213.pdf
M_00309	Marine Recorder 1986–2013 Species FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00059	MB102 Sample Point Data for HOCl (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 1986–2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.9.3 Audit trail for the development of Natural England's advice

Table 32 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Kingmere BS 16

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
Subtidal chalk	High	Moderate	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
Native oyster (<i>Ostrea edulis</i>)	Low	Low	Low	Low	No change
Black bream (<i>Spondyllosoma cantharus</i>)	High	Moderate	High	Moderate	No change
Non-ENG feature Infralittoral rock and thin mixed sediments	Low	Low	Low	Low	No change

Table 33 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England’s advice published in 2012 for pMCZ Kingmere BS 16

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
Subtidal chalk	Recover	Recover	No change	Moderate	More certain	No change
Native oyster (<i>Ostrea edulis</i>)	Maintain	Maintain	No change	Low	More certain	No change
Black bream (<i>Spondyllosoma cantharus</i>)	Recover	Recover	No change	Moderate	More certain	No change
Non-ENG feature Infralittoral rock and thin mixed sediments	Recover	Recover	No change	Low	More certain	No change

A5.9.4 Additional advice

A5.9.4.1 Advice on specific features

Defra requested clarification on the non-ENG feature 'infralittoral rock and thin mixed sediments'.

The broad-scale habitats proposed in rMCZs are classified to EUNIS Level 3. The Balanced Seas regional MCZ project proposed five habitats that are classified to the more detailed EUNIS Level 4, in Kingmere they proposed 'moderate energy infralittoral rock and thin mixed sediments'. This was due to the use of the best available data, which was provided to Balanced Seas through an Aggregate Levy Sustainability Fund project (James et al 2011). In this project the authors argued that the existing EUNIS Level 3 classification was not adequate to describe the thin sediment veneers overlying bedrock that are prevalent in the Eastern Channel and areas described as rock in existing habitat maps were in fact rock with thin overlying sediments. Instead, they proposed additional EUNIS Level 4 habitats that included 'moderate energy infralittoral rock and thin mixed sediments'. The Balanced Seas Regional Stakeholder Group felt that this EUNIS Level 4 classification better reflected the reality of what was on the seabed and therefore which features to protect.

As described in the Balanced Seas selection assessment document, this site includes two EUNIS Level 4 habitats: A3.94 moderate energy infralittoral rock and thin sediments, which corresponds closely to the sandstone reef complex upon which black bream (*Spondyliosoma cantharus*) depend, and A5.43 infralittoral mixed sediments which was not proposed for protection by the Regional Stakeholder Group.

For the purpose of the confidence assessment for our 2013 advice, for those REC features defined with energy levels, Natural England grouped the energy levels to create the non-ENG features listed in the above tables for Kingmere. It should be noted therefore that for Kingmere, the feature being proposed for designation is 'moderate energy infralittoral rock and thin mixed sediments' which is referred to elsewhere in this advice as 'infralittoral rock and thin mixed sediments'.

A5.9.4.2 Advice on boundaries

No advice given to Defra on boundaries for this site.

A5.9.4.3 Additional surveys

No new survey work has been carried out on this site.

A5.9.5 Risk

This site is considered to be at higher risk of damage or deterioration as the risk score calculated is above 50%.

It should be noted that this pMCZ contains the following highly sensitive features: subtidal chalk and native oysters (*Ostrea edulis*). Of these, subtidal chalk has a conservation objective of Recover.

A5.10 Pagham Harbour BS 25.1

A5.10 Site feature maps

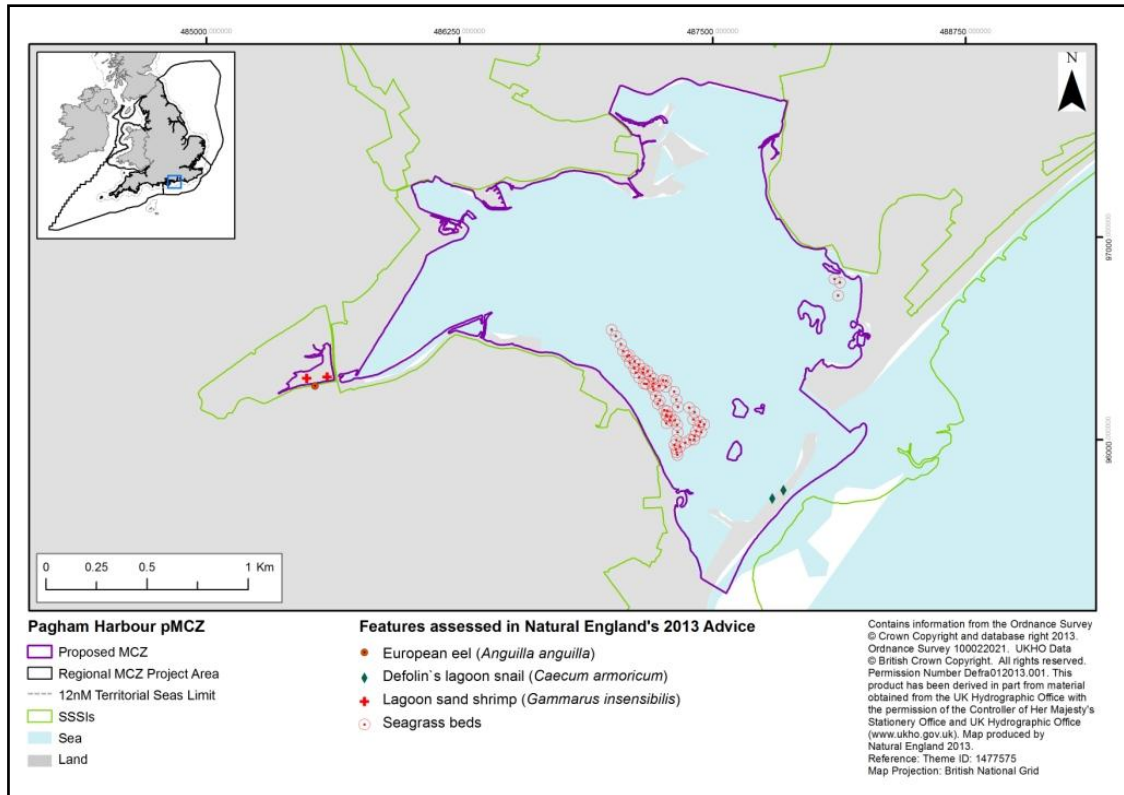


Figure 17 Location of mapped features of conservation importance in pMCZ Pagham Harbour BS 25.1

A5.10.2 Summary of Natural England's advice

Table 34 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for pMCZ Pagham Harbour BS 25.1

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Habitat of conservation importance	Seagrass beds	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Species of conservation importance	Defolin's lagoon snail (<i>Caecum armoricum</i>)	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Species of conservation importance	European eel (<i>Anguilla anguilla</i>)	Further evidence required for designation	Moderate	Low	Maintain	More certain
Species of conservation importance	Lagoon sand shrimp (<i>Gammarus insensibilis</i>)	Sufficient evidence for designation	Moderate	Moderate	Maintain	More Certain

Table 35 Supporting documentation, reference materials and relevant survey details for pMCZ Pagham Harbour BS 25.1

Document title/survey code	Document/survey purpose	Location
Balanced Seas. <i>Balanced Seas Marine Conservation Zone Project: Final Recommendations</i> . Canterbury: Balanced Seas, 2011	Final report from Balanced Seas detailing the final rMCZs for the Balanced Seas region	http://publications.naturalengland.org.uk/file/1571352
Balanced Seas. <i>Marine Conservation Zone Project Final Recommendations. Amendments Report</i> Canterbury: Balanced Seas, 2011	MCZ recommendations and amendments	http://publications.naturalengland.org.uk/publication/1463173
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's</i>	JNCC and Natural England's	http://publications.naturalengland.org.uk/file/4255584

Document title/survey code	Document/survey purpose	Location
<i>advice on recommended Marine Conservation Zones: Amendments Report.</i> Peterborough: JNCC and Natural England, 2012b	amendments to their July published advice (JNCC and Natural England 2012a)	
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 1. – Balanced Seas – Sites proposed for designation in 2013.</i> London: Defra, 2012a	Defra's Public Consultation on the rMCZs in the Balanced Seas region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82722/mcz-annex-a1-part1-121213.pdf
PAIN, C., WILKINSON, S., and LIGHT, J. 2009. Two further UK sites for <i>Caecum armoricum, de Folin</i> 1869, formerly known only in the Fleet, Dorset, as member of the interstitial 'spring' community. <i>Journal of Conchology</i> 39, 779-780	Paper recording the location of Defolin's lagoon snail	http://www.conchsoc.org
M_00058	MB102 HOCl Map (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00281	Environment Agency, Water Framework Directive (WFD) Seagrass Monitoring Programme 2007–2011, Pagham Harbour Water Body	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00056	MB102 Sample Points for Non-mobile Species (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder 1986–2013 Species FOCI. Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00364	Environment Agency (2012) National Fish Populations Database output, accessed 30/01/12	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00024	Species Data for <i>Gammarus insensibilis</i> – Balanced Seas regional project	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.10.3 Audit trail for the development of Natural England's advice

Table 36 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Pagham Harbour BS 25.1

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
Seagrass beds	High	High	High	Moderate	Environment Agency has only surveyed one of the identified areas of seagrass in the pMCZ so reduced confidence in total extent of seagrass
Defolin's lagoon snail (<i>Caecum armoricum</i>)	Moderate	Moderate	Moderate	Moderate	No change. New survey did not find any live species on Church Norton Spit although intact shells were found
European eel (<i>Anguilla anguilla</i>)	Moderate	Low	Moderate	Low	No change
Lagoon sand shrimp (<i>Gammarus insensibilis</i>)	Moderate	Moderate	Moderate	Moderate	No change

Table 37 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England’s advice published in 2012 for pMCZ Pagham Harbour BS 25.1

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
Seagrass beds	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Defolin’s lagoon snail (<i>Caecum armoricum</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
European eel (<i>Anguilla anguilla</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Lagoon sand shrimp (<i>Gammarus insensibilis</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change

A5.10.4 Additional advice

A5.10.4.1 Advice on specific features

Defra requested further clarification around the conservation objective for the European eel (*Anguilla anguilla*) in all pMCZs where the species is a recommended feature. In JNCC and Natural England's 2012 advice, in some sites the European eel had been given a Recover conservation objective, whereas in others it had been given a Conservation objective of Maintain.

In the production of our 2013 advice to Defra the conservation objective for the species has been re-assessed and this has resulted in a conservation objective of Maintain being applied to the European eel across all pMCZs where it is a recommended feature.

This is due to:

- The European eel being subject to recovery management plans due to the current status of the species. In compliance with the European Council (Regulation No. 1100/2007), the Environment Agency has developed management plans for the South West and South East River Basins⁵.
- The vulnerability assessment not identifying any pressures within the sites to which the local eel populations may be vulnerable, nor that may be contributing to the wider unfavourable status of eels.

Defra requested further information on the sensitivity of the lagoon sand shrimp (*Gammarus insensibilis*) in relation to the adjacent B1245 road.

Our advice is that road repair activity⁶ is more likely than day-to-day use of the road to pose a threat to the achievement of the conservation objectives for this pMCZ feature. Road repair activity may exert the following pressures to which the lagoon sand shrimp is sensitive:

Pressure	Sensitivity of lagoon sand shrimp
Synthetic compound contamination	High sensitivity
Hydrocarbon contamination	High sensitivity
Desiccation due to drainage of Ferry Pool	Moderate sensitivity

However, as the area is designated as an SPA and SSSI Natural England do not expect there to be additional management implications over and above those already required by the existing designations.

A5.10.4.2 Advice on boundaries

Defra requested advice from Natural England to help refine the boundary around the Ferry Pool area of this site which lies above the MHW mark and is separated from the harbour by the B1245 road. Ferry Pool is linked to Pagham Harbour by a pipe under the B1245 road. The area of Ferry Pool was included in the site due to the presence of the SOCI lagoon sand shrimps (*Gammarus insensibilis*). As a lagoon-specific species *G. insensibilis* is not present elsewhere in the site. The exchange of water through the pipe is essential for the maintenance of conditions in the pool and the ecological connection with Pagham Harbour;

⁵ <http://archive.defra.gov.uk/foodfarm/fisheries/documents/fisheries/emp/southeast.pdf>

<http://archive.defra.gov.uk/foodfarm/fisheries/documents/fisheries/emp/southwest.pdf>

⁶ <http://www.marlin.ac.uk/speciessensitivity.php?speciesID=3372>

the pool is managed to maintain the flow. Natural England therefore advised that the boundary of the site should be designed to ensure that the pipe is included in the pMCZ.

A5.10.4.3 Additional surveys

Surveys for Defolin's lagoon snail (*Caecum armoricum*) were undertaken to honour the recommendation made at the Balanced Seas regional stakeholder group. The surveys were carried out in March 2013 and contracted to external specialist conchologists⁷. The sampling did not find any live specimens on Church Norton Spit, where they had previously been recorded in October 2007 (see datasets M_00056 and M_00309 in Table 4, Section 4.3); however, entire shells of the snail were found at most of the locations where material was collected. The surveyors reported that the intact shells found during this survey suggest that there is an extant population in close vicinity to the sampling sites. As only empty shells were found our confidence in the presence/extent of the feature has not changed from our 2012 assessment of moderate/moderate.

In addition to surveying Church Norton Spit (where the snail was first recorded), additional samples were collected at Pagham Spit Lagoon. The conchologists were keen to establish whether there was any resemblance in the hydrodynamics of the lagoon at Pagham to those of the Fleet in Dorset, where Defolin's lagoon snail has previously been recorded. Live specimens of the snail were found around Pagham Spit Lagoon outside of the proposed boundary of the MCZ. Consideration was made to extend the boundary of the MCZ to capture the new records of the snails; however, weighing up a number of factors, the decision was made not to change the boundary. The factors which guided the decision of no change are:

- The Defolin's lagoon snail is a Schedule 5 species under the Wildlife and Countryside Act. This schedule protects the snail from any knowingly damaging or disturbing activities, affording the snail further protection.
- The new location falls within the SSSI and Special Protection Area (SPA), so a level of protection already exists.
- The new location of the snail is just outside the boundary of the pMCZ. SSSI features that are found adjacent to an SSSI boundary are always taken into consideration and managed the same way as the features within the SSSI boundary. If this principle is applied to MCZs, the snail will be protected even if it is just outside the MCZ boundary.
- Many of the local community have objected to this proposed MCZ, and in particular the Defolin's lagoon snail, as they fear it will prevent them protecting their properties from coastal erosion. Any potential changes to the boundary, in particular towards the east, are likely to heighten local community concerns in relation to the perceived threat this may have to future coastal defence operations.
- The boundary change would need to go back out to public consultation.

A5.10.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

⁷ WILKINSON, S. and BALDOCK, B. 2013. *Survey for Caecum armoricum in Pagham Harbour. A report to Natural England.* Worthing: Natural England.

It should be noted that this pMCZ contains the following highly sensitive features: seagrass beds, Defolin's lagoon snail (*Caecum armoricum*) and lagoon sand shrimp (*Gammarus insensibilis*). None of these highly sensitive features have a conservation objective of Recover.

A5.11 Hythe Bay BS 26

A5.11.1 Site feature maps

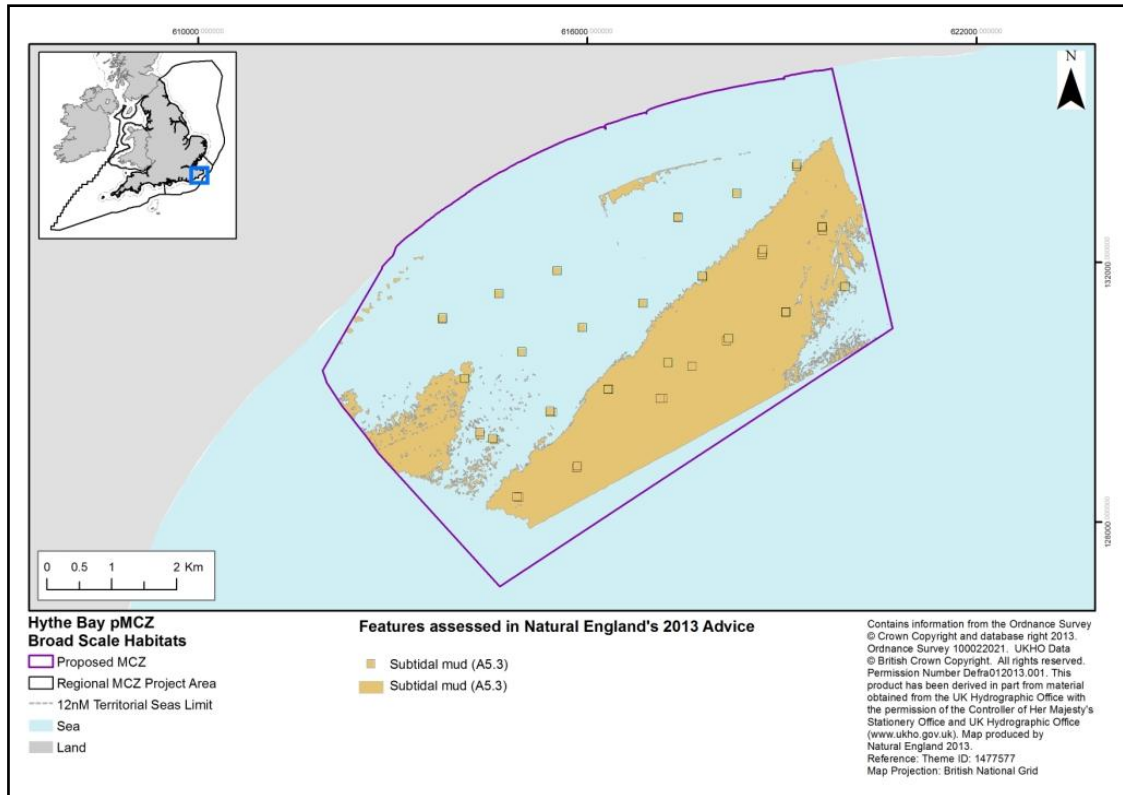


Figure 18 Location of mapped broad-scale habitats in pMCZ Hythe Bay BS 26

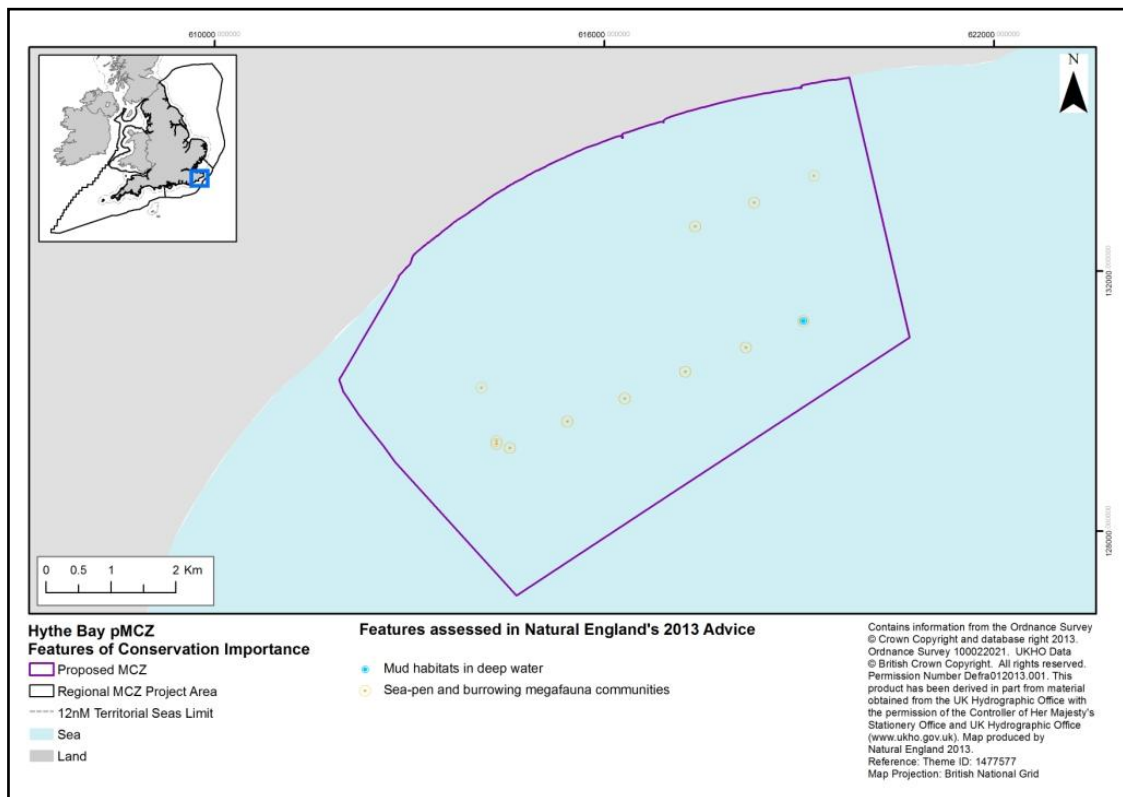


Figure 19 Location of mapped features of conservation importance in pMCZ Hythe Bay BS 26

A5.11.2 Summary of Natural England's advice

Table 38 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for Hythe Bay BS 26

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A5.3 Subtidal mud	Sufficient evidence for designation	High	High	Recover	Less certain
Habitat of conservation importance	Mud habitats in deep water	Sufficient evidence for designation	Moderate	Moderate	Recover	Less certain
Habitat of conservation importance	Seapens and burrowing megafauna	Sufficient evidence for designation	High	Moderate	Recover	Less certain

Table 39 Supporting documentation, reference materials and relevant survey details for Hythe Bay BS 26

Document title/survey code	Document/survey purpose	Location
Balanced Seas. <i>Balanced Seas Marine Conservation Zone Project: Final Recommendations</i> . Canterbury: Balanced Seas, 2011	Final report from Balanced Seas detailing the final rMCZs for the Balanced Seas region	http://publications.naturalengland.org.uk/file/1571352
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report</i> . Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 1. – Balanced Seas – Sites proposed for designation in 2013</i> . London: Defra, 2012a	Defra's Public Consultation on the rMCZs in the Balanced Seas region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82722/mcz-annex-a1-part1-121213.pdf
Hythe Bay rMCZ26 Site	Site Assessment	http://webarchive.nationalarchives.gov.uk/2012050

Document title/survey code	Document/survey purpose	Location
Assessment Document	Document	2155440/http://www.balancedseas.org/gallery/download/1064.pdf
M_00025	1983–2009 Environment Agency Biotope Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH Data: 2004 to current date	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 1986–2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00319	2013 A18 Environment Agency MCZ Verification Survey of Hythe Bay	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00342	Environment Agency MCZ Verification Survey – Hythe Bay	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.11.3 Audit trail for the development of Natural England’s advice

Table 40 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England’s advice published in 2012 for Hythe Bay BS 26

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A5.3 Subtidal mud	High	High	High	High	No change
Mud habitats in deep water	High	High	Moderate	Moderate	The confidence in presence and extent has been downgraded from high to moderate to reflect uncertainty in the feature definition particularly the depth at which this feature occurs. It is a poor example of the feature and only one sample point meets the feature definition due to the depth but this is borderline
Seapens and burrowing megafauna	High	High	High	Moderate	Change due to application of new guidance on use of Protocol E and incorporation of the Environment Agency Long Sea Outfall data. Relevant survey code: M_00025

Table 41 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England’s advice published in 2012 for Hythe Bay BS 26

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A5.3 Subtidal mud	Recover	Recover	No change	Reasonably certain	Less certain	In line with Protocol I (low confidence in feature condition)
Mud habitats in deep water	Recover	Recover	No change	Reasonably certain	Less certain	Strictly following Protocol I leads to a more certain assessment; however, in reality, due to the feature occurring in only one sample point an assessment of less certain has been made
Seapens and burrowing megafauna	Recover	Recover	No change	Reasonably certain	Less certain	In line with Protocol I (low confidence in feature condition). Certainty remains low as there is less confidence in the sensitivity of the feature as spoonworms rather than seapens are present and as such the sensitivity may be lower

A5.11.4 Additional advice

A5.11.4.1 Advice on specific features

Natural England agrees with the regional MCZ project that this site should be recommended for the HOCI seapens and burrowing megafauna. Seapens do not occur in this site, but instead the community contains spoonworms with other burrowing megafauna. This community of burrowing megafauna closely matches the biotope 'burrowing megafauna and *Maxmuelleria lankesteri* in circalittoral mud' which is considered to be representative of the seapens and burrowing megafauna FOCI⁸. Despite anecdotal evidence put forward by stakeholders that spoonworm numbers have increased, it is Natural England's view that there is no direct evidence to support this. Subtidal mud, also a recommended feature of this site, is highly to moderately sensitive to a range of pressures and this is the supporting broad-scale habitat of seapens and burrowing megafauna.

Defra requested further advice on the conservation objectives for all features within the site following their attendance at an IFCA led workshop in Folkestone on 6 March 2013 with local fishermen. Subsequent responses from the fishermen indicated their activity was not affecting the features of the rMCZ and the numbers of spoonworms had increased. It should be noted Natural England has less certainty in all conservation objectives.

A5.11.4.2 Advice on boundaries

No additional advice to Defra.

A5.11.4.3 Additional surveys

One verification survey has been carried out in this site by the Environment Agency and Cefas to verify features and the results have been used in the development of this advice. The associated survey codes are M_00319 and M_00342, please see Table 4 in Section 4.3 of the main document for the full references.

A5.11.5 Risk

This site is considered to be at higher risk of damage or deterioration as the risk score calculated is above 50%.

⁸ Further detail on the habitat descriptions can be found at <http://www.jncc.gov.uk/marine/biotopes/biotope.aspx?biotope=JNCCMNCR00001218>

A5.12 Poole Rocks FS 14

A5.12.1 Site feature maps

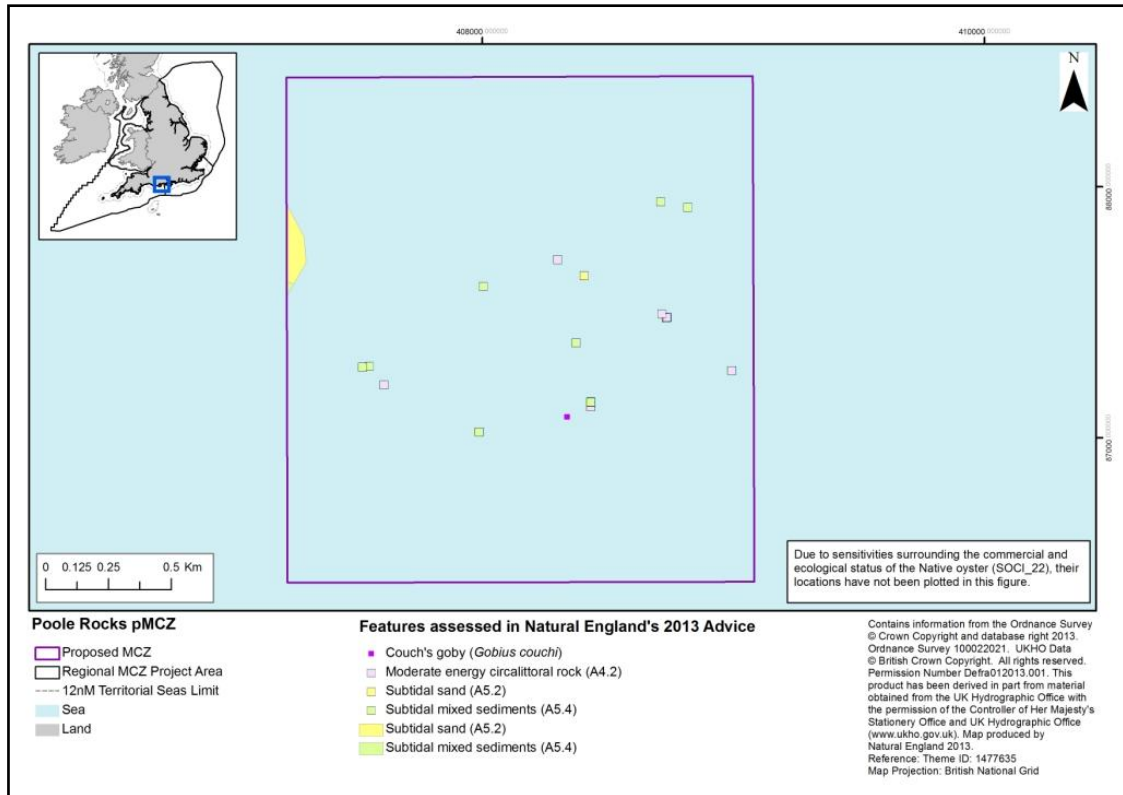


Figure 20 Location of mapped broad-scale habitats and features of conservation importance in pMCZ Poole Rocks FS 14

A5.12.2 Summary of Natural England's advice

Table 42 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature of the site for pMCZ Poole Rocks FS 14

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A4.2 Moderate energy circalittoral rock	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A5.2 Subtidal sand	Further evidence required for designation	Low	Low	Maintain	More certain
Broad-scale habitat	A5.4 Subtidal mixed sediments	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Species of conservation importance	Couch's goby (<i>Gobius couchi</i>)	Sufficient evidence for designation	High	High	Recover	More certain
Species of conservation importance	Native oyster (<i>Ostrea edulis</i>)	Sufficient evidence for designation	High	High	Recover	More certain

Table 43 Supporting documentation, reference materials and relevant survey details for pMCZ Poole Rocks FS 14

Document title/survey code	Document/survey purpose	Location
Lieberknecht <i>et al.</i> Finding Sanctuary. <i>Finding Sanctuary Final Report and Recommendations. A report submitted by the Finding Sanctuary stakeholder project to Defra, the Joint Nature Conservation Committee, and Natural England.</i> Exeter: Finding Sanctuary, 2011	Final report from Finding Sanctuary detailing the final rMCZs for the Finding Sanctuary region	http://publications.naturalengland.org.uk/publication/1561560
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 3. – Finding Sanctuary – Sites proposed for designation in 2013.</i> London: Defra, 2012c	Defra's Public Consultation on the rMCZs in the Finding Sanctuary region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82723/mcz-annex-a1-part3-121213.pdf

M_00274	New records of some rare British and Irish gobies (Teleostei: Gobiidae)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00361	MCZ Photo Evidence Database. Coordinate format in decimal degrees	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00088	South Coast Habitat Map – MALSF	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.12.3 Audit trail for the development of Natural England's advice

Table 44 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Poole Rocks FS 14

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A4.2 Moderate energy circalittoral rock	High	High	High	Moderate	Decrease in extent confidence due to new data from sources unavailable at time of consultation and application of new guidance on use of Protocol E. Relevant survey codes: M_00310, M_00361
A5.2 Subtidal sand	Low	Low	Low	Low	No change
A5.4 Subtidal mixed sediments	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data from sources unavailable at time of consultation. Relevant survey codes: M_00088, M_00310, M_00361
Couch's goby (<i>Gobius couchi</i>)	Moderate	Moderate	High	High	Increase in presence and extent confidence due to new data from sources unavailable at time of consultation. Relevant survey code: M_00274
Native oyster (<i>Ostrea edulis</i>)	High	High	High	High	No change

Table 45 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Poole Rocks FS 14

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A4.2 Moderate energy circalittoral rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.2 Subtidal sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.4 Subtidal mixed sediments	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Couch's goby (<i>Gobius couchi</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
Native oyster (<i>Ostrea edulis</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change

A5.12.4 Additional advice

A5.12.4.1 Advice on specific features

No advice given to Defra on specific features for this site.

A5.12.4.2 Advice on boundaries

No advice given to Defra on boundaries for this site.

A5.12.4.3 Additional surveys

A verification survey has been carried out on this site but the results have not been used in the development of this advice because the final results were not available in time. The survey was carried out by the Environment Agency to verify the distribution and abundance of subtidal features. The survey code is A5, please see Table 5 in Section 4.4 of the main document for the full reference.

A5.12.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive feature: native oysters (*Ostrea edulis*). This feature has a conservation objective of Recover.

A5.13 South Dorset FS 16

A5.13.1 Site feature maps

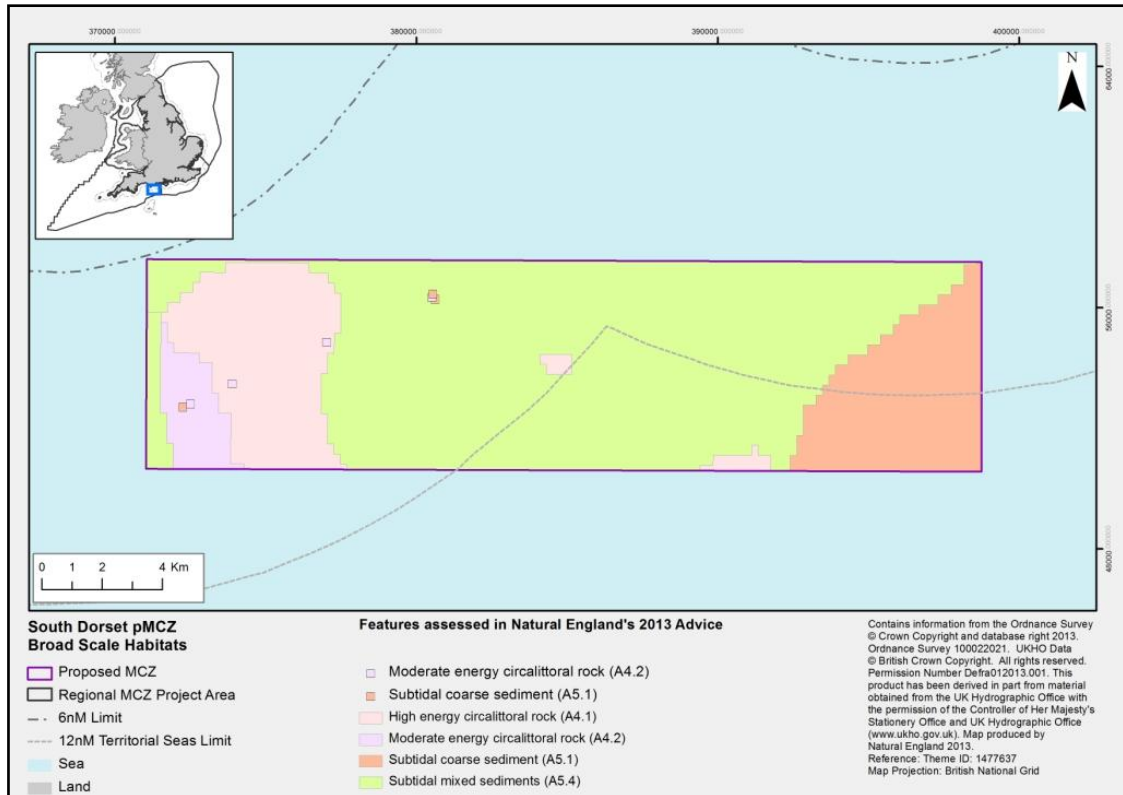


Figure 21 Location of mapped broad-scale habitats in pMCZ South Dorset FS 16

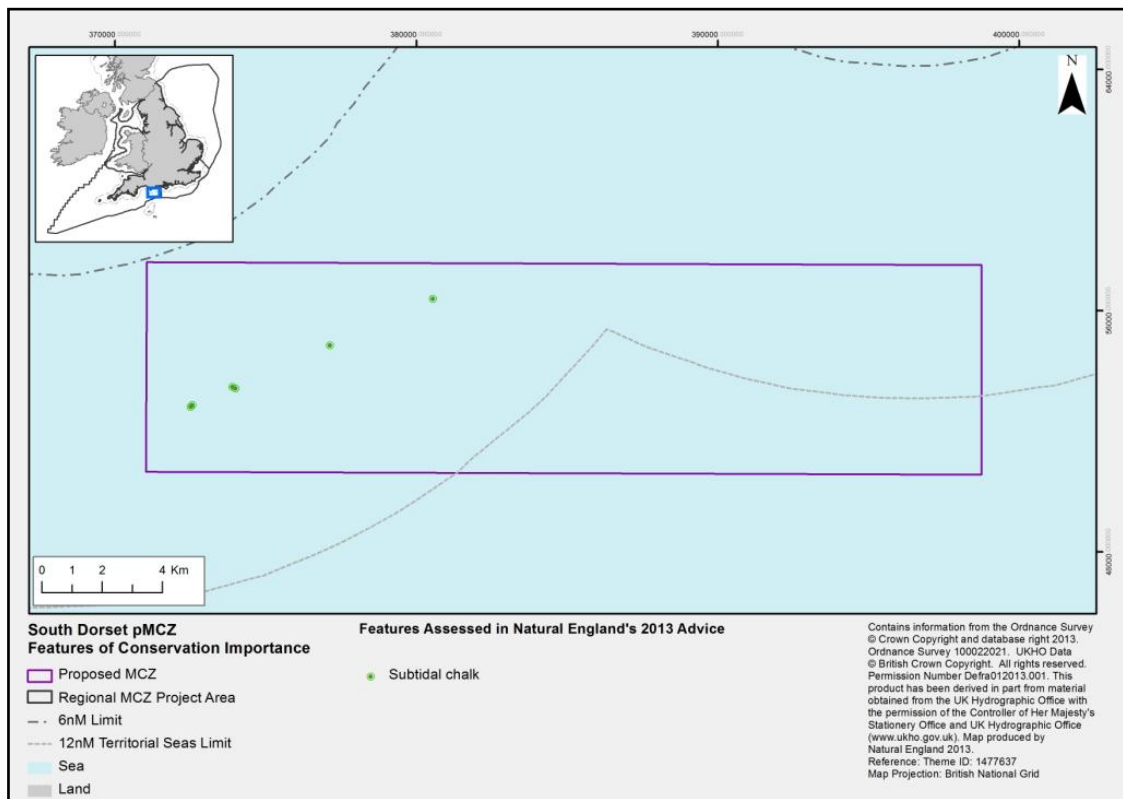


Figure 22 Location of mapped features of conservation importance in pMCZ South Dorset FS 16

A5.13.2 Summary of Natural England's advice

Table 46 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature of the site for pMCZ South Dorset FS 16

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale Habitat	A4.1 High energy circalittoral rock	Further evidence required for designation	Moderate	Low	Recover	More certain
Broad-scale Habitat	A4.2 Moderate energy circalittoral rock	Further evidence required for designation	Moderate	Moderate	Recover	More certain
Broad-scale Habitat	A5.1 Subtidal coarse sediment	Further evidence required for designation	Moderate	Moderate	Maintain	Less certain
Broad-scale Habitat	A5.4 Subtidal mixed sediments	Further evidence required for designation	Low	Low	Maintain	Less certain
Habitat of conservation importance	Subtidal chalk	Sufficient evidence for designation	High	Moderate	Recover	More certain

Table 47 Supporting documentation, reference materials and relevant survey details for pMCZ South Dorset FS 16

Document title/survey code	Document/survey purpose	Location
Lieberknecht <i>et al.</i> Finding Sanctuary. <i>Finding Sanctuary Final Report and Recommendations. A report submitted by the Finding Sanctuary stakeholder project to Defra, the Joint Nature Conservation Committee, and Natural England.</i> Exeter: Finding Sanctuary, 2011	Final report from Finding Sanctuary detailing the final rMCZs for the Finding Sanctuary region	http://publications.naturalengland.org.uk/publication/1561560
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 3. – Finding Sanctuary – Sites proposed for designation in</i>	Defra's Public Consultation on the rMCZs in the Finding Sanctuary region proposed for	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82723/mcz-annex-a1-part3-121213.pdf

2013. London: Defra, 2012c	designation in 2013	
M_00093	UKSeaMap V8 - JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.13.3 Audit trail for the development of Natural England's advice

Table 48 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ South Dorset FS 16

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A4.1 High energy circalittoral rock	Low	Low	Moderate	Low	Increase in presence confidence due to new data from source unavailable at time of consultation. Relevant survey code: M_00093
A4.2 Moderate energy circalittoral rock	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data from sources unavailable at time of consultation. Relevant survey codes: M_00093, M_00310
A5.1 Subtidal coarse sediment	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data from sources unavailable at time of consultation. Relevant survey codes: M_00093, M_00310
A5.4 Subtidal mixed sediments	Low	Low	Low	Low	No change
Subtidal chalk	High	Moderate	High	Moderate	No change

Table 49 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ South Dorset FS 16

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A4.1 High energy circalittoral rock	Recover	Recover	No change	Reasonably certain	More certain	No change
A4.2 Moderate energy circalittoral rock	Recover	Recover	No change	Reasonably certain	More certain	No change
A5.1 Subtidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	Less certain	Although the fisheries standardisation indicates moderate exposure, there is uncertainty as to whether the intensity at which the activities are taking place over the feature will result in impacts that exceed the benchmarks for the pressures to which the feature is sensitive. Further, the impacts of these fishing activities on this habitat type vary in relation to factors such as natural disturbance, sediment stability etc., which we are unable to assess at the present time. Given the uncertainty in sensitivity and exposure, Favourable condition and Maintain CO are given
A5.4 Subtidal mixed sediments	Maintain	Maintain	No change	Reasonably certain	Less certain	Although the fisheries standardisation indicates moderate exposure, there is uncertainty as to whether the intensity at which the activities are taking place over the feature

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
						will result in impacts that exceed the benchmarks for the pressures to which the feature is sensitive. Further, the impacts of these fishing activities on this habitat type vary in relation to factors such as natural disturbance, sediment stability etc., which we are unable to assess at the present time. Given the uncertainty in sensitivity and exposure, Favourable condition and Maintain CO are given
Subtidal chalk	Recover	Recover	No change	Reasonably certain	More certain	No change

A5.13.4 Additional advice

A5.13.4.1 Advice on specific features

No advice given to Defra on specific features for this site.

A5.13.4.2 Advice on boundaries

No advice given to Defra on boundaries for this site.

A4.2.4.3 Additional surveys

A verification survey was carried out for this site by Cefas but was not used in our advice as it was not available. The survey code is A8, please see Table 5 in Section 4.4 for further details.

A5.13.5 Risk

This site is considered to be at higher risk of damage or deterioration as the risk score calculated is above 50%.

It should be noted that this pMCZ contains the following highly sensitive feature: subtidal chalk. This feature has a conservation objective of Recover.

A5.14 Chesil Beach and Stennis Ledges FS 19

A5.14.1 Site feature maps

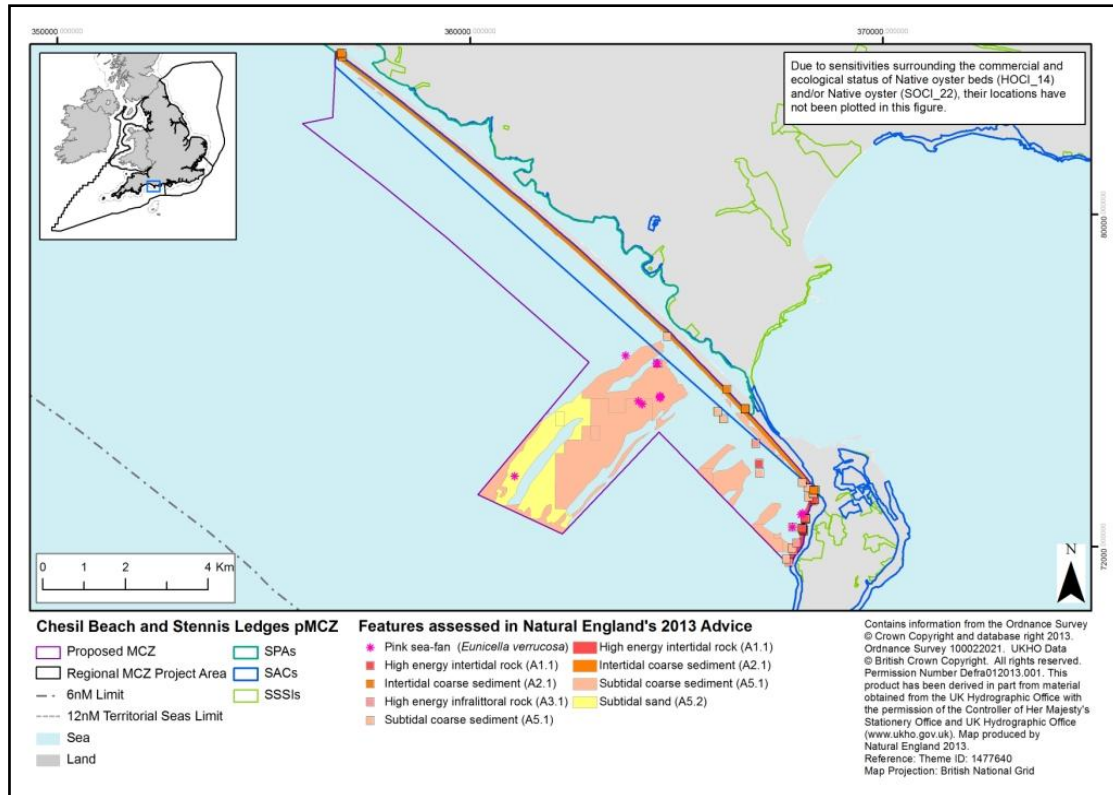


Figure 23 Location of mapped broad-scale habitats and features of conservation importance in pMCZ Chesil Beach and Stennis Ledges FS 19

A5.14.2 Summary of Natural England's advice

Table 50 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for pMCZ Chesil Beach and Stennis Ledges FS 19

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A1.1 High energy intertidal rock	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A2.1 Intertidal coarse sediment	Further evidence required for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A3.1 High energy infralittoral rock	Further evidence required for designation	Moderate	Moderate	Recover	More certain
Broad-scale habitat	A5.1 Subtidal coarse sediment	Further evidence required for designation	Moderate	Moderate	Recover	More certain
Broad-scale habitat	A5.2 Subtidal sand	Further evidence required for designation	Low	Low	Recover	Less certain
Species of conservation importance	Native oyster (<i>Ostrea edulis</i>)	Sufficient evidence for designation	Moderate	Moderate	Recover	Less certain
Species of conservation importance	Pink sea-fan (<i>Eunicella verrucosa</i>)	Sufficient evidence for designation	High	High	Recover	More certain

Table 51 Supporting documentation, reference materials and relevant survey details for pMCZ Chesil Beach and Stennis Ledges FS 19

Document title/survey code	Document/survey purpose	Location
Lieberknecht <i>et al.</i> Finding Sanctuary. <i>Finding Sanctuary Final Report and Recommendations. A report submitted by the Finding Sanctuary stakeholder project to Defra, the Joint Nature Conservation Committee,</i>	Final report from Finding Sanctuary detailing the final rMCZs for the Finding Sanctuary region	http://publications.naturalengland.org.uk/publication/1561560

Document title/survey code	Document/survey purpose	Location
<i>and Natural England.</i> Exeter: Finding Sanctuary, 2011		
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 3. – Finding Sanctuary -- Sites proposed for designation in 2013.</i> London: Defra, 2012c	Defra's Public Consultation on the rMCZs in the Finding Sanctuary region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82723/mcz-annex-a1-part3-121213.pdf
M_00308	MESH Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder Data for Broad-scale Habitats/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00361	MCZ Photo Evidence Database. Coordinate format in decimal degrees	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00362	MCZ Photo Evidence Database. Coordinate format in OS grid reference	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00093	UKSeaMap V8 – JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder Data for Species FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.14.3 Audit trail for the development of Natural England's advice

Table 52 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Chesil Beach and Stennis Ledges FS 19

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A1.1 High	High	High	High	Moderate	Decrease in extent confidence

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
energy intertidal rock					due to new data unavailable at time of consultation and to application of new guidance on use of Protocol E. Relevant survey codes: M_00308, M_00310, M_00361, M_00362
A2.1 Intertidal coarse sediment	Low	Low	High	Moderate	Increase in presence and extent confidence due to new data from georeferenced photographs unavailable at time of consultation. Relevant survey codes: M_00361, M_00362
A3.1 High energy infralittoral rock	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey code: M_00310
A5.1 Subtidal coarse sediment	High	Low	Moderate	Moderate	Increase in extent confidence and a decrease in presence confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00093, M_00308, M_00310, M_00361
A5.2 Subtidal sand	Low	Low	Low	Low	No change
Native oyster (<i>Ostrea edulis</i>)	Moderate	Moderate	Moderate	Moderate	New data unavailable at time of consultation was reviewed but resulted in no change to confidence in extent or presence of feature
Pink sea-fan (<i>Eunicella verrucosa</i>)	Moderate	Moderate	High	High	Increase in presence and extent confidence due to new data unavailable at time of consultation and application of new guidance on use of Protocol E. Relevant survey codes: M_00309, M_00361

Table 53 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Chesil Beach and Stennis Ledges FS 19

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A1.1 High energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A3.1 High energy infralittoral rock	Recover	Recover	No change	Reasonably certain	More certain	No change
A5.1 Subtidal coarse sediment	Recover	Recover	No change	Reasonably certain	More certain	No change
A5.2 Subtidal sand	Recover	Recover	No change	Reasonably certain	Less certain	Low confidence in presence and extent of this feature. Therefore we do not feel we can have more certainty in a Recover CO. However, we are aware that this feature is exposed to trawling, so would want to reassess certainty in the CO if confidence in presence and extent increases
Native oyster (<i>Ostrea edulis</i>)	Recover	Recover	No change	Reasonably certain	Less certain	This feature meets the requirements of the confidence assessment for presence and extent and scores moderate for both. It also satisfies the requirements for a moderate scoring with regard to Protocol F (confidence in condition) using a VA. Southern IFCA have strongly queried the presence

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
						and extent of this feature within this site on several occasions (Southern IFCA, Defra MCZ call 18/07/2013) and this site is not known to have been fished for native oyster in the past. Natural England believes the source of the two records cited to be credible. As there are only two records for this feature within the site, one of which is located very near the intertidal zone in Chesil Cove, it is therefore less certain that the feature is in unfavourable condition. However, results of the recent verification surveys have not yet been submitted, and Natural England intends to review this assessment once they have been received
Pink sea-fan (<i>Eunicella verrucosa</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change

A5.14.4 Additional advice

A5.14.4.1 Advice on specific features

Defra requested Natural England check the providence of the native oyster records in pMCZ Chesil Beach and Stennis Ledges as Southern IFCA had questioned the records and whether they were of live specimens.

Further scrutiny of the raw data showed both records (<6 years old) are of live specimens found within the pMCZ. The data recorders have both been ratified as qualified to identify the native oyster (one is a consultant marine ecologist, the other is a Seasearch surveyor tutor). Natural England's advice remains the same: moderate confidence in presence and extent.

Direct evidence on condition was available for two features in this site, high energy intertidal rock and intertidal coarse sediment, in the form of georeferenced photographs taken at a number of locations and showing both the wider context of the feature and close-ups of specific samples (for example, high energy biotopes). The photographs do not show any signs of damage or disturbance to the features. This evidence was used, in combination with a revised vulnerability assessment, to assess the condition of the feature following the 'combined approach' described in Protocol F, and resulted in a Maintain objective as the images suggest that these features are in favourable condition.

A5.14.4.2 Advice on boundaries

No advice given to Defra on boundaries for this site.

A5.14.4.3 Additional surveys

A verification survey has been carried out on this site but the results have not been used in the development of this advice because the results were not available in time. The survey was carried out by the Environment Agency to verify the distribution and abundance of subtidal features. The survey code is A6. Please see Table 5 in Section 4.4 of the main document for the full reference.

A5.14.5 Risk

This site is considered to be at higher risk of damage or deterioration as the risk score calculated is above 50%.

It should be noted that this pMCZ contains the following highly sensitive features: pink sea-fan (*Eunicella verrucosa*) and native oyster (*Ostrea edulis*). Both of these features have a conservation objective of Recover.

A5.15 Torbay FS 22

A5.15.1 Site feature maps

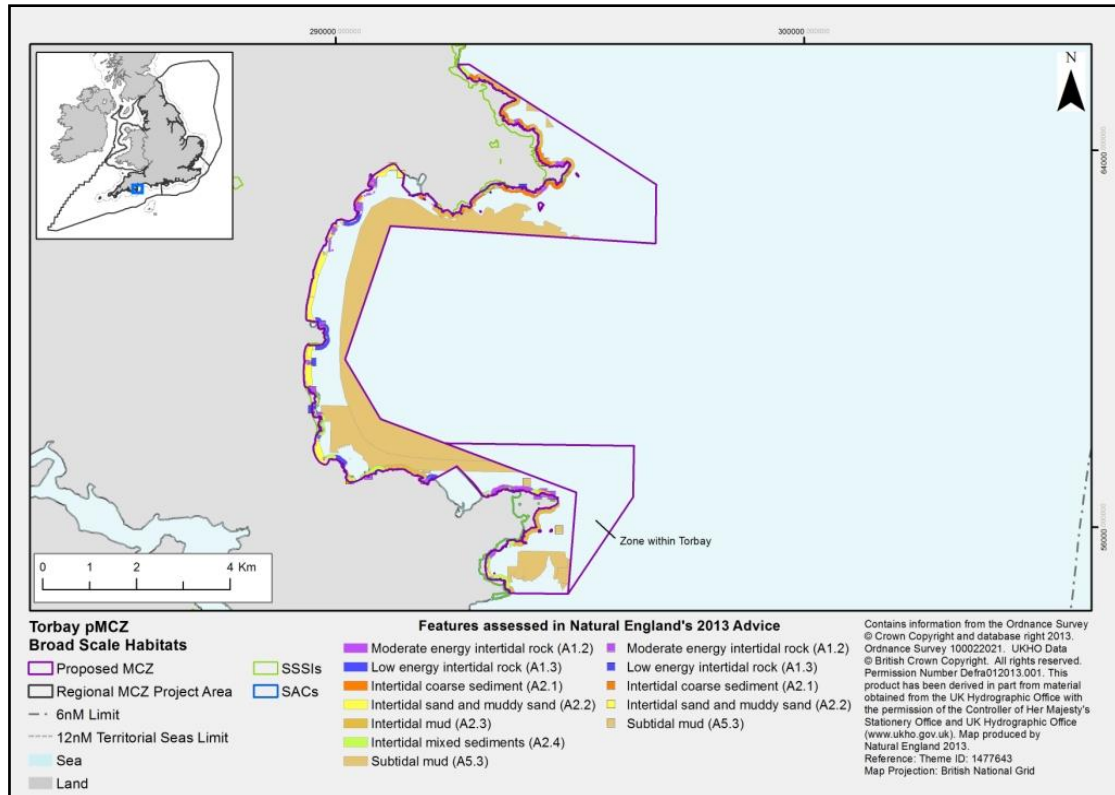


Figure 24 Location of mapped broad-scale habitats in pMCZ Torbay FS 22

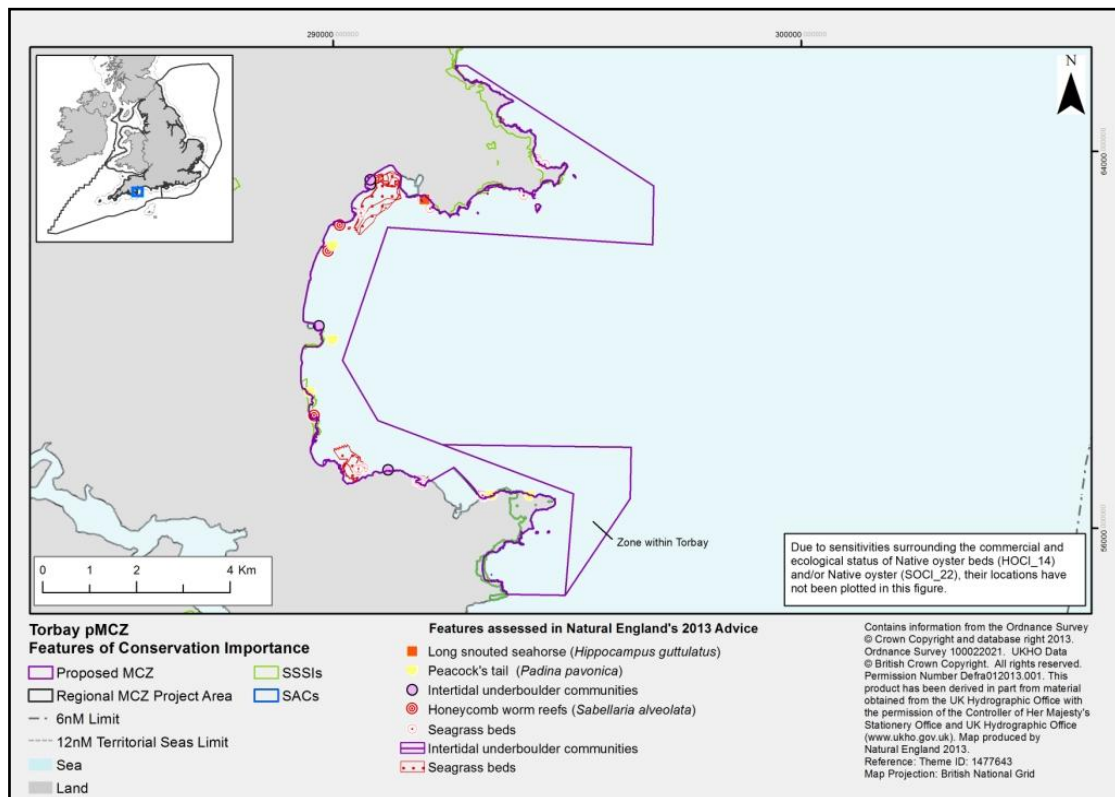


Figure 25 Location of mapped features of conservation importance in pMCZ Torbay FS 22

A5.15.2 Summary of Natural England's advice

Table 54 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature of pMCZ Torbay FS 22

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale Habitat	A1.2 Moderate energy intertidal rock	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale Habitat	A1.3 Low energy intertidal rock	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Broad-scale Habitat	A2.1 Intertidal coarse sediment	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale Habitat	A2.2 Intertidal sand and muddy sand	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale Habitat	A2.3 Intertidal mud	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Broad-scale Habitat	A2.4 Intertidal mixed sediments	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Broad-scale Habitat	A5.3 Subtidal mud	Sufficient evidence for designation	High	Moderate	Recover	More certain
Habitat of conservation importance	Intertidal underboulder communities	Sufficient evidence for designation	High	High	Maintain	More certain
Habitat of conservation importance	Honeycomb worm reefs (<i>Sabellaria alveolata</i>)	Further evidence required for designation	Low	Low	Maintain	More certain
Habitat of conservation importance	Seagrass beds	Sufficient evidence for designation	Moderate	Moderate	Recover	More certain
Species of conservation importance	Long snouted seahorse (<i>Hippocampus</i>)	Sufficient evidence for designation	Low	Low	Recover	More certain

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
	<i>guttulatus</i>)					
Species of conservation importance	Native oyster (<i>Ostrea edulis</i>)	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Species of conservation importance	Peacock's tail seaweed (<i>Padina pavonica</i>)	Further evidence required for designation	Low	Low	Maintain	More certain

Table 55 Supporting documentation, reference materials and relevant survey details for pMCZ Torbay FS 22

Document title/survey code	Document/survey purpose	Location
Lieberknecht <i>et al.</i> Finding Sanctuary. <i>Finding Sanctuary Final Report and Recommendations. A report submitted by the Finding Sanctuary stakeholder project to Defra, the Joint Nature Conservation Committee, and Natural England.</i> Exeter: Finding Sanctuary, 2011	Final report from Finding Sanctuary detailing the final rMCZs for the Finding Sanctuary region	http://publications.naturalengland.org.uk/publication/1561560
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones.</i> Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report.</i> Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 2.1. – Finding Sanctuary – Sites proposed for designation in 2013.</i> London: Defra, 2012b	Defra's Public Consultation on the rMCZs in the Finding Sanctuary region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82715/mcz-annex-a1-part2-1-121213.pdf
M_00305	Environment Agency Habitat Mapping	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH Data	See Table 4 in Section 4.3 of the main advice document for the full reference

Document title/survey code	Document/survey purpose	Location
M_00316	2013 Natural England MCZ Verification Survey of Torbay – Intertidal Sediment	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00362	MCZ Photo Evidence Database. Coordinate format in OS grid reference	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00361	MCZ Photo Evidence Database. Coordinate format in decimal degrees	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00315	2013 Natural England MCZ Verification Survey of Torbay – Intertidal Rock	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00093	UKSeaMap V8 – JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00198	Environment Agency National Water Framework Directive Benthic Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00059	MB102 Sample Point Data for HOCI (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00056	MB102 Sample Points for Non-mobile Species (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder 2013 Species FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.15.3 Audit trail for the development of Natural England’s advice

Table 56 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England’s advice published in 2012 for pMCZ Torbay FS 22

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A1.2 Moderate energy intertidal rock	High	Low	High	High	New verification data. Relevant survey code: M_00315
A1.3 Low energy intertidal rock	High	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and photographic evidence. Relevant survey code: M_00362

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A2.1 Intertidal coarse sediment	High	Low	High	High	New verification data. Relevant survey code: M_00316
A2.2 Intertidal sand and muddy sand	High	Low	High	High	New verification data. Relevant survey code: M_00316
A2.3 Intertidal mud	High	High	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
A2.4 Intertidal mixed sediments	High	High	Moderate	Moderate	New verification data. Relevant survey code: M_00316
A5.3 Subtidal mud	High	Moderate	High	Moderate	No change
Intertidal underboulder communities	Moderate	Moderate	High	High	New verification data. Relevant survey code: M_00315
Honeycomb worm reefs (<i>Sabellaria alveolata</i>)	High	Low	Low	Low	Change due to application of new guidance on use of Protocol E. Some of the previous data did not record which species of <i>Sabellaria</i> was present and was therefore not used for the confidence assessment
Seagrass beds	High	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
Long snouted seahorse (<i>Hippocampus guttulatus</i>)	Low	Low	Low	Low	No change
Native oyster (<i>Ostrea edulis</i>)	Moderate	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
Peacock's tail seaweed (<i>Padina pavonica</i>)	Low	Low	Low	Low	No change

Table 57 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Torbay FS 22

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A1.3 Low energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.2 Intertidal sand and muddy sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.3 Intertidal mud	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.4 Intertidal mixed sediments	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.3 Subtidal mud	Recover	Recover	No change	Reasonably certain	More certain	No change
Intertidal underboulder communities	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Honeycomb worm reefs (<i>Sabellaria alveolata</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Seagrass beds	Recover	Recover	No change	Reasonably certain	More certain	No change
Long snouted seahorse (<i>Hippocampus guttulatus</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
Native oyster (<i>Ostrea edulis</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Peacock's tail seaweed (<i>Padina pavonica</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change

A5.15.4 Additional advice

A5.15.4.1 Advice on specific features

Advice on the implications to the recommended HOCl seagrass beds of a boundary alteration for the Torbay pMCZ was supplied to Defra on request. See below for the details of this advice.

A5.15.4.2 Advice on boundaries

DEFRA requested Natural England's advice on the ecological impact of moving the site boundary to exclude port activities, as had been proposed in responses to the Public Consultation. In particular, Defra asked for advice on the ecological impact of excluding some of the seagrass beds from the site in the area of concern to the port sector.

The main seagrass bed within the pMCZ lies to the west of Torquay Harbour at Torre Abbey Sands, and represents about two thirds of the seagrass within the pMCZ. If this area of seagrass were to be excluded entirely from the site, it would eliminate one of the best examples of this feature and significantly reduce the total amount designated.

The Draft Tor Bay Harbour Authority Port Master Plan⁹ proposes an extension of Haldon Pier westwards by 250m, a mooring dolphin a further 30m west with access walkway, and widening the extension to 30m to provide a multi-purpose berth for vessels up to 5.5m draught. If this proposed development were to go ahead it could cause some direct loss of the seagrass bed, and could also have a potential impact through smothering resulting from capital and/or maintenance dredging.

The Ecological Network Guidance specifies that the minimum viable patch diameter for seagrass is 500m. The large bed to the west of the harbour measures approximately 1.5km long at its longest and has a width of between 250m and 750m. If the area of this seagrass bed within the pMCZ were to be reduced it may no longer be considered viable using these criteria.

If a section of a bed were removed from protection and subsequently damaged, this could have significant impacts for the area of the bed that remains protected. A recent report, commissioned by Natural England¹⁰ (Jackson *et al.* 2013), suggests that larger older beds are more stable and that loss of seagrass or fragmentation of a bed, such as may be caused by anthropogenic impacts, can reach a critical point at which further loss is accelerated at rates quicker than seagrass can recover, that is, if seagrass beds are reduced in size then the environmental conditions that result, such as increased erosion and turbidity caused by that loss, can result in further losses.

Removal of a bed, or a part of a bed, from designation may have additional impacts to the ecosystem functioning of the habitat and the species it supports. There is one record of the SOCl long snouted seahorse (*Hippocampus guttulatus*) within the site, to the east of Torquay harbour where there is another small area of seagrass. This feature is recommended for protection within the pMCZ. There is a recognised link between seahorses and seagrass beds and given the proximity of the record to the main seagrass bed it is possible that seahorses would also be utilising this area. The Draft Tor Bay Harbour Authority Port Master Plan notes that the seagrass beds in Tor Bay support seahorses. Removing either the entire seagrass bed, or a section of it, could therefore result in losing habitat that supports a potentially designated feature.

In a harbour or semi-enclosed bay individual seagrass beds may function as a single unit, as opposed to discrete units. Seagrass primarily grows and expands through vegetative growth of its rhizomes, but also

⁹ <http://www.torbay.gov.uk/portmasterplandraft0413.pdf>

¹⁰ JACKSON, E.L., GRIFFITHS, C.A. & DURKIN, O. 2013. *A guide to assessing and managing anthropogenic impact on marine angiosperm habitat – Part 1: Literature review*. Natural England Commissioned Reports, Number 111.

has the ability to spread by seed. Depending on the hydrodynamics of the site, removing one bed may reduce the seed supply to other beds within the unit, potentially reducing their viability.

Seagrass beds are known to be foraging and breeding areas for mobile species, such as fish and cuttlefish, which visit seagrass beds to feed and lay eggs. If a bed, or an area of a bed, is taken out of protection and is removed or compromised, it will reduce the available space for foraging and egg deposition.

Defra also requested clarification on an extension zone to the Torbay pMCZ recommended for the protection of mobile species. The main part of the Torbay pMCZ follows the SAC boundary around Berry Head, with the extension zone around Berry Head recommended only for mobile species (a number of sea birds and harbour porpoise). The Finding Sanctuary report for Torbay pMCZ recommended that this extension zone should protect the mobile species only, not seabed features. The draft conservation objective for subtidal mud (the seabed feature that occurs in the Berry Head extension zone) was not to apply in this zone and the draft conservation objectives for the birds and harbour porpoise were to apply in the Berry Head extension zone only. The Berry Head extension zone is known to have subtidal mud but is not intended for designation. Defra is not considering the mobile species recommended for the Torbay pMCZ for designation in 2013.

A5.15.4.3 Additional surveys

A verification survey has been carried out on this site and the results have been used in the development of this advice. The survey was carried out by Ecospan Environmental Ltd to verify intertidal rock and sediment within pMCZ Torbay. The survey codes are M_00315 and M_00316, please see Table 4 in Section 4.3 of the main document for the full references.

A5.15.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive features: honeycomb worm reefs (*Sabellaria alveolata*), seagrass beds, long snouted seahorse (*Hippocampus guttulatus*), native oyster (*Ostrea edulis*) and peacock's tail seaweed (*Padina pavonica*). Of these, seagrass beds and long snouted seahorse (*Hippocampus guttulatus*) have a conservation objective of Recover.

A5.16 Skerries Bank and Surrounds FS 24

A5.16.1 Site feature maps

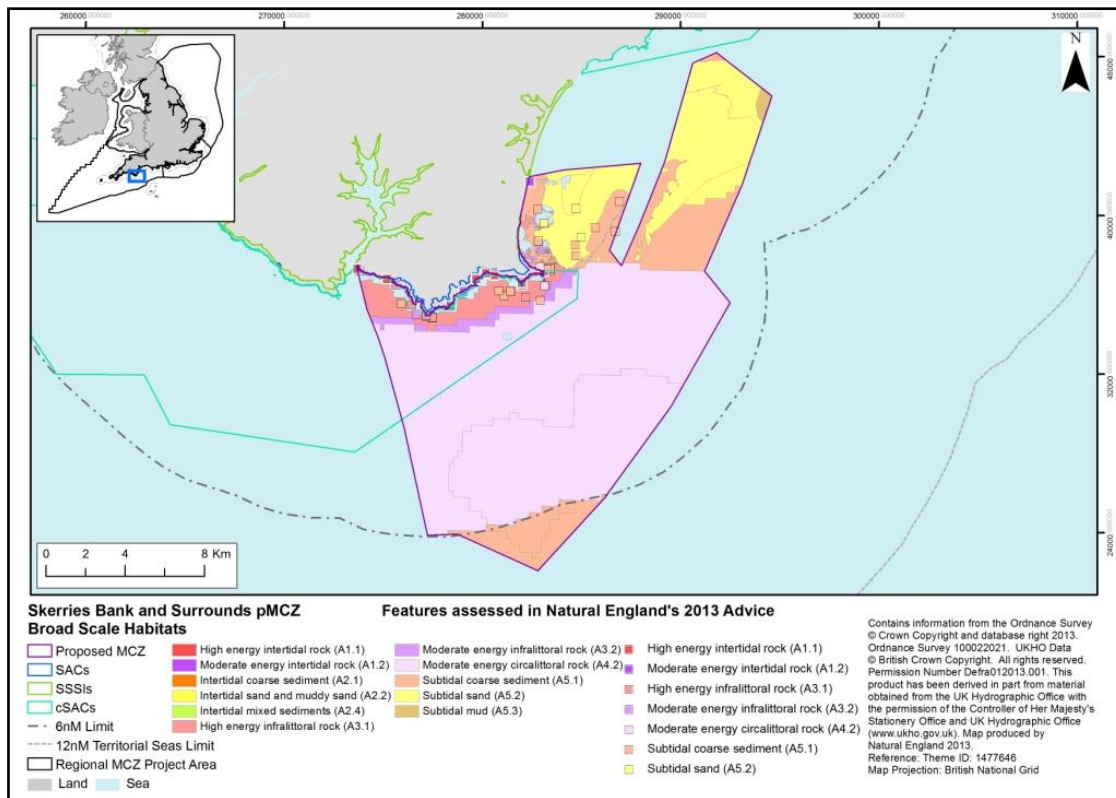


Figure 26 Location of mapped broad-scale habitats in pMCZ Skerries Bank and Surrounds FS 24

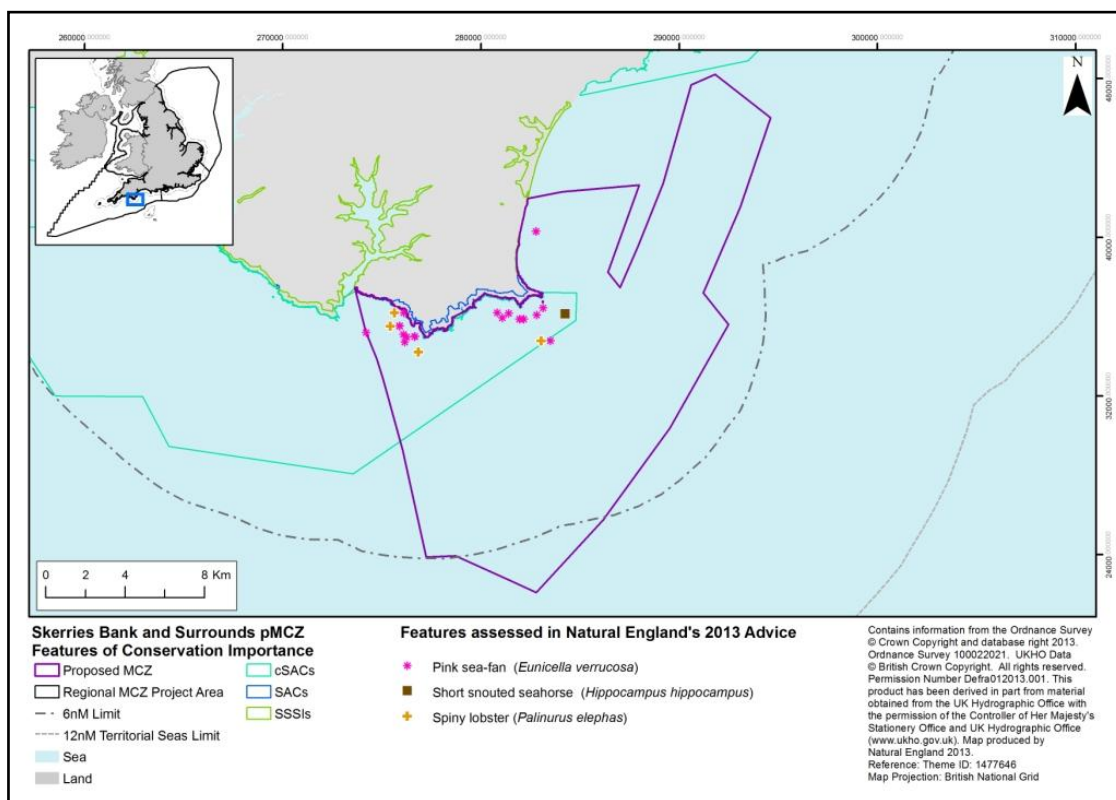


Figure 27 Location of mapped features of conservation importance in pMCZ Skerries Bank and Surrounds FS 24. Please note, intertidal underboulder communities are not mapped for reasons given in Section A5.16.4.1

A5.16.2 Summary of Natural England's advice

Table 58 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature of the site for pMCZ Skerries Bank and Surrounds FS 24

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A1.1 High energy intertidal rock	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A1.2 Moderate energy intertidal rock	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A2.1 Intertidal coarse sediment	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A2.2 Intertidal sand and muddy sand	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A2.3 Intertidal mud	Further evidence required for designation	No confidence	No confidence	Not assessed – verification survey showed feature is not present within the site	Not assessed as verification survey confirmed this feature was not present in the site
Broad-scale habitat	A2.4 Intertidal mixed sediments	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A3.1 High energy infralittoral rock	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A3.2 Moderate energy infralittoral rock	Further evidence required for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A4.2 Moderate energy	Sufficient evidence for	Moderate	Moderate	Recover	More certain

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
	circalittoral rock	designation				
Broad-scale habitat	A5.1 Subtidal coarse sediment	Further evidence required for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A5.2 Subtidal sand	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A5.3 Subtidal mud	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Habitat of conservation importance	Intertidal underboulder communities	Further evidence required for designation	Low	Low	Maintain	More certain
Species of conservation importance	Pink sea-fan (<i>Eunicella verrucosa</i>)	Sufficient evidence for designation	High	High	Maintain	More certain
Species of conservation importance	Short snouted seahorse (<i>Hippocampus hippocampus</i>)	Further evidence required for designation	Low	Low	Maintain	More certain
Species of conservation importance	Spiny lobster (<i>Palinurus elephas</i>)	Sufficient evidence for designation	Moderate	Low	Recover	More certain

Table 59 Supporting documentation, reference materials and relevant survey details for pMCZ Skerries Bank and Surrounds FS 24

Document title/survey code	Document/survey purpose	Location
Lieberknecht <i>et al.</i> Finding Sanctuary. <i>Finding Sanctuary Final Report and Recommendations. A report submitted by the Finding Sanctuary stakeholder project to Defra, the Joint Nature Conservation Committee, and Natural England.</i> Exeter, Finding Sanctuary, 2011	Final report from Finding Sanctuary detailing the final rMCZs for the Finding Sanctuary region	http://publications.naturalengland.org.uk/publication/1561560

JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones.</i> Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report.</i> Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 2.1. – Finding Sanctuary – Sites proposed for designation in 2013.</i> London: Defra, 2012b	Defra's Public Consultation on the rMCZs in the Finding Sanctuary region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82715/mcz-annex-a1-part2-1-121213.pdf
M_00093	UKSeaMap V8 – JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00305	Environment Agency Habitat Mapping	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00314	2013 Natural England MCZ Verification Survey of Skerries Bank and Surrounds	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00347	Plymouth Marine Laboratory – South Devon Grab Survey	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00056	MB102 Sample Points for Non-mobile Species (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder 2013 Species FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.16.3 Audit trail for the development of Natural England's advice

Table 60 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Skerries Bank and Surrounds FS 24

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A1.1 High energy intertidal rock	High	Low	High	High	New verification data. Relevant survey code: M_00314
A1.2 Moderate energy intertidal rock	High	Low	High	High	New verification data. Relevant survey code: M_00314
A2.1 Intertidal coarse sediment	Low	Low	High	High	New verification data. Relevant survey code: M_00314
A2.2 Intertidal sand and muddy sand	High	Low	High	High	New verification data. Relevant survey code: M_00314
A2.3 Intertidal mud	No confidence	No confidence	No confidence	No confidence	The verification survey confirmed absence of feature. It has been amended from the assessment of Moderate, Moderate, which was based on the parent feature only, to no confidence (= not present)
A2.4 Intertidal mixed sediments	Moderate	Low	High	High	New verification data. Relevant survey code: M_00314
A3.1 High energy infralittoral rock	High	Moderate	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
A3.2 Moderate energy infralittoral rock	Low	Low	High	Moderate	New data. Relevant survey code: M_00308
A4.2 Moderate energy circalittoral rock	High	Moderate	Moderate	Moderate	Change due to application of new guidance on use of Protocol E
A5.1 Subtidal coarse sediment	Low	Low	High	Moderate	New data. Relevant survey code: M_00310
A5.2 Subtidal sand	Moderate	Moderate	Moderate	Moderate	No change
A5.3 Subtidal mud	Low	Low	Moderate	Moderate	New data. Relevant survey code: M_00310
Intertidal	Low	Low	Low	Low	No change

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
underboulder communities					
Pink sea-fan (<i>Eunicella verrucosa</i>)	High	High	High	High	No change
Short snouted seahorse (<i>Hippocampus hippocampus</i>)	Low	Low	Low	Low	No change
Spiny lobster (<i>Palinurus elephas</i>)	Moderate	Moderate	Moderate	Low	Change due to application of new guidance on use of Protocol E

Table 61 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Skerries Bank and Surrounds FS 24

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A1.1 High energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.2 Intertidal sand and muddy sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.3 Intertidal mud	Maintain	Not assessed	Verification survey shows feature is not present within the site	Reasonably certain	Not assessed	Verification survey shows feature is not present within the site
A2.4 Intertidal mixed sediments	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A3.1 High energy infralittoral rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A3.2 Moderate energy infralittoral rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A4.2 Moderate energy circalittoral rock	Recover	Recover	No change	Reasonably certain	More certain	No change
A5.1 Subtidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.2 Subtidal sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A5.3 Subtidal mud	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Intertidal underboulder communities	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Pink sea-fan (<i>Eunicella verrucosa</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Short snouted seahorse (<i>Hippocampus hippocampus</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change

A5.16.4 Additional advice

A5.16.4.1 Advice on specific features

No advice given to Defra on specific features for this site. Please note, intertidal underboulder communities were originally proposed for this site by the Finding Sanctuary project. Data do exist for this feature within the pMCZ (survey code M_00305) but they are modelled data and are not accompanied by any ground truthing, as a result the confidence assessment resulted in presence and extent of the feature being described as Low/Low. The recent verification survey (survey code M_00314) did not find any evidence of intertidal underboulder communities and we believe these more recent data supersede the older data and that the feature does not exist within this pMCZ. As a result, it is not mapped above.

A5.16.4.2 Advice on boundaries

No advice given to Defra on boundaries for this site.

A5.16.4.3 Additional surveys

A verification survey has been carried out on this site and the results have been used in the development of this advice. The survey was carried out by PML Applications and the Marine Biological Association to verify intertidal rock and sediment within the pMCZ Skerries Bank and Surrounds. The survey code is M_00314, please see Table 4 in Section 4.3 of the main document for the full reference.

A5.16.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive features: short snouted seahorse (*Hippocampus hippocampus*), spiny lobster (*Palinurus elephas*) and pink sea-fan (*Eunicella verrucosa*). Of these, spiny lobster (*Palinurus elephas*) has a conservation objective of Recover.

A5.17 Tamar Estuary Sites FS 27

A5.17.1 Site feature maps

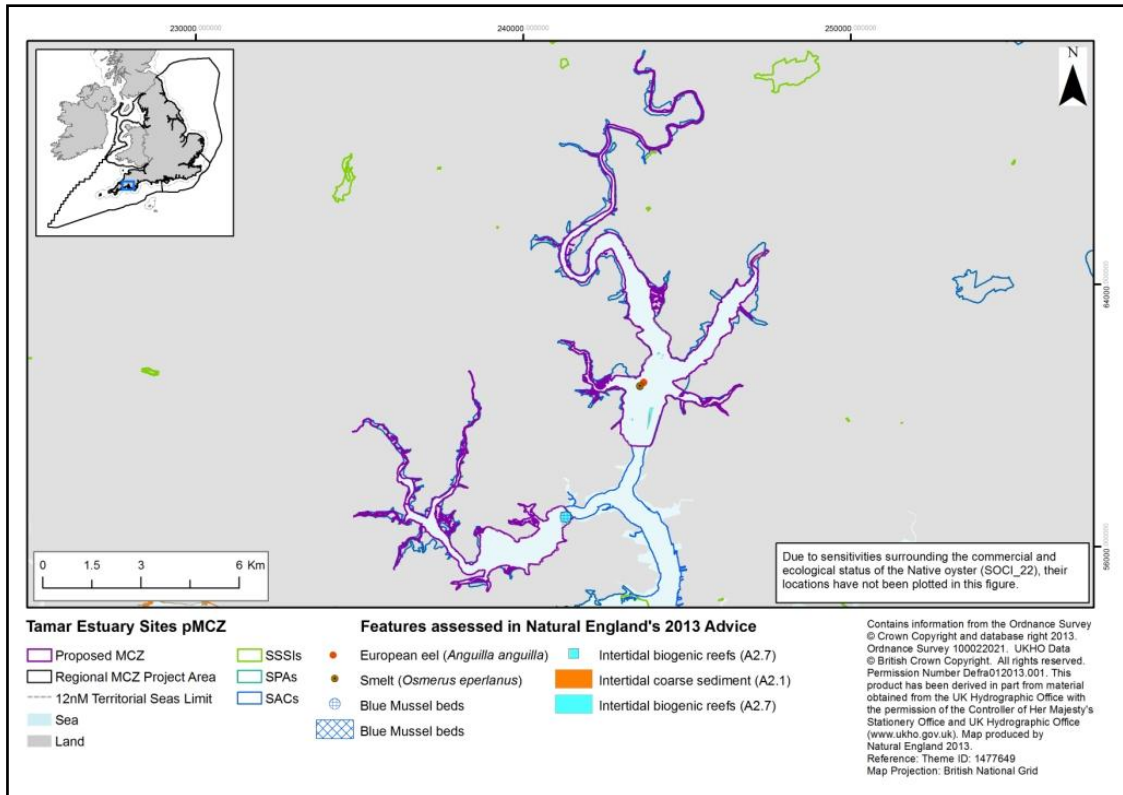


Figure 28 Location of mapped broad-scale habitats and features of conservation importance in pMCZ Tamar Estuary FS 27

A5.17.2 Summary of Natural England's advice

Table 62 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature of the site for pMCZ Tamar Estuary FS 27

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A2.1 Intertidal coarse sediment	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A2.7 Intertidal biogenic reef	Further evidence required for designation	High	High	Maintain	More certain
Habitat of conservation importance	Blue mussel beds	Further evidence required for designation	High	High	Maintain	More certain
Species of conservation importance	European eel (<i>Anguilla anguilla</i>)	Sufficient evidence for designation	High	High	Maintain	More certain
Species of conservation importance	Native oyster (<i>Ostrea edulis</i>)	Sufficient evidence for designation	Low	Low	Recover	Less certain
Species of conservation importance	Smelt (<i>Osmerus eperlanus</i>)	Further evidence required for designation	Moderate	Moderate	Recover	More certain

Table 63 Supporting documentation, reference materials and relevant survey details for pMCZ Tamar Estuary FS 27

Document title/survey code	Document/survey purpose	Location
Lieberknecht <i>et al.</i> Finding Sanctuary. <i>Finding Sanctuary Final Report and Recommendations. A report submitted by the Finding Sanctuary stakeholder project to Defra, the Joint Nature Conservation Committee, and Natural England.</i> Exeter: Finding Sanctuary, 2011	Final report from Finding Sanctuary detailing the final rMCZs for the Finding Sanctuary region	http://publications.naturalengland.org.uk/publication/1561560
JNCC and Natural England.	JNCC and Natural	http://publications.naturalengland.org.uk/file/492308

JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones. Peterborough: JNCC and Natural England, 2012a	England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	2
JNCC and Natural England. JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report. Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 3. – Finding Sanctuary – Sites proposed for designation in 2013. London: Defra, 2012c	Defra's Public Consultation on the rMCZs in the Finding Sanctuary region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82723/mcz-annex-a1-part3-121213.pdf
M_00045	Cornwall Wildlife Trust FOCI Species Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00305	Environment Agency Habitat Mapping	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder 2013 Species FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00323	A73 Littoral Biotope Survey and Condition Assessment of the Lynher Estuary SSSI 2010 (Natural England via Ecospan)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00324	A74 Littoral Biotope Survey and Condition Assessment of the Tamar, Tavy and St John's Lake SSSIs 2010 (Natural England via Ecospan)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00364	Environment Agency (2012) National Fish Populations Database output, accessed 30/01/12	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.17.3 Audit trail for the development of Natural England's advice

Table 64 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Tamar Estuary FS 27

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A2.1 Intertidal coarse sediment	High	High	High	High	No change
A2.7 Intertidal biogenic reef	High	High	High	High	No change
Blue mussel beds	High	Low	High	High	New data from data source unavailable at time of consultation. Relevant survey codes: M_00323, M_00324
European eel (<i>Anguilla anguilla</i>)	High	High	High	High	No change
Native oyster (<i>Ostrea edulis</i>)	Low	Low	Low	Low	No change
Smelt (<i>Osmerus eperlanus</i>)	High	Moderate	Moderate	Moderate	Change due to application of new guidance on use of Protocol E

Table 65 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Tamar Estuary FS 27

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A2.1 Intertidal coarse sediment	Recover	Maintain	<p>This feature was not fully VA assessed in 2013 as there had been no change in socio-economic activity or feature distribution. However, as the feature had in 2012 been judged exposed to similar pressures as intertidal biogenic reef and blue mussel beds (which were VA assessed in 2013), in 2013 it was assessed for activities/pressures to which it was judged exposed for consistency of approach with these other site features.</p> <p>The conservation objective for this feature has been revised to Maintain based on a detailed assessment of the feature's sensitivities to known pressures. The 2012 Recover objective was based on a less detailed combined sensitivity to pressures assessment. The 2012 Recover objective was triggered by an assessment of the feature's sensitivity and exposure to: 1) Industrial and agricultural liquid discharges; 2) Sewerage disposal. The pressures brought about by</p>	Reasonably uncertain	More certain	<p>The 2013 Maintain objective has been based on a more detailed evaluation of the feature's sensitivity to pressures, contributing to greater certainty. The 2012 assessment of certainty noted that there was 'No direct evidence of poor water quality impacting feature'. Whilst there is still no direct evidence of water quality impacts on the feature, an examination of current SSSI and SAC condition reporting further suggests the feature is likely to be in favourable condition</p>

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
			these activities were evaluated on a cumulative basis and an overall assessment made that 'The activity creates the pressure above the benchmark level'. In 2013 a more detailed evaluation of the individual pressures associated with each activity and the feature's sensitivities to them did not trigger a 'Recover' objective. Additionally, we used available information on site condition (current condition reporting for similar, but not identical, intertidal features of the Lynher Estuary SSSI [2009/2010], the Tamar-Tavy Estuary SSSI [2009/2010] and the Plymouth Sound and estuaries SAC [December 2012]) to further support the revision of the CO from Recover to Maintain			
A2.7 Intertidal biogenic reef	Recover	Maintain	The conservation objective for this feature has been revised to Maintain based on a detailed assessment of the feature's sensitivities to known pressures. The 2012 Recover objective was based on a less detailed combined sensitivity to pressures assessment. The 2012 Recover objective was	Reasonably uncertain	More certain	The 2013 Maintain objective has been based on a more detailed evaluation of the feature's sensitivity to pressures, contributing to greater certainty. The 2012 assessment of certainty noted that there was 'No direct evidence of poor water quality impacting feature'. Whilst there is still no direct

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
			<p>triggered by an assessment of the feature's sensitivity and exposure to: 1) Industrial and agricultural liquid discharges; 2) Sewerage disposal. The pressures brought about by these activities were evaluated on a cumulative basis and an overall assessment made that 'The activity creates the pressure above the benchmark level'. In 2013 a more detailed evaluation of the individual pressures associated with each activity and the feature's sensitivities to them did not trigger a Recover objective. Additionally, we used available information on site condition (current condition reporting for similar, but not identical, intertidal features of the Lynher Estuary SSSI [2009/2010], the Tamar-Tavy Estuary SSSI [2009/2010] and the Plymouth Sound and estuaries SAC [December 2012]) to further support the revision of the CO from Recover to Maintain</p>			evidence of water quality impacts on the feature, an examination of current SSSI and SAC condition reporting on nearby intertidal features further suggests the feature is likely to be in favourable condition
Blue mussel beds	Recover	Maintain	The conservation objective for this feature has been revised to Maintain based on a detailed assessment of the feature's	Reasonably uncertain	More certain	The 2013 Maintain objective has been based on a more detailed evaluation of the feature's sensitivity to pressures,

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
			<p>sensitivities to known pressures. The 2012 Recover objective was based on a less detailed combined sensitivity to pressures assessment. The 2012 Recover objective was triggered by an assessment of the feature's sensitivity and exposure to: 1) Industrial and agricultural liquid discharges; 2) Sewerage disposal. The pressures brought about by these activities were evaluated on a cumulative basis and an overall assessment made that 'The activity creates the pressure above the benchmark level'. In 2013 a more detailed evaluation of the individual pressures associated with each activity and the feature's sensitivities to them did not trigger a Recover objective. Additionally, we used available information on site condition (current condition reporting for similar, but not identical, intertidal features of the Lynher Estuary SSSI [2009/2010], the Tamar-Tavy Estuary SSSI [2009/2010] and the Plymouth Sound and estuaries SAC [December 2012]) to further support the revision of the CO</p>			<p>contributing to greater certainty. The 2012 assessment of certainty noted that there was 'No direct evidence of poor water quality impacting feature'. Whilst there is still no direct evidence of water quality impacts on the feature, an examination of current SSSI and SAC condition reporting on nearby intertidal features further suggests the feature is likely to be in favourable condition</p>

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
			from Recover to Maintain			
European eel (<i>Anguilla anguilla</i>)	Recover	Maintain	The European eel is subject to recovery management plans due to the current status of the species. In compliance with the European Council (Regulation No. 1100/2007), the Environment Agency has developed a management plan for the South West river basin. The VA has not identified any pressures within the site to which the local eel population may be vulnerable (using expert judgement and advice), nor that may be contributing to the wider unfavourable status of eels. A Maintain CO is advised on this basis	Reasonably certain	More certain	No change
Native oyster (<i>Ostrea edulis</i>)	Recover	Recover	No change	Reasonably uncertain	Less certain	No change
Smelt (<i>Osmerus eperlanus</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change

A5.17.4 Additional advice

A5.17.4.1 Advice on specific features

Defra requested further clarification around the conservation objective for the European eel (*Anguilla anguilla*) in all pMCZs where the species is a recommended feature. In JNCC and Natural England's 2012 advice, in some sites the European eel had been given a Recover conservation objective, whereas in others it had been given a conservation objective of Maintain.

In the production of our 2013 advice to Defra the conservation objective for the species has been re-assessed and this has resulted in a conservation objective of Maintain being applied to the European eel across all pMCZs where it is a recommended feature.

This is due to:

- The European eel being subject to recovery management plans due to the current status of the species. In compliance with the European Council (Regulation No. 1100/2007), the Environment Agency has developed management plans for the South West and South East River Basins¹¹.
- The vulnerability assessment not identifying any pressures within the sites to which the local eel populations may be vulnerable, nor that may be contributing to the wider unfavourable status of eels.

A5.17.4.2 Advice on boundaries

No advice given to Defra on boundaries for this site.

A5.17.4.3 Additional surveys

No new survey work has been carried out on this site; however, data from two littoral biotope surveys, which were unavailable at the time of consultation, have been incorporated and used in the development of this advice. The survey codes are M_00323 and M_00324, please see Table 4 in Section 4.3 of the main document for the full references.

A5.17.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive feature: native oyster (*Ostrea edulis*). This feature has a conservation objective of Recover.

¹¹ <http://archive.defra.gov.uk/foodfarm/fisheries/documents/fisheries/emp/southeast.pdf>

<http://archive.defra.gov.uk/foodfarm/fisheries/documents/fisheries/emp/southwest.pdf>

A5.18 Whitsand and Looe Bay FS 28

A5.18.1 Site feature maps

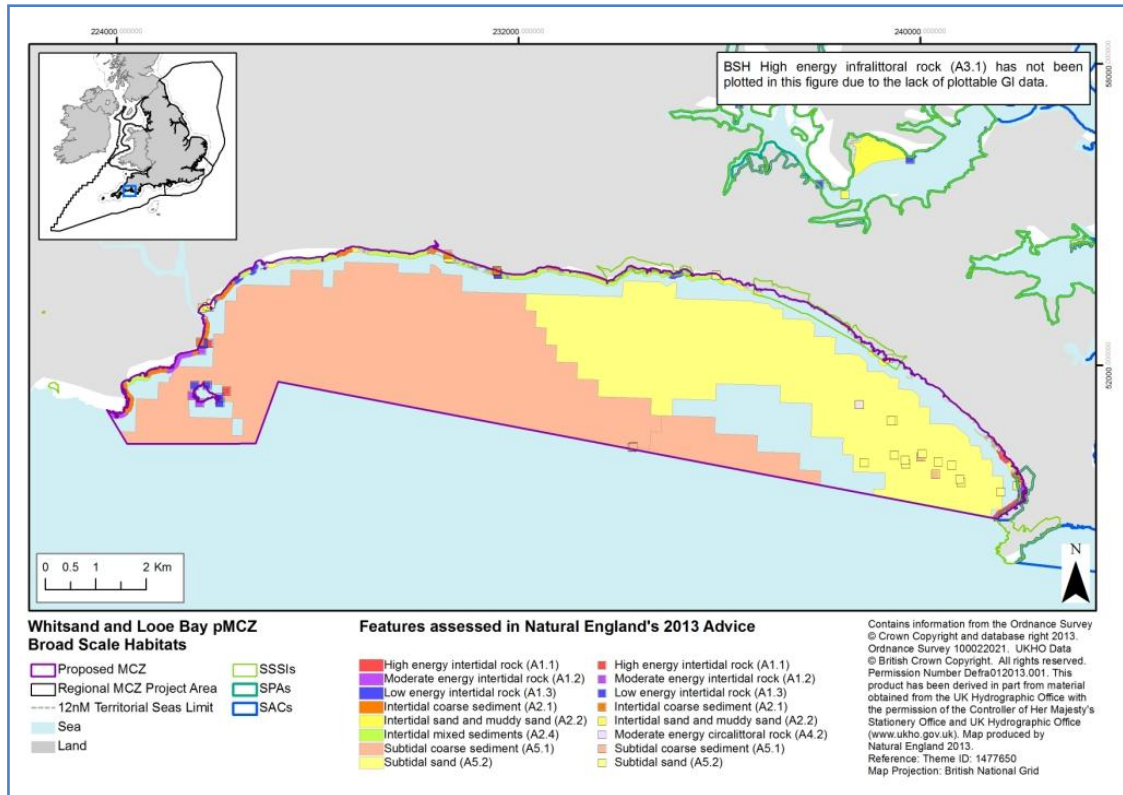


Figure 29 Location of mapped broad-scale habitats in pMCZ Whitsand and Looe Bay FS 28

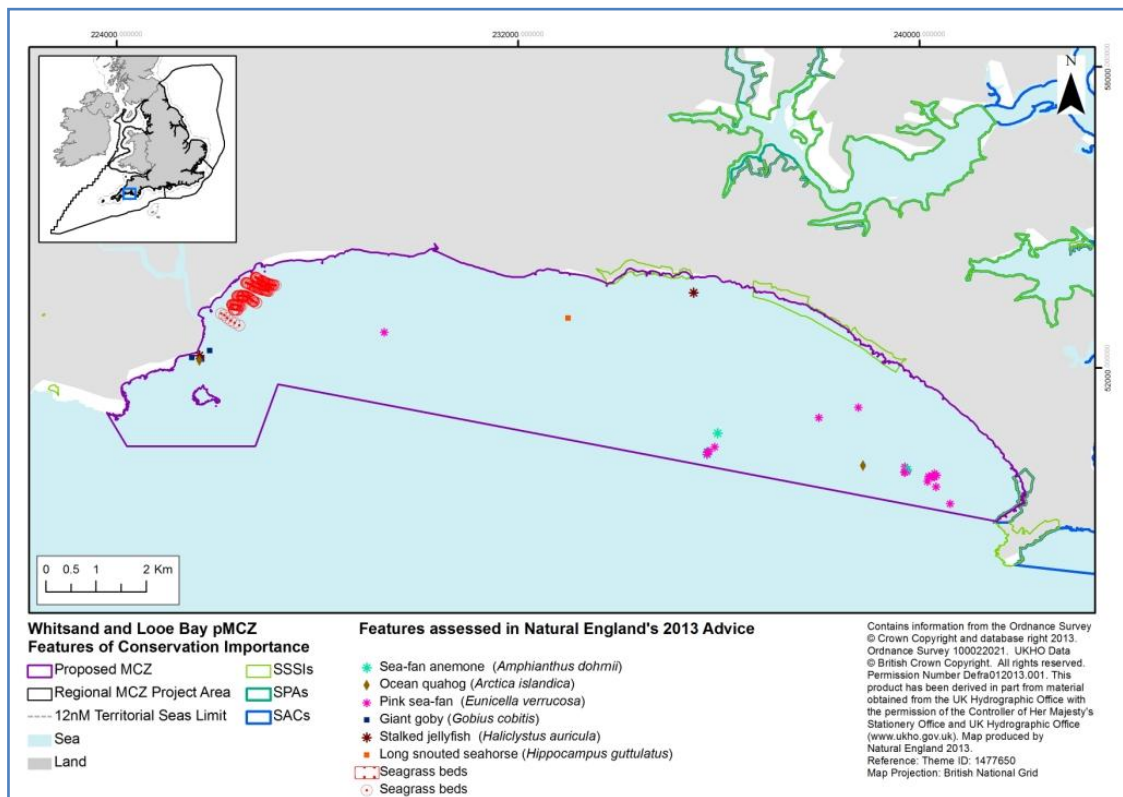


Figure 30 Location of mapped features of conservation importance in pMCZ Whitsand and Looe Bay FS 28

A5.18.2 Summary of Natural England's advice

Table 66 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for pMCZ Whitsand and Looe Bay FS 28

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A1.1 High energy intertidal rock	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A1.2 Moderate energy intertidal rock	Further evidence required for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A1.3 Low energy intertidal rock	Further evidence required for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A2.1 Intertidal coarse sediment	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A2.2 Intertidal sand and muddy sand	Further evidence required for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A2.4 Intertidal mixed sediments	Further evidence required for designation	Low	Low	Maintain	Less certain
Broad-scale habitat	A3.1 High energy infralittoral rock	Further evidence required for designation	No confidence	No confidence	No confidence in feature so no CO given	No CO so no assessment of certainty
Broad-scale habitat	A4.2 Moderate energy circalittoral rock	Further evidence required for designation	Low	Low	Maintain	More certain
Broad-scale habitat	A5.1 Subtidal coarse sediment	Further evidence required for designation	Moderate	Moderate	Maintain	Less certain
Broad-scale habitat	A5.2 Subtidal sand	Further evidence required for	High	Moderate	Maintain	Less certain

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
		designation				
Habitat of conservation importance	Seagrass beds	Further evidence required for designation	High	High	Maintain	More certain
Species of conservation importance	Giant goby (<i>Gobius cobitis</i>)	Further evidence required for designation	Low	Low	Maintain	More certain
Species of conservation importance	Stalked jellyfish (<i>Haliclystus auricula</i>)	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Species of conservation importance	Long snouted seahorse (<i>Hippocampus guttulatus</i>)	Further evidence required for designation	Low	Low	Maintain	More certain
Species of conservation importance	Ocean quahog (<i>Arctica islandica</i>)	Further evidence required for designation	Moderate	Moderate	Maintain	Less certain
Species of conservation importance	Pink sea-fan (<i>Eunicella verrucosa</i>)	Sufficient evidence for designation	High	High	Recover	Less certain
Species of conservation importance	Sea-fan anemone (<i>Amphianthus dohrnii</i>)	Sufficient evidence for designation	Moderate	Moderate	Recover	Less certain

Table 67 Supporting documentation, reference materials and relevant survey details for pMCZ Whitsand and Looe Bay FS 28

Document title/survey code	Document/survey purpose	Location
Lieberknecht <i>et al.</i> Finding Sanctuary. <i>Finding Sanctuary Final Report and Recommendations. A report submitted by the Finding Sanctuary stakeholder project to Defra, the Joint Nature Conservation Committee,</i>	Final report from Finding Sanctuary detailing the final rMCZs for the Finding Sanctuary region	http://publications.naturalengland.org.uk/publication/1561560

Document title/survey code	Document/survey purpose	Location
<i>and Natural England. Exeter: Finding Sanctuary, 2011</i>		
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones.</i> Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report.</i> Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 3. – Finding Sanctuary – Sites proposed for designation in 2013.</i> London: Defra, 2012c	Defra's Public Consultation on the rMCZs in the Finding Sanctuary region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82723/mcz-annex-a1-part3-121213.pdf
M_00045	Cornwall Wildlife Trust FOCI Species Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00056	MB102 Sample Points for Non-Mobile Species (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00059	MB102 Sample Point Data for HOCl (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00093	UKSeaMap V8 – JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00101	Cefas Habitat Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00103	Cornwall Wildlife Trust Looe Seagrass Survey	See Table 4 in Section 4.3 of the main advice document for the full reference

Document title/survey code	Document/survey purpose	Location
M_00105	Cornwall Wildlife Trust Biotope and Species Survey Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00305	Environment Agency Habitat Mapping	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH Data: 2004 to current date	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder 1986–2013 Species FOCI. Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder 1986–2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00361	MCZ Photo Evidence Database. Coordinate format in decimal degrees	See Table 4 in Section 4.3 of the main advice document for the full reference

A45.18.3 Audit trail for the development of Natural England's advice

Table 68 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Whitsand and Looe Bay FS 28

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A1.1 High energy intertidal rock	Moderate	Moderate	Moderate	Moderate	No change
A1.2 Moderate energy intertidal rock	High	Low	High	Moderate	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00310, M_00361
A1.3 Low energy intertidal rock	High	Low	High	Moderate	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00310, M_00361
A2.1 Intertidal	High	Low	Moderate	Moderate	Change due to application of new guidance on use of

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
coarse sediment					Protocol E and increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00310, M_00361
A2.2 Intertidal sand and muddy sand	High	Low	High	Moderate	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00310, M_00361
A2.4 Intertidal mixed sediments	High	Low	Low	Low	Change due to application of new guidance on use of Protocol E
A3.1 High energy infralittoral rock	Low	Low	No confidence	No confidence	Change due to application of new guidance on use of Protocol E
A4.2 Moderate energy circalittoral rock	Low	No confidence	Low	Low	Change due to application of new guidance on use of Protocol E
A5.1 Subtidal coarse sediment	Moderate	Low	Moderate	Moderate	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00101, M_00105, M_00305, M_00308, M_00310, M_00361
A5.2 Subtidal sand	Low	Low	High	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00101, M_00105, M_00305, M_00308, M_00310, M_00361
Seagrass beds	High	Low	High	High	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00045, M_00103, M_00105, M_00361
Giant goby (<i>Gobius cobitis</i>)	Low	Low	Low	Low	No change
Stalked jellyfish (<i>Haliclystus auricula</i>)	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00045, M_00105
Long snouted seahorse	Low	Low	Low	Low	No change

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
<i>(Hippocampus guttulatus)</i>					
Ocean quahog <i>(Arctica islandica)</i>	Moderate	Moderate	Moderate	Moderate	No change
Pink sea-fan <i>(Eunicella verrucosa)</i>	High	High	High	High	No change
Sea-fan anemone <i>(Amphianthus dohrnii)</i>	High	High	Moderate	Moderate	Change due to application of new guidance on use of Protocol E

Table 69 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Whitsand and Looe Bay FS 28

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A1.1 High energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A1.3 Low energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.2 Intertidal sand and muddy sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.4 Intertidal mixed sediments	Maintain	Maintain	No change	Reasonably uncertain	Less certain	No change
A3.1 High energy infralittoral rock	Maintain	No confidence in feature so no CO given	No confidence in feature presence or extent	Reasonably uncertain	No confidence in feature so no CO given.	No CO so no assessment of certainty
A4.2 Moderate energy circalittoral rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.1 Subtidal coarse sediment	Maintain	Maintain	No change	Reasonably uncertain	Less certain	No change
A5.2 Subtidal sand	Maintain	Maintain	No change	Reasonably uncertain	Less certain	No change
Seagrass beds	Maintain	Maintain	No change	Reasonably	More certain	No change

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
				certain		
Giant goby (<i>Gobius cobitis</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Stalked jellyfish (<i>Haliclystus auricula</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Long snouted seahorse (<i>Hippocampus guttulatus</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Ocean quahog (<i>Arctica islandica</i>)	Maintain	Maintain	No change	Reasonably uncertain	Less certain	No change
Pink sea-fan (<i>Eunicella verrucosa</i>)	Recover	Recover	No change	Reasonably uncertain	Less certain	No change
Sea-fan anemone (<i>Amphianthus dohrnii</i>)	Recover	Recover	No change	Reasonably uncertain	Less certain	No change

A5.18.4 Additional advice

A5.18.4.1 Advice on specific features

No requests were received from Defra for further advice on specific features for this site. However, Natural England advises that high energy infralittoral rock should no longer be recommended for protection at this site as more detailed analysis of the data has indicated that it is not present.

A5.18.4.2 Advice on boundaries

One of the responses to the Defra Public Consultation from the fisheries sector proposed that the eastern part (to the east of the red vertical line in Figure 31 below) of the site should be excluded from the pMCZ because of overlap of the area with fishing interests.

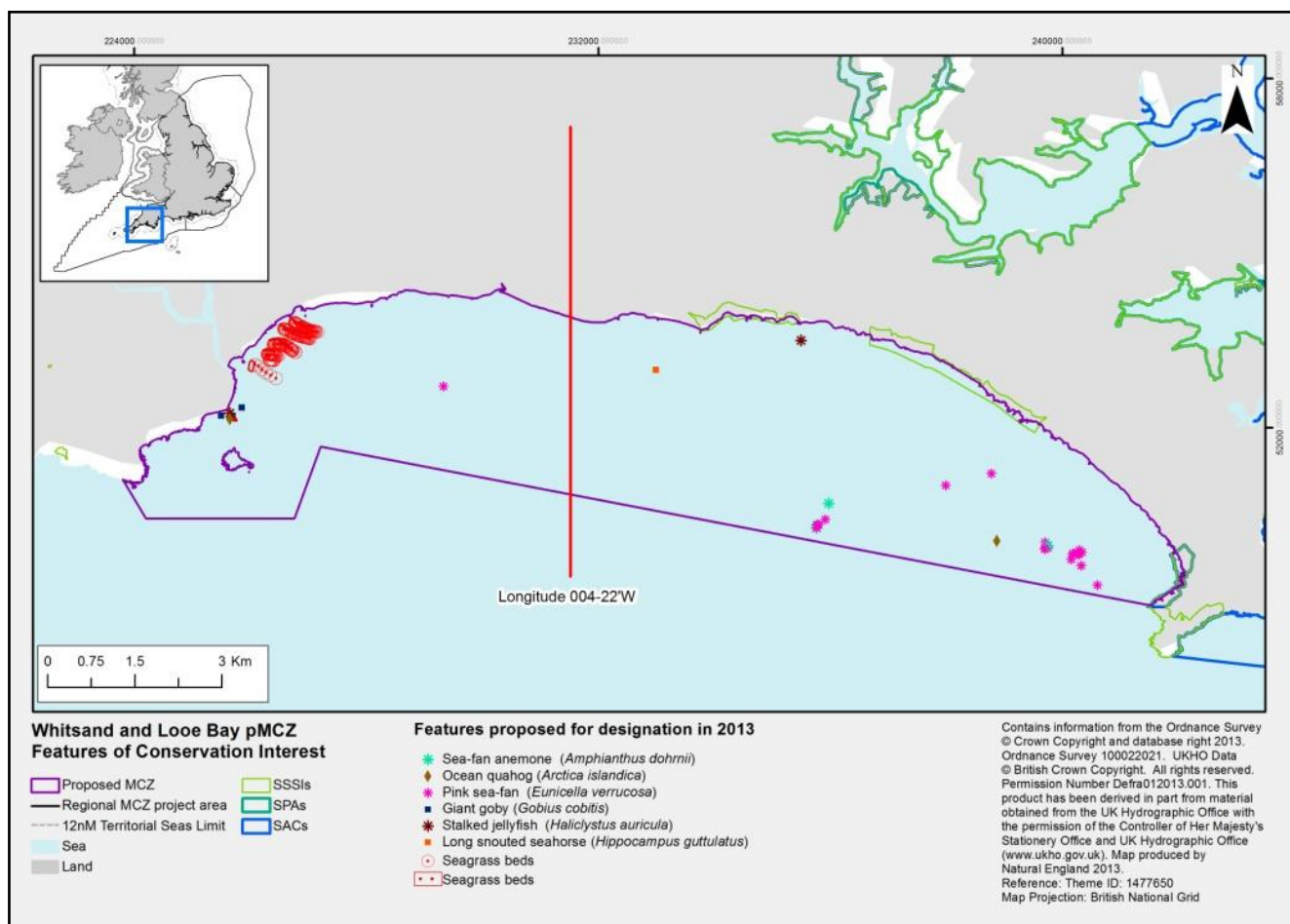


Figure 31 Boundary change proposed for pMCZ Whitsand and Looe Bay in response to 2012 Public Consultation, with the area to the east of the red line suggested by a consultee to be removed from designation.

Natural England has assessed the impact of this proposed boundary change and concludes that this would significantly alter the features protected by the site overall. If the boundary change progressed, the entire eastern part of the site would be lost; representing over half the total area, resulting in the loss of viability for a number of features (see Table 70 below).

Table 70 Implications of boundary changes for feature viability in pMCZ Whitsand and Looe Bay

Feature code	Feature	Approximate loss of known extent from pMCZ with revised boundary	Implications for viability¹²
A1.1	High energy intertidal rock	Half	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A1.2	Moderate energy intertidal rock	A quarter	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A1.3	Low energy intertidal rock	Less than a quarter	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A2.1	Intertidal coarse sediment	A tenth	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A2.2	Intertidal sand and muddy sand	More than half	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A2.4	Intertidal mixed sediments	Half	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A3.1	High energy infralittoral rock	No data available	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A4.2	Moderate energy circalittoral rock	Entire feature lost	Not assessed. Viability of broad-scale habitats only assessed at a regional level

¹² As described in the Ecological Network Guidance.

Feature code	Feature	Approximate loss of known extent from pMCZ with revised boundary	Implications for viability ¹²
A5.1	Subtidal coarse sediment	Less than a quarter	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A5.2	Subtidal sand	Entire feature lost	Not assessed. Viability of broad-scale habitats only assessed at a regional level
HOCI_17	Seagrass beds	No loss	None
SOCI_11	Giant goby (<i>Gobius cobitis</i>)	No loss	None
SOCI_14	Stalked jellyfish (<i>Haliclystus auricula</i>)	Half	Probably still viable
SOCI_15	Long snouted seahorse (<i>Hippocampus guttulatus</i>)	Entire feature lost	Not viable
SOCI_3	Ocean quahog (<i>Arctica islandica</i>)	Half	Probably still viable
SOCI_8	Pink sea-fan (<i>Eunicella verrucosa</i>)	Nearly all	Unlikely to meet viability criteria
SOCI_2	Sea-fan anemone (<i>Amphianthus dohrnii</i>)	Entire feature lost	Not viable

In summary, the proposed boundary change would result in the complete loss of four features to the site, and almost complete loss of a fifth feature, pink sea-fan, which we advise would be unlikely to remain viable within this site. Of these, we have high confidence in the presence of subtidal sand and pink sea-fan. Four further features would be affected by losing about half their known extent from the site.

If sea-fan anemones were not protected in this site, the only other site for this SOCI, which is considered nationally rare, would be the Isles of Scilly. Only two other tranche 1 sites have as a feature the long snouted seahorse which is also nationally rare.

The boundary change would lead to the loss of all known subtidal rock in the site and a large area of subtidal sand which, along with the site's seagrass beds, is likely to provide breeding/spawning habitat for commercial fish species.

A5.18.4.3 Additional surveys

A pMCZ verification survey was undertaken but has not informed the development of this advice. The results were not available in time for inclusion into the confidence assessment analysis. The survey was conducted by Cefas to assist in the verification of subtidal features. The survey code is A1. Please see Table 5 in Section 4.4 in the main advice document for further details.

A5.18.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive features: seagrass beds, stalked jellyfish (*Haliclystus auricula*), long snouted seahorse (*Hippocampus guttulatus*), ocean quahog (*Arctica islandica*), pink sea-fan (*Eunicella verrucosa*) and sea-fan anemone (*Amphianthus dohrnii*). Of these, seagrass beds, pink sea-fan (*Eunicella verrucosa*) and sea-fan anemone (*Amphianthus dohrnii*) have conservation objectives of Recover.

A5.19 Upper Fowey and Pont Pill FS 29

A5.19.1 Site feature maps

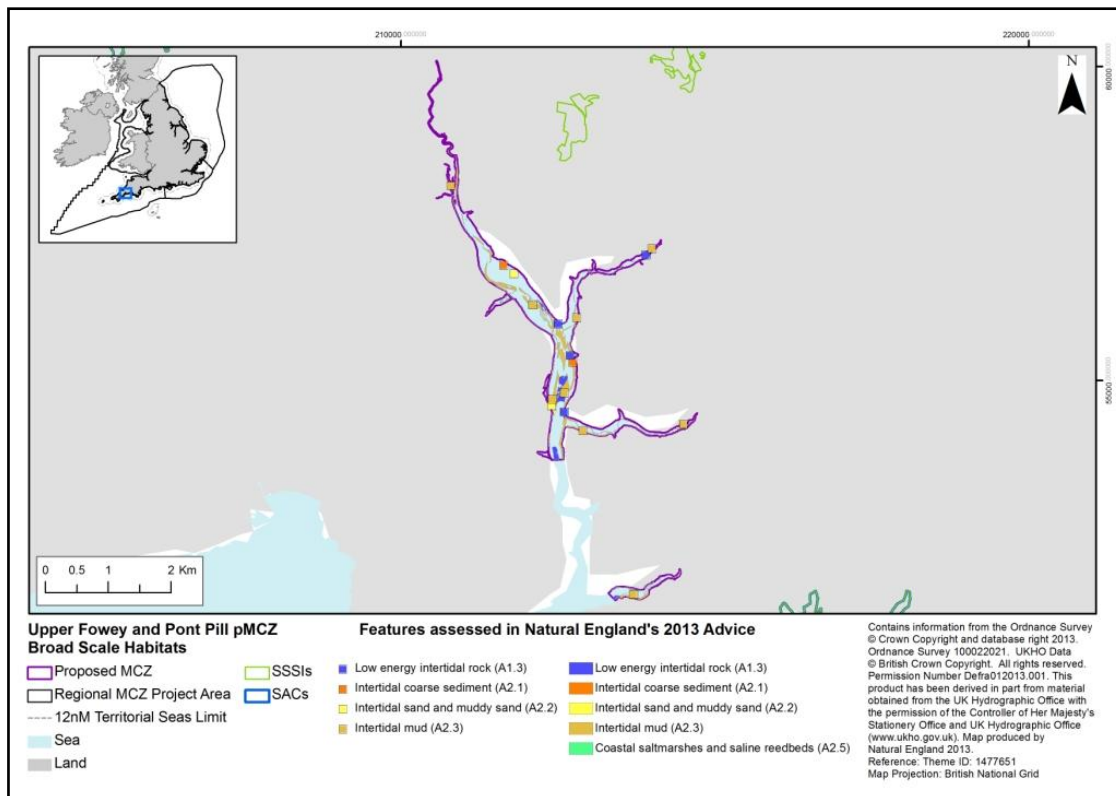


Figure 32 Location of mapped broad-scale habitats in pMCZ Upper Fowey and Pont Pill FS 29

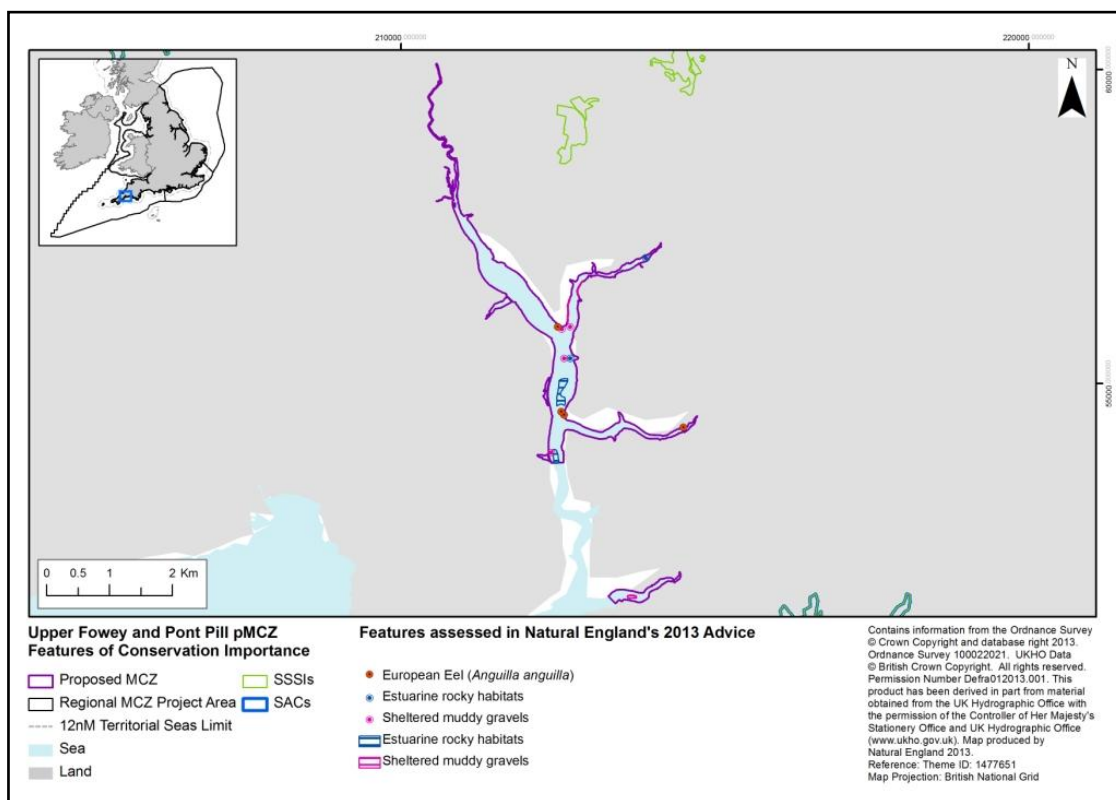


Figure 33 Location of mapped features of conservation importance in pMCZ Upper Fowey and Pont Pill FS 29

A5.19.2 Summary of Natural England's advice

Table 71 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature of the site for pMCZ Upper Fowey and Pont Pill FS 29

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A1.3 Low energy intertidal rock	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A2.1 Intertidal coarse sediment	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A2.2 Intertidal sand and muddy sand	Sufficient evidence for designation	Moderate	Moderate	Recover	More certain
Broad-scale habitat	A2.3 Intertidal mud	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A2.5 Coastal saltmarshes and saline reedbeds	Further evidence required for designation	High	High	Maintain	More certain
Habitat of conservation importance	Estuarine rocky habitats	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Habitat of conservation importance	Sheltered muddy gravels	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Species of conservation importance	European eel (<i>Anguilla anguilla</i>)	Sufficient evidence for designation	High	High	Maintain	More certain

Table 72 Supporting documentation, reference materials and relevant survey details pMCZ Upper Fowey and Pont Pill FS 29

Document title/survey code	Document/survey purpose	Location
Lieberknecht <i>et al.</i> Finding Sanctuary. <i>Finding Sanctuary Final Report and Recommendations. A report submitted by the Finding Sanctuary stakeholder project to</i>	Final report from Finding Sanctuary detailing the final rMCZs for the Finding Sanctuary	http://publications.naturalengland.org.uk/publication/1561560

Defra, the Joint Nature Conservation Committee, and Natural England. <i>Finding Sanctuary</i> , 2011	region	
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report</i> . Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 3. – Finding Sanctuary – Sites proposed for designation in 2013</i> . London: Defra, 2012c	Defra's Public Consultation on the rMCZs in the Finding Sanctuary region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82723/mcz-annex-a1-part3-121213.pdf
M_00059	MB102 Sample Point Data for HOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00305	Environment Agency Habitat Mapping	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH Data (habitat mapping)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder Data for Broad-scale Habitats/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00345	Environment Agency MCZ Verification Survey – Upper Fowey and Pont Pill (intertidal)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00364	Environment Agency (2012) National Fish Populations Database output, accessed 30/01/12	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.19.3 Audit trail for the development of Natural England's advice

Table 73 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Upper Fowey and Pont Pill FS 29

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A1.3 Low energy intertidal rock	Moderate	Moderate	High	Moderate	New data unavailable at time of consultation. Relevant survey codes: M_00308, M_00310
A2.1 Intertidal coarse sediment	Low	Low	Moderate	Moderate	New data unavailable at time of consultation, including verification survey. Relevant survey codes: M_00305, M_00345
A2.2 Intertidal sand and muddy sand	Moderate	Moderate	Moderate	Moderate	No change
A2.3 Intertidal mud	High	Moderate	Moderate	Moderate	New data unavailable at time of consultation, including verification survey. Relevant survey codes: M_00308, M_00310, M_00345
A2.5 Coastal saltmarshes and saline reedbeds	Low	Low	High	High	Change due to application of new guidance on use of Protocol E and georeferenced images from Channel Coastal Observatory
Estuarine rocky habitats	High	Moderate	Moderate	Moderate	New data unavailable at time of consultation. Relevant survey codes: M_00308, M_00310
Sheltered muddy gravels	Low	Low	Moderate	Moderate	New data unavailable at time of consultation. Relevant survey codes: M_00305, M_00308, M_00310
European eel (<i>Anguilla anguilla</i>)	High	High	High	High	No change

Table 74 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Upper Fowey and Pont Pill FS 29

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A1.3 Low energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.2 Intertidal sand and muddy sand	Maintain	Recover	There is evidence that crab tiling occurs as well as a large amount of bait digging at a recreational level. Both these activities will cause damage to the seabed >25mm	Reasonably certain	More certain	No change
A2.3 Intertidal mud	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.5 Coastal saltmarshes and saline reedbeds	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Estuarine rocky habitats	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Sheltered muddy gravels	Maintain	Maintain	No change	Reasonably certain	More certain	No change
European eel (<i>Anguilla anguilla</i>)	Recover	Maintain	The European eel is subject to recovery management plans due to the current status of the species. In compliance with the European Council (Regulation No. 1100/2007), the Environment Agency has developed a management plan for the South	Reasonably certain	More certain	No change

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
			West river basin. The VA has not identified any pressures within the site to which the local eel population may be vulnerable, nor that may be contributing to the wider unfavourable status of eels. A Maintain CO is advised on this basis			

A5.19.4 Additional advice

A5.19.4.1 Advice on specific features

Defra requested further clarification around the conservation objective for the European eel (*Anguilla anguilla*) in all pMCZs where the species is a recommended feature. In JNCC and Natural England's 2012 advice, in some sites the European eel had been given a Recover conservation objective, whereas in others it had been given a conservation objective of Maintain.

In the production of our 2013 advice to Defra the conservation objective for the species has been re-assessed and this has resulted in a conservation objective of Maintain being applied to the European eel across all pMCZs where it is a recommended feature.

This is due to:

- The European eel being subject to recovery management plans due to the current status of the species. In compliance with the European Council (Regulation No. 1100/2007), the Environment Agency has developed management plans for the South West and South East River Basins¹³.
- The vulnerability assessment not identifying any pressures within the sites to which the local eel populations may be vulnerable, nor that may be contributing to the wider unfavourable status of eels.

A5.19.4.2 Advice on boundaries

No advice given to Defra on boundaries for this site.

A5.19.4.3 Additional surveys

A verification survey has been carried out on this site by the Environment Agency and the results have been used in the development of this advice. The survey code is M_00345, please see Table 4 in Section 4.3 of the main document for the full reference.

A5.19.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive features: coastal saltmarshes and saline reedbeds, and sheltered muddy gravels. Neither of these features has been given a conservation objective of Recover.

¹³ <http://archive.defra.gov.uk/foodfarm/fisheries/documents/fisheries/emp/southeast.pdf>

<http://archive.defra.gov.uk/foodfarm/fisheries/documents/fisheries/emp/southwest.pdf>

A5.20 The Manacles FS 32

A5.20.1 Site feature maps

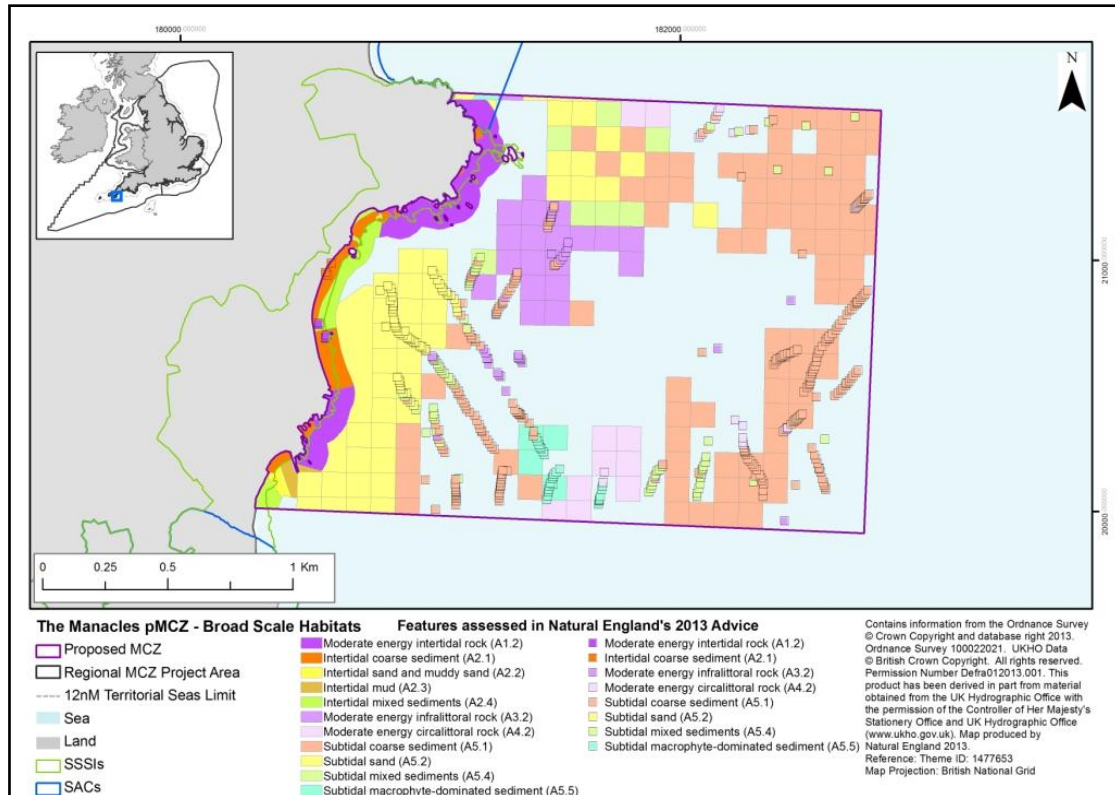


Figure 34 Location of mapped broad-scale habitats in pMCZ The Manacles FS 32

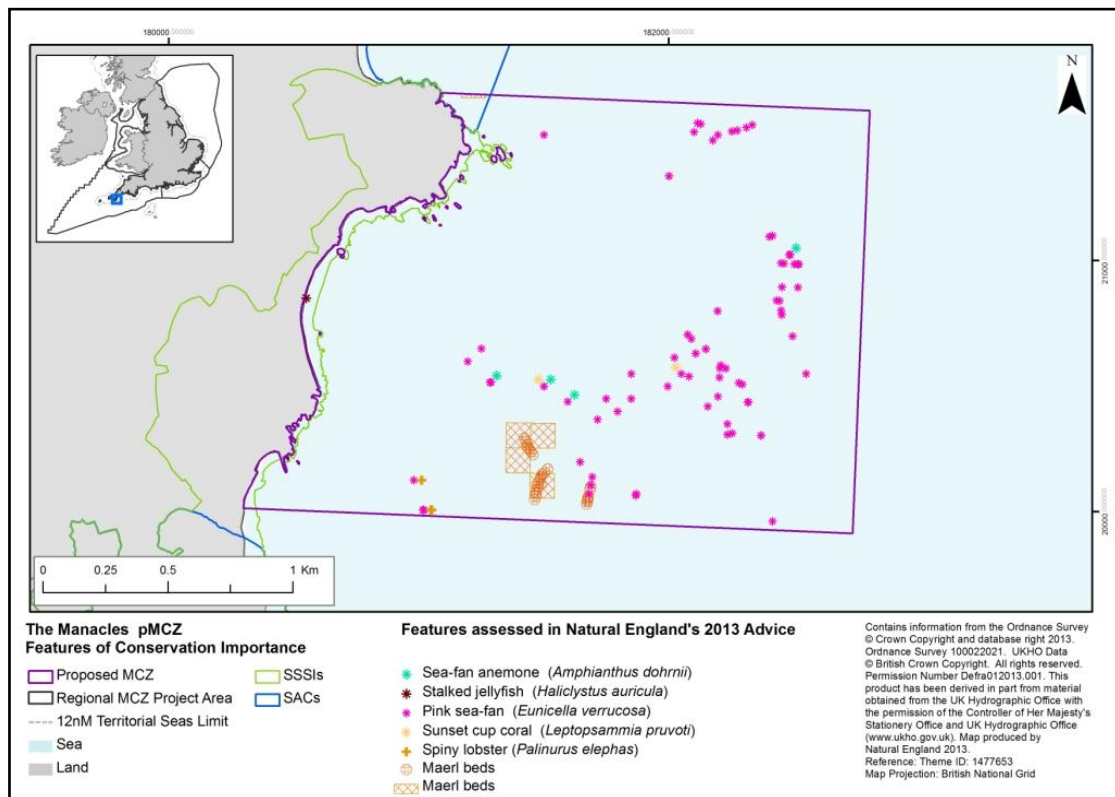


Figure 35 Location of mapped features of conservation importance in pMCZ The Manacles FS 32

A5.20.2 Summary of Natural England's advice

Table 75 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for pMCZ The Manacles FS 32

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A1.2 Moderate energy intertidal rock	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A2.1 Intertidal coarse sediment	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A2.2 Intertidal sand and muddy sand	Further evidence required for designation	Low	Low	Maintain	More certain
Broad-scale habitat	A2.3 Intertidal mud	Further evidence required for designation	Low	Low	Maintain	Less certain
Broad-scale habitat	A2.4 Intertidal mixed sediments	Further evidence required for designation	Low	Low	Maintain	Less certain
Broad-scale habitat	A3.2 Moderate energy infralittoral rock	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A4.2 Moderate energy circalittoral rock	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A5.1 Subtidal coarse sediment	Sufficient evidence for designation	High	High	Recover	More certain
Broad-scale habitat	A5.2 Subtidal sand	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A5.4 Subtidal mixed sediments	Sufficient evidence for designation	High	Moderate	Recover	More certain
Broad-scale habitat	A5.5 Subtidal macrophyte-dominated sediment	Sufficient evidence for designation	High	Moderate	Recover	More certain

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Habitat of conservation importance	Maerl beds	Sufficient evidence for designation	High	Moderate	Recover	More certain
Species of conservation importance	Sea-fan anemone (<i>Amphianthus dohrnii</i>)	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Species of conservation importance	Pink sea-fan (<i>Eunicella verrucosa</i>)	Sufficient evidence for designation	High	High	Recover	More certain
Species of conservation importance	Stalked jellyfish (<i>Haliclystus auricula</i>)	Sufficient evidence for designation	Low	Low	Maintain	Less certain
Species of conservation importance	Sunset cup coral (<i>Leptopsammia pruvoti</i>)	Further evidence required for designation	Low	Low	Maintain	More certain
Species of conservation importance	Spiny lobster (<i>Palinurus elephas</i>)	Sufficient evidence for designation	Moderate	Moderate	Recover	More certain

Table 76 Supporting documentation, reference materials and relevant survey details for pMCZ The Manacles FS 32

Document title/survey code	Document/survey purpose	Location
Lieberknecht <i>et al.</i> Finding Sanctuary. <i>Finding Sanctuary Final Report and Recommendations. A report submitted by the Finding Sanctuary stakeholder project to Defra, the Joint Nature Conservation Committee, and Natural England.</i> Exeter: Finding Sanctuary, 2011	Final report from Finding Sanctuary detailing the final rMCZs for the Finding Sanctuary region	http://publications.naturalengland.org.uk/publication/1561560
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones.</i>	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ	http://publications.naturalengland.org.uk/file/4923082

Document title/survey code	Document/survey purpose	Location
Peterborough: JNCC and Natural England, 2012a	regional projects	
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report</i> . Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 2.2. – Finding Sanctuary – Sites proposed for designation in 2013, Document Amendments</i> . London: Defra, 2013	Amendments update from Defra on their Public Consultation on the rMCZs in the Finding Sanctuary region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82711/mcz-annex-a1-part2-2-130115.pdf
M_00045	Cornwall Wildlife Trust data for SOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00059	MB102 Sample Point Data for HOI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00093	UKSeaMap V8 - JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00305	Environment Agency Habitat Mapping	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	European Seabed Habitat Mapping	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder Data for SOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder Data for Broad-scale Habitats and HOI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00344	Environment Agency MCZ Verification Survey	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00350	Environment Agency MCZ Verification Survey	See Table 4 in Section 4.3 of the main advice document for the full reference

Document title/survey code	Document/survey purpose	Location
M_00360	Environment Agency MCZ Verification Survey	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00361	MCZ Photo Evidence Database. Coordinate format in decimal degrees	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.20.3 Audit trail for the development of Natural England's advice

Table 77 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ The Manacles FS 32

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A1.2 Moderate energy intertidal rock	Moderate	Moderate	High	Moderate	Increase in presence confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00308, M_00361
A2.1 Intertidal coarse sediment	High	High	Moderate	Moderate	Decrease in presence and extent confidence due to application of new guidance on use of Protocol E and new survey data unavailable at time of consultation. Relevant survey codes: M_00305, M_00308, M_00361
A2.2 Intertidal sand and muddy sand	Low	Low	Low	Low	No change
A2.3 Intertidal mud	No confidence	No confidence	Low	Low	Change due to application of new guidance on use of Protocol E
A2.4 Intertidal mixed sediments	Moderate	Low	Low	Low	Decrease in presence confidence due to application of new guidance on use of Protocol E. Relevant survey code: M_00308
A3.2 Moderate energy infralittoral rock	Moderate	Moderate	High	Moderate	Increase in presence confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00308, M_00310,

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
					M_00350, M_00360
A4.2 Moderate energy circalittoral rock	Moderate	Moderate	High	Moderate	Increase in presence confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00308, M_00350, M_00360
A5.1 Subtidal coarse sediment	High	High	High	High	No change
A5.2 Subtidal sand	Moderate	Moderate	High	Moderate	Increase in presence confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00344, M_00350, M_00360
A5.4 Subtidal mixed sediments	Moderate	Moderate	High	Moderate	Increase in presence confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00308, M_00350, M_00360
A5.5 Subtidal macrophyte-dominated sediment	High	High	High	Moderate	Decrease in extent confidence due to application of new guidance on use of Protocol E and new data unavailable at time of consultation. Relevant survey codes: M_00308, M_00350, M_00360
Maerl beds	Low	Low	High	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00350, M_00360
Sea-fan anemone (<i>Amphianthus dohrnii</i>)	Moderate	Moderate	Moderate	Moderate	No change
Pink sea-fan (<i>Eunicella verrucosa</i>)	High	High	High	High	No change
Stalked jellyfish (<i>Haliclystus auricula</i>)	Low	Low	Low	Low	No change
Sunset cup coral	Low	Low	Low	Low	No change

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
<i>(Leptopsammia pruvoti)</i>					
Spiny lobster <i>(Palinurus elephas)</i>	Moderate	Moderate	Moderate	Moderate	No change

Table 78 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ The Manacles FS 32

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.2 Intertidal sand and muddy sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.3 Intertidal mud	Maintain	Maintain	No change	Reasonably certain	Less certain	Low confidence in the presence and extent of the feature has resulted in lack of knowledge of how pressures would overlap, reducing our certainty in the CO
A2.4 Intertidal mixed sediments	Maintain	Maintain	No change	Reasonably certain	Less certain	A decrease in the CA for extent of the feature has resulted in a lack of knowledge of how pressures would then overlap, reducing our certainty in the CO
A3.2 Moderate energy infralittoral rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A4.2 Moderate energy circalittoral rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.1 Subtidal coarse sediment	Maintain	Recover	This feature has been identified in the 2012 Environment Agency verification surveys as stable sediment with pink sea-fan growing in it. As a result it is likely to be vulnerable to benthic	Reasonably certain	More certain	No change

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
			trawling which is shown to overlay this feature in both the fisheries sensitivity mapping and through the consultation information			
A5.2 Subtidal sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.4 Subtidal mixed sediments	Maintain	Recover	Subtidal coarse sediment was identified in the 2012 Environment Agency verification surveys as stable sediment with pink sea-fan growing in it. Subtidal mixed sediments, directly adjacent to the subtidal coarse sediment, are therefore also assumed to be stable and as a result they are likely to be vulnerable to benthic trawling which is shown to overlay this feature in both the fisheries sensitivity mapping and through the consultation information	Reasonably certain	More certain	No change
A5.5 Subtidal macrophyte-dominated sediment	Recover	Recover	No change	Reasonably uncertain	More certain	
Maerl beds	Recover	Recover	No change	Reasonably uncertain	More certain	
Sea-fan anemone (<i>Amphianthus dohrnii</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
Pink sea-fan (<i>Eunicella verrucosa</i>)	Maintain	Recover	Pink sea-fans were recorded on subtidal coarse sediment in the 2012 Environment Agency verification surveys. The feature is likely to be vulnerable to benthic trawling which is shown to overlay this feature in both the fisheries sensitivity mapping and through the consultation information	Reasonably certain	More certain	No change
Stalked jellyfish (<i>Haliclystus auricula</i>)	Maintain	Maintain	No change	Reasonably uncertain	Less certain	No change
Sunset cup coral (<i>Leptopsammia pruvoti</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change

A5.20.4 Additional advice

A5.20.4.1 Advice on specific features

No advice given to Defra on specific features for this site.

A5.20.4.2 Advice on boundaries

Defra requested advice on the implications of a boundary change proposed by the fishing sector through the Public Consultation, which would involve a significant reduction in size of the site (approximately 50%)¹⁴ (Figures 36 and 37). With a reduction of this scale the majority of features of conservation interest would no longer be viable. It should be noted that for this site, the stakeholder process undertaken through the Finding Sanctuary regional MCZ project had already resulted in a reduction in the size of the site from that originally proposed at the beginning of the project and the site boundary was the subject of discussion at various local working group, inshore working group and joint working group meetings.

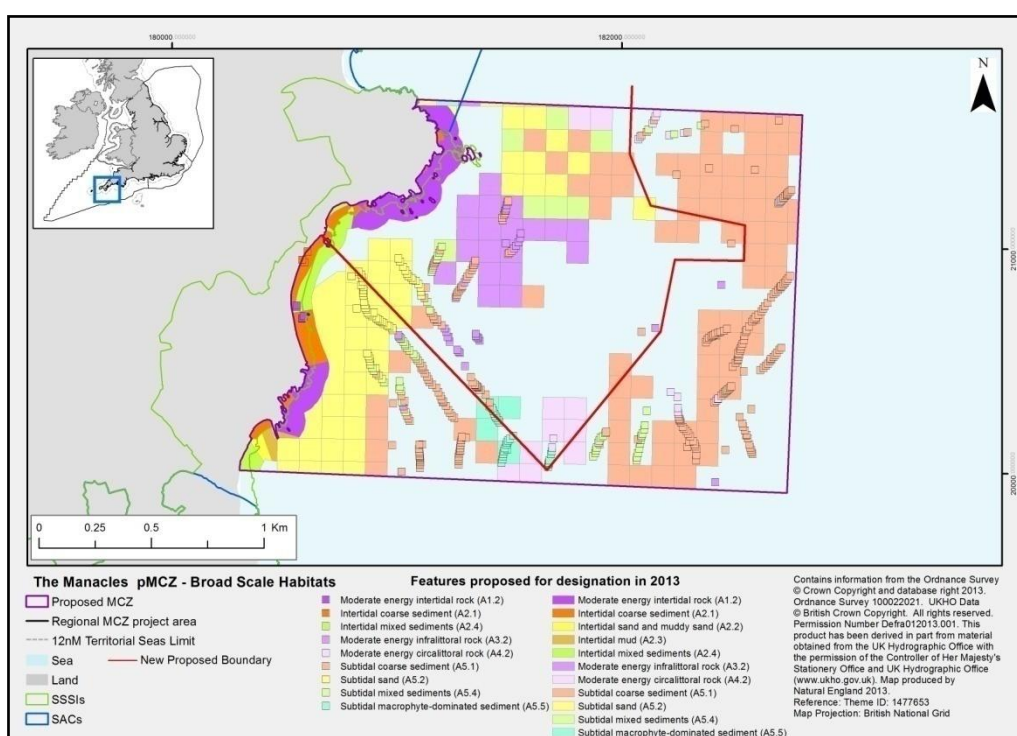


Figure 36 Boundary change proposed in the Public Consultation for pMCZ The Manacles, showing broad-scale habitats

¹⁴ The boundary suggested in the consultation response, although removing a significant proportion of the 'existing site' also extends north of the site (the start of which is indicated by the lines extending northwards from the boundary in the map above). We have provided comments here on the implications of any loss to the existing site, as opposed to any extension beyond existing boundaries.

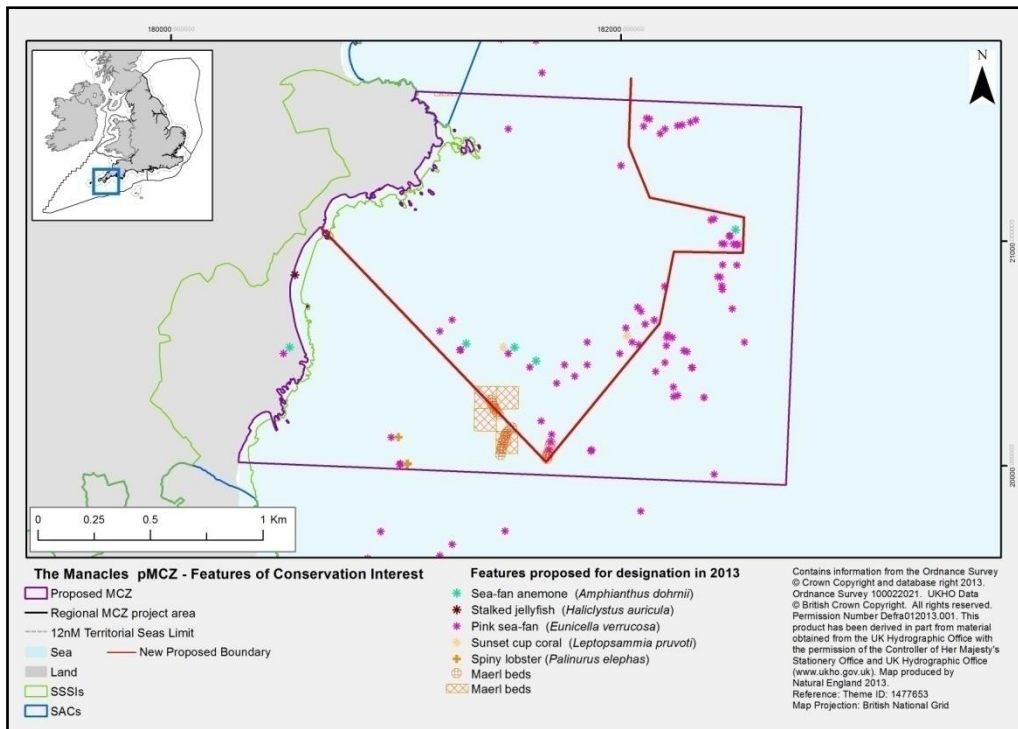


Figure 37 Boundary change proposed in the Public Consultation for pMCZ The Manacles, showing features of conservation importance

All five of the site's highly sensitive features: spiny lobster (*Palinurus elephas*), stalked jellyfish (*Haliclystus auricula*), pink sea-fan (*Eunicella verrucosa*), maerl beds and subtidal macrophyte-dominated sediment would see at least a 50% loss in extent with the first two seeing a total loss. The Manacles is critical for the achievement of replication guidelines for *Haliclystus auricula*. Of these highly sensitive features, the pink sea-fan has high confidence for both presence and extent and both the subtidal macrophyte-dominated sediment and maerl beds have high and moderate confidence for presence and extent, respectively. The spiny lobster has moderate confidence for both presence and extent. Both the pink sea-fan and sea-fan anemone have limited national distribution.

The proposed boundary change would result in the loss of four features entirely and six features by two thirds or more. A further three features would see approximately half of their extent lost (see Table 79 below).

Table 79 Implications of boundary changes for feature viability in pMCZ The Manacles

Feature code	Feature	Approximate loss of known extent from pMCZ with revised boundary	Implications for viability ¹⁵
A2.1	Intertidal coarse sediment	Three quarters	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A2.2	Intertidal sand and muddy sand	Entire feature lost	Not assessed. Viability of broad-scale habitats only assessed at a

¹⁵ As described in the Ecological Network Guidance.

Feature code	Feature	Approximate loss of known extent from pMCZ with revised boundary	Implications for viability ¹⁵
			regional level
A2.3	Intertidal mud	Entire feature lost	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A2.4	Intertidal mixed sediments	Two thirds	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A3.2	Moderate energy infralittoral rock	One tenth	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A4.2	Moderate energy circalittoral rock	Half	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A5.1	Subtidal coarse sediment	Four fifths	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A5.2	Subtidal sand	Two thirds	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A5.4	Subtidal mixed sediments	Half	Not assessed. Viability of broad-scale habitats only assessed at a regional level
A5.5	Subtidal macrophyte-dominated sediment	Two thirds	Not assessed. Viability of broad-scale habitats only assessed at a regional level
SOCI_2	Sea-fan anemone (<i>Amphianthus dohrnii</i>)	No loss	None
SOCI_8	Pink sea-fan (<i>Eunicella verrucosa</i>)	Half	Not viable

Feature code	Feature	Approximate loss of known extent from pMCZ with revised boundary	Implications for viability ¹⁵
HOCI_12	Maerl beds	Two thirds	Not viable
SOCI_14	Stalked jellyfish (<i>Haliclystus auricula</i>)	Entire feature lost	Not viable
SOCI_17	Sunset cup coral (<i>Leptopsammia pruvoti</i>)	No loss	None
SOCI_24	Spiny lobster (<i>Palinurus elephas</i>)	Entire feature lost	Not viable

A5.20 4.3 Additional surveys

Verification surveys have been carried out on this site by the Environment Agency to verify intertidal and subtidal features and the results have been used in the development of this advice. The survey codes are M_00344, M_00350 and M_00360, please see Table 4 in Section 4.3 of the main document for the full references.

A5.20.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive features: maerl beds, stalked jellyfish (*Haliclystus auricula*), sunset cup coral (*Leptopsammia pruvoti*), sea-fan anemone (*Amphianthus dohrnii*), spiny lobster (*Palinurus elephas*) and pink sea-fan (*Eunicella verrucosa*). Of these, maerl beds, spiny lobster (*Palinurus elephas*) and pink sea-fan (*Eunicella verrucosa*) have a conservation objective of Recover.

A5.21 The Isles of Scilly Sites FS 35

A5.21.1 Site feature maps

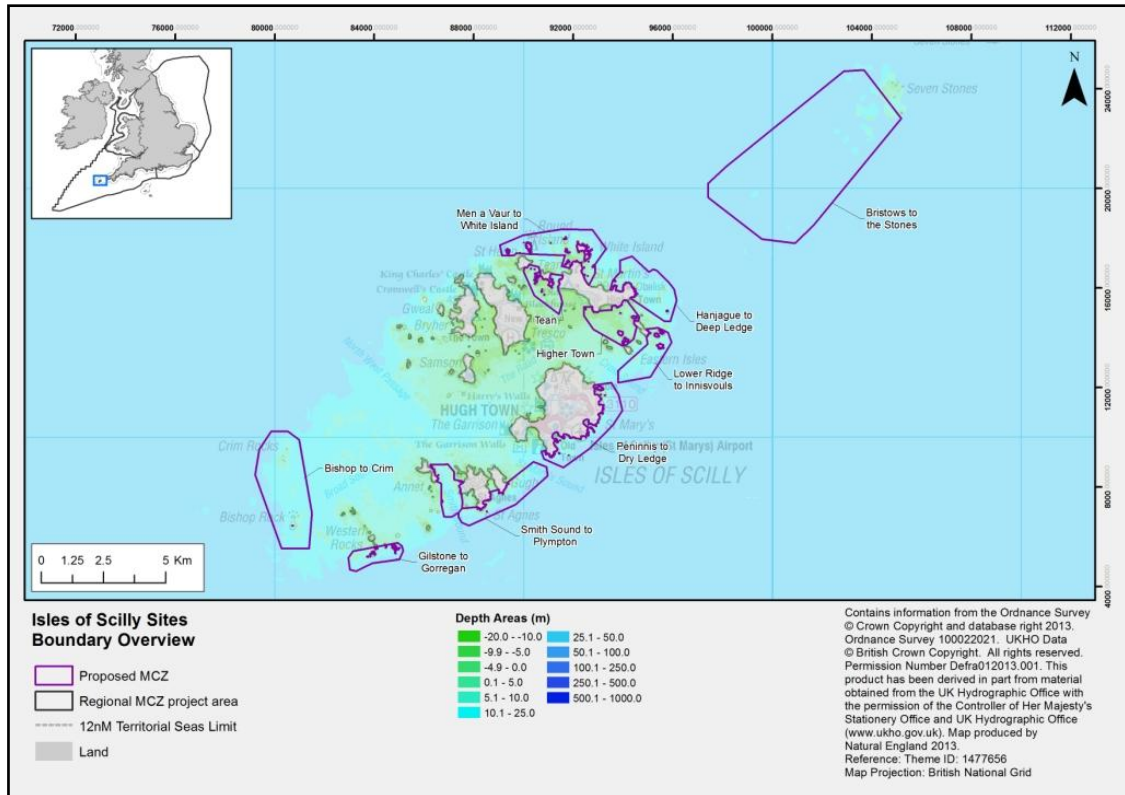


Figure 38 Overview of location of pMCZ Isles of Scilly FS 35 sub-sites

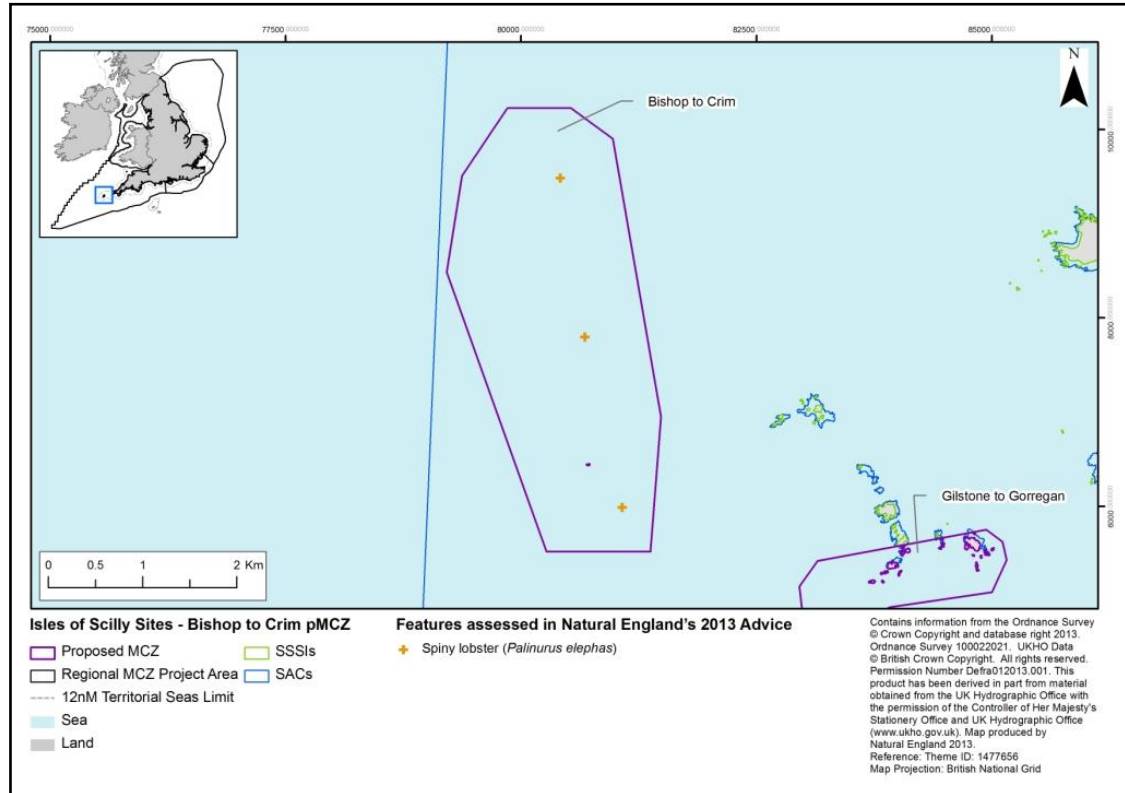


Figure 39 Location of mapped features of conservation importance in pMCZ Isles of Scilly Bishop to Crim FS 35c

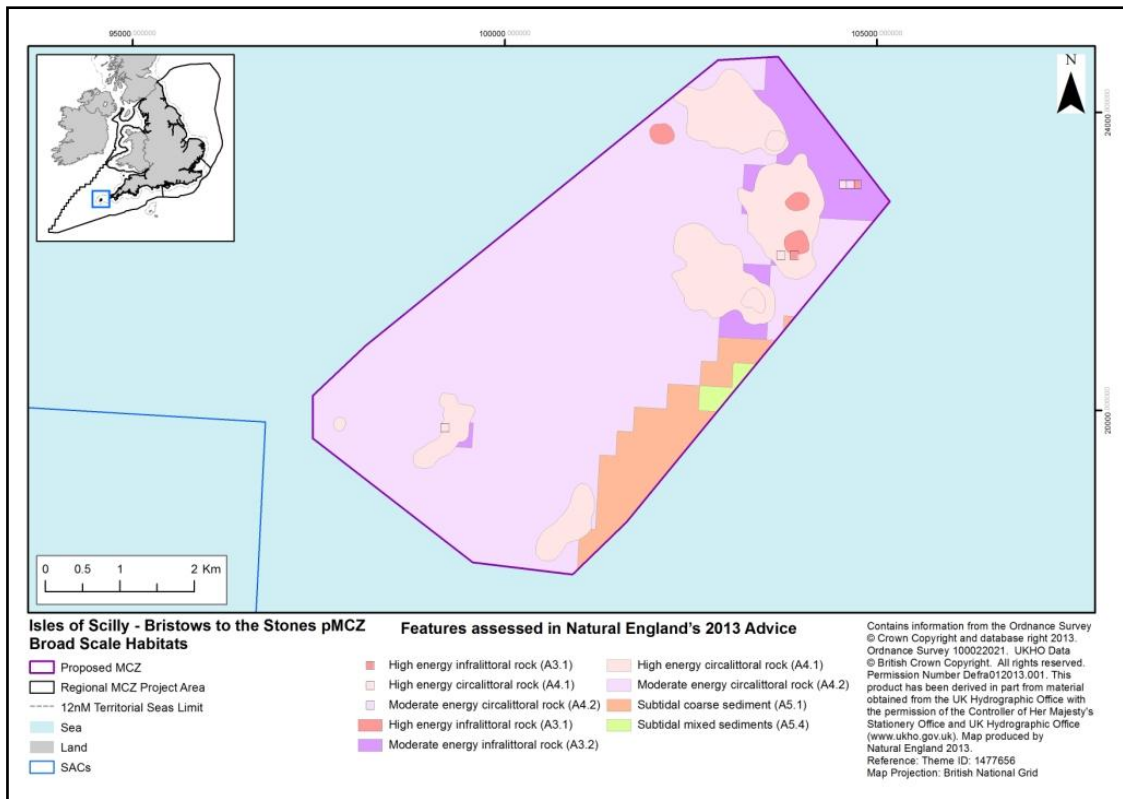


Figure 40 Location of mapped broad-scale habitats in pMCZ Isles of Scilly Bristows to the Stones FS 35d

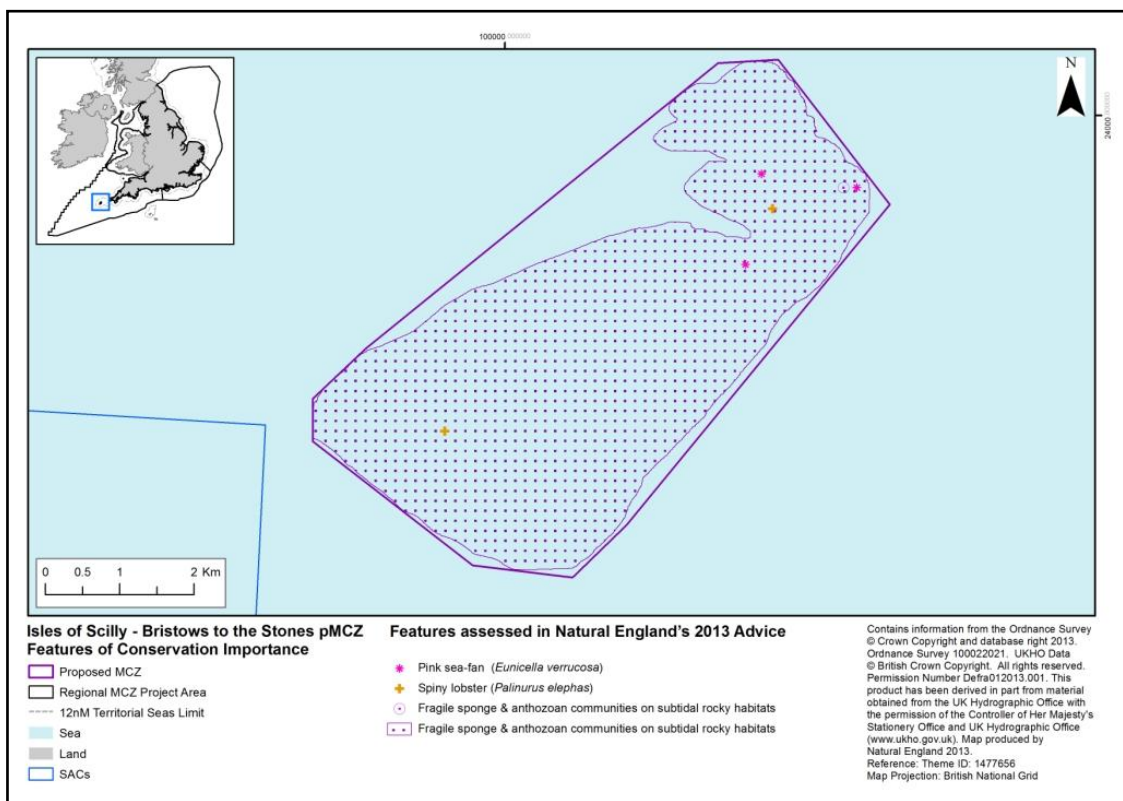


Figure 41 Location of mapped features of conservation importance in pMCZ Isles of Scilly Bristows to the Stones FS 35d

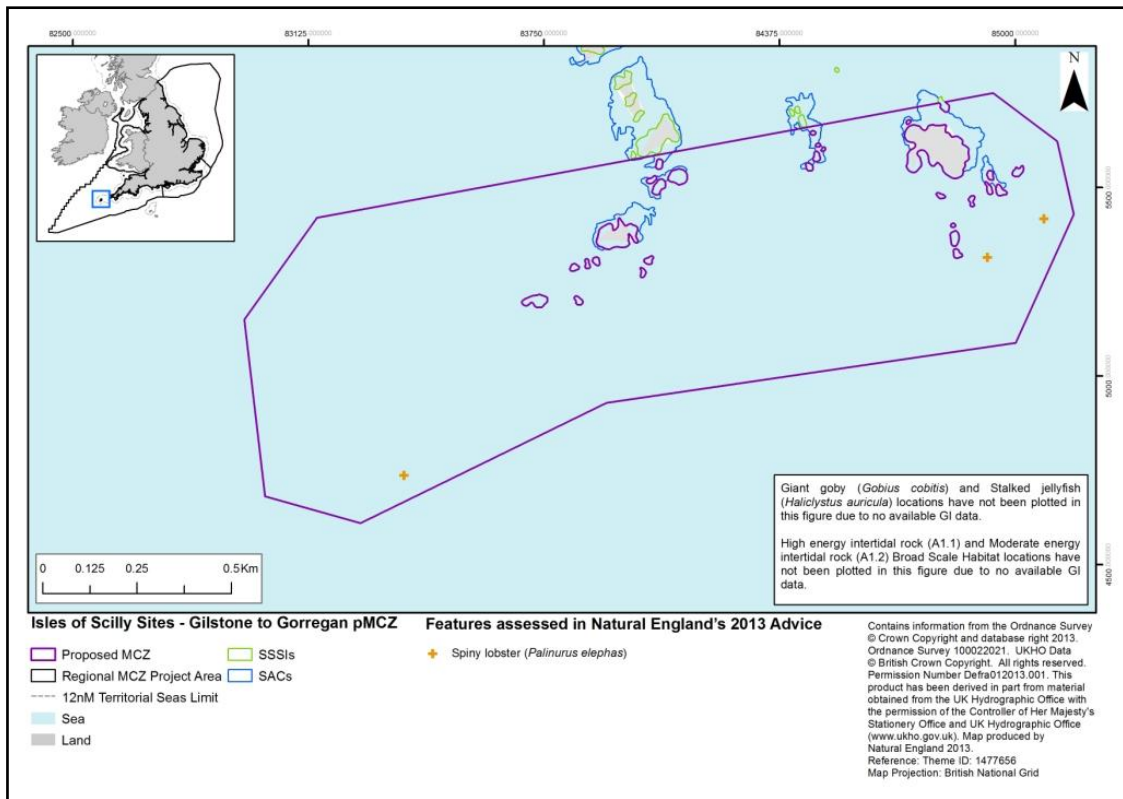


Figure 42 Location of mapped features of conservation importance in pMCZ Isles of Scilly Gilstone to Gorregan FS 35e

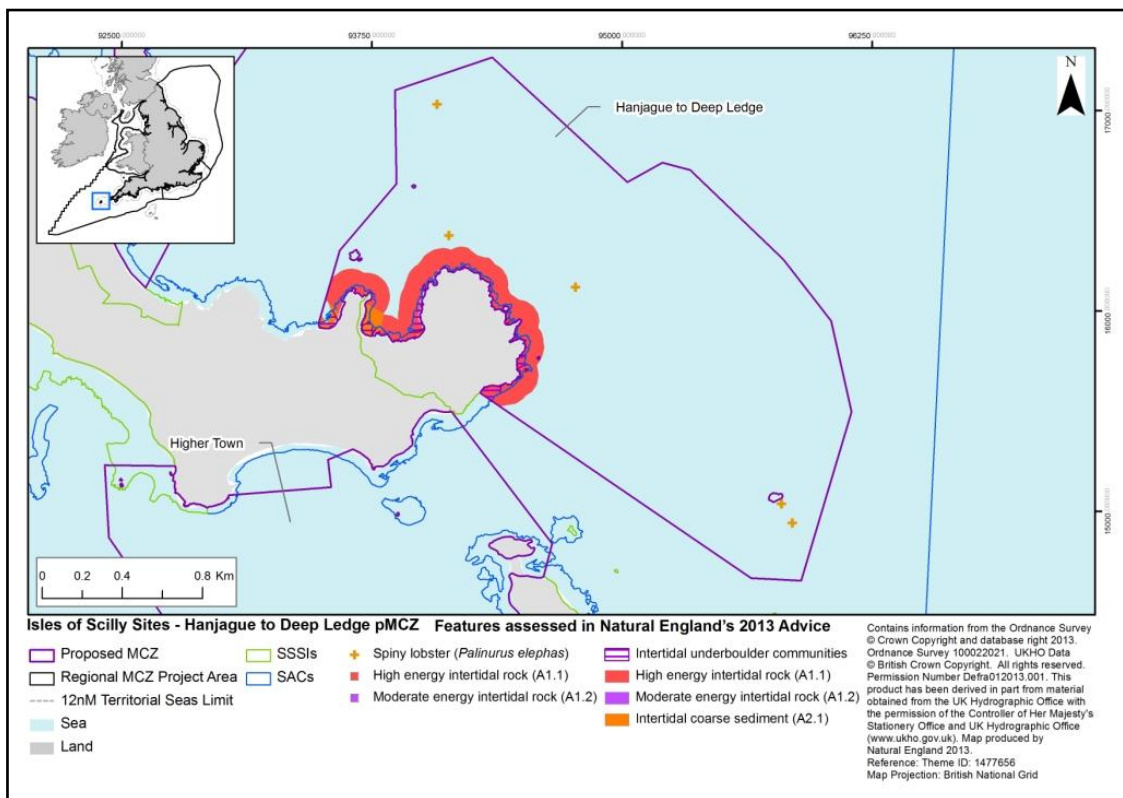


Figure 43 Location of mapped broad-scale habitats and features of conservation importance in pMCZ Isles of Scilly Hanjague to Deep Ledge FS 35f

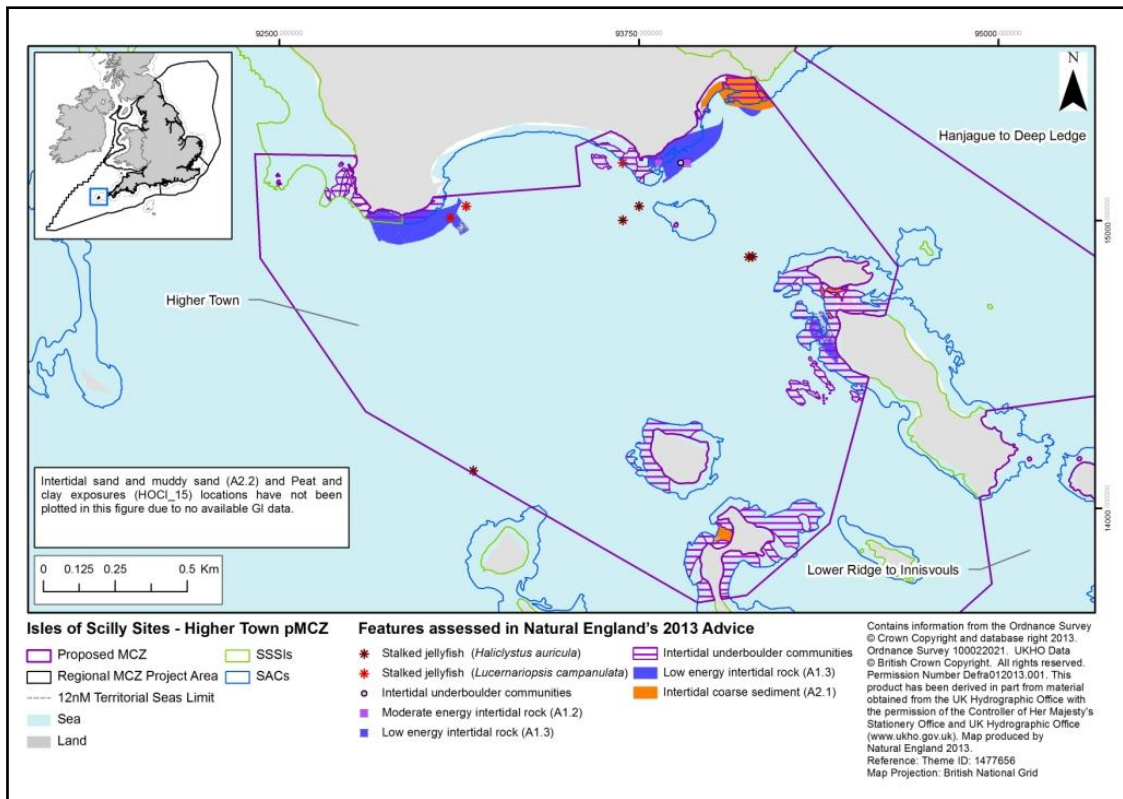


Figure 44 Location of mapped broad-scale habitats and features of conservation importance in pMCZ Isles of Scilly Higher Town FS 35g

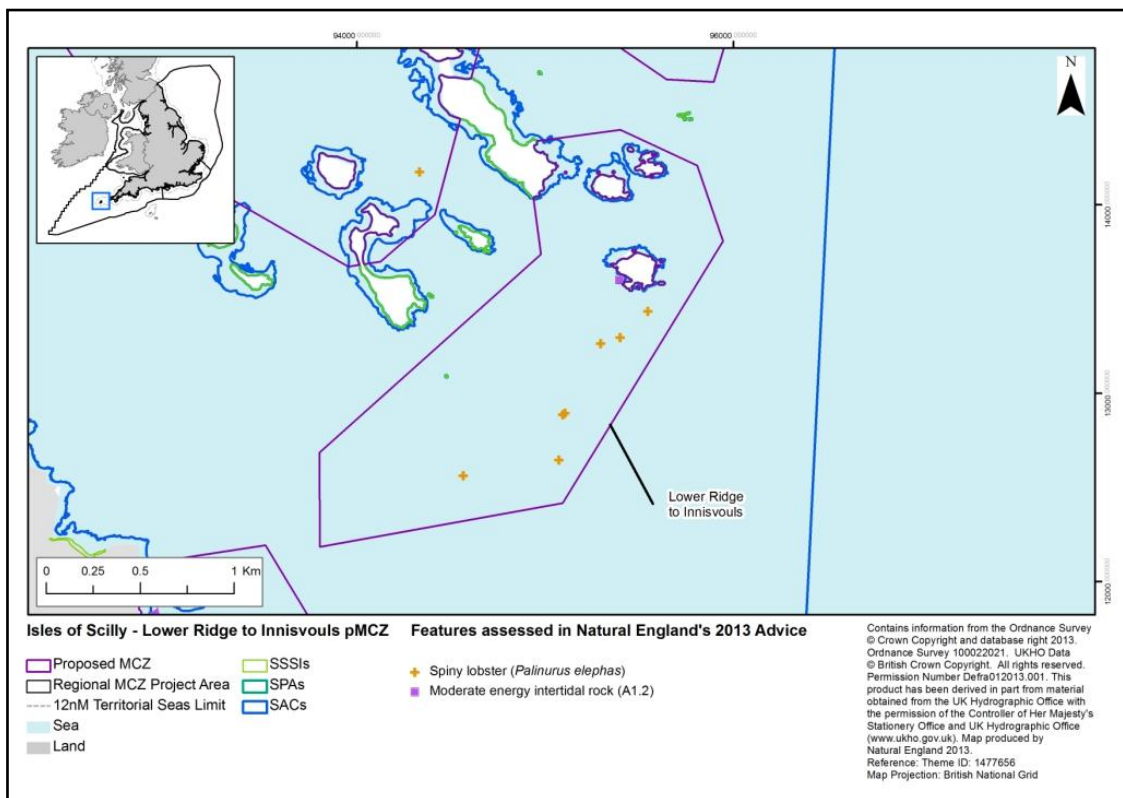


Figure 45 Location of mapped broad-scale habitats and features of conservation importance in pMCZ Isles of Scilly Lower Ridge to Innisvoulis FS 35h

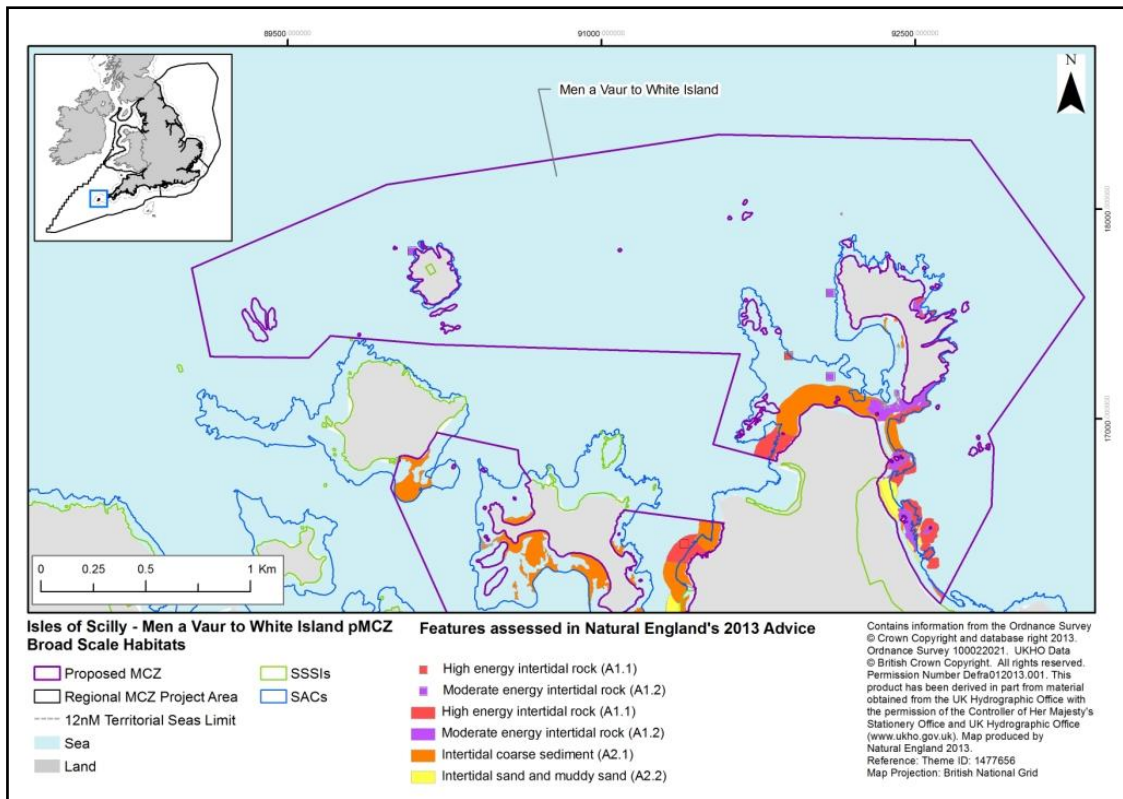


Figure 46 Location of mapped broad-scale habitats in pMCZ Isles of Scilly Men a Vaur to White Island FS 35i

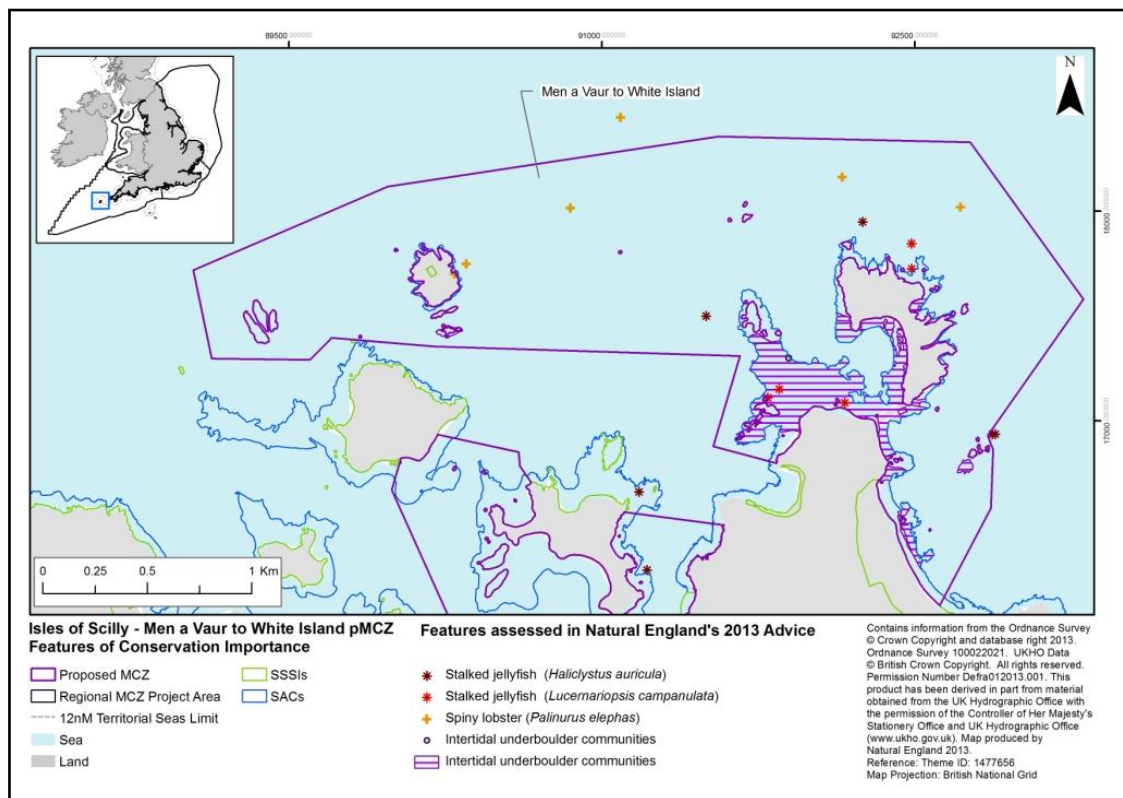


Figure 47 Location of mapped features of conservation importance in pMCZ Isles of Scilly Men a Vaur to White Island FS 35i

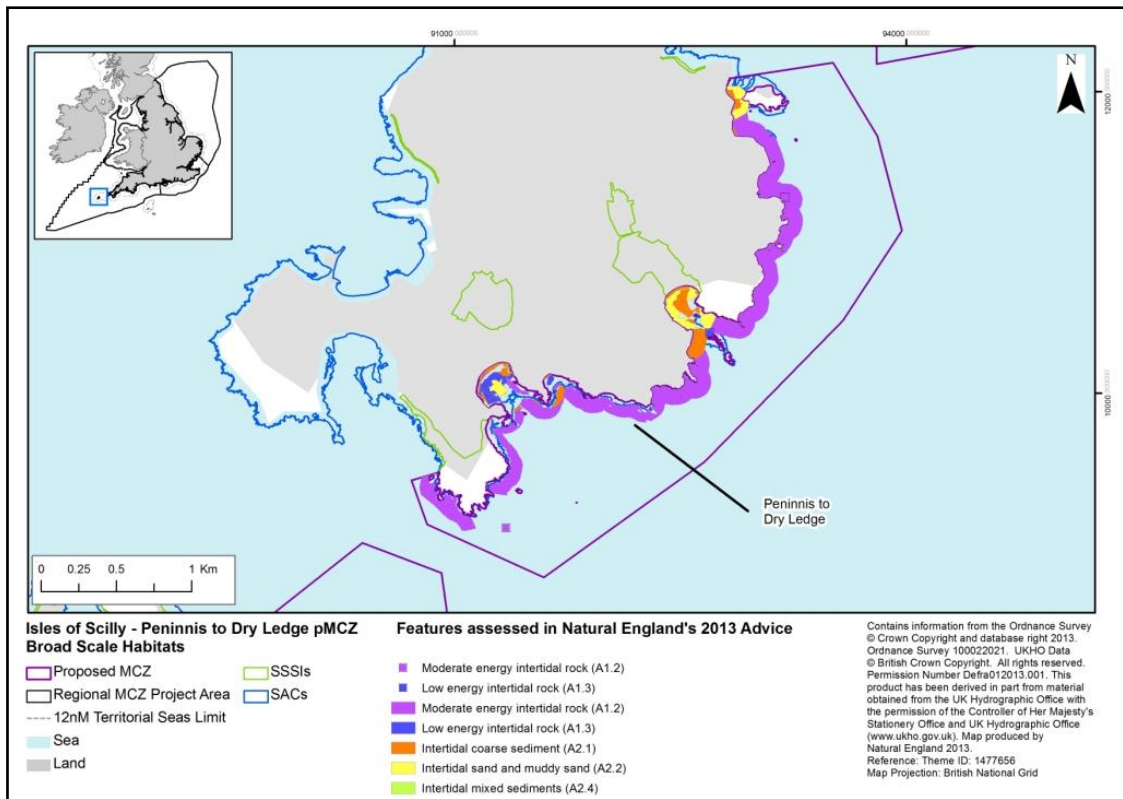


Figure 48 Location of mapped broad-scale habitats in pMCZ Isles of Scilly Peninnis to Dry Ledge FS 35j

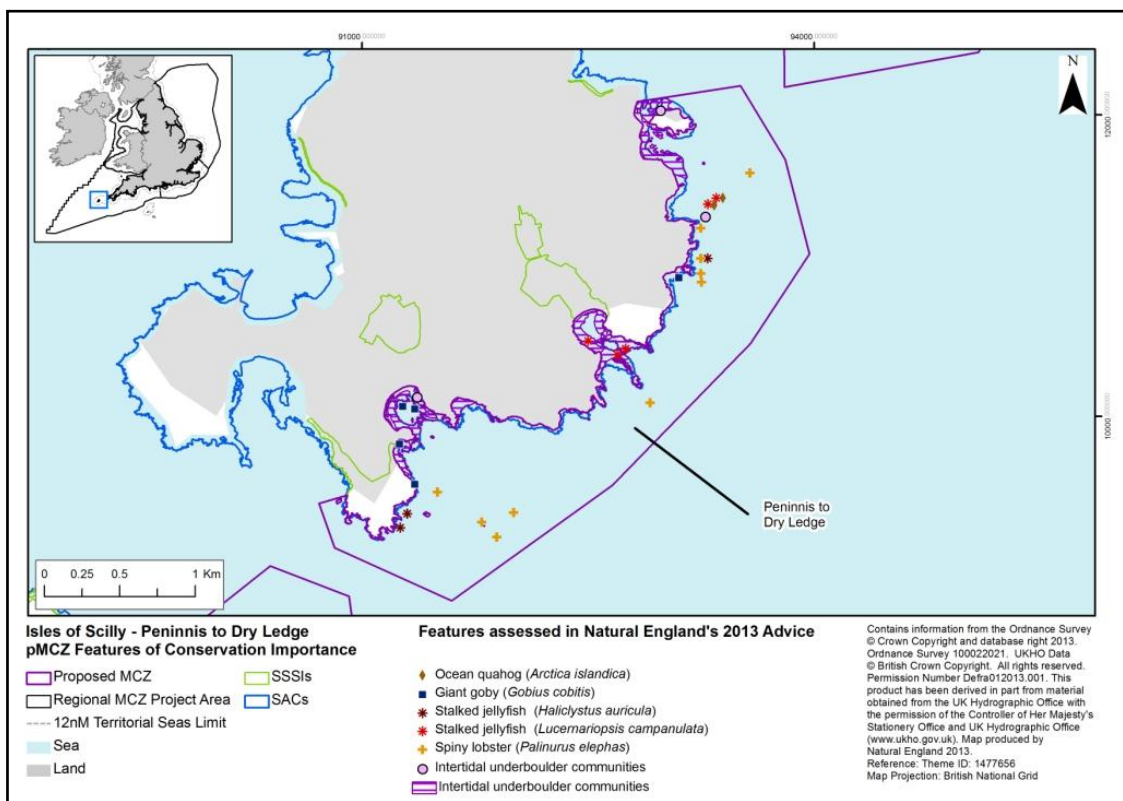


Figure 49 Location of mapped features of conservation importance in pMCZ Isles of Scilly Peninnis to Dry Ledge FS 35j

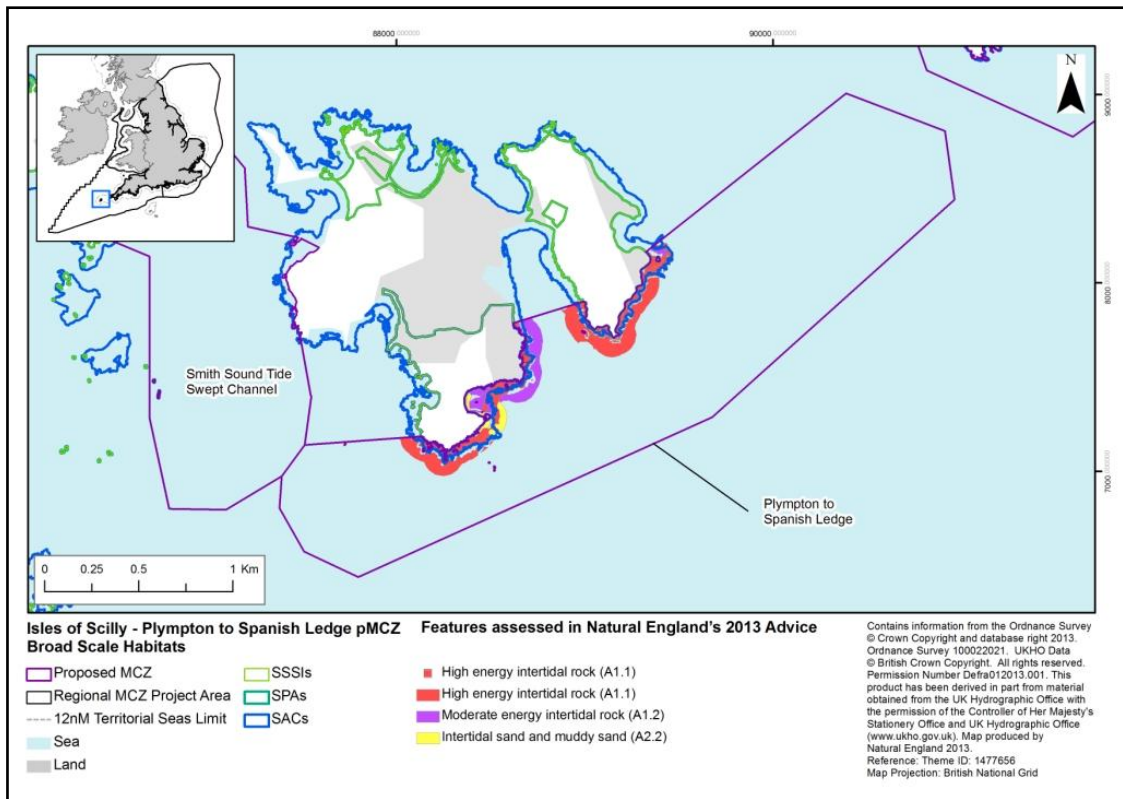


Figure 50 Location of mapped broad-scale habitats in pMCZ Isles of Scilly Plymouth to Spanish Ledge FS 35k

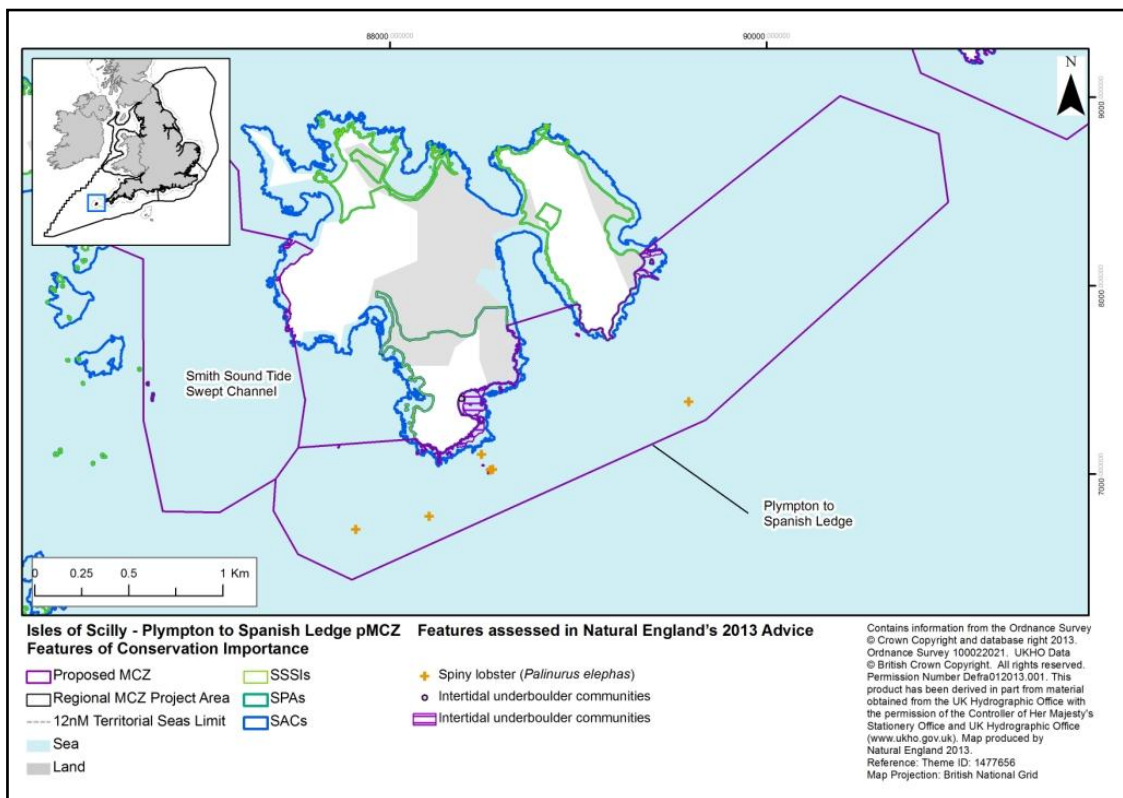


Figure 51 Location of mapped features of conservation importance in pMCZ Isles of Scilly Plymouth to Spanish Ledge FS 35k

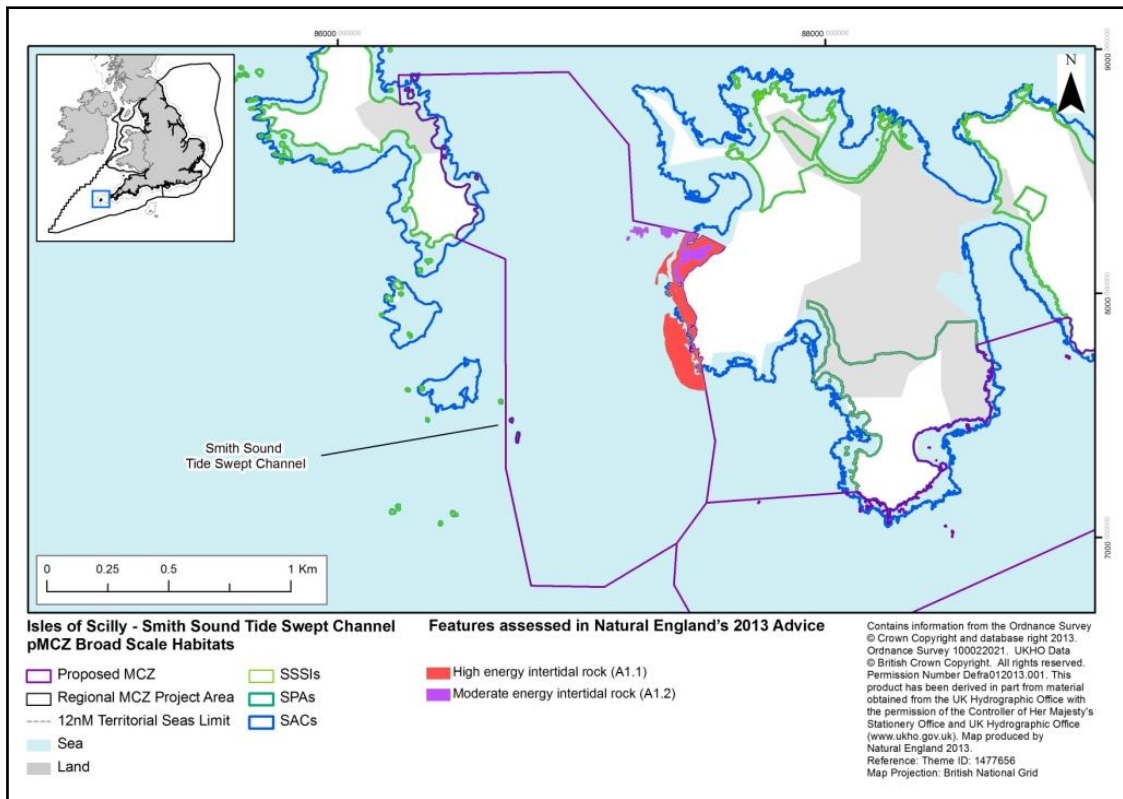


Figure 52 Location of mapped broad-scale habitats in pMCZ Isles of Scilly Smith Sound Tide Swept Channel FS 351

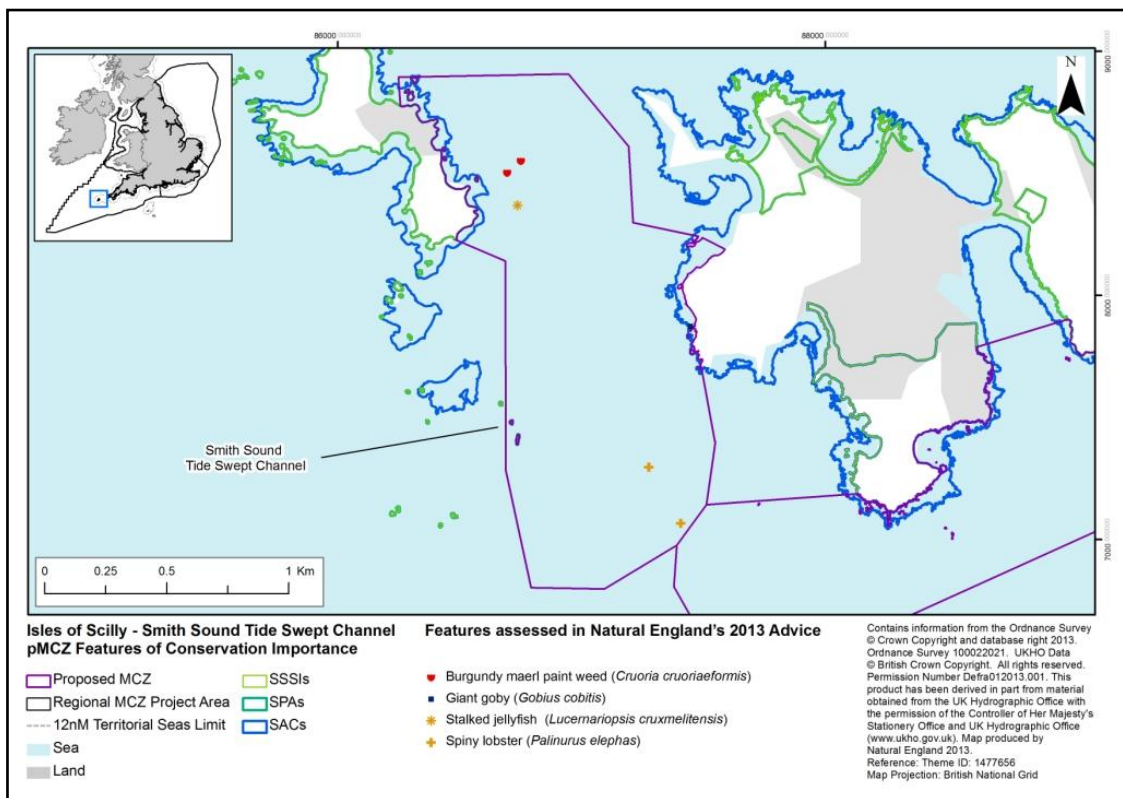


Figure 53 Location of mapped features of conservation importance in pMCZ Isles of Scilly Smith Sound Tide Swept Channel FS 351

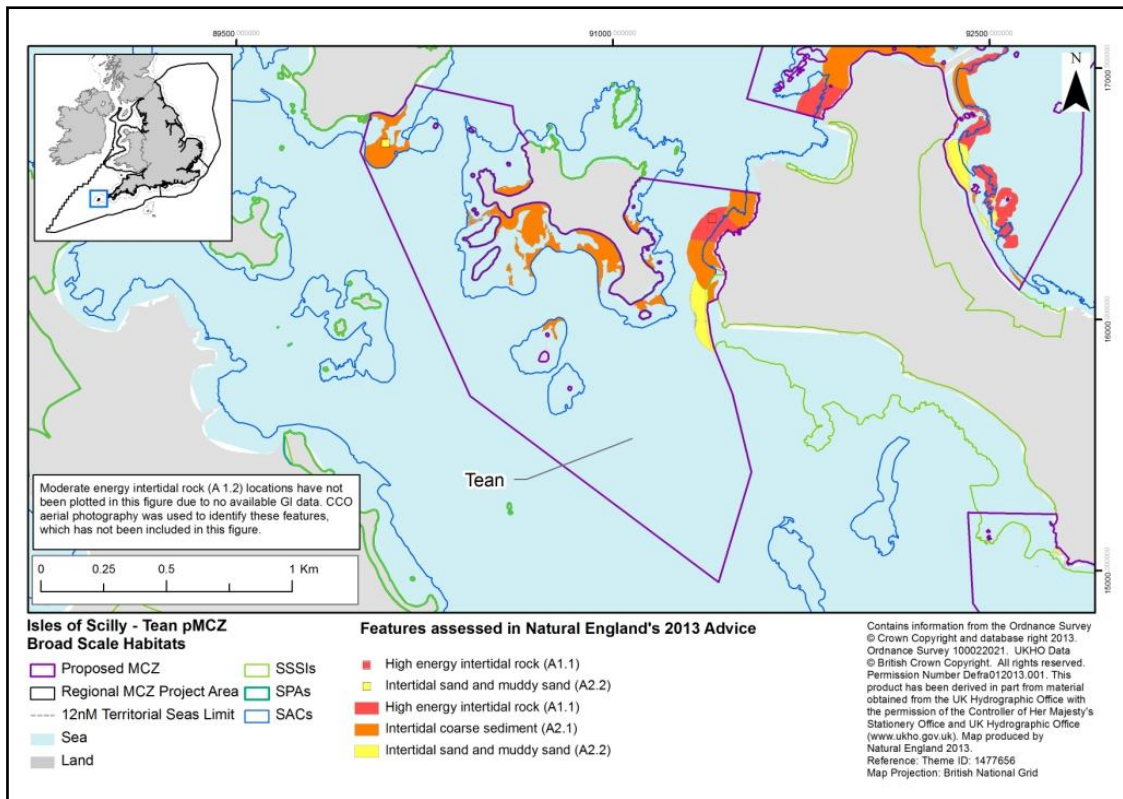


Figure 54 Location of mapped broad-scale habitats in pMCZ Isles of Scilly Tean FS 35m

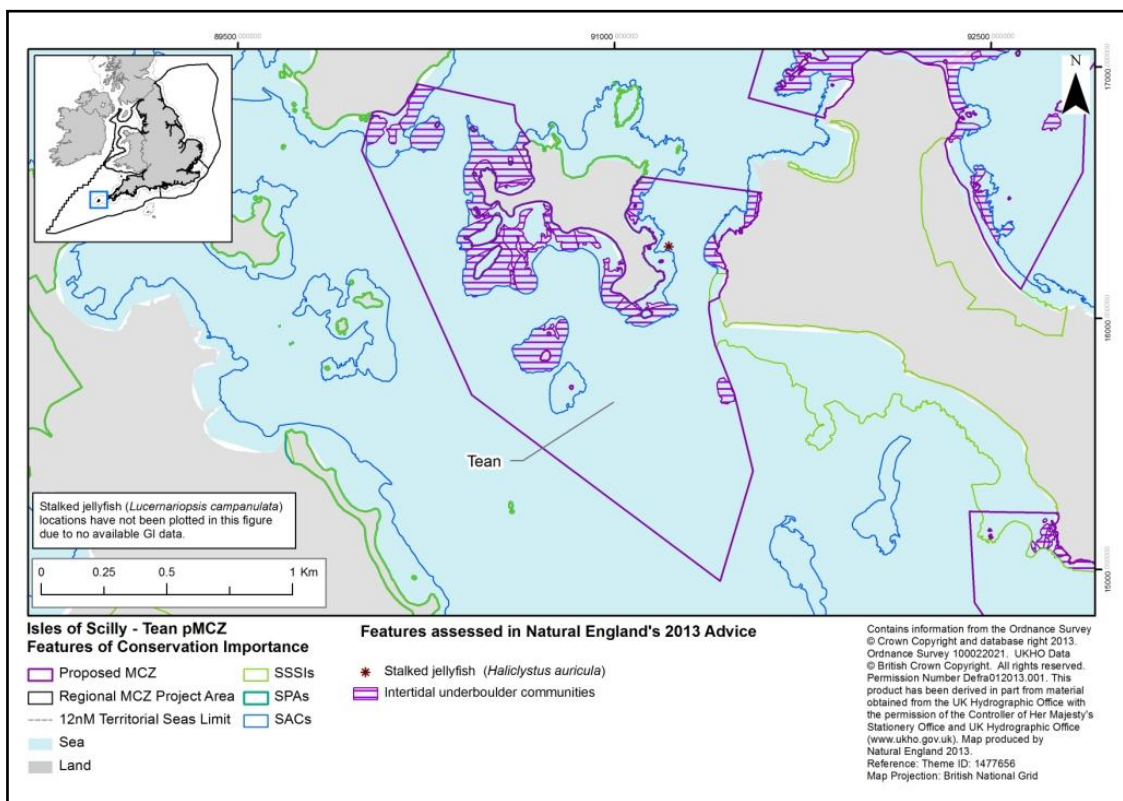


Figure 55 Location of mapped features of conservation importance in pMCZ Isles of Scilly Tean FS 35m

A5.21.2 Summary of Natural England's advice

In the below Tables 1, 3 and 4, our advice is given for each of the Isles of Scilly pMCZ sub-sites. The sub-sites are referenced using their relevant sub-site codes. These codes are:

- FS 35c Bishop to Crim
- FS 35d Bristows to the Stones
- FS 35e Gilstone to Gorregan
- FS 35f Hanjague to Deep Ledge
- FS 35g Higher Town
- FS 35h Lower Ridge to Innisvouls
- FS 35i Men a Vaur to White Island
- FS 35j Peninnis to Dry Ledge
- FS 35k Plympton to Spanish Ledge
- FS 35l Smith Sound Tide Swept Channel
- FS 35m Tean

Table 80 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for Isles of Scilly FS 35

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A1.1 High energy intertidal rock	Sufficient evidence for designation FS 35e, 35i, 35k, 35l, 35m Further evidence required for designation FS 35f	High FS 35e, 35f, 35i, 35k, 35l Moderate FS 35m	High FS 35i, 35k, 35l Moderate FS 35e, 35f Low FS 35m	Maintain FS 35e, 35f, 35i, 35k, 35l, 35m	More certain FS 35e, 35f, 35i, 35k, 35l, 35m
Broad-scale habitat	A1.2 Moderate energy intertidal rock	Sufficient evidence for designation FS 35i, 35j, 35k, 35l, 35m Further evidence required for designation FS 35e, 35f, 35g, 35h	High FS 35i, 35j, 35k, 35l Moderate FS 35e, 35f, 35g, 35h, 35m	High FS 35i, 35j, 35k, 35l Moderate FS 35e, 35f, 35g, 35h, 35m	Maintain FS 35e, 35f, 35g, 35h, 35i, 35j, 35k, 35l, 35m	More certain FS 35e, 35f, 35g, 35h, 35i, 35j, 35k, 35l, 35m
Broad-scale habitat	A1.3 Low energy intertidal rock	Sufficient evidence for designation FS 35j Further evidence	High FS 35j Moderate FS 35g	High FS 35j Moderate FS 35g	Maintain FS 35g, 35j	More certain FS 35g, 35j

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
		required for designation FS 35g				
Broad-scale habitat	A2.1 Intertidal coarse sediment	Sufficient evidence for designation FS 35i, 35j, 35m Further evidence required for designation FS 35f, 35g	High FS 35i, 35j Moderate FS 35f, 35g, 35m	High FS 35i, 35j Moderate FS 35f, 35g, 35m	Maintain FS 35f, 35g, 35i, 35j, 35m	More certain FS 35f, 35g, 35i, 35j, 35m
Broad-scale habitat	A2.2 Intertidal sand and muddy sand	Sufficient evidence for designation FS 35i, 35j, 35k Further evidence required for designation FS 35g, 35m	High FS 35i, 35j, 35k Moderate FS 35g, 35m	High FS 35i, 35j, 35k Moderate FS 35g, 35m	Maintain FS 35g, 35i, 35j, 35k, 35m	More certain FS 35g, 35i, 35j, 35k, 35m
Broad-scale habitat	A2.4 Intertidal mixed sediments	Sufficient evidence for designation FS 35j	Moderate FS 35j	Moderate FS 35j	Maintain FS 35j	More certain FS 35j
Broad-scale habitat	A3.1 High energy infralittoral rock	Further evidence required for designation FS 35d	Low FS 35d	Low FS 35d	Recover FS 35d	More certain FS 35d
Broad-scale habitat	A3.2 Moderate energy infralittoral rock	Further evidence required for designation FS 35d	Low FS 35d	Low FS 35d	Recover FS 35d	More certain FS 35d
Broad-scale habitat	A4.1 High energy circalittoral rock	Further evidence required for designation FS 35d	Moderate FS 35d	Moderate FS 35d	Recover FS 35d	More certain FS 35d
Broad-scale habitat	A4.2 Moderate energy circalittoral rock	Further evidence required for designation	Low FS 35d	Low FS 35d	Recover FS 35d	More certain FS 35d

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
		FS 35d				
Broad-scale habitat	A5.1 Subtidal coarse sediment	Further evidence required for designation FS 35d	Low FS 35d	Low FS 35d	Maintain FS 35d	Less certain FS 35d
Broad-scale habitat	A5.4 Subtidal mixed sediments	Further evidence required for designation FS 35d	Low FS 35d	Low FS 35d	Maintain FS 35d	Less certain FS 35d
Habitat of conservation importance	Intertidal underboulder communities	Sufficient evidence for designation FS 35f, 35g, 35i, 35j, 35k, 35m	High FS 35g, 35i, 35j, 35k, 35m Moderate FS 35f	High FS 35g, 35i, 35j, 35k, 35m Moderate FS 35f	Maintain FS 35f, 35g, 35i, 35j, 35k, 35m	More certain FS 35f, 35g, 35i, 35j, 35k, 35m
Habitat of conservation importance	Peat and clay exposures	Sufficient evidence for designation FS 35g	No confidence FS 35g	No confidence FS 35g	No confidence so no CO FS 35g	No confidence so no CO certainty FS 35g
Habitat of conservation importance	Fragile sponge and anthozoan communities on subtidal rocky habitats	Further evidence required for designation FS 35d	Low FS 35d	Low FS 35d	Recover FS 35d	More certain FS 35d
Species of conservation importance	Giant goby (<i>Gobius cobitis</i>)	Further evidence required for designation FS 35e, 35j, 35l	Low FS 35j, 35l No confidence FS 35e	Low FS 35j, 35l No confidence FS 35e	Maintain FS 35j, 35l No confidence so no CO FS 35e	More certain FS 35j, 35l No confidence so no CO certainty FS 35e
Species of conservation importance	Spiny lobster (<i>Palinurus elephas</i>)	Sufficient evidence for designation FS 35c, 35e, 35f, 35h, 35i, 35j, 35k, 35l Further evidence required for designation	High FS 35f, 35h, 35k Moderate FS 35c, 35d, 35e, 35i, 35j, 35l	High FS 35f, 35h, 35k Moderate FS 35c, 35d, 35e, 35i, 35j, 35l	Recover FS 35c, 35d, 35e, 35f, 35h, 35i, 35j, 35k, 35l	More certain FS 35c, 35d, 35e, 35f, 35h, 35i, 35j, 35k, 35l

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
		FS 35d				
Species of conservation importance	Stalked jellyfish (<i>Haliclystus auricula</i>)	Further evidence required for designation FS 35e, 35g, 35i, 35j	Moderate FS 35g, 35j Low FS 35i, 35m No confidence FS 35e	Moderate FS 35g, 35j Low FS 35i, 35m No confidence FS 35e	Maintain FS 35g, 35i, 35j, 35m No confidence so no CO FS 35e	More certain FS 35g, 35i, 35j, 35m No confidence so no CO certainty FS 35e
Species of conservation importance	Stalked jellyfish (<i>Lucernariopsis campanulata</i>)	Further evidence required for designation FS 35g, 35i, 35j Not assessed FS 35m	High FS 35i Low FS 35g, 35j No confidence FS 35m	High FS 35i Low FS 35g, 35j No confidence FS 35m	Maintain FS 35g, 35i, 35j No confidence so no CO FS 35m	More certain FS 35g, 35i, 35j No confidence so no CO certainty FS 35m
Species of conservation importance	Stalked jellyfish (<i>Lucernariopsis cruxmelitensis</i>)	Sufficient evidence for designation FS 35l	Low FS 35l	Low FS 35l	Maintain FS 35l	More certain FS 35l
Species of conservation importance	Ocean quahog (<i>Arctica islandica</i>)	Further evidence required for designation FS 35j	Low FS 35j	Low FS 35j	Maintain FS 35j	More certain FS 35j
Species of conservation importance	Burgundy maerl paint weed (<i>Cruoria cruoriaeformis</i>)	Further evidence required for designation FS 35l	Low FS 35l	Low FS 35l	Maintain FS 35l	More certain FS 35l
Species of conservation importance	Pink sea-fan (<i>Eunicella verrucosa</i>)	Further evidence required for designation FS 35d	Moderate FS 35d	Moderate FS 35d	Recover FS 35d	More certain FS 35d

Table 81 Supporting documentation, reference materials and relevant survey details for Isles of Scilly FS
35

Document title/survey code	Document/survey purpose	Location
Lieberknecht <i>et al.</i> Finding Sanctuary. <i>Finding Sanctuary Final Report and Recommendations. A report submitted by the Finding Sanctuary stakeholder project to Defra, the Joint Nature Conservation Committee, and Natural England.</i> Exeter: Finding Sanctuary, 2011	Final report from Finding Sanctuary detailing the final rMCZs for the Finding Sanctuary region	http://publications.naturalengland.org.uk/publication/1561560
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones.</i> Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report.</i> Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 2.2. – Finding Sanctuary – Sites proposed for designation in 2013, document amendments.</i> London: Defra, 2013	Amendments update from Defra on their Public Consultation on the rMCZs in the Finding Sanctuary region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82711/mcz-annex-a1-part2-2-130115.pdf
M_00037	Finding Sanctuary regional project Habitat Data for Isles of Scilly	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00045	Cornwall Wildlife Trust FOCI Species Data	See Table 4 in Section 4.3 of the main advice document for the full reference

Document title/survey code	Document/survey purpose	Location
M_00047	Seasearch/ Shoresearch Survey Data Points. ERCCIS/Cornwall Wildlife Trust	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00056	MB102 Sample Points for Non- mobile Species	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00093	UKSeaMap V8 – JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00228	ERCCIS + Cornwall Wildlife Trust. Seasearch and Other Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00283	Natural England Revised Isles of Scilly Habitat Boundaries	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00305	Environment Agency Habitat Mapping	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH data (habitat mapping)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder Data for Species FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder Data for Broad- scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00328	Isles of Scilly Intertidal Biotope Mapping Dataset (2010)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00361	MCZ Photo Evidence Database. Coordinate format in decimal degrees	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.21.3 Audit trail for the development of Natural England's advice

Table 82 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for Isles of Scilly FS 35

Sub-site code	Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
		Presence	Extent	Presence	Extent	
FS 35c	Spiny lobster (<i>Palinurus elephas</i>)	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey code: M_00361
FS 35d	A3.1 High energy infralittoral rock	High	Low	Low	Low	Change due to application of new guidance on use of Protocol E
FS 35d	A3.2 Moderate energy infralittoral rock	Low	Low	Low	Low	No change
FS 35d	A4.1 High energy circalittoral rock	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00283, M_00361
FS 35d	A4.2 Moderate energy circalittoral rock	Low	Low	Low	Low	No change
FS 35d	A5.1 Subtidal coarse sediment	Low	Low	Low	Low	No change
FS 35d	A5.4 Subtidal mixed sediments	Low	Low	Low	Low	No change
FS 35d	Fragile sponge and anthozoan communities on subtidal rocky habitats	Low	Low	Low	Low	No change
FS 35d	Pink sea-fan (<i>Eunicella verrucosa</i>)	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation: Relevant survey code: M_00361
FS	Spiny lobster (<i>Palinurus</i>)	Low	Low	Moderate	Moderate	Increase in presence and extent confidence

Sub-site code	Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
		Presence	Extent	Presence	Extent	
35d	<i>elephas</i>)					due to new data unavailable at time of consultation. Relevant survey code: M_00361
FS 35e	A1.1 High energy intertidal rock	Moderate	Moderate	High	Moderate	Change due to application of new guidance on use of Protocol E and georeferenced images from Channel Coast Observatory (CCO) confirming parent feature. High energy due to location. Extent of high energy feature moderate due to lack of feature habitat map. Relevant survey code: M_00361
FS 35e	A1.2 Moderate energy intertidal rock	Low	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and georeferenced CCO image confirming parent feature. Relevant survey code: M_00361
FS 35e	Giant goby (<i>Gobius cobitis</i>)	Low	Low	No confidence	No confidence	The boundary has changed for sub-site 3 Gilstone to Gorregan; the giant goby records now fall outside of the revised boundary
FS 35e	Stalked jellyfish (<i>Haliclystus auricula</i>)	Low	Low	No confidence	No confidence	The boundary has changed for sub-site 3 Gilstone to Gorregan; the stalked jellyfish record now falls outside of the revised boundary
FS 35e	Spiny lobster (<i>Palinurus elephas</i>)	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation Relevant survey code: M_00361
FS 35f	A1.1 High energy intertidal rock	Moderate	Low	High	Moderate	Change due to application of new guidance on use of Protocol E and

Sub-site code	Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
		Presence	Extent	Presence	Extent	
						georeferenced CCO image confirming parent feature. High energy due to location. Extent of high energy feature moderate due to lack of feature habitat map. Relevant survey codes: M_00308, M_00310, M_00361
FS 35f	A1.2 Moderate energy intertidal rock	Moderate	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and georeferenced CCO image confirming parent feature. Extent of moderate energy feature moderate due to lack of feature habitat map. Relevant survey codes: M_00283, M_00310, M_00361
FS 35f	A2.1 Intertidal coarse sediment	Moderate	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and georeferenced CCO image confirming parent feature. Extent of moderate energy feature moderate due to lack of feature habitat map. Relevant survey codes: M_00305, M_00308, M_00361
FS 35f	Intertidal underboulder communities	Moderate	Moderate	Moderate	Moderate	No change
FS 35f	Spiny lobster (<i>Palinurus elephas</i>)	Moderate	Moderate	High	High	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00309, M_00361
FS 35f	A1.2 Moderate energy intertidal rock	High	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and

Sub-site code	Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
		Presence	Extent	Presence	Extent	
						georeferenced CCO image confirming parent feature. Extent of moderate energy feature moderate due to lack of feature habitat map. Relevant survey codes: M_00310, M_00361
FS 35f	A1.3 Low energy intertidal rock	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00283, M_00308, M_00310
FS 35f	A2.1 Intertidal coarse sediment	Moderate	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and georeferenced images from CCO
FS 35f	A2.2 Intertidal sand and muddy sand	Moderate	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and georeferenced images from CCO
FS 35f	Intertidal underboulder communities	High	High	High	High	No change
FS 35f	Peat and clay exposures	High	Moderate	No confidence	No confidence	No data available. No confidence
FS 35f	Stalked jellyfish (<i>Haliclystus auricula</i>)	Moderate	Low	Moderate	Moderate	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00045, M_00228, M_00309
FS 35f	Stalked jellyfish (<i>Lucernariopsis campanulata</i>)	Low	Low	Low	Low	No change
FS 35h	A1.2 Moderate energy intertidal rock	Moderate	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and georeferenced images from CCO. Relevant

Sub-site code	Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
		Presence	Extent	Presence	Extent	
						survey codes: M_00310, M_00361
FS 35h	Spiny lobster (<i>Palinurus elephas</i>)	Low	Low	High	High	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00228, M_00309, M_00361
FS 35i	A1.1 High energy intertidal rock	High	High	High	High	No change
FS 35i	A1.2 Moderate energy intertidal rock	High	High	High	High	No change
FS 35i	A2.1 Intertidal coarse sediment	Moderate	Moderate	High	High	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00305, M_00308, M_00328
FS 35i	A2.2 Intertidal sand and muddy sand	High	High	High	High	No change
FS 35i	Intertidal underboulder communities	High	High	High	High	No change
FS 35i	Stalked jellyfish (<i>Haliclystus auricula</i>)	Low	Low	Low	Low	No change
FS 35i	Stalked jellyfish (<i>Lucernariopsis campanulata</i>)	Low	Low	High	High	Increase in presence and extent confidence due to new data from data sources unavailable at time of consultation. Relevant survey codes: M_00045, M_00056, M_00228
FS 35i	Spiny lobster (<i>Palinurus elephas</i>)	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00045, M_00361

Sub-site code	Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
		Presence	Extent	Presence	Extent	
FS 35j	A1.2 Moderate energy intertidal rock	High	Moderate	High	High	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00308, M_00310, M_00328
FS 35j	A1.3 Low energy intertidal rock	High	High	High	High	No change
FS 35j	A2.1 Intertidal coarse sediment	High	Moderate	High	High	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00305, M_00308, M_00328
FS 35j	A2.2 Intertidal sand and muddy sand	High	High	High	High	No change
FS 35j	A2.4 Intertidal mixed sediments	High	Moderate	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and georeferenced images from CCO confirming parent feature. Relevant survey codes: M_00308, M_00361
FS 35j	Intertidal underboulder communities	High	High	High	High	No change
FS 35j	Ocean quahog (<i>Arctica islandica</i>)	Low	Low	Low	Low	No change
FS 35j	Giant goby, (<i>Gobius cobitis</i>)	Low	Low	Low	Low	No change
FS 35j	Stalked jellyfish (<i>Haliclystus auricula</i>)	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00045, M_00228, M_00309
FS 35j	Stalked jellyfish (<i>Lucernariopsis campanulata</i>)	Low	Low	Low	Low	No change
FS 35j	Spiny lobster (<i>Palinurus</i>)	Moderate	Moderate	Moderate	Moderate	No change

Sub-site code	Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
		Presence	Extent	Presence	Extent	
	<i>elephas</i>)					
FS 35k	A1.1 High energy intertidal rock	High	High	High	High	No change
FS 35k	A1.2 Moderate energy intertidal rock	High	High	High	High	No change
FS 35k	A2.2 Intertidal sand and muddy sand	High	High	High	High	No change
FS 35k	Intertidal underboulder communities	High	High	High	High	No change
FS 35k	Spiny lobster (<i>Palinurus elephas</i>)	Moderate	Moderate	High	High	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00228, M_00309, M_00361
FS 35l	A1.1 High energy intertidal rock	High	Moderate	High	High	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00308, M_00328
FS 35l	A1.2 Moderate energy intertidal rock	High	Moderate	High	High	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey code: M_00328
FS 35l	Burgundy maerl paint weed (<i>Cruoria cruoriaeformis</i>)	Low	Low	Low	Low	No change
FS 35l	Giant goby (<i>Gobius cobitis</i>)	Low	Low	Low	Low	No change
FS 35l	Stalked jellyfish (<i>Lucernariopsis cruxmelitensis</i>)	Moderate	Moderate	Low	Low	Change due to application of new guidance on use of Protocol E
FS 35l	Spiny lobster (<i>Palinurus elephas</i>)	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant

Sub-site code	Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
		Presence	Extent	Presence	Extent	
						survey code: M_00361
FS 35m	A1.1 High energy intertidal rock	Moderate	Moderate	Moderate	Low	Change due to application of new guidance on use of Protocol E
FS 35m	A1.2 Moderate energy intertidal rock	High	High	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and georeferenced images from CCO confirming parent feature. Relevant survey code: M_00361
FS 35m	A2.1 Intertidal coarse sediment	High	Moderate	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and georeferenced images from CCO confirming parent feature. Relevant survey codes: M_00305, M_00308, M_00361
FS 35m	A2.2 Intertidal sand and muddy sand	Moderate	Low	Moderate	Moderate	Change due to application of new guidance on use of Protocol E and georeferenced images from CCO confirming parent feature. Relevant survey codes: M_00308, M_00310, M_00361
FS 35m	Intertidal underboulder communities	High	High	Moderate	Moderate	SNCB site lead questions Environment Agency polygon data for this feature in this site. Communities associated with the boulders have not been confirmed
FS 35m	Stalked jellyfish (<i>Haliclystus auricula</i>)	Not assessed	Not assessed	Low	Low	Original proposal from Finding Sanctuary was two unspecified species of stalked jellyfish. Further investigation following the consultation clarified that the two species in question were <i>Haliclystus auricula</i> and <i>Lucernariopsis</i>

Sub-site code	Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
		Presence	Extent	Presence	Extent	
						<i>campanulata</i>
FS 35m	Stalked jellyfish (<i>Lucernariopsis campanulata</i>)	Not assessed	Not assessed	No confidence	No confidence	Original proposal from Finding Sanctuary was two unspecified species of stalked jellyfish. Further investigation following the consultation clarified that the two species in question were <i>Haliclystus auricula</i> and <i>Lucernariopsis campanulata</i> . Sufficient evidence could not be found to support the continued inclusion of <i>L. campanulata</i> as a feature

Table 83 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for Isles of Scilly FS 35

Sub-Site Code	Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
		2012 Advice	2013 Advice		2012 Advice	2013 Advice	
FS 35c	Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35d	A3.1 High energy infralittoral rock	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35d	A3.2 Moderate energy infralittoral rock	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35d	A4.1 High energy circalittoral rock	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35d	A4.2 Moderate energy circalittoral rock	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35d	A5.1 Subtidal coarse sediment	Maintain	Maintain	No change	Reasonably uncertain	Less certain	No change
FS 35d	A5.4 Subtidal mixed sediments	Maintain	Maintain	No change	Reasonably uncertain	Less certain	No change
FS 35d	Fragile sponge and anthozoan communities on subtidal rocky habitats	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35d	Pink sea-fan (<i>Eunicella verrucosa</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change

Sub-Site Code	Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
		2012 Advice	2013 Advice		2012 Advice	2013 Advice	
FS 35d	Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35e	A1.1 High energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35e	A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35e	Giant goby (<i>Gobius cobitis</i>)	Maintain	No confidence in feature presence or extent, so no CO set	The boundary has changed for sub-site 3 Gilstone to Gorregan; the giant goby record now falls outside of the revised boundary so no CO set	Reasonably certain	No CO set so no assessment of certainty	The boundary has changed for sub-site 3 Gilstone to Gorregan; the giant goby records now fall outside of the revised boundary so no CO set or assessment of certainty
FS 35e	Stalked jellyfish (<i>Haliclystus auricula</i>)	Maintain	No confidence in feature presence or extent, so no CO set	The boundary has changed for sub-site 3 Gilstone to Gorregan; the stalked jellyfish record now falls outside of the revised boundary so no CO set	Reasonably certain	No CO set so no assessment of certainty	The boundary has changed for sub-site 3 Gilstone to Gorregan; the stalked jellyfish record now falls outside of the revised boundary so no CO set or assessment of certainty
FS 35e	Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35f	A1.1 High energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35f	A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change

Sub-Site Code	Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
		2012 Advice	2013 Advice		2012 Advice	2013 Advice	
FS 35f	A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35f	Intertidal underboulder communities	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35f	Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35g	A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35g	A1.3 Low energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35g	A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35g	A2.2 Intertidal sand and muddy sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35g	Intertidal underboulder communities	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35g	Peat and clay exposures	Maintain	No confidence in feature presence or extent, so no CO set	No data available to support the inclusion of this feature in this site, therefore no CO set	Reasonably certain	No CO set so no assessment of certainty	No CO set so no assessment of certainty
FS 35g	Stalked jellyfish (<i>Haliclystus</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change

Sub-Site Code	Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
		2012 Advice	2013 Advice		2012 Advice	2013 Advice	
	<i>auricula</i>)						
FS 35g	Stalked jellyfish (<i>Lucernariopsis campanulata</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35h	A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35h	Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35i	A1.1 High energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35i	A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35i	A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35i	A2.2 Intertidal sand and muddy sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35i	Intertidal underboulder communities	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35i	Stalked jellyfish (<i>Haliclystus auricula</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change

Sub-Site Code	Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
		2012 Advice	2013 Advice		2012 Advice	2013 Advice	
FS 35i	Stalked jellyfish (<i>Lucernariopsis campanulata</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35i	Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35j	A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35j	A1.3 Low energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35j	A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35j	A2.2 Intertidal sand and muddy sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35j	A2.4 Intertidal mixed sediments	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35j	Intertidal underboulder communities	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35j	Ocean quahog (<i>Arctica islandica</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35j	Giant goby, (<i>Gobius cobitis</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35j	Stalked jellyfish (<i>Haliclystus</i>)	Maintain	Maintain	No change	Reasonably	More certain	No change

Sub-Site Code	Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
		2012 Advice	2013 Advice		2012 Advice	2013 Advice	
	<i>auricula</i>)				certain		
FS 35j	Stalked jellyfish (<i>Lucernariopsis campanulata</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35j	Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35k	A1.1 High energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35k	A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35k	A2.2 Intertidal sand and muddy sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35k	Intertidal underboulder communities	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35k	Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35l	A1.1 High energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35l	A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change

Sub-Site Code	Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
		2012 Advice	2013 Advice		2012 Advice	2013 Advice	
FS 35l	Burgundy maerl paint weed (<i>Cruoria cruoriaeformis</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35l	Giant goby (<i>Gobius cobitis</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35l	Stalked jellyfish (<i>Lucernariopsis cruxmelitensis</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35l	Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change
FS 35m	A1.1 High energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35m	A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35m	A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35m	A2.2 Intertidal sand and muddy sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35m	Intertidal underboulder communities	Maintain	Maintain	No change	Reasonably certain	More certain	No change
FS 35m	Stalked jellyfish (<i>Haliclystus</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change

Sub-Site Code	Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
		2012 Advice	2013 Advice		2012 Advice	2013 Advice	
	<i>auricula</i>)						
FS 35m	Stalked jellyfish (<i>Lucernariopsis campanulata</i>)	Maintain	No confidence in feature presence or extent, so no CO set	Original proposal from Finding Sanctuary was two unspecified species of stalked jellyfish (given a Maintain objective in 2012). Further investigation following the consultation clarified that the two species in question were <i>Haliclystus auricula</i> and <i>Lucernariopsis campanulata</i> . Sufficient evidence could not be found to support the continued inclusion of <i>L. campanulata</i> as a feature, therefore no CO is set for this feature	Reasonably certain	No CO set so no assessment of certainty	No CO set so no assessment of certainty

A5.21.4 Additional advice

A5.21.4.1 Advice on specific features

No specific additional advice is provided on features however it should be noted that the recommendations put forward by Finding Sanctuary for the Isles of Scilly pMCZ included proposals for the designation of a number of features that are already designated through the overlapping SAC. The rationale for the original inclusion of this overlap is described in Finding Sanctuary's final report. Natural England provided advice on these features in its 2012 Advice. However, subsequent discussions between Defra and the Isles of Scilly stakeholders highlighted that it would be more appropriate if the approach taken for other MCZs (whereby features already protected by overlapping MPA designations are not also designated with the MCZ) was also used for the Isles of Scilly. This was agreed at a meeting of the Isles of Scilly IFCA meeting held in June 2013, attended by Defra, when it was agreed that there would be no duplication of designation of features but that the area would be considered as an MPA as a whole. Natural England's 2013 Advice therefore covers only those features not already protected by the SAC.

The original proposal from the Finding Sanctuary project for the Tean sub-site was for the inclusion of two unspecified species of stalked jellyfish (referred to as 'two stalked jellyfish spp.') and given a Maintain conservation objective in 2012). Further investigation following the 2013 Defra Consultation clarified that the two species in question were *Haliclystus auricula* and *Lucernariopsis campanulata*. Sufficient evidence could not be found to support the continued inclusion of *L. campanulata* as a feature.

A5.21.4.2 Advice on boundaries

No specific additional advice is provided on boundaries, however, it should be noted that the boundaries for the 11 sub-sites presented in the Finding Sanctuary final recommendations were drawn by hand by the Isles of Scilly stakeholders onto maps, and then digitised by the Finding Sanctuary project. The seaward boundary followed the 50m contour.

Following the Defra Public Consultation on MCZs, the Isles of Scilly stakeholders, via the Isles of Scilly IFCA submitted a consultation response containing new, squared-off boundaries for each of the Isles of Scilly sub-sites. At a web meeting between Defra, Natural England and the Isles of Scilly IFCA (representing the Isles of Scilly stakeholders) in May 2013, agreement was reached on final straight-line boundaries for each of the Isles of Scilly sub-sites.

As agreed with Defra, Natural England's 2013 Advice is based on these agreed boundaries, rather than the original boundaries as shown in the Finding Sanctuary recommendations and the Defra Public Consultation.

A5.21.4.3 Additional surveys

A verification survey has been carried out on the Bristows to Stones sub-site but the results have not been used in the development of this advice because the results were not available in time. The survey code is A2, please see Table 5 in Section 4.4 of the main document for the full reference.

No new survey work has been carried out on the rest of the Isles of Scilly sub-sites.

A5.21.5 Risk

The Isles of Scilly Bristows to the Stones sub-site is considered to be at higher risk of damage or deterioration as the risk score calculated is above 50%.

It should be noted that the following Isles of Scilly sub-sites contain the following highly sensitive features:

FS 35c Bishop to Crim – spiny lobster (*Palinurus elephas*). This feature has a conservation objective of Recover for this subsite.

FS 35d Bristows to the Stones – fragile sponge and anthozoan communities, spiny lobster (*Palinurus elephas*) and pink sea-fan (*Eunicella verrucosa*). All of these features have a conservation objective of Recover.

FS 35e Gilstone to Gorregan – spiny lobster (*Palinurus elephas*). This feature has a conservation objective of Recover.

FS 35f Hanjague to Deep Ledge – spiny lobster (*Palinurus elephas*). This feature has a conservation objective of Recover.

FS 35g Higher Town – stalked jellyfish (*Haliclystus auricula*) and stalked jellyfish (*Lucernariopsis campanulata*). Neither of these features have a conservation objective of Recover.

FS 35h Lower Ridge to Innisvouls – spiny lobster (*Palinurus elephas*). This feature has a conservation objective of Recover.

FS 35i Men a Vaur to White Island – stalked jellyfish (*Haliclystus auricula*), stalked jellyfish (*Lucernariopsis campanulata*) and spiny lobster (*Palinurus elephas*). Of these, spiny lobster (*Palinurus elephas*) has a conservation objective of Recover.

FS 35j Peninnis to Dry Ledge – stalked jellyfish (*Haliclystus auricula*), stalked jellyfish (*Lucernariopsis campanulata*), spiny lobster (*Palinurus elephas*) and ocean quahog (*Arctica islandica*). Of these, spiny lobster (*Palinurus elephas*) has a conservation objective of Recover.

FS 35k Plympton to Spanish Ledge – spiny lobster (*Palinurus elephas*). This feature has a conservation objective of Recover.

FS 35l Smith Sound Tide Swept Channel – spiny lobster (*Palinurus elephas*) and burgundy maerl paint weed (*Cruoria cruoriaeformis*). Of these, spiny lobster (*Palinurus elephas*) has a conservation objective of Recover.

FS 35m Tean – stalked jellyfish (*Haliclystus auricula*). This feature does not have a conservation objective of Recover.

A5.22 Padstow Bay and Surrounds FS 38

A5.22.1 Site feature maps

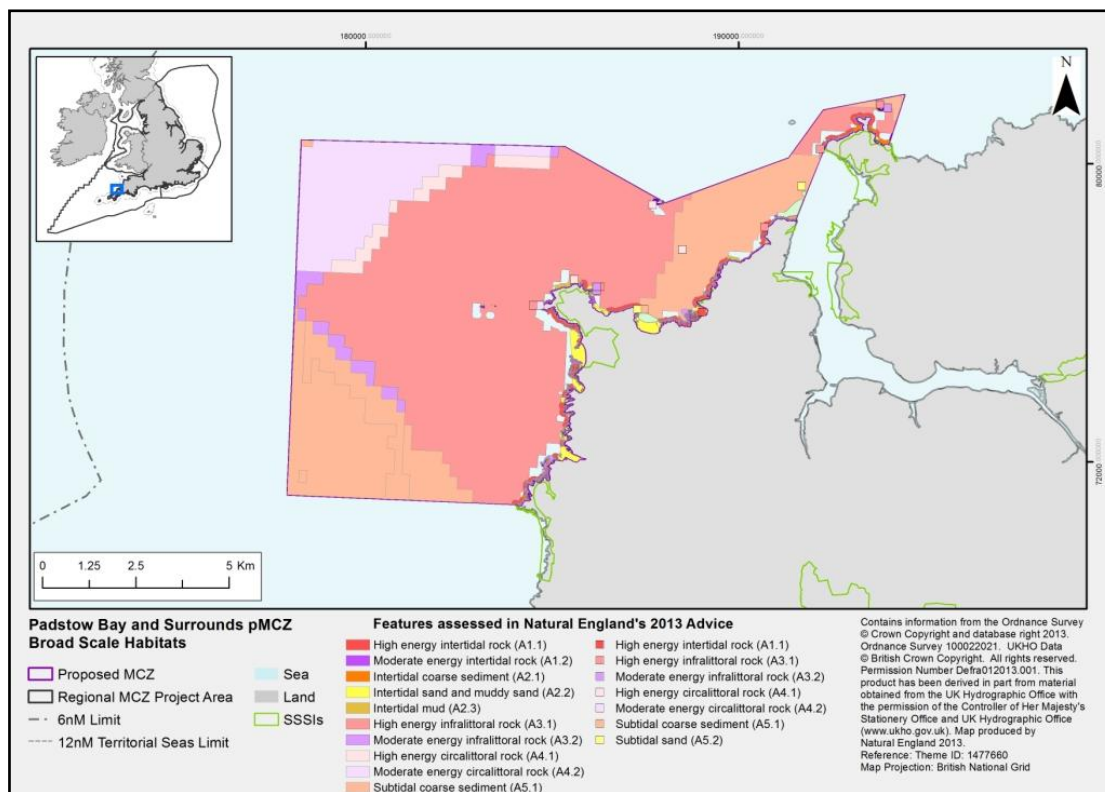


Figure 56 Location of mapped broad-scale habitats in pMCZ Padstow Bay and Surrounds FS 38

Note: The polygon of feature A5.2 on Figure 56 is a mapping error as this is not a feature proposed for this pMCZ.

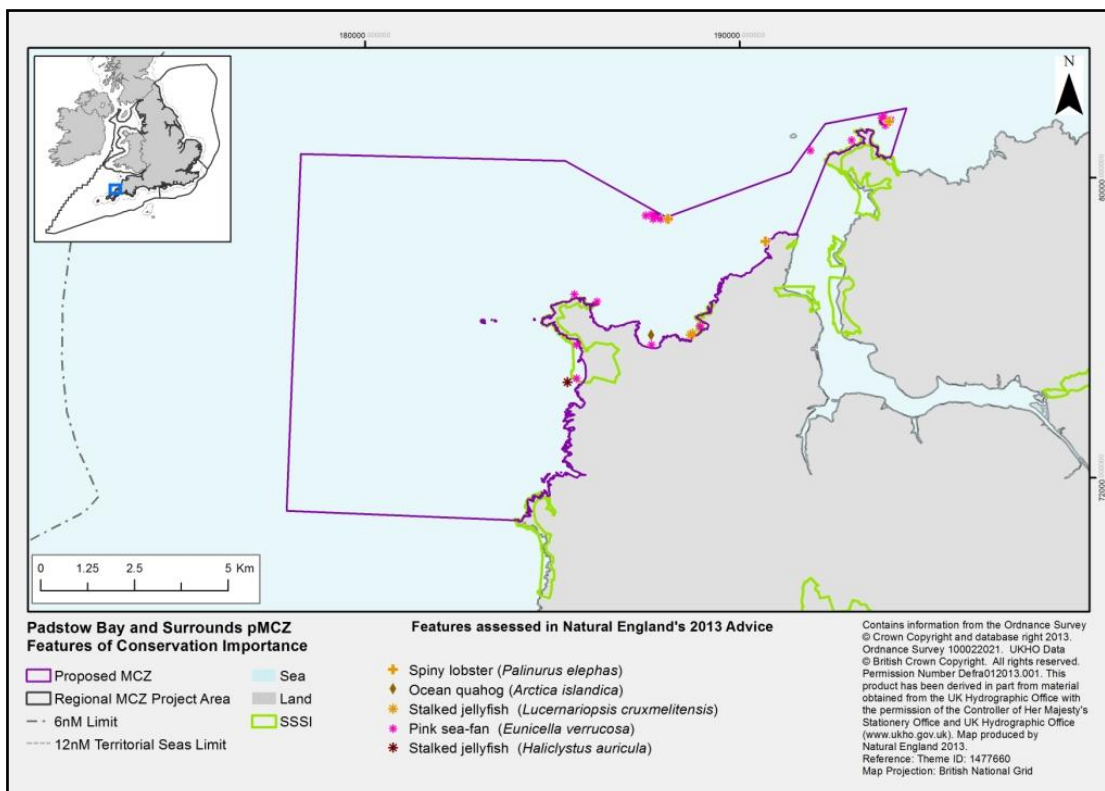


Figure 57 Location of mapped features of conservation importance in pMCZ Padstow Bay and Surrounds FS 38

A5.22.2 Summary of Natural England's advice

Table 84 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for pMCZ Padstow Bay and Surrounds FS 38

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A1.1 High energy intertidal rock	Sufficient evidence for designation	High	High	Maintain	More certain
Broad-scale habitat	A1.2 Moderate energy intertidal rock	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A2.1 Intertidal coarse sediment	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A2.2 Intertidal sand and muddy sand	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A2.3 Intertidal mud	Further evidence required for designation	Low	Low	Maintain	Less certain
Broad-scale habitat	A3.1 High energy infralittoral rock	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A3.2 Moderate energy infralittoral rock	Further evidence required for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A4.1 High energy circalittoral rock	Further evidence required for designation	Moderate	Moderate	Maintain	More certain
Broad-scale habitat	A4.2 Moderate energy circalittoral rock	Further evidence required for designation	Low	Low	Maintain	More certain
Broad-scale habitat	A5.1 Subtidal coarse sediment	Further evidence required for	Low	Low	Maintain	More certain

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
		designation				
Species of conservation importance	Ocean quahog (<i>Arctica islandica</i>)	Further evidence required for designation	Low	Low	Maintain	More certain
Species of conservation importance	Pink sea-fan (<i>Eunicella verrucosa</i>)	Sufficient evidence for designation	Moderate	Moderate	Maintain	More certain
Species of conservation importance	Stalked jellyfish (<i>Haliclystus auricula</i>)	Further evidence required for designation	Low	Low	Maintain	More certain
Species of conservation importance	Stalked jellyfish (<i>Lucernariopsis cruxmelitensis</i>)	Further evidence required for designation	Low	Low	Maintain	More certain
Species of conservation importance	Spiny lobster (<i>Palinurus elephas</i>)	Sufficient evidence for designation	Low	Low	Recover	More certain

Table 85 Supporting documentation, reference materials and relevant survey details for pMCZ Padstow Bay and Surrounds FS 38

Document title/survey code	Document/survey purpose	Location
Lieberknecht <i>et al.</i> Finding Sanctuary. <i>Finding Sanctuary Final Report and Recommendations. A report submitted by the Finding Sanctuary stakeholder project to Defra, the Joint Nature Conservation Committee, and Natural England.</i> Exeter: Finding Sanctuary, 2011	Final report from Finding Sanctuary detailing the final rMCZs for the Finding Sanctuary region	http://publications.naturalengland.org.uk/publication/1561560
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones.</i> Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082

Document title/survey code	Document/survey purpose	Location
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report.</i> Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 2.1. – Finding Sanctuary – Sites proposed for designation in 2013.</i> London: Defra, 2012b	Defra's Public Consultation on the rMCZs in the Finding Sanctuary region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82715/mcz-annex-a1-part2-1-121213.pdf
M_00045	Cornwall Wildlife Trust FOCI Species Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00056	MB102 Sample Points for Non-mobile Species	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00093	UKSeaMap V8 – JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00305	Environment Agency Habitat Mapping	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH Data (habitat mapping)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder Data for Species FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder Data for Broad-scale Habitats/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00313	2013 Natural England MCZ Verification Survey of Padstow Bay and Surrounds (intertidal)	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00362	MCZ Photo Evidence Database. Coordinate format in OS grid reference	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.22.3 Audit trail for the development of Natural England's advice

Table 86 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Padstow Bay and Surrounds FS 38

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A1.1 High energy intertidal rock	High	Moderate	High	High	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00308, M_00313, M_00362
A1.2 Moderate energy intertidal rock	High	Low	High	High	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00308, M_00313
A2.1 Intertidal coarse sediment	High	Low	High	High	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00305, M_00308, M_00313
A2.2 Intertidal sand and muddy sand	High	Low	High	High	Increase in extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00308, M_00313
A2.3 Intertidal mud	Low	Low	Low	Low	No change
A3.1 High energy infralittoral rock	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00308, M_00310, M_00313
A3.2 Moderate energy infralittoral rock	Low	Low	High	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey codes: M_00310, M_00313
A4.1 High energy circalittoral rock	Low	Low	Moderate	Moderate	Increase in presence and extent confidence due to new data unavailable at time of consultation. Relevant survey code: M_00310
A4.2 Moderate energy circalittoral rock	Low	Low	Low	Low	No change

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A5.1 Subtidal coarse sediment	Low	Low	Low	Low	No change
Ocean quahog (<i>Arctica islandica</i>)	Low	Low	Low	Low	No change
Pink sea-fan (<i>Eunicella verrucosa</i>)	Moderate	Moderate	Moderate	Moderate	No change
Stalked jellyfish (<i>Haliclystus auricula</i>)	Low	Low	Low	Low	No change
Stalked jellyfish (<i>Lucernariopsis cruxmelitensis</i>)	Low	Low	Low	Low	No change
Spiny lobster (<i>Palinurus elephas</i>)	Low	Low	Low	Low	No change

Table 87 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Padstow Bay and Surrounds FS 38

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A1.1 High energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A1.2 Moderate energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.1 Intertidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.2 Intertidal sand and muddy sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.3 Intertidal mud	Maintain	Maintain	No change	Reasonably certain	Less certain	Low confidence in presence and extent of feature in site (feature thought to be absent from site as the verification surveys have not identified this feature) and resulting lack of knowledge of how pressures would then overlap with this feature
A3.1 High energy infralittoral rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A3.2 Moderate energy infralittoral rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A4.1 High energy circalittoral rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A4.2 Moderate energy circalittoral rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A5.1 Subtidal coarse sediment	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Ocean quahog (<i>Arctica islandica</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Pink sea-fan (<i>Eunicella verrucosa</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Stalked jellyfish (<i>Haliclystus auricula</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Stalked jellyfish (<i>Lucernariopsis cruxmelitensis</i>)	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change

A5.22.4 Additional advice

A5.22.4.1 Advice on specific features

Defra requested more specific advice on our confidence assessment for spiny lobster in this site following questions from the Cornwall and Isles of Scilly IFCA since the IFCA had provided anecdotal information suggesting this feature was absent from the site.

Given the historical importance of spiny lobster to Padstow¹⁶ it seemed unlikely that this feature was absent, and the lack of evidence was thought more likely to be due to the lack of recent surveys. Natural England staff are aware that recreational divers see spiny lobster often and that this species is regularly landed by the potting fleet in the area. Photographs from divers have been obtained that confirm this view, although they were not received in time to be incorporated into the confidence assessment, hence why the confidence assessment remains Low/Low.

A5.22.4.2 Advice on boundaries

The boundary change shown in Figure 58 was proposed by Defra in response to consultation responses expressing concern about the overlap of the disposal site in this area and the pMCZ.

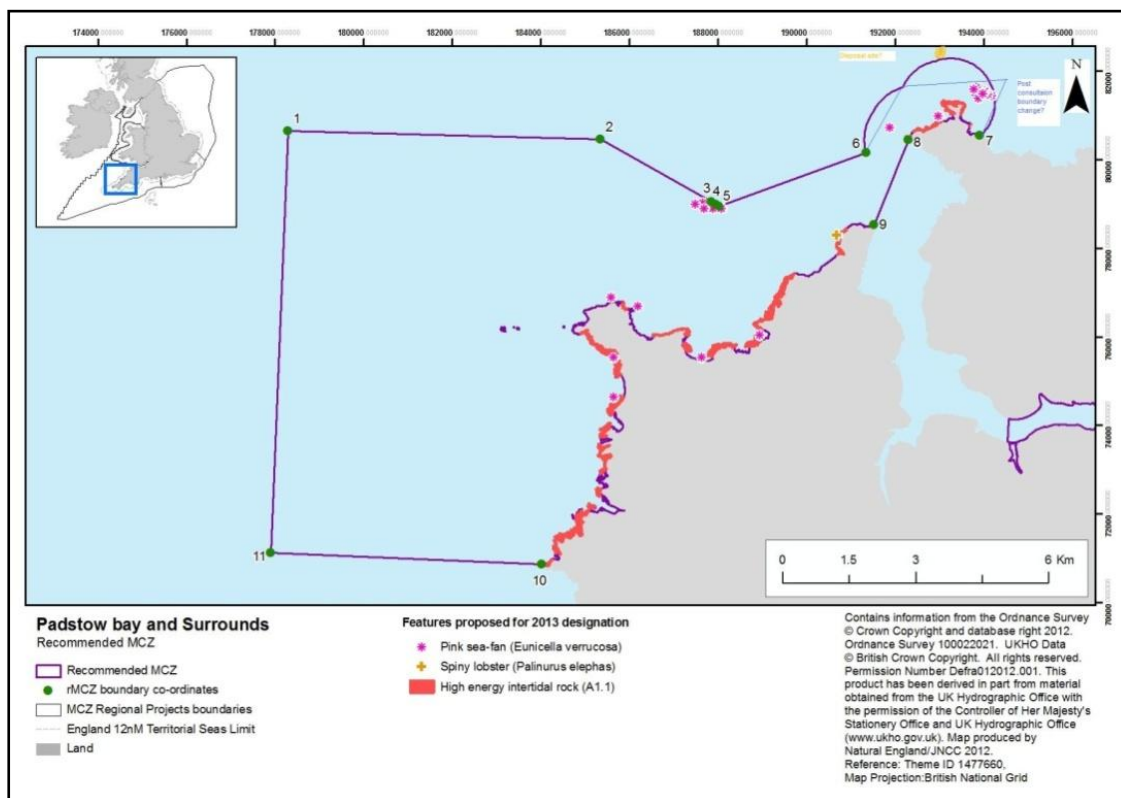


Figure 58 Boundary change proposed by Defra for pMCZ Padstow Bay and Surrounds in response to the 2012 Public Consultation, the pale blue line in the north-east corner indicates revised boundary

Natural England has assessed the impact of this proposed boundary change on the proposed features and concludes that this would not significantly alter the features protected by the site, as shown in Table 88 below. The proposed change would lead to a slight loss in an area of high energy infralittoral rock and

¹⁶ HEPPER, B.T. 1971. Cornish Crawfish Investigations. *MAFF Laboratory Leaflet (New Series), No. 22.*

subtidal coarse sediment within the site boundary. Neither of these features has been flagged as highly sensitive.

This pMCZ is important to meet minimum adequacy targets within the Defra marine area for subtidal coarse sediment and moderate energy circalittoral rock as described in the Ecological Network Guidance (Natural England and JNCC 2010). However, the majority of the extent of subtidal coarse sediment feature (based on 2013 knowledge) would still be retained within the site even with the amended boundary.

Table 88 Implications of boundary change for pMCZ Padstow Bay and Surrounds for feature viability

Feature code	Feature	Approximate loss of known extent from pMCZ with revised boundary	Implications for viability¹⁷
A1.1	High energy intertidal rock	No loss	No impact on viability
A1.2	Moderate energy intertidal rock	No loss	No impact on viability
A2.1	Intertidal coarse sediment	No loss	No impact on viability
A2.2	Intertidal sand and muddy sand	No loss	No impact on viability
A2.3	Intertidal mud	No loss	No impact on viability
A3.1	High energy infralittoral rock	Less than 5%	No impact on viability
A3.2	Moderate energy infralittoral rock	No loss	No impact on viability
A4.1	High energy circalittoral rock	No loss	No impact on viability
A4.2	Moderate energy circalittoral rock	No loss	No impact on viability
A5.1	Subtidal coarse sediment	Less than 10%	No impact on viability
SOCI_3	Ocean quahog (<i>Arctica islandica</i>)	No loss	No impact on viability
SOCI_8	Pink sea-fan (<i>Eunicella verrucosa</i>)	No loss	No impact on viability
SOCI_14	Stalked jellyfish (<i>Haliclystus auricula</i>)	No loss	No impact on viability
SOCI_19	Stalked jellyfish (<i>Lucernariopsis cruxmelitensis</i>)	No loss	No impact on

¹⁷ As described in the Ecological Network Guidance.

Feature code	Feature	Approximate loss of known extent from pMCZ with revised boundary	Implications for viability ¹⁷
			viability
SOCI_24	Spiny lobster (<i>Palinurus elephas</i>)	No loss	No impact on viability

We have not conducted a detailed assessment for the non-ENG features in relation to the proposed boundary change as they are not being considered for designation in 2013. However, it should be noted that the area of the pMCZ where the boundary changes are proposed was recommended for protection of mobile species (particularly seabirds) and that loss of area within the site here would impact on the protection this pMCZ could offer these species.

Please note that this assessment was done visually by Natural England staff, comparing the new proposed boundary with the original boundary, and assessing any change in presence and extent of features as far as is known on the basis of currently available data. This assessment did not use GI analysis and is therefore only approximate.

A5.22.4.3 Additional surveys

A verification survey was carried out by the Marine Biological Association to verify the intertidal rock and sediment features. The survey code is M_00313, please see Table 4 in Section 4.3 of the main document for the full reference.

A further verification survey has been carried out on this site but the results were not available in time for this advice. The survey was carried out by the Environment Agency to verify distribution and abundance of subtidal features. The survey code is A7, please see Table 5 in Section 4.4 of the main document for the full reference.

A5.22.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive features: stalked jellyfish (*Haliclystus auricula*), spiny lobster (*Palinurus elephas*), ocean quahog (*Arctica islandica*) and pink sea-fan (*Eunicella verrucosa*). Of these, spiny lobster (*Palinurus elephas*) has a conservation objective of Recover.

A5.23 Lundy FS 41

A5.23.1 Site feature maps

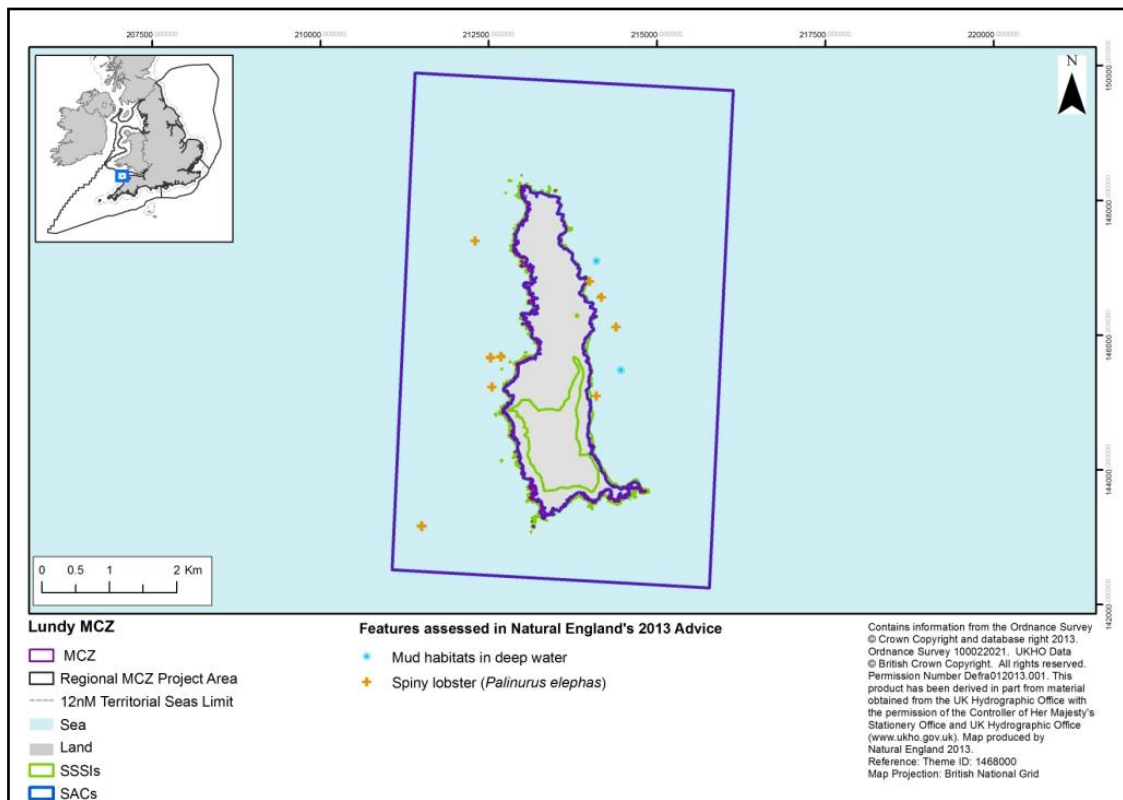


Figure 59 Location of mapped features of conservation importance in MCZ Lundy FS 41

A5.23.2 Summary of Natural England's advice

Table 89 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for MCZ Lundy FS 41

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Habitat of conservation importance	Mud habitats in deep water	Sufficient evidence for designation	Low	Low	Maintain	More certain
Species of conservation importance	Spiny lobster (<i>Palinurus elephas</i>)	Sufficient evidence for designation	High	High	Recover	More certain

Table 90 Supporting documentation, reference materials and relevant survey details for MCZ Lundy FS 41

Document title/survey code	Document/survey purpose	Location
Lieberknecht <i>et al.</i> Finding Sanctuary. <i>Finding Sanctuary Final Report and Recommendations. A report submitted by the Finding Sanctuary stakeholder project to Defra, the Joint Nature Conservation Committee, and Natural England.</i> Exeter: Finding Sanctuary, 2011	Final report from Finding Sanctuary detailing the final rMCZs for the Finding Sanctuary region	http://publications.naturalengland.org.uk/publication/1561560
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones.</i> Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report.</i> Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones:</i>	Defra's Public Consultation on the	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82715/mcz-annex-a1-part2-1-121213.pdf

<i>Consultation on proposals for designation in 2013. Annex A1 – Part 2.1. – Finding Sanctuary – Sites proposed for designation in 2013.</i> London: Defra, 2012b	rMCZs in the Finding Sanctuary region proposed for designation in 2013	
M_00310	Marine Recorder 1986–2013 Broad-scale Habitat/Habitat FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00309	Marine Recorder 1986–2013 Species FOCI	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00056	MB102 Sample Points for Non-mobile Species (Defra via ABPmer)	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.23.3 Audit trail for the development of Natural England’s advice

Table 91 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England’s advice published in 2012 for MCZ Lundy FS 41

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
Mud habitats in deep water	Moderate	Moderate	Low	Low	CA changed as only two of the data points used previously for this feature are located at a depth of 20-30m, following the JNCC BAP description for this feature
Spiny lobster (<i>Palinurus elephas</i>)	High	High	High	High	No change

Table 92 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for MCZ Lundy FS 41

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
Mud habitats in deep water	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Spiny lobster (<i>Palinurus elephas</i>)	Recover	Recover	No change	Reasonably certain	More certain	No change

A5.23.4 Additional advice

A5.23.4.1 Advice on specific features

No advice given to Defra on specific features for this site.

A5.23.4.2 Advice on boundaries

No advice given to Defra on boundaries for this site. It should be noted that as an existing Marine Nature Reserve, Lundy became an MCZ under the provisions of the Marine and Coastal Access Act in January 2010. This advice concerns only the recommended features additional to the existing designated MCZ features within this site.

A5.23.4.3 Additional surveys

No new survey work has been carried out on this site.

A5.23.5 Risk

This site is considered to be at higher risk of damage or deterioration as the risk score calculated is 50%.

It should be noted that this pMCZ contains the following highly sensitive features: spiny lobster (*Palinurus elephas*). This feature has a conservation objective of Recover.

A5.24 Fylde Offshore ISCZ 08

A5.24.1 Site feature maps

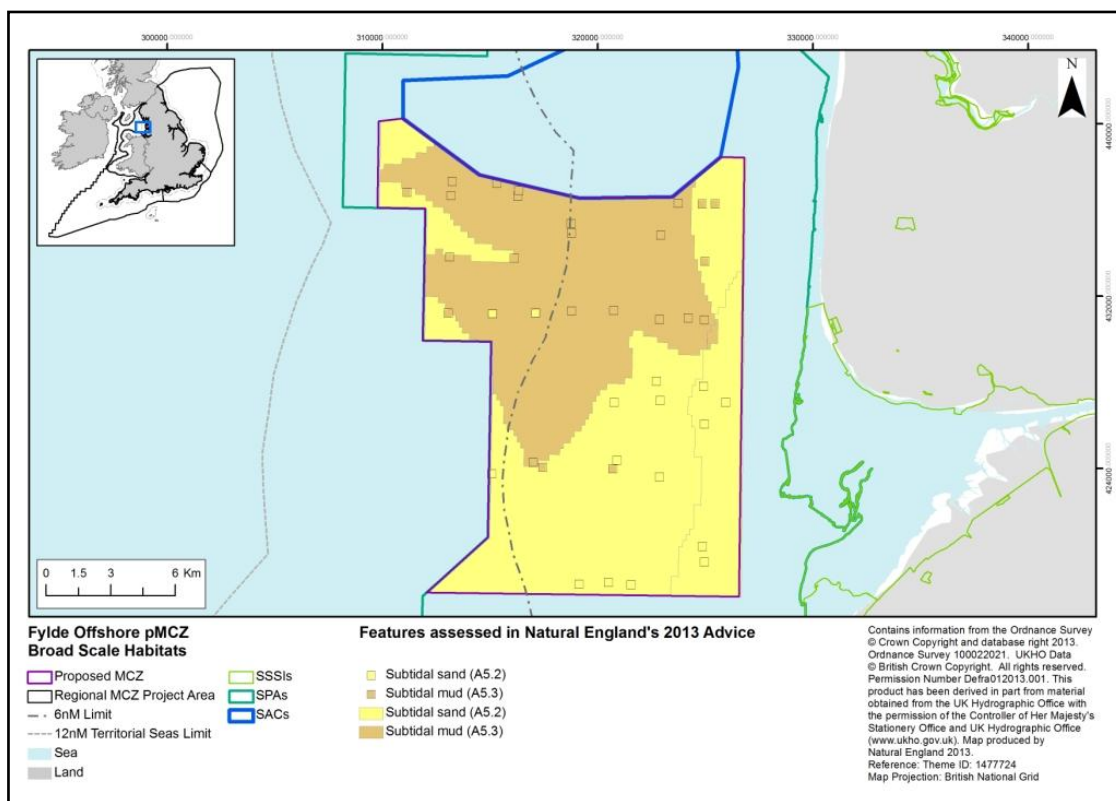


Figure 60 Location of mapped broad-scale habitats in pMCZ Fylde Offshore ISCZ 08

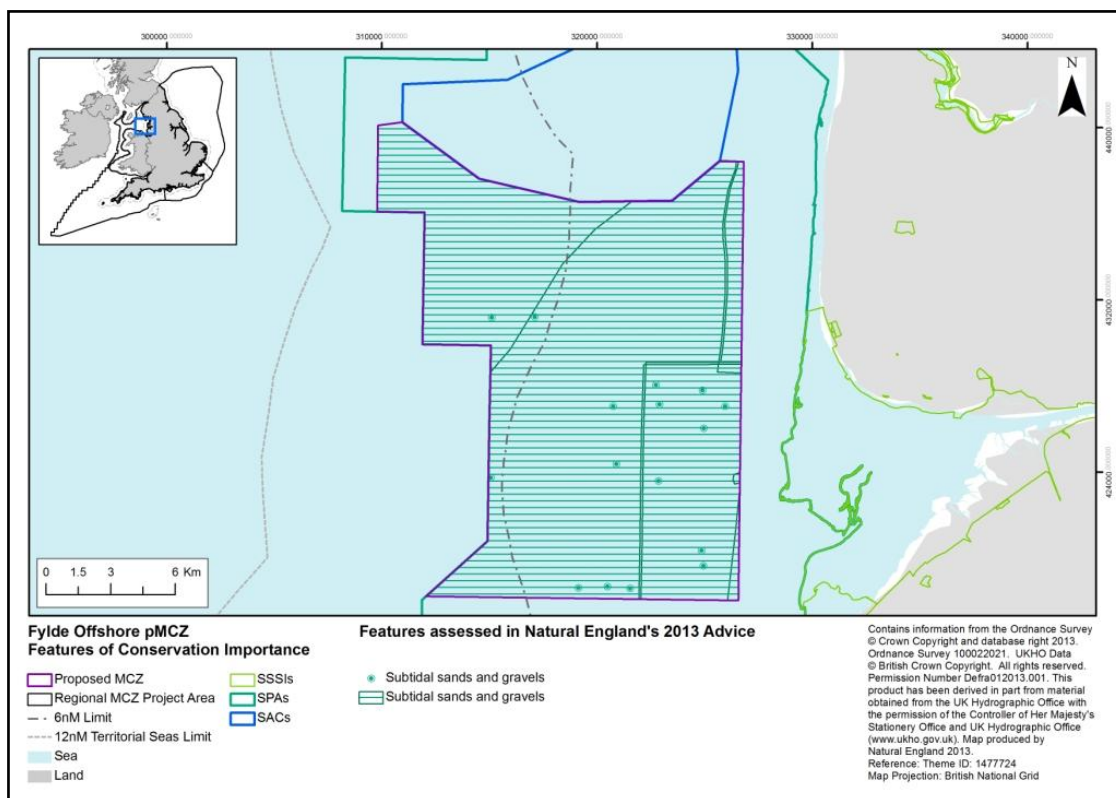


Figure 61 Location of mapped features of conservation importance in pMCZ Fylde Offshore ISCZ 08

A5.24.2 Summary of Natural England's advice

Table 93 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature of the site for pMCZ Fylde Offshore ISCZ 08

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A5.2 Subtidal sand	Sufficient evidence for designation	High	Moderate	Maintain	More certain
Broad-scale habitat	A5.3 Subtidal mud	Proposed new feature	High	High	Maintain	More certain
Habitat of conservation importance	Subtidal sands and gravels	Sufficient evidence for designation	High	Moderate	Moderate - This feature is no longer recommended for designation as the habitat description overlaps with the recommended feature subtidal sand A5.2	More certain

Table 94 Supporting documentation, reference materials and relevant survey details for pMCZ Fylde Offshore ISCZ 08

Document title/survey code	Document/survey purpose	Location
Irish Sea Conservation Zones. <i>Final recommendations for Marine Conservation Zones in the Irish Sea</i> . Warrington: Irish Sea Conservation Zones, 2011	Final report from the ISCZ project detailing the final rMCZs for the ISCZ region	http://publications.naturalengland.org.uk/file/1731929
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report</i> .	JNCC and Natural England's amendments to their July published advice (JNCC and Natural	http://publications.naturalengland.org.uk/file/4255584

Peterborough: JNCC and Natural England, 2012b	England 2012a)	
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 4. – Irish Sea Conservation Zones – Sites proposed for designation in 2013.</i> London: Defra, 2012d	Defra's Public Consultation on the rMCZs in the ISCZ region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82724/mcz-annex-a1-part4-121213.pdf
M_00093	UKSeaMap V8 – JNCC	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00346	Grab Surveys of North West	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00055	MB102 Modelled Habitat Map for Subtidal Sands and Gravels	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00059	MB102 HOCl Point Data	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.24.3 Audit trail for the development of Natural England's advice

Table 95 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Fylde Offshore ISCZ 08

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A5.2 Subtidal sand	High	High	High	Moderate	Reinterpretation of data source not used at time of consultation
A5.3 Subtidal mud	No assessment. Proposed new feature	No assessment. Proposed new feature	High	High	Reinterpretation of data source not used at time of consultation
Subtidal sands and gravels	High	High	High	Moderate	Reinterpretation of data source not used at time of consultation. This feature is no longer recommended for designation as the habitat description overlaps with the recommended feature subtidal sand A5.2

Table 96 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Fylde Offshore ISCZ 08

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A5.2 Subtidal sand	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A5.3 Subtidal mud	No objective. Proposed new feature	Maintain	Proposed new feature	No assessment. Proposed new feature	More certain	Proposed new feature
Subtidal sands and gravels	Maintain	Maintain	This feature is no longer recommended for designation as the habitat description overlaps with the recommended feature subtidal sand A5.2	Reasonably certain	More certain	Low exposure to fishing activity (Fishemap, VMS, Fisheries Standardisation and RSG). NWIFCA (pers. comm.) confirms low levels of trawling on the site in last few years. Historically, this has been an important plaice fishery but market for this species has declined. Although the feature has been impacted in the past, the current level of exposure to fishing is sufficiently low that a maintain objective seems most appropriate (i.e. we do not believe that further management would be necessary to allow the site to continue to recover from the historic fishing activity, or be maintained in a favourable state, should this recovery have already occurred). Low level of cabling activity on the site. Managed through EIA Directive already. Cables present a

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
						generally low impact footprint in this habitat (Natural England JNCC June 2011 General advice on assessing potential impacts of and mitigation for human activities on MCZ features using existing regulation and legislation).

A5.24.4 Additional advice

A5.24.4.1 Advice on specific features

JNCC and Natural England have provided guidance that the HOCI subtidal sands and gravels (HOCI_21) and the broad-scale habitats subtidal sand (A5.2) and/or subtidal coarse sediment (A5.1) overlap, and that where the HOCI was recommended only the broad-scale habitats should be designated and given a conservation objective.

As both subtidal sand and subtidal sands and gravels were recommended for Fylde Offshore, Natural England investigated whether this would be appropriate for this site. It was concluded that there was an overlap and that the sediments indicated in the best ground truth data available (M_00346) were primarily very fine sands, with very little gravel present, further supporting the removal of subtidal sands and gravels from the designation. Natural England is therefore no longer recommending that the HOCI subtidal sands and gravels be designated.

Through this analysis, it was found that the current predictive habitat map from UKSeaMap 2010 (M_00093) indicates the presence of subtidal mud (A5.3) across approximately 50% of the site in addition to subtidal sand, whereas UKSeaMap 2007 (M_00093), which was used for the ISCZ recommendations, showed subtidal sand across the whole site.

Natural England has used grab sample data from Kaiser *et al.*(2006) (M_00346) to ground truth UKSeaMap 2010 (M_00093). The Folk sediment scale was used to convert the particle size distributions from the grab samples into the EUNIS Level 3 habitat classification. A distribution of subtidal sand and subtidal mud was found that was broadly in agreement with UKSeaMap 2010 (M_00093), with subtidal sand occurring over only approximately half the site (Figure 60). There is a continuum between the fine muddy sand and fine sandy mud of the two sediment habitats based on small changes in particle size distribution, so seeking to demarcate a definitive boundary between them would be difficult and, ecologically and activity-wise, of limited value.

Natural England would be supportive of the designation of subtidal mud in this site in addition to subtidal sand on the basis of the evidence presented here. Given the similarity in nature and function of these two broad-scale habitats and the continuum between them, Natural England would not anticipate that any substantial changes in management would be necessary to include subtidal mud in the site.

A5.24.4.2 Advice on boundaries

No advice given to Defra on boundaries for this site.

A5.24.4.3 Additional surveys

No new survey work has been carried out on this site, however, the habitat map has been significantly updated through interpretation of data not used in the original recommendations (M_00346). These data included grab samples so the updated habitat map is not based on solely modelled data.

A5.24.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

A5.25 Cumbria Coast ISCZ 11

A5.25.1 Site feature maps

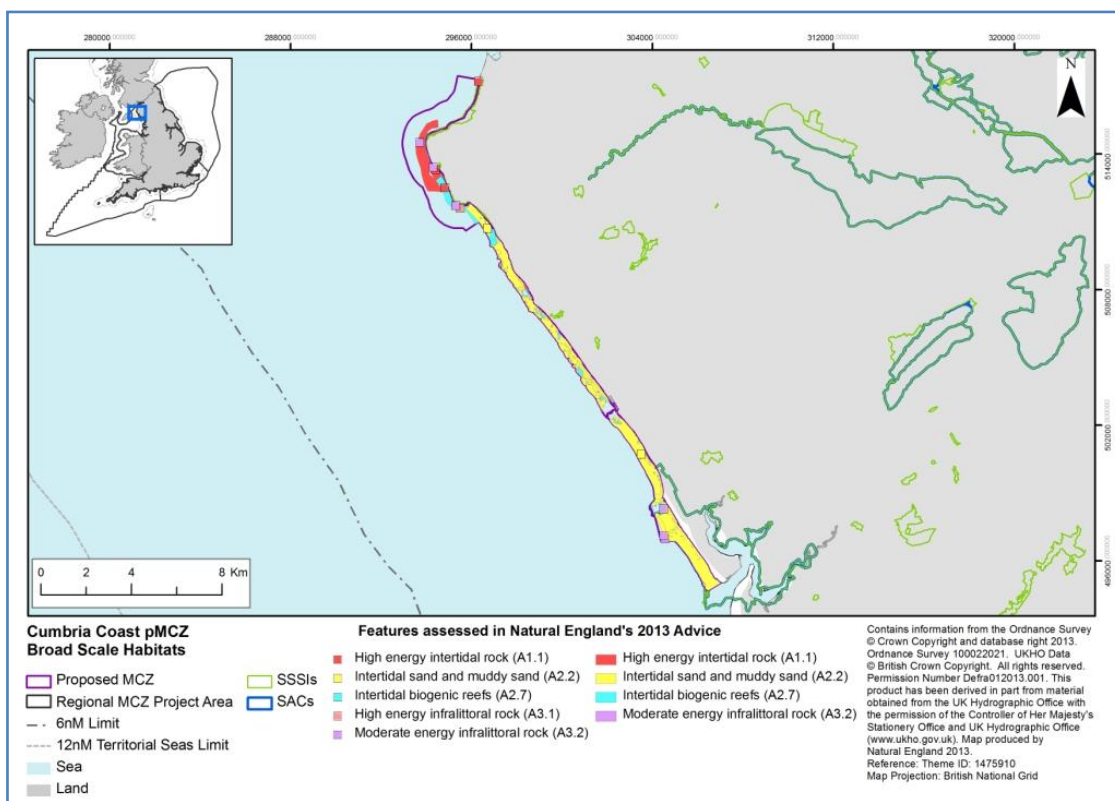


Figure 62 Location of mapped broad-scale habitats in pMCZ Cumbria Coast ISCZ 11

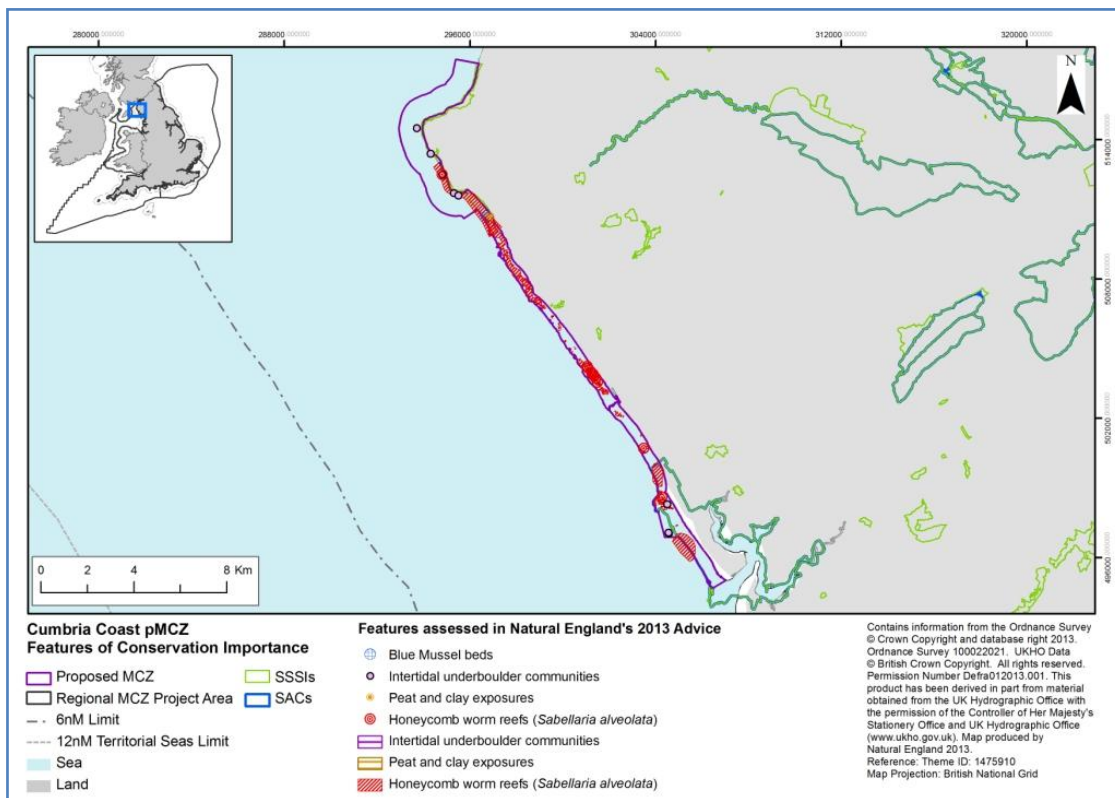


Figure 63 Location of mapped features of conservation importance in pMCZ Cumbria Coast ISCZ 11

A5.25.2 Summary of Natural England's advice

Table 97 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature for Cumbria Coast ISCZ 11

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Broad-scale habitat	A1.1 High energy intertidal rock	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A2.2 Intertidal sand and muddy sand	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A2.7 Intertidal biogenic reefs	Further evidence required for designation	High	High	Maintain	More certain
Broad-scale habitat	A3.1 High energy infralittoral rock	Further evidence required for designation	Low	Low	Maintain	Less certain
Broad-scale habitat	A3.2 Moderate energy infralittoral rock	Proposed new feature	High	Moderate	Maintain	More certain
Habitat of conservation importance	Blue mussel beds	Further evidence required for designation	Low	Low	Maintain	Less certain
Habitat of conservation importance	Honeycomb worm reefs (<i>Sabellaria alveolata</i>)	Sufficient evidence for designation	High	High	Maintain	More certain
Habitat of conservation importance	Intertidal underboulder communities	Further evidence required for designation	High	High	Maintain	More certain
Habitat of conservation importance	Peat and clay exposures	Further evidence required for designation	High	High	Maintain	More certain
Non-ENG feature	Black guillemot (<i>Cephus grille</i>)	Further evidence required for designation	High	Low	Maintain	More certain

Table 98 Supporting documentation, reference materials and relevant survey details for Cumbria Coast ISCZ 11

Document title/survey code	Document/survey purpose	Location
Irish Sea Conservation Zones. <i>Final recommendations for Marine Conservation Zones in the Irish Sea</i> . Warrington: Irish Sea Conservation Zones, 2011	Final report from the ISCZ project detailing the final rMCZs for the ISCZ region	http://publications.naturalengland.org.uk/file/1731929
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report</i> . Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part 4. – Irish Sea Conservation Zones – Sites proposed for designation in 2013</i> . London: Defra, 2012d	Defra's Public Consultation on the rMCZs in the ISCZ region proposed for designation in 2013	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82724/mcz-annex-a1-part4-121213.pdf
M_00310	Marine Recorder data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00312	Natural England Verification Survey	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00058	HOCI Mapping from ABPmer	See Table 4 in Section 4.3 of the main advice document for the full reference

Document title/survey code	Document/survey purpose	Location
M_00059	HOCI Point Data from ABPmer	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00229	Mapping of <i>Sabellaria alveolata</i> Reef	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00361	MCZ Photo Evidence Database. Coordinate format in decimal degrees	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00007	Mapping of Coastal Peat by English Heritage	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00365	Foraging Bird Data from RSPB	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00366	Areas of Pelagic Ecological Importance	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.25.3 Audit trail for the development of Natural England's advice

Table 99 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for Cumbria Coast ISCZ 11

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
A1.1 High energy intertidal rock	High	Low	High	High	New data from verification survey. Relevant survey code: M_00312
A2.2 Intertidal sand and muddy sand	High	Low	High	High	New data from verification survey. Relevant survey code: M_00312
A2.7 Intertidal biogenic reefs	High	High	High	High	No change
A3.1 High energy infralittoral rock	High	Low	Low	Low	New data from verification survey. Relevant survey codes: M_00312
A3.2 Moderate energy infralittoral rock	Not assessed. Proposed new feature	Not assessed. Proposed new feature	High	Moderate	New data from verification survey. Relevant survey code: M_00312
Blue mussel	High	Low	Low	Low	New data from verification survey. Relevant survey code:

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
beds					M_00312
Honeycomb worm reefs (<i>Sabellaria alveolata</i>)	High	Moderate	High	High	New data from verification survey. Relevant survey code: M_00312
Intertidal underboulder communities	High	Low	High	High	New data from verification survey. Relevant survey code: M_00312
Peat and clay exposures	Moderate	Low	High	High	New data from verification survey. Relevant survey code: M_00312
Non-ENG Black guillemot (<i>Cepphus grille</i>)	High	Low	High	Low	No change

Table 100 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for Cumbria Coast ISCZ 11

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
A1.1 High energy intertidal rock	Maintain	Maintain	No change	Reasonably certain	More certain	No change
A2.2 Intertidal sand and muddy sand	Maintain	Maintain	No change	Reasonably uncertain	More certain	Low exposure to angling, recreation and hand-picking (VA, fisheries and recreational angling RSG members). Moderately exposed shore, this feature will not be exposed to siltation rate changes from sewage outfalls. Low current exposure to coastal infrastructure including coastal railway and Sellafield (although permission for new temporary access ramp at Sellafield). Whilst a direct assessment of the condition of the feature has not taken place we believe that a Maintain CO is most appropriate for this relatively robust habitat
A2.7 Intertidal biogenic reefs	Recover	Maintain	Additional evidence from the verification survey (M_00312) that the feature is not in an anthropologically impacted state and the natural variability of <i>Sabellaria alveolata</i> reef (which is currently the only component of this BSH in this site) known to be high led to a change in CO	Reasonably uncertain	More certain	Upgraded to more certain due to: additional evidence from the verification survey 2013 that did not note any anthropogenic impacts on the feature; the natural variability of <i>Sabellaria alveolata</i> reef is known to be high and change in CO to

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
			from Recover to Maintain			Maintain
A3.1 High energy infralittoral rock	Recover	Maintain	More detailed assessment of potting activity on this feature shows a low sensitivity and therefore a CO of Maintain is most appropriate	Reasonably uncertain	Less certain	No change
A3.2 Moderate energy infralittoral rock	Not assessed. Proposed new feature	Maintain	New feature	Not assessed	More certain	For the VA in 2013 we established the level of potting occurring on this feature. Although the habitat is exposed to commercial-scale potting the feature has a low sensitivity to this activity and there are no local factors which would alter this view. Whilst a direct assessment of feature condition has not taken place we believe that a Maintain CO is most appropriate
Blue mussel beds	Maintain	Maintain	No change	Reasonably certain	Less certain	Low level of hand-picking activity for mussels at this site and North West IFCA indicate no commercial mussel picking. Although mussel is present in the site it has not formed the HOCI blue mussel beds. We therefore have a low confidence in its presence. However, blue mussel beds could form in the future but without knowing where or whether a commercial fishery would occur it is not

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
						possible to predict the appropriate CO. This means we are less certain in the appropriateness of the Maintain CO
Honeycomb worm reefs (<i>Sabellaria alveolata</i>)	Recover	Maintain	Additional evidence from the verification survey (M_00312) that the feature is not in an anthropologically impacted state and the natural variability of <i>Sabellaria alveolata</i> reef known to be high led to a change in CO from Recover to Maintain	Reasonably uncertain	More certain	Upgraded to more certain due to: additional evidence from the verification survey 2013 that did not note any anthropogenic impacts on the feature; the natural variability of <i>Sabellaria alveolata</i> reef is known to be high and change in CO to Maintain
Intertidal underboulder communities	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Peat and clay exposures	Maintain	Maintain	No change	Reasonably certain	More certain	No change
Non-ENG Black guillemot (<i>Cephus grille</i>)	Recover	Maintain	Photograph of one incident in last few years where a speedboat resulted in putting some birds to flight. RSPB have no additional evidence of exposure to disturbance. No evidence for significant displacement of birds or impact from disturbance. Extensive rocky intertidal zone means that boating activity does not present risk of disturbance to birds whilst on their nests. One historic	Reasonably uncertain	More certain	VA and photographic evidence supplied by RSPB of disturbance from a high-speed vessel. However, in 2013 we have established that exposure to this pressure is very low. Previous incident of auk entanglement in a gill net and as a consequence the former Cumbria SFC has discouraged gill netting in the area. We therefore believe that the Maintain CO is appropriate

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
			<p>incident in which static fishing nets set off St Bees Head resulted in entanglement and drowning of a number of seabirds. Since then the Cumbria Sea Fisheries Committee and now North West IFCA have instructed staff to remove any nets from around St Bees Head. There is no evidence of any subsequent entanglement events. There is no evidence of current exposure to static netting therefore the feature is not exposed. The North West IFCA has indicated that they would bring in a byelaw to regularise this and avoid any future risk of exposure</p>			

A5.25.4 Additional advice

A5.25.4.1 Advice on specific features

Natural England provided advice to Defra that the findings of the verification survey for this site (M_00312) supported the presence and extent of moderate energy infralittoral Rock (A3.2) with more confidence than it did high energy infralittoral rock (A3.1). Natural England therefore suggested that moderate energy infralittoral rock be included in the site instead of high energy infralittoral rock. High energy infralittoral rock has been retained in Natural England's advice as it was a feature consulted on by Defra (although not proposed for 2013) and because the verification survey only showed a lack of evidence for it, rather than evidence that precludes its occurrence in the site. The infralittoral area extends beyond the areas that have been surveyed, so it is not possible to rule out the occurrence of the high energy feature, so it has been given a low confidence assessment for both presence and extent. However, given the nature of the site as demonstrated by the verification survey, Natural England considers that moderate energy infralittoral rock is the most appropriate broad-scale habitat and that the original recommendation of high energy infralittoral rock was a mis-identification due to the previous use of modelled data and assignment of broad-scale habitat based on parent feature only. See Table 1 in Section 4.3.1 of the main advice document for further detail.

Defra requested information on the size of the black guillemot colony at St Bees Head. The RSPB conducts yearly counts of the breeding seabirds including black guillemot at the St Bees Head colony, which is an RSPB reserve. These annual counts record the maximum number of birds seen in four surveys during April, which is the beginning of the breeding season. Table 3 in Section 4.2.2. gives the results of the counts for 2011 and 2012 which were used for the confidence assessment analysis. The count for black guillemot in 2013 was nine birds (Norman Holton, RSPB St Bees Head reserve manager, pers. comm.). The RSPB has also supplied Natural England with the figures for black guillemot at St Bees Head from 1999–2012, which is summarised with the following five-year means from 2006 onwards.

(Five-year mean) 2006–2010	(Five-year mean) 2007–2011	(Five-year mean) 2008–2012
5	7	8

Note that black guillemot are not shown on the features map (Figure 63) as the intention is to protect the foraging areas of this feature which cannot at present be mapped precisely. The nests lie just outside the MCZ boundary on the cliffs of St Bees Head.

A5.25.4.2 Advice on boundaries

A proposal was submitted by Natural England to Defra at the time of their site selection workshop (17/18 July 2013) for a small revision to the boundary of the proposed MCZ in this area to extend the pMCZ to encompass the full known extent of the features moderate energy infralittoral rock (A3.2) and intertidal underboulder communities (HOCI_15).

The MCZ verification survey (M_00312) and photographic survey by Natural England (M_00361) indicate that there is a significant area of moderate energy infralittoral rock (A3.2) that falls just outside of the current boundary of the Cumbria Coast pMCZ in the southern part of the site, seaward of Barn Scar and around Kokoarrah Rocks. Figure 64 shows Barn Scar (to the north) and Kokoarrah Rocks (to the south).

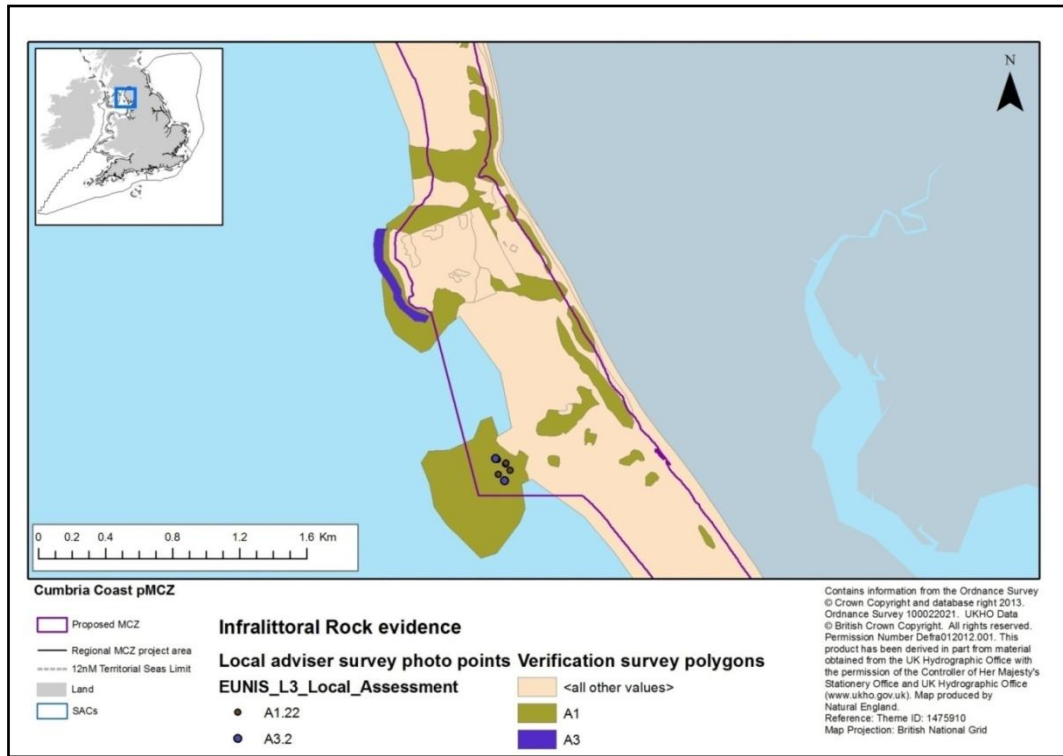


Figure 64 Barn Scar and Kokoarrah Rocks in pMCZ Cumbria Coast with verification survey habitat polygons and habitat photograph points

Barn Scar was surveyed by the MCZ verification survey (M_00312). Two transects were surveyed and a full biotope map was drawn for this area. According to MCZ verification survey, M_00312, 'The low shore was quite diverse and was made up of large tide-swept pools often 10–20m². It was not possible to assess these as they were essentially subtidal habitats due to their depth. The main biotope in this region was IR.MIR.KT.XKT (kelp with red seaweeds, sponges and ascidians) with two species of kelp – *Laminaria digitata* and *L. saccharina*.'

Kokoarrah Rocks was recorded as intertidal rock in the MCZ verification survey (M_00312). The underlying polygon was recorded to EUNIS Level 2 by the sediment survey team, by observation. At the same time, one of Natural England's Irish Sea Team senior advisers and a rocky shore specialist were able to access the inshore section of Kokoarrah Rocks and take georeferenced photographs (dataset M_00361) of moderate energy infralittoral rock (A3.2) and intertidal/infralittoral fringe underboulder communities (HOCl_15), confirmed by a Natural England national marine specialist, present on the inshore section and from there, of extensive areas of kelp-dominated boulders continuing seawards around the perimeter of the central elevated section of Kokoarrah Rocks. The photographs show the high diversity of the lower shore/infralittoral fringe boulders and pools and a low level of sand inundation and scouring compared with many other reef areas on the Cumbrian coast. The seaward section of Kokoarrah Rocks could not be accessed due to the tide turning.

Moderate energy infralittoral rock (A3.2) and intertidal underboulder communities (HOCl_15) have a restricted distribution on the North West England coast, and Barn Scar and Kokoarrah Rocks support particularly good examples.

The ISCZ regional stakeholder group agreed to a seawards extension of the boundary of rMCZ Cumbria Coast in its recommendations, to encompass these features at Barn Scar and Kokoarrah Rocks. The evidence presented above indicates that the boundary of the Cumbria Coast pMCZ currently excludes significant parts of some of the best examples on the North West England coast from the pMCZ and Figure 65 suggests a possible revised boundary to include these features.

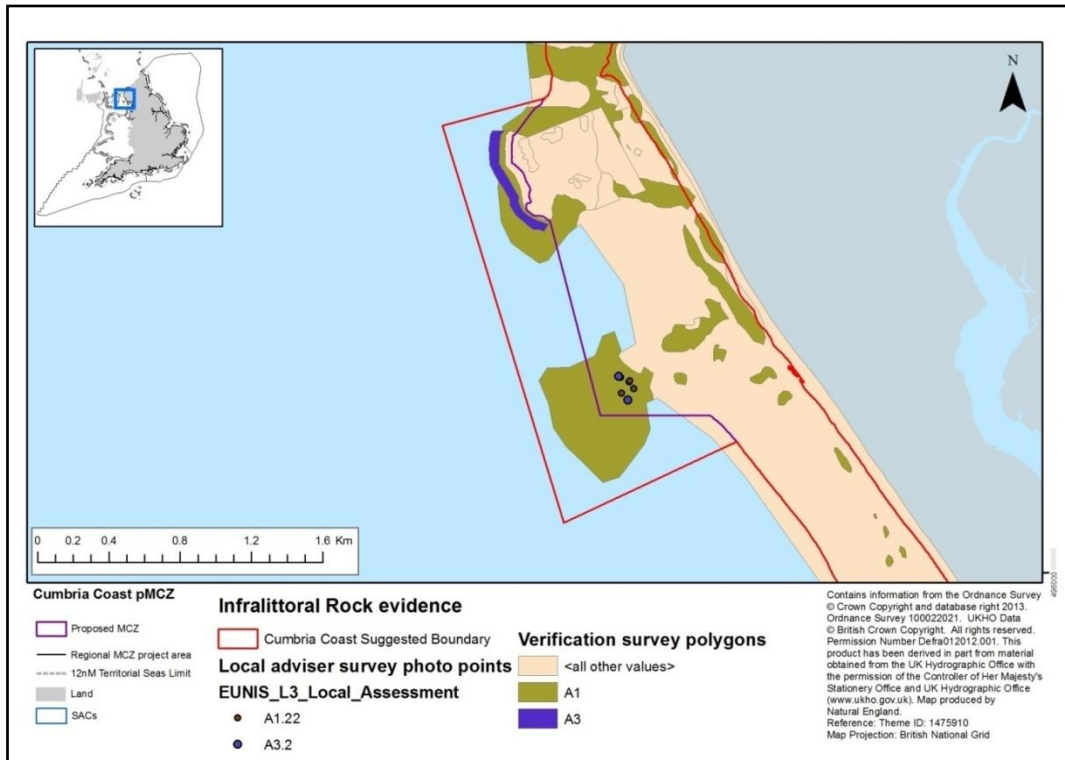


Figure 65 Suggested new boundary for pMCZ Cumbria Coast, extending the existing boundary around Barn Scar and Kokoarrah Rocks

A5.25.4.3 Additional surveys

A verification survey has been carried out on this site by APEM and Marine Ecological Surveys Ltd and the results have been used in the development of this advice. The survey code is M_00312, please see Table 4 in Section 4.3 of the main report for the full reference.

A5.25.5 Risk

This site is not considered to be at higher risk of damage or deterioration as the risk score calculated is below 50%.

It should be noted that this pMCZ contains the following highly sensitive features: honeycomb worm reefs (*Sabellaria alveolata*) and peat and clay exposures. Neither of these features has a conservation objective of Recover.

A5.26 Hilbre Island Group ISCZ 14

A5.26 Site feature maps

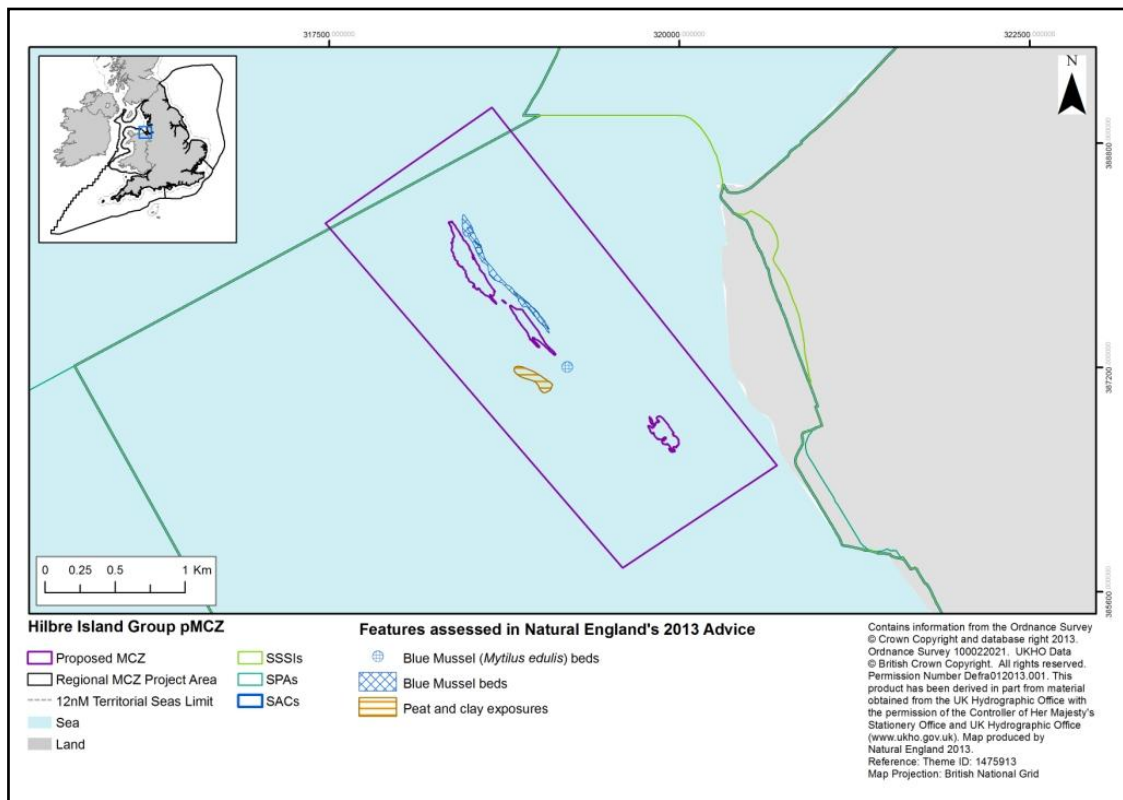


Figure 66 Location of mapped features of conservation importance in pMCZ Hilbre Island Group ISCZ 14

A5.26.2 Summary of Natural England's advice

Table 101 Summary of Natural England's advice on confidence in presence and extent, conservation objectives and certainty of the conservation objective for each proposed feature of the site for pMCZ Hilbre Island Group ISCZ 14

Feature type	Feature name	Status at time of 2012 Defra Consultation	Confidence Assessment (CA) score for presence	CA score for extent	Conservation Objective (CO)	CO certainty
Habitat of conservation importance	Blue mussel beds	Sufficient evidence for designation	High	Moderate	Recover	More certain
Habitat of conservation importance	Peat and clay exposures	Sufficient evidence for designation	Low	Low	Recover	More certain

Table 102 Supporting documentation, reference materials and relevant survey details for pMCZ Hilbre Island Group ISCZ 14

Document title/survey code	Document/survey purpose	Location
Irish Sea Conservation Zones. <i>Final recommendations for Marine Conservation Zones in the Irish Sea</i> . Warrington: Irish Sea Conservation Zones, 2011	Final report from the ISCZ project detailing the final rMCZs for the ISCZ region.	http://publications.naturalengland.org.uk/file/1731929
JNCC and Natural England. <i>JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones</i> . Peterborough: JNCC and Natural England, 2012a	JNCC and Natural England's advice to Defra on the final MCZ recommendations from the four MCZ regional projects	http://publications.naturalengland.org.uk/file/4923082
JNCC and Natural England. <i>JNCC and Natural England's advice on recommended Marine Conservation Zones: Amendments Report</i> . Peterborough: JNCC and Natural England, 2012b	JNCC and Natural England's amendments to their July published advice (JNCC and Natural England 2012a)	http://publications.naturalengland.org.uk/file/4255584
Defra. <i>Marine Conservation Zones: Consultation on proposals for designation in 2013. Annex A1 – Part</i>	Defra's Public Consultation on the rMCZs in the ISCZ region proposed for	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82724/mcz-annex-a1-part4-121213.pdf

4. – <i>Irish Sea Conservation Zones – Sites proposed for designation in 2013.</i> London: Defra, 2012d	designation in 2013	
Dee Estuary European Marine Site (EMS) Regulation 33 Conservation Advice Package	The Dee Estuary European Marine Site: Natural England and the Countryside Council for Wales' advice given under Regulation 33(2) of the Conservation (Natural Habitats &c.) Regulations 1994	http://publications.naturalengland.org.uk/file/3947690
Dee Estuary SSSI Citation	Description of Dee Estuary SSSI and reasons for notification	http://www.sssi.naturalengland.org.uk/citation/citation_photo/1000595.pdf
M_00059	MB102 Point Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00365	RSPB Foraging Bird Data and Seabird 2000 Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00366	2011 Royal Society of Wildlife Trusts UK Areas of Additional Pelagic Ecological Importance	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00308	MESH	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00310	Marine Recorder Data	See Table 4 in Section 4.3 of the main advice document for the full reference
M_00327	North West Region European Marine Sites: Condition Monitoring of Littoral Features	See Table 4 in Section 4.3 of the main advice document for the full reference

A5.26.3 Audit trail for the development of Natural England's advice

Table 103 Confidence assessments of presence and extent of features setting out the rationale for any changes since Natural England's advice published in 2012 for pMCZ Hilbre Island Group ISCZ 14

Feature	2012 Advice confidence assessment		2013 Confidence assessment		Rationale for changes
	Presence	Extent	Presence	Extent	
Blue mussel beds	High	Moderate	High	Moderate	No change
Peat and clay exposures	Low	Low	Low	Low	No change

Table 104 Identification of conservation objectives, certainty of conservation objectives and the rationale for any changes since Natural England's advice published in 2012 for pMCZ Hilbre Island Group ISCZ 14

Feature	Conservation objectives		Rationale for changes in 2013	Assessment of certainty in conservation objectives		Rationale for changes in 2013
	2012 Advice	2013 Advice		2012 Advice	2013 Advice	
Blue mussel beds	Recover	Recover	No change	Reasonably certain	More certain	No change
Peat and clay exposures	Recover	Recover	No change	Reasonably certain	More certain	No change

A5.26.4 Additional advice

A5.26.4.1 Advice on specific features

Defra requested clarification of whether the two features going forward for designation (blue mussel beds, and peat and clay exposures) may already be protected by the SAC, as the 2012 SNCB advice had noted that ‘There may be some duplication between the rMCZ and the Dee Estuary SAC: “Intertidal hard substrate communities” which are a sub-feature of the “estuary interest” feature (Dee Estuary Regulation 33(35) Conservation Advice, Natural England 2010) include areas of Holocene deposits that support the nationally important biotope *Mytilus edulis* and piddocks on eulittoral firm clay’.

Natural England considers that the MCZ peat and clay exposure HOCl duplicates the SAC ‘area(s) of Holocene deposits that support the nationally important biotope *Mytilus edulis* and piddocks on eulittoral firm clay’, one of the three notable or specialised ‘intertidal hard substrate communities’ which are a sub-feature of the estuary interest feature (Dee Estuary EMS Regulation 33 Conservation Advice Package, Natural England 2010). There is clear reference in the Favourable Condition Table to this biotope being recorded in the vicinity of Hilbre Island.

We consider that the MCZ blue mussel beds HOCl does not duplicate the above or other SAC features. Presence and extent of this feature within pMCZ Hilbre Island Group is confirmed with high confidence by the habitat map with polygons from the field survey by CMACS (M_00327). This survey maps the extent of the *Mytilus edulis* beds on littoral mud biotope (LS.LBR.LMus.Myt.Mu) as a narrow band on the eastern side of Hilbre Island. There are also mussels found on intertidal rock at Hilbre Island but this is not an ENG feature. These *Mytilus edulis* beds are not identified in the Dee Estuary EMS Regulation 33 Conservation Advice Package or Dee Estuary SSSI citation.

A5.26.4.2 Advice on boundaries

No advice given to Defra on boundaries for this site.

A5.26.4.3 Additional surveys

No new survey work has been carried out on this site.

A5.26.5 Risk

This site is considered to be at higher risk of damage or deterioration as the risk score calculated is above 50%. However, Natural England is of the opinion that the relative risk of the site is functionally reduced by the overlap of the pMCZ and the SAC. It is not possible for this to be reflected in the risk score, which is calculated according to Protocol G, and the score therefore overstates the risk level of the site.

It should be noted that this pMCZ contains the following highly sensitive feature: peat and clay exposures. This feature has a conservation objective of Recover.



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Catalogue Code: NE459

ISBN: 978-1-78367-016-1

Should an alternative format of this publication be required, please contact our enquiries line for more information: 0300 060 3900 or email enquiries@naturalengland.org.uk

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