

Marine Conservation Zones

Natural England's advice to Defra on Marine Conservation Zones to be considered for consultation in 2018

Annex 3: Advice on New Site Options

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Annex 3: Advice on New Site Options

June 2018

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1 Introduction

1.1 Background to development of new site options

The UK Government and Devolved Administrations are committed to creating an ecologically coherent network of Marine Protected Areas (MPAs) in UK waters. To define what would be required to create this network, the Joint Nature Conservation Council (JNCC) and Natural England used design principles set out in guidance published by the Oslo/Paris Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR 2006) to create the 'Ecological Network Guidance' (ENG) ([Natural England and JNCC 2010](#)). A variety of types of MPAs (e.g. Marine Conservation Zones, Special Areas of Conservation and Special Protection Areas) contribute to the completion of this network in UK waters and will deliver benefits more effectively than individual MPAs can achieve alone.

Marine Conservation Zones (MCZs) are a form of MPA created under the Marine and Coastal Access Act 2009 (HM Government 2009). Through four regional projects, sea users and interest groups were given the opportunity to identify potential MCZs using the ENG as a basis for identifying sites. These projects recommended 127 MCZs in September 2011 of which 50 have been designated to date in two separate tranches.

Following the second tranche of MCZ designations JNCC reviewed, on behalf of Defra, the UK's progress toward an ecologically coherent network of MPAs against the criteria set out in the ENG ([JNCC 2016](#)). This review concluded that, even with all of the remaining options put forward by the regional projects which remain under consideration in the third and final tranche of MCZ designation, a fully complete network will not be achieved. Defra therefore requested that JNCC and Natural England identify new, additional, potential site options and options to fill remaining ecological gaps in the network.

For full details of the process followed in order to identify potential new site options please see 'Identifying potential site options to help complete the Marine Protected Area network in the waters around England' ([JNCC and Natural England 2016](#)). For an overview of the inshore and offshore new site options identified by JNCC and Natural England in response to Defra's request, and their contributions to filling the remaining gaps identified in the MPA network, please see [Appendix 1](#) of this advice document: **Overview of the contribution to the MPA network of inshore and offshore site options being considered as potential MCZs in 2017**. This appendix has been jointly produced by Natural England and JNCC.

The Minister has made decisions over which of the Tranche 3 sites under initial consideration, which includes sites originally recommended by the Regional Projects and the potential new site options more recently developed by JNCC and Natural England, will be included in Defra's Tranche 3 public consultation. These decisions take into account the scientific advice provided by JNCC and Natural England as well as socio-economic considerations.

1.2 About this advice document

This advice, **Annex 3** of Natural England's Tranche 3 pre-consultation advice on Regional Project recommended MCZs and new site options, outlines the processes by which Natural England developed the inshore new site options and summarises the results for each of the individual inshore new site options in turn.

This advice annex should be read alongside 'Identifying potential site options to help complete the Marine Protected Area network in the waters around England' ([JNCC and Natural England 2016](#)), which will be referred to throughout this advice, for full details of the processes undertaken to identify the new site options.

This advice annex contains a summary of the results of our assessments relating to the above list for the

features associated with each of the new site options. The full assessment results for each site option can be found in **Annex 4: Results tables for advice on Regional Project recommended sites (rMCZs) and New site options.**

The tables in **Annex 4** provide the following details of our advice for the new site options:

- **Confidence Assessment:** assessment of confidence in the evidence for presence and extent of features (Table 1)
- **Evidence:** evidence sources used and not used (Table 2 and Table 3, respectively)
- **General Management Approach (GMA) (and Risk):** advice on the *likely* feature condition and our confidence in that condition, the GMA and risk¹ (where applicable), along with narratives to explain the advice (Table 4)
- **Data sufficiency – Feature level:** analysis of whether sufficient evidence is present to support the designation of each feature of a site i.e. it provides the results of the feature-level 'sufficiency assessment' process (Table 6)
- **Triggering activities:** contains information on the socio-economic activities, or direct evidence of feature condition, that have triggered a recommendation of a Recover GMA (Table 8)

Section 3 of the **Advice overview document** contains full introductions to each of these results tables.

The following sections of this advice annex will describe the inshore new site options developed by Natural England:

Table 1 lists the inshore new site options, along with the biogeographic region in which they are located and the features included within each new site option which could address identified network shortfalls (network critical features). The table also lists any other features for which we are providing advice (network beneficial features).

The remaining sections then introduce each new site option in greater detail. The purpose of each site is set out including details of the network shortfall(s) that each new site option addresses. The site descriptions include more detailed introductions to the general location of the sites and site boundaries, the data supporting the features and the processes by which the new site option was selected (referring to [JNCC and Natural England 2016](#)). The best available evidence for the features within the new site options is mapped (see Section 1.4 of this document which introduces the feature maps) and a summary table of results is provided.

Lastly a summary of stakeholder opinion on each new site option received to date is provided. This summary contains Natural England's understanding of likely stakeholder opinion, following the time-limited (approximately October 2016 – March 2017 unless otherwise specified below) informal engagement that took place as part of the development of the new site options (see [JNCC and Natural England 2016](#)). Defra's forthcoming public consultation provides the formal opportunity for stakeholders to express their opinions on, or submit any evidence relating to, the site options included in the consultation by the Minister. As a result, the information presented below may be revised by the stakeholders who first provided it and/or be added to by other stakeholders during Defra's consultation.

For the background to all MCZ features, including the new site option features we are providing advice on, please see Annex 2 of the ENG 'Features of the MPA network' ([Natural England and JNCC 2010](#)). For specific details and descriptions of individual features please see the JNCC MCZ features information pages: <http://jncc.defra.gov.uk/page-4527>

Finally, **Appendix 1: Overview of the contribution to the MPA network of inshore and offshore site**

¹ Advice on risk is not provided for the new site options; see Section 2 of Natural England's confirmed advice to Defra on Marine Conservation Zones to be considered for consultation in 2017 – Advice overview document for further details

options being considered as potential MCZs in 2017, has been jointly produced by Natural England and JNCC and provides a summary of all the new site options put forward by JNCC and Natural England including the potential contributions of each site to filling the identified shortfalls in the MPA network ([JNCC 2016](#)).

This advice annex will not detail the specific methods or quality assurance process used to produce Natural England's advice on each new site option as these are explained in **Section 2 of Natural England's confirmed advice to Defra on Marine Conservation Zones to be considered for consultation in 2017 – Advice overview document**.

In particular, the following are key components of our advice on the new site options (and Regional Project recommended MCZs) that are described within Section 2 of the **Advice overview document**:

- Confidence in feature presence and extent
- Condition assessment, General Management Approach (GMA) and Risk
- Advice on the scientific basis to support feature / site designation (Data sufficiency)

1.3 Summary of inshore new site options

Table 1 Inshore (0-12 nautical miles) new site options detailed in this advice

Site name (~site area)	Biogeographic region	Feature(s) (Network critical features shown in bold, network beneficial features shown in standard text); JNCC (2016))
Albert Field (191 km ²)	Eastern Channel	Subtidal coarse sediment, Subtidal mixed sediment
Purbeck Coast* (282 km ²)	Eastern Channel	Maerl beds, Subtidal coarse sediment, Subtidal mixed sediments, Stalked jellyfish (<i>Haliclystus</i> species), High energy intertidal rock , Intertidal coarse sediment, Moderate energy intertidal rock, Peacock's tail (<i>Padina pavonica</i>),
Rye Bay (96 km ²)	Eastern Channel	Subtidal sand
South of Hythe Bay (21 km ²)	Eastern Channel	Subtidal mud
Torbay Extension (26 km ²)	Eastern Channel	Subtidal mud
Fal and Helford Estuaries (28 km ²)	Western Channel and Celtic Sea	Native oyster (<i>Ostrea edulis</i>)
Helford (6 km ²)	Western Channel and Celtic Sea	Native oyster (<i>Ostrea edulis</i>)
North West of Lundy (173 km ²)	Western Channel and Celtic Sea	Subtidal coarse Sediment

*Features not listed in bold for Purbeck Coast refer to those originally proposed through the Broad Bench to Kimmeridge Bay rMCZ.

1.4 Feature maps

The site feature maps displayed in the site summary sections below show presence and extent of features we are advising be considered for designation for each new site option. It should be noted that the maps do not indicate confidence in the feature data. Full confidence assessment results for the features for which we have provided advice to Defra can be found in **Table 1 of Annex 4 – Results Tables**.

Please note the following about the feature maps provided:

- Features for which we have no spatial geo-referenced data have not been mapped and thus do not appear in the legend.
- Features that are confidential, for example commercially sensitive species such as oysters, have not been mapped.

This means that no feature maps have been provided for the **Fal and Helford Estuaries** and **Helford Estuary** new site options, as the only feature we are providing advice on for these sites is native oyster (*Ostrea edulis*) (Table 1).

Where geo-referenced extent data are available, features have been mapped as polygons to show mapped extent according to data originating from surveys and mathematical models; and points show where groundtruthing sampling points, such as diver survey, grab sampling, drop down video, walk over survey or core sampling have been collected. For some sites, both polygon extent data and point data are available and in these cases both types have been mapped.

Due to the scale of the maps in printed form and the need for the maps to show the sites in their entirety, rather than split them, some features of very limited spatial extent, such as intertidal habitats, are not easily recognisable. However, their presence in the site is confirmed by the feature being listed in the legend.

2 New site option – Albert Field

2.1 Purpose of site

There is currently a shortfall in the Eastern Channel region for the broad-scale habitats '**Subtidal coarse sediment**' and '**Subtidal mixed sediments**'. Albert Field is a new site option that has been proposed to contribute to these shortfalls in the network.

2.2 Site description and boundary notes

The Albert Field site option is located approximately 20 kilometres south of the entrance to Poole Harbour, extending from the six nautical mile limit at its northern boundary to the 12 nautical mile limit at its southern boundary. It lies approximately six kilometres east of the South Dorset MCZ (designated in 2013 for subtidal coarse sediments, subtidal chalk and moderate energy circalittoral rock) and approximately five kilometres southeast of the Purbeck Coast new site option (see Section 3 of this document for Purbeck Coast introduction). The Albert Field new site option covers an area of approximately 191 km².

The Albert Field site option was originally developed to encompass the highest density of high confidence subtidal coarse sediment and subtidal mixed sediment ground-truthed sample data within a large area of coarse sediment that lies to the south of Poole Bay. These data were mapped by EUSeaMap. Recently obtained data partly contradicts some of the areas mapped as coarse sediment by EuSeaMap; however, there is still sufficient confidence in its presence and extent. The polygonal data available in the Albert Field site is of relatively poor detail and therefore, while we currently lack mapped data for subtidal mixed sediments, the high quality ground-truthing points provide sufficient confidence in its presence and extent.

Subtidal coarse sediments are generally comprised of cobbles, pebbles, coarse sand and gravel. This habitat is often highly mobile. These coarse sediments may provide habitat for a wide range of species: barnacles, encrusting pink calcareous algae and *Spirobranchus* spp. tube worms encrusting on cobbles and pebbles; anemones *Halcompa chrysanthellum* and *Edwardsia timida* and the sea cucumber (*Neopentadactyla mixta*) burrowing in gravelly sediment and echinoderms such as urchins and the spiny starfish (*M. glacialis*) and *Asterias rubens* living on the gravelly sediment. In sandier sediments, a range of polychaete worm species may dominate, including dense aggregations of sand mason worms *L. conchilega*, and subtidal beds of rosworm reefs *Sabellaria spinulosa* may form. Additionally, this habitat provides the supporting substrate for the establishment and growth of maerl beds.

Subtidal mixed sediments, as the name suggests, are generally comprised of a range of different types of sediment from muddy, gravelly sands to mosaics of cobbles and pebbles in or on a sand, gravel or mud seabed. Mixed areas also include seabeds where waves or ribbons of sand form on the surface of a gravel bed. Because mixed seabeds are so varied, they may support a wide range of animals, both on and in the sediment. Animals found here include worms, bivalves (with their paired, hinged shells), starfish and urchins, anemones, sea fans and sea mats.

Please note the above descriptions and the listed species are not derived from our evidence and so may not be representative of the sediments in the site but rather are merely a guide as to what you commonly find at or in these types of habitats and their ecological importance. This site option was initially identified and developed through the stage one method of using the best available biophysical data to identify new site options ([JNCC and Natural England 2016](#)).

To see details of the currently understood gaps in the MPA network, and how this site option contributes towards filling them, please see [Appendix 1](#).

2.3 Boundary map

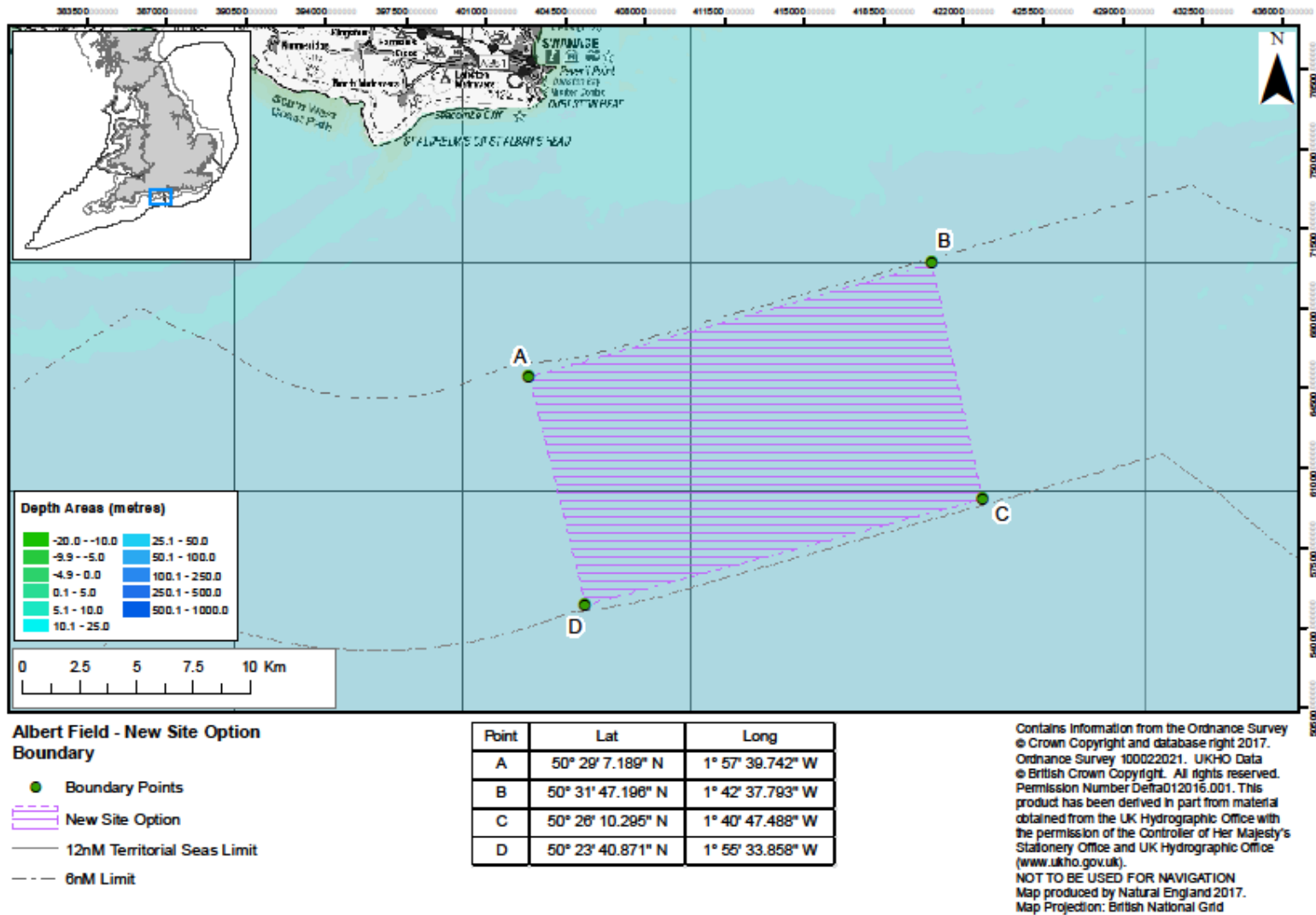


Figure 1 Albert Field new site option boundary

2.4 Feature map

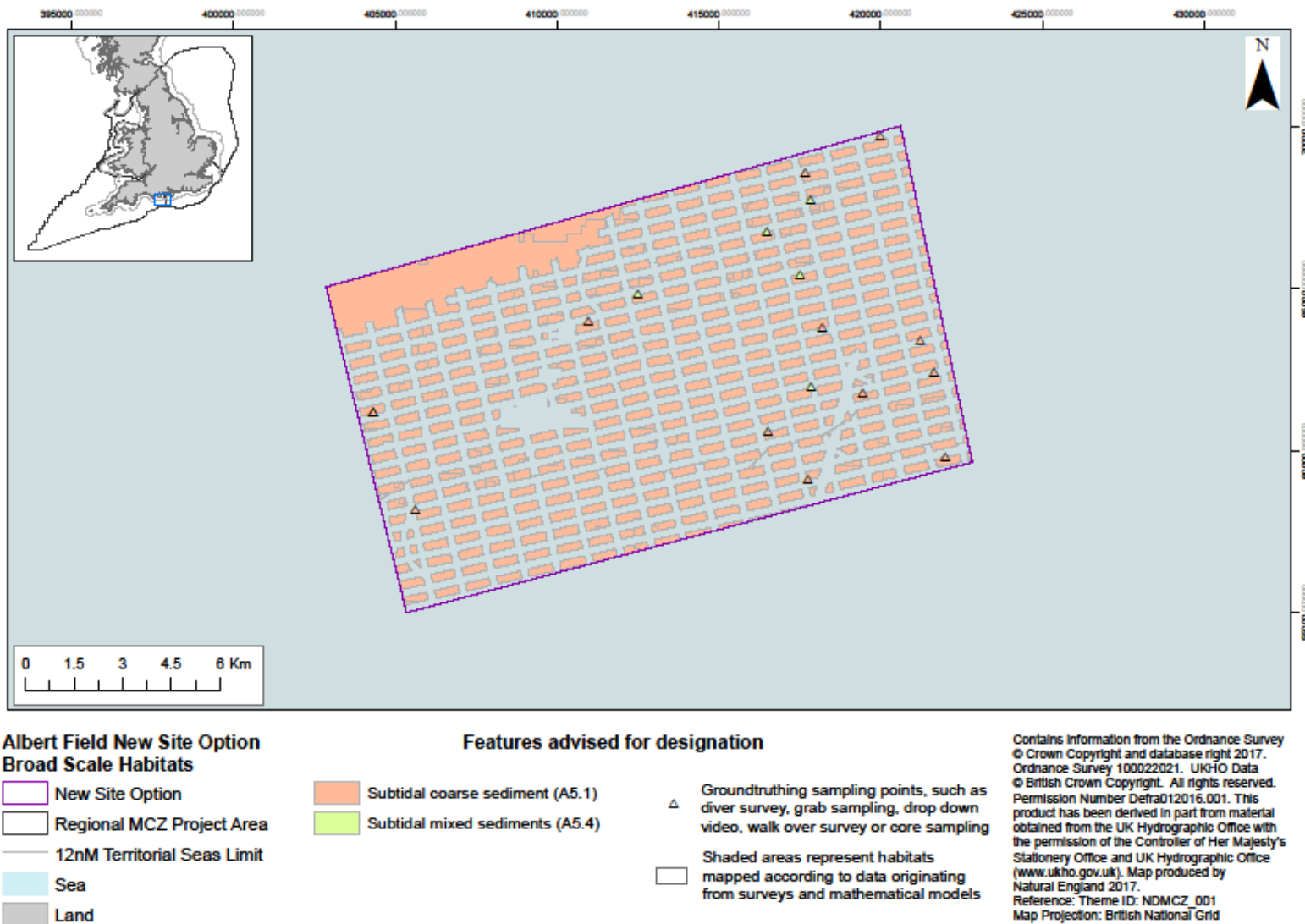


Figure 2 Location of mapped broad-scale habitats in Albert Field new site option

2.5 Results

The detailed results of Natural England's pre-consultation assessments for the site are listed in **Annex 4: Results tables**. For descriptions and introductions to the results tables, please see Section 3 of the **Advice overview document**.

Table 2 contains a summary of Natural England's pre-consultation assessment results for the Albert Field new site option.

Feature name	Confidence in feature presence	Confidence in feature extent	Current likely condition of feature	Advice on the General Management Approach (GMA)
Subtidal coarse sediment	High	Moderate	Unfavourable	Recover
Subtidal mixed sediments	High	Moderate	Unfavourable	Recover

2.6 Natural England's understanding of likely stakeholder opinion (based on informal engagement, between approximately September 2016 and March 2017)

Informal consultation was undertaken with the Southern IFCA (SIFCA), who were involved in the development of the site boundary and are supportive of the final version (as it now falls entirely within the six nautical mile and twelve nautical mile limits). Further discussions are required with the MMO (as the lead fisheries regulator); however our current understanding is that they are supportive of the site.

During February and March, stakeholder engagement events were held in the form of eight 'drop-in' style community information sessions across Dorset, Hampshire and the Isle of Wight. The aim of these sessions was to ensure 'no surprises' for key stakeholders at the consultation stage, address concerns and increase understanding of the process. Some of these sessions were sector specific (commercial and recreational fisheries, recreational sailors), while others were open to the wider community. Over the course of these sessions, Natural England received one broadly supportive comment from a stakeholder (commercial fisheries sector).

3 New site option – Purbeck Coast

3.1 Purpose of site

This site is proposed to contribute to filling shortfalls in two subtidal sediment broad-scale habitats in the Eastern Channel region; '**Subtidal coarse sediment**' and '**Subtidal mixed sediments**', as well as the Habitat of Conservation Importance (HOI), **Maerl beds**.

3.2 Site description and boundary notes

Stretching from Ringstead Bay in the west to Swanage Bay in the east along the Jurassic Coast World Heritage Site is the Purbeck Coast new site option covering an area of 282 km².

The site also encompasses the intertidal features which were originally proposed within the Regional Project recommended (rMCZ) site Broad Bench to Kimmeridge Bay, the footprint of which falls within the Purbeck Coast site option. These features are: moderate energy intertidal rock, intertidal coarse sediment and peacock's tail (*Padina pavonica*). In addition we are also providing Tranche 3 advice on the intertidal features: high energy intertidal rock and the stalked jellyfish (*Haliclystus* species) which have recently been found in the area of the former recommended site. As a result, separate advice has not been provided for the Broad Bench to Kimmeridge Bay rMCZ.

Purbeck Coast new site option completely overlaps with the eastern section of the Studland to Portland Site of Community Importance (SCI), designated for Annex I Reef. The landward boundary of the new site option follows mean low water and extends offshore to the boundary of the SCI for the majority of the site. Where the new site option boundary reaches the Broad Bench to Kimmeridge Bay rMCZ area; the landward boundary moves to mean high water in order to include all of the intertidal features proposed for this site by the Regional Project. The seaward boundary remains that of the SCI.

Additionally, there is a small extension beyond the Studland to Portland SCI boundary at the eastern end of the Purbeck Coast new site option boundary. This is to encompass a high density of maerl bed habitat data in this area.

The Purbeck Coast site option was developed by following stage one methods: 1) filling gaps by extending protection via MCZ designation to undesignated features in other MPAs and 2) through reviewing the available biophysical data to best identify new site options ([JNCC and Natural England 2016](#)).

The designated SCI reef feature is protected by a Southern IFCA byelaw which prohibits bottom towed fishing gears. The byelaw provides incidental protection for most, but not all, of the extent of the subtidal coarse and mixed sediment habitats mapped within the new site option. Designating these sediment habitats as MCZ features will ensure they are recognised for their conservation importance in their own right and will provide the statutory driver for these habitats to be protected against damaging activities, irrespective of the management implemented for the reef feature of the SCI.

Please note that prior to the development of the Purbeck Coast new site option, the original boundary of the Broad Bench to Kimmeridge Bay rMCZ was amended to include further records of stalked jellyfish (*Haliclystus* species) (as described in Section 1.8 of the **Advice overview document**). That boundary amendment is reflected in the advice for the listed rMCZ features as part of the Purbeck Coast new site option.

To see details of the currently understood gaps in the MPA network, and how this site option contributes towards filling them, please see [Appendix 1](#).

Also to note, the Purbeck (black bream) third-party proposed highly mobile species MCZ lies within the

Purbeck coast new site option. Therefore whilst each site is a potential Tranche 3 MCZ in its own right, should both be designated they would need to be combined as one site to avoid overlapping MCZ designations.

3.3 Boundary map

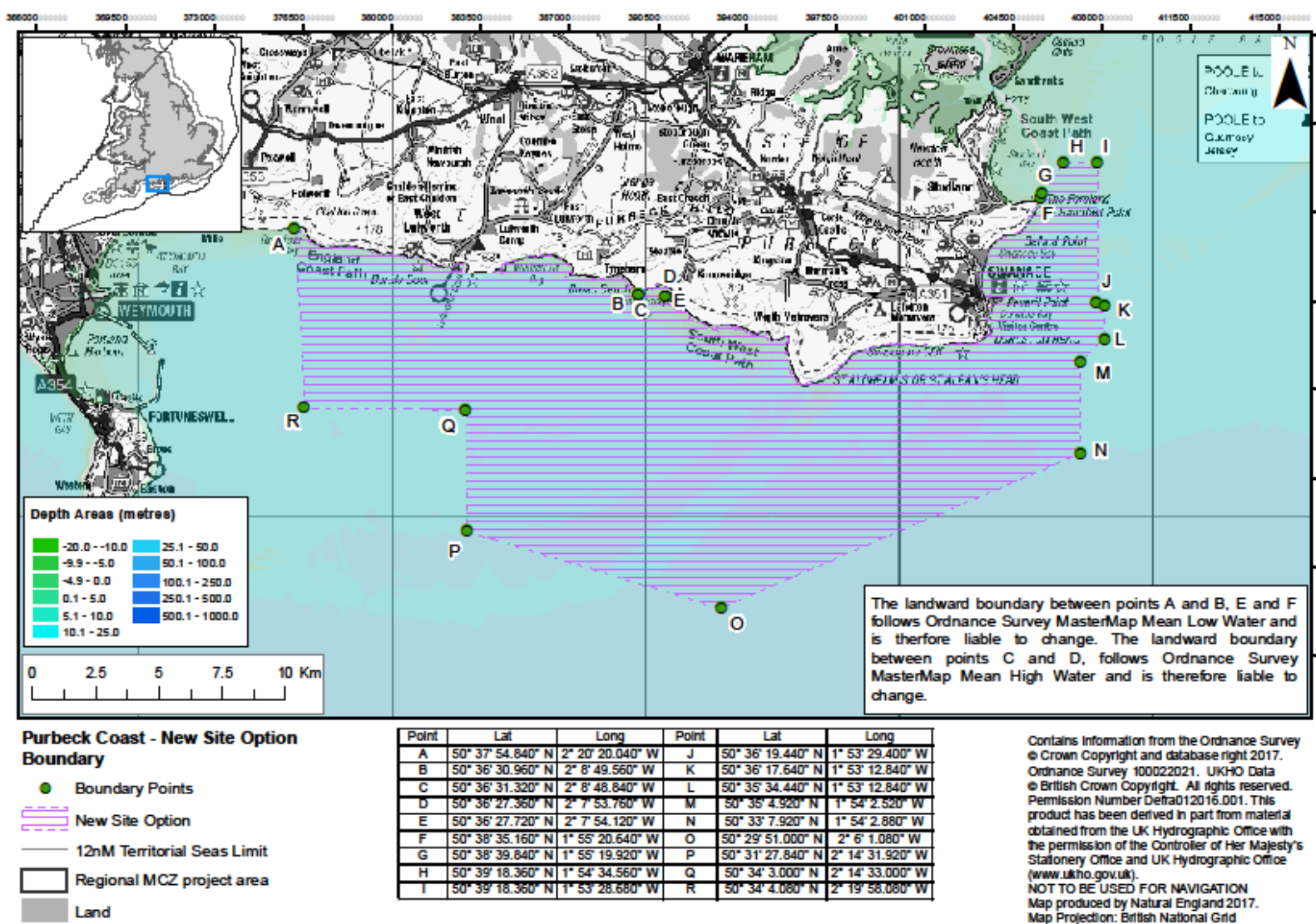


Figure 3 Purbeck Coast new site option boundary

3.4 Feature maps

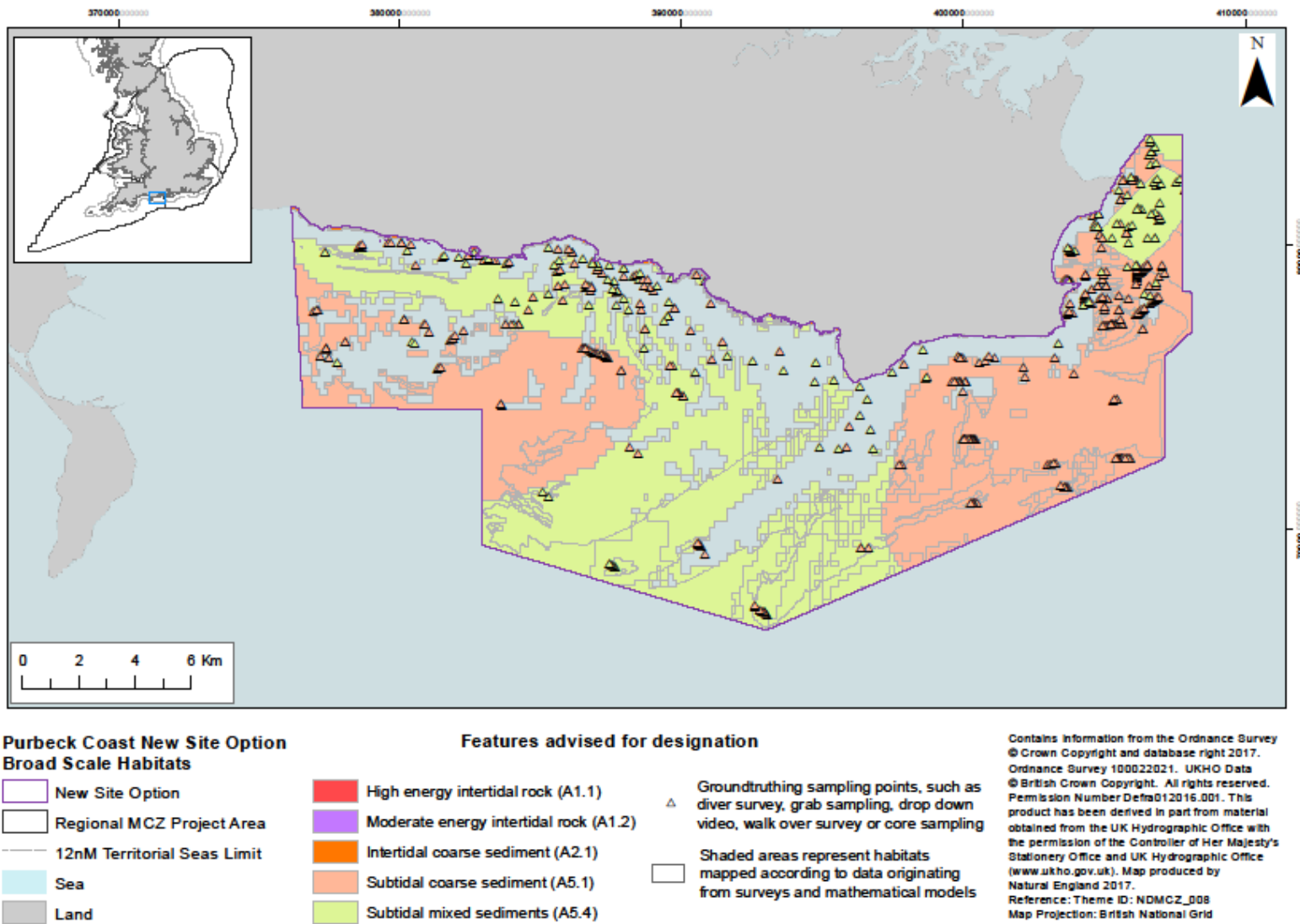


Figure 4 Location of mapped broad-scale habitats in Purbeck Coast new site option

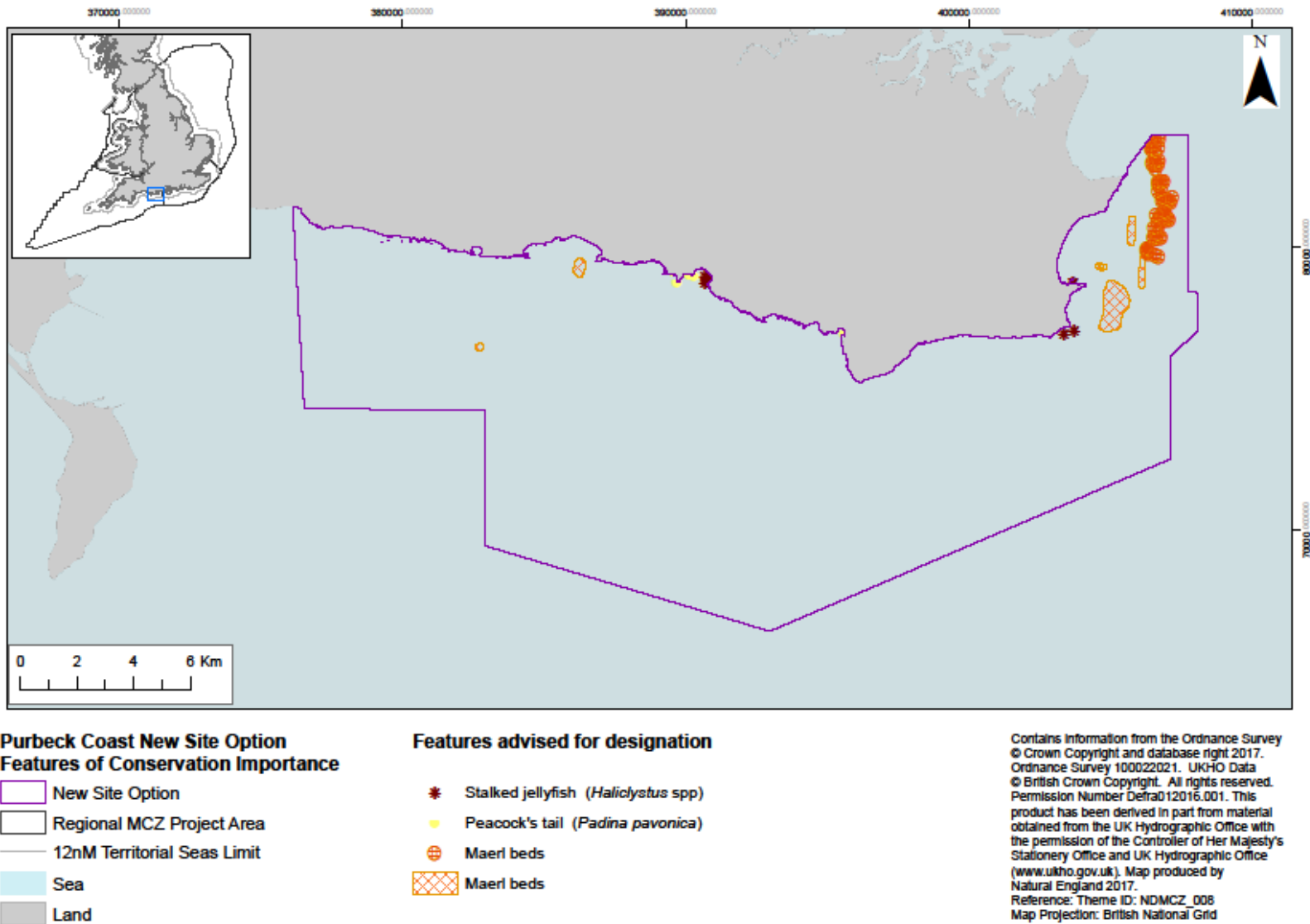


Figure 5 Location of mapped Features of Conservation Importance in Purbeck Coast new site option

3.5 Results

All assessment results are listed in **Annex 4: Results tables**. For descriptions and introductions to the results tables please see Section 3 of the **Advice overview document**

Table 3 contains a summary of Natural England's pre-consultation assessment results for the Purbeck Coast new site option

Feature name	Confidence in feature presence	Confidence in feature extent	Current likely condition of feature	Advice on the General Management Approach (GMA)
High energy intertidal rock	High	High	Favourable	Maintain
Intertidal coarse sediment	High	High	Favourable	Maintain
Moderate energy intertidal rock	High	High	Favourable	Maintain
Peacock's Tail (<i>Padina pavonica</i>)	High	High	Favourable	Maintain
Stalked jellyfish (<i>Haliclystus</i> species)	Moderate	Moderate	Favourable	Maintain
Subtidal coarse sediment	High	High	Favourable	Maintain
Subtidal mixed sediments	High	High	Favourable	Maintain
Maerl beds	High	High	Unfavourable	Recover

3.6 Known potential future risks

The following information on potential oil exploration and beach replenishment has not affected our advice on the likely condition of the features in the site (and thereby the GMA) as the activities are not currently occurring. Our understanding of the past and recent dredge material disposal activity was taken into consideration, but was not deemed to be affecting the current likely condition of the maerl beds feature (see **Annex 4 – Results tables** for further information). However, the following information (Table 4) has been provided as it may be of relevance to the future considerations for the site.

Table 4 Potential future risk to features within the Purbeck Coast new site option

Potential future risk	Feature(s) potentially impacted	Additional information
Oil exploration	Subtidal mixed sediment (small proportion), Subtidal coarse sediment (small proportion)	These features are not currently exposed to this activity, however TESLA Exploration Ltd. have recently (November / December 2016) undertaken seismic

		<p>surveys within a small area of the rMCZ on behalf of oil and gas companies with exploration licences. Since the surveys were carried out no further correspondence has been received but Natural England would like to highlight the possibility that further exploration activity for oil and gas could occur in the foreseeable future.</p> <p>Natural England was also asked in September 2016 to provide initial advice on a feasibility study commissioned by Corfe Energy, as part of the Joint Venture Group. The Joint Venture Group are reviewing options to drill an oil well within the UKCS Block 98/11 licence area, which overlaps with Purbeck Coast rMCZ. However, the most recent information received by Natural England suggests that a disused well, located outside of the rMCZ, is currently the preferred option for drilling, which would not have any impact on the proposed features.</p>
Swanage nearshore beach replenishment scheme	Subtidal mixed sediment (small proportion), Subtidal coarse sediment (small proportion)	<p>Since October 2013 Natural England has been involved in ongoing discussions regarding a nearshore beach replenishment scheme in Swanage Bay. Due to concerns regarding potential impacts on the reef features of Studland to Portland SCI, the activity is not currently taking place, but local authorities are continuing to investigate the feasibility of the scheme. There is a possibility the proposal may be resubmitted for licensing in the foreseeable future if concerns regarding potential impacts on the Studland to Portland SCI reef features can be addressed.</p>
Disposal of dredged material	Maerl beds (majority of feature)	<p>Material from maintenance dredges in Poole Harbour and Weymouth Harbour are disposed of at the Swanage disposal site, located just outside of the Purbeck Coast rMCA boundary and adjacent to the maerl beds. Evidence indicates that the volume of dredged material disposed in recent years is not having a significant impact on nearby features (the Studland to Portland SCI reef features, or the</p>

		<p>proposed rMCZ features). However, disposal of material from a very large capital dredging project in Poole Harbour during winter 2005-2006 did have a significant impact on the maerl. Whilst Natural England are not aware of any dredging proposals on this scale in the foreseeable future, there would be a future risk to the feature if a disposal of similar volume to that of 2005-2006 was proposed. However, it must also be noted that, since 2006, Poole Harbour Commissioners have been committed to ensuring as much dredged material as possible is reused within the harbour or Poole Bay, thereby reducing this risk.</p>
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3.7 Natural England's understanding of likely stakeholder opinion (based on informal engagement, between approximately September 2016 and March 2017)

The Southern IFCA has provided information on current levels of fisheries activities. Existing management of the site through bottom-towed fishing gear closures are supported by the local fishing community and would offer protection to potential site features. The IFCA will consider the need for additional management following the site's designation. Dorset Wildlife Trust (DWT) is supportive of the site, and Natural England has had discussions with them regarding the proposed features and activities that currently occur within the site.

During February and March stakeholder engagement events were held in the form of eight 'drop-in' style community information sessions across Dorset, Hampshire and the Isle of Wight. The aim of these sessions was to ensure 'no surprises' for key stakeholders at the consultation stage, address concerns and increase understanding of the process. Some of these sessions were sector specific (commercial and recreational fisheries, recreational sailors), while others were open to the wider community. There was no specific feedback from stakeholders on the Purbeck Coast new site option, but rather on the overlapping third-party proposed highly mobile species MCZ (for Black bream).

4 New site option – Rye Bay

4.1 Purpose of site

The broad-scale habitat, **Subtidal sand**, currently represents a network gap in the Eastern Channel region and the Rye Bay new site option has been proposed in order to contribute to filling this shortfall in the network.

4.2 Site description and boundary notes

Situated near the mouth of Rye Harbour and extending approximately eight kilometres southwest and approximately 10 kilometres east is the Rye Bay new site option. With a landward boundary approximately 500 metres below MLW and avoiding the dredging activities at the mouth of the harbour, the Rye Bay new site option covers an area of approximately 96 km².

Data from both EUSeaMap and Sussex Coast Lifeforms Map suggest large areas of subtidal sand are within the Rye Bay new site option and this is backed up by groundtruthing from a number of surveys dating from 1997 – 2011.

This site comprises predominantly fine mud and sand dominated infralittoral and circalittoral habitats. Records show that typical biotopes associated with this habitat in this region could include: Sand mason worms *Lanice conchilega* and other polychaetes in tide-swept infralittoral sand and mixed gravelly sand; Sea potato urchins *Echinocardium cordatum* and razor clams *Ensis* spp. in lower shore and shallow sublittoral slightly muddy fine sand.

This site option was initially identified and developed through the stage one method of using the best available biophysical data to identify new site options ([JNCC and Natural England 2016](#)).

To see details of the currently understood gaps in the MPA network, and how this site option contributes towards filling them, please see [Appendix 1](#).

Following receipt of Natural England's pre-consultation advice, Defra requested further advice on the Rye Bay new site option in relation to a potential boundary amendment. This qualitative advice is included in [Appendix 2](#). The advice contained within (this) section 4 is based on the originally proposed boundary for the Rye Bay new site option.

4.3 Boundary map

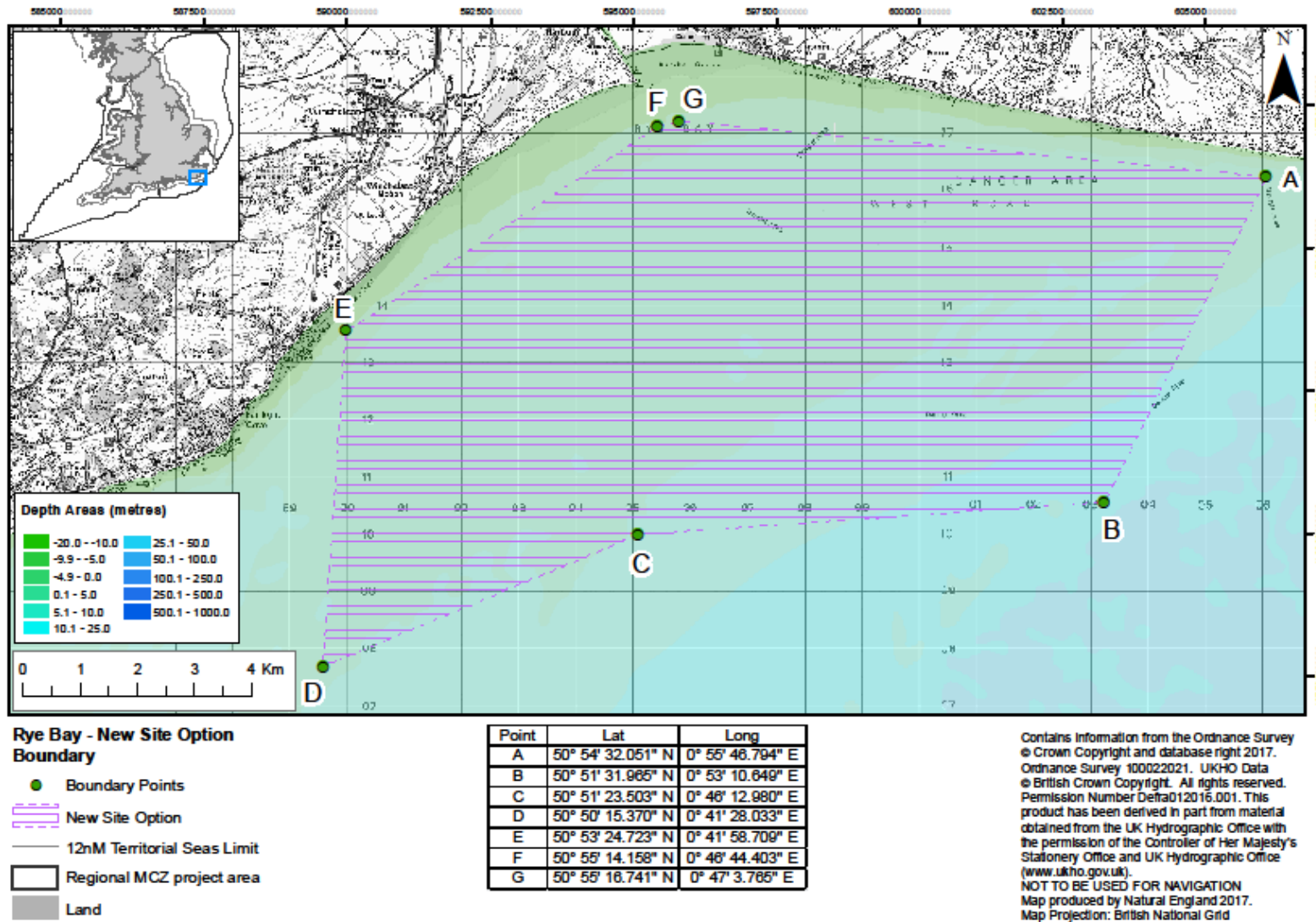


Figure 6 Rye Bay new site option boundary (original)

4.4 Feature map

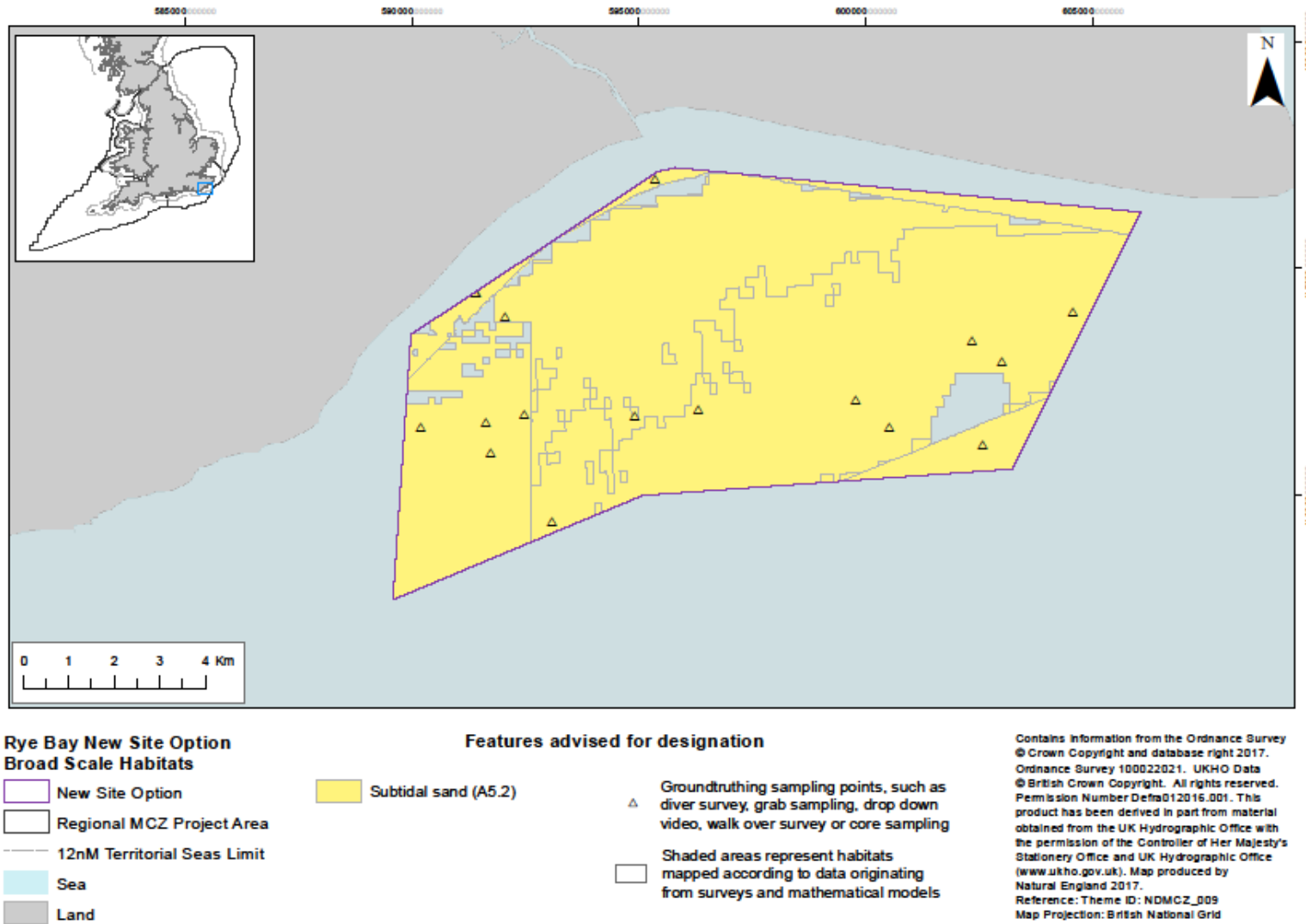


Figure 7 Location of mapped broad-scale habitats in Rye Bay new site option

4.5 Results

All assessment results are listed in **Annex 4: Results tables**. For descriptions and introductions to the results tables please see Section 3 of the **Advice overview document**

Table 4 contains a summary of Natural England's pre-consultation assessment results for the Rye Bay new site option (with original boundary)

Feature name	Confidence in feature presence	Confidence in feature extent	Current likely condition of feature	Advice on the General Management Approach (GMA)
Subtidal sand	High	High	Unfavourable	Recover

4.6 Natural England's understanding of likely stakeholder opinion (based on informal engagement, between approximately September 2016 and March 2017)

Natural England site leads have engaged with Sussex IFCA, Kent and Essex IFCA, fisheries stakeholders and the Environment Agency Harbour Master at Rye.

The fishermen are not supportive of the proposal and believe that it will put them out of business.

Sussex IFCA states that there will be a significant resource pressure on the IFCA to manage and enforce this site and have expressed concerns that proceeding with Rye Bay will undermine the strong stakeholder support for the neighbouring Beachy Head East rMCZ. Kent and Essex IFCA have also urged that the Impact Assessments for Rye Bay and the Hythe Bay site options are not considered in isolation as some of the vessels fish in both sites, so any management options will have cumulative displacement effects and economic impacts on these vessels.

5 New site option – South of Hythe Bay

5.1 Purpose of site

The broad-scale habitat, **Subtidal mud**, currently represents a network shortfall in the Eastern Channel region and the South of Hythe Bay new site option has been proposed in order to contribute to filling this gap in the network.

5.2 Site description and boundary notes

This new site option is located south of the Tranche 3 Regional Project recommended Hythe Bay rMCZ. The northern boundary of the new site option clips the 51° line, approximately 2.3 kilometres from land at its closest point, and lies offshore from Littlestone in Kent covering an area of approximately 21 km².

Ground truthing data from a number of surveys, primarily undertaken by Cefas indicate the presence of subtidal mud within the South of Hythe Bay new site option, despite modelled data from EUSeaMap suggesting the presence of subtidal sand.

This site option was initially identified and developed through the stage one method of using the best available biophysical data to identify new site options ([JNCC and Natural England 2016](#)). In 2014 the Environment Agency reported on surveys from within the Regional Project recommended Hythe Bay rMCZ and also extending outside of that site. These surveys found that the subtidal mud extended outside of the Hythe Bay rMCZ, predominantly to the south and west, and that it contained some megafaunal rich subtidal mud habitat within this, which is a highly biodiverse habitat component of the subtidal mud feature. These data importantly did record burrowing fauna (burrowing mud shrimp *Callinassa subterranea*, burrowing mud lobster *Upogebia* sp., and the spoon worm *Maxmuellaria lankesteri*) present in low numbers at some but not all of these deeper muddy stations.

The South of Hythe Bay new site option boundary was drawn to include the highest density of these survey points and thus the area in which we have highest confidence in presence and extent of this mud habitat.

Because there is an absence of sufficient quality and coverage acoustic data covering the wider area outside of the Hythe Bay rMCZ it was not possible to create a full habitat map from the 2014 survey data collected outside of that site. Therefore it is not possible at this time to robustly calculate an area figure for the subtidal mud feature of the South of Hythe Bay new site option based solely on the available survey point data.

To see details of the currently understood gaps in the MPA network, and how this site option contributes towards filling them, please see [Appendix 1](#).

5.3 Boundary map

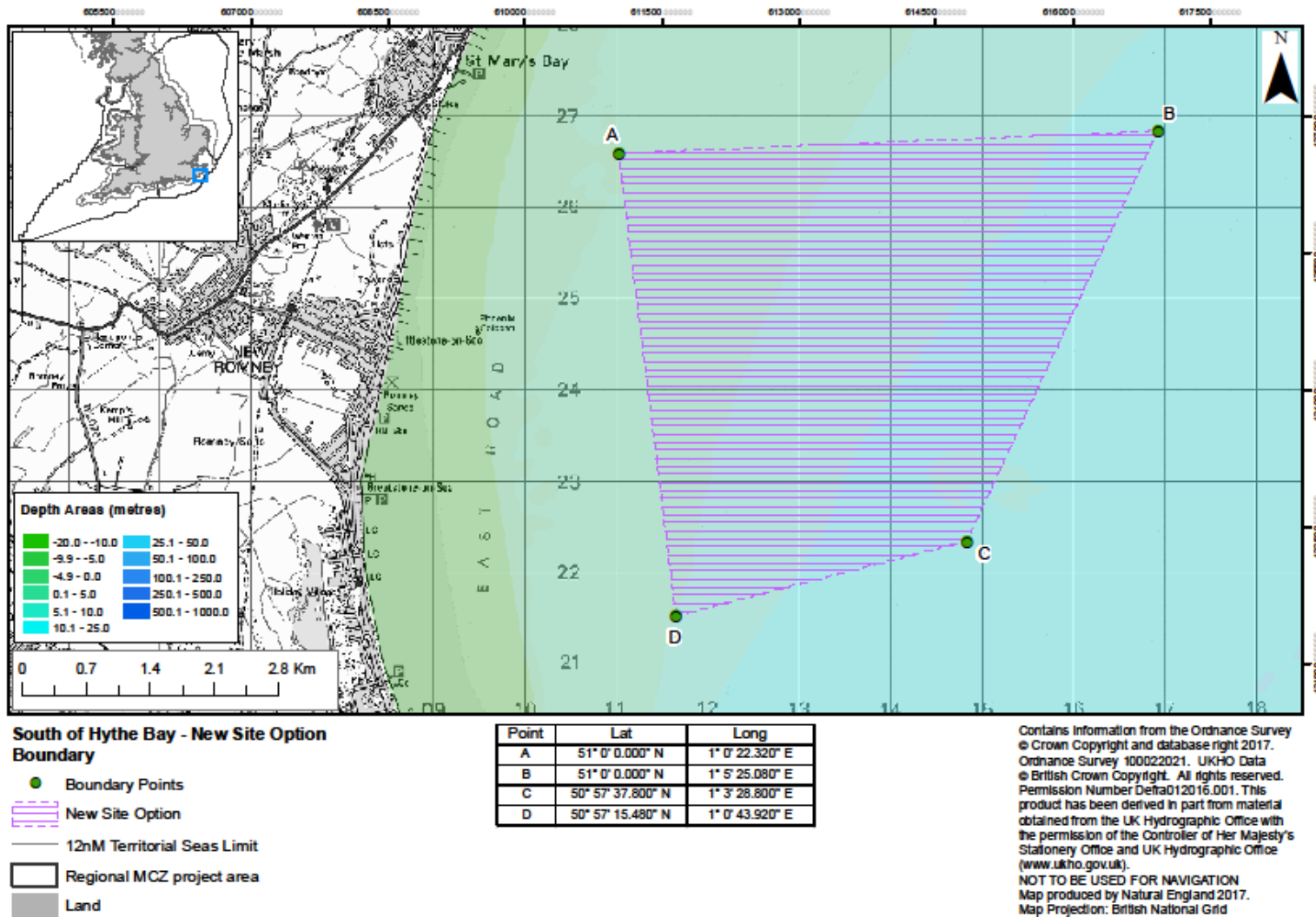


Figure 8 South of Hythe Bay new site option boundary

5.4 Feature map

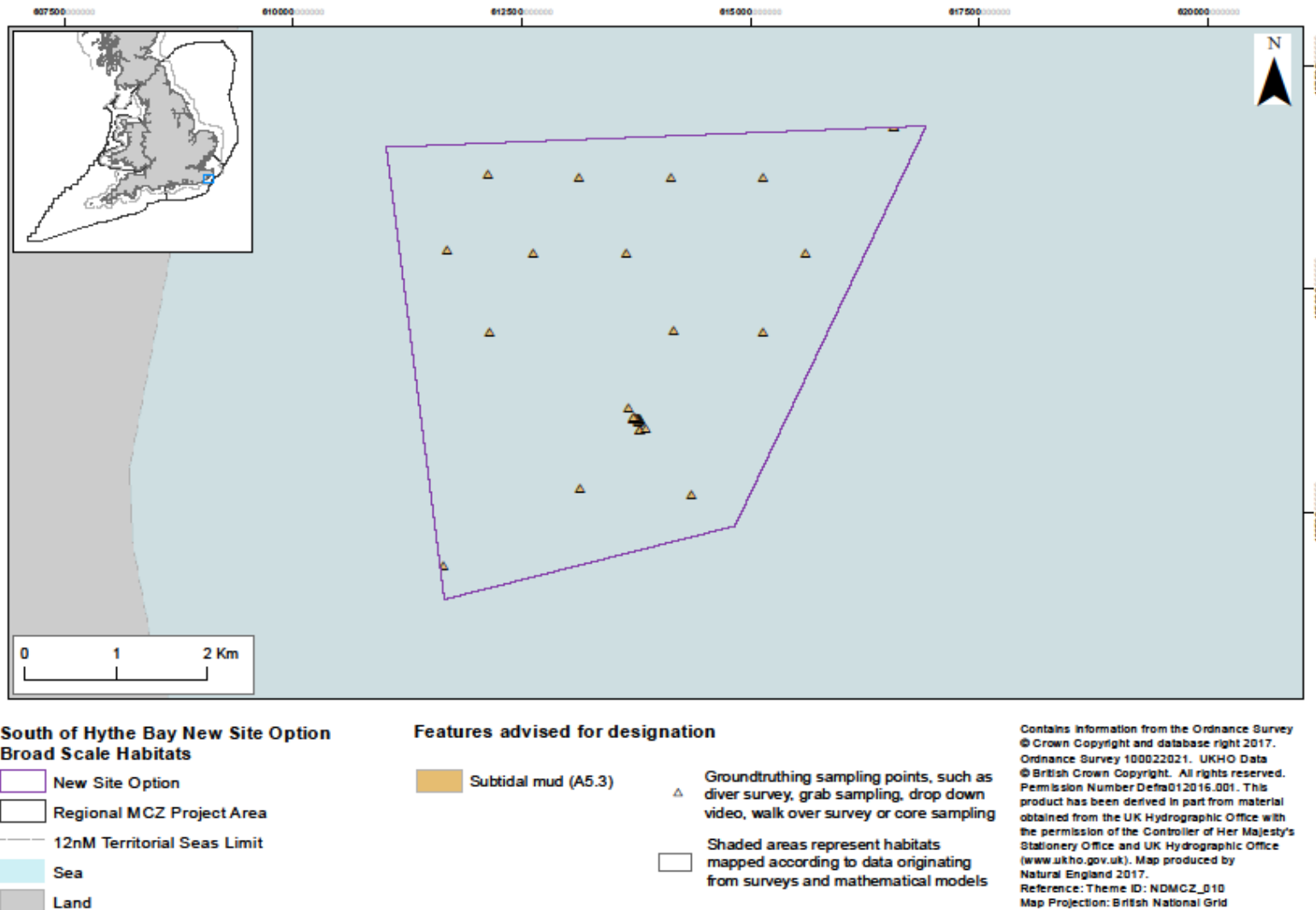


Figure 9 Location of mapped broad-scale habitats in South of Hythe Bay new site option

5.5 Results

All assessment results are listed in **Annex 4: Results tables**. For descriptions and introductions to the results tables please see Section 3 of the **Advice overview document**

Table 5 contains a summary of Natural England's pre-consultation assessment results for the South of Hythe Bay new site option

Feature name	Confidence in feature presence	Confidence in feature extent	Current likely condition of feature	Advice on the General Management Approach (GMA)
Subtidal mud	High	Moderate	Unfavourable	Recover

5.6 Natural England's understanding of likely stakeholder opinion (based on informal engagement, between approximately September 2016 and March 2017)

Natural England site leads have engaged with two local fishermen, the Harbour Master at Rye Harbour, Kent and Essex IFCA and the Kent Wildlife Trust.

The fishing industry are opposed to both Hythe sites (Hythe Bay rMCZ and South of Hythe Bay new site option), as they feel that we have already discussed them at length previously and they consider that their activities have no impact on the subtidal mud and that any management restrictions will put them out of business..

The Wildlife Trust have submitted information on landings data from the MMO for the Hythe Bay site options, which may indicate that the South of Hythe Bay site has lower levels of fishing effort than the Hythe Bay rMCZ; this information has been passed onto Defra for consideration in their Impact Assessment.

6 New site option – Torbay Extension

6.1 Purpose of site

The broad-scale habitat, **Subtidal mud**, currently represents a network gap in the Eastern Channel region and the Torbay Extension new site option has been proposed in order to contribute to filling this gap in the network.

6.2 Site description and boundary notes

The Torbay Extension new site option extends the seaward boundary of the existing Torbay MCZ (designated in 2013 for a range of features including intertidal and subtidal mud), to encompass the entirety of Tor Bay. The new seaward boundary extends between the existing boundaries around Berry Head to the south and Hope's Nose to the north. The Torbay Extension new site option covers an area of approximately 26 km².

The boundary of the Torbay extension new site option would align with that of the Torbay third-party proposed highly mobile species MCZ, should both sites proceed to designation.

Data from both EUSeaMap and Devon Wildlife Trust suggest large areas of subtidal mud are present within the Torbay Extension and this is backed up by groundtruthing from a number of surveys including recent Environment Agency grab surveys.

This site comprises predominantly infralittoral and circalittoral sandy mud habitats. Dense populations of the polychaete worm *Melinna palmata* along with bristleworms *Magelona* spp. and the bivalve *Thyasira flexuosa* in infralittoral cohesive sandy mud have been recorded, as well as areas characterised by super-abundant levels of the brittlestar *Amphiura filiformis* with the bivalves *Mysella bidentata* and *Abra nitida*.

This site option was initially identified and developed through the stage one method of using the best available biophysical data to identify new site options ([JNCC and Natural England 2016](#)).

To see details of the currently understood gaps in the MPA network, and how this site option contributes towards filling them, please see [Appendix 1](#).

6.3 Boundary map

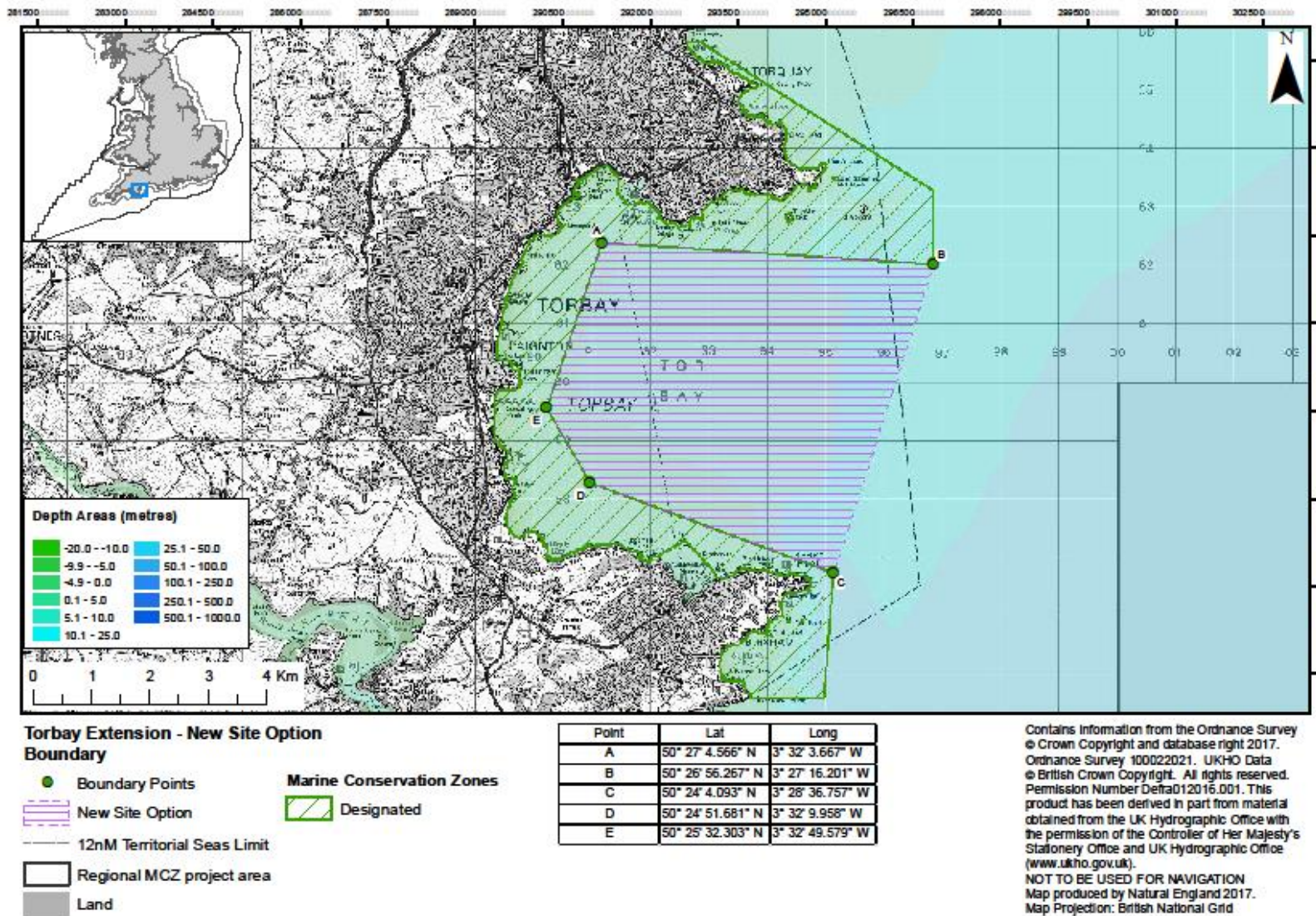


Figure 10 Torbay Extension new site option boundary

6.4 Feature map

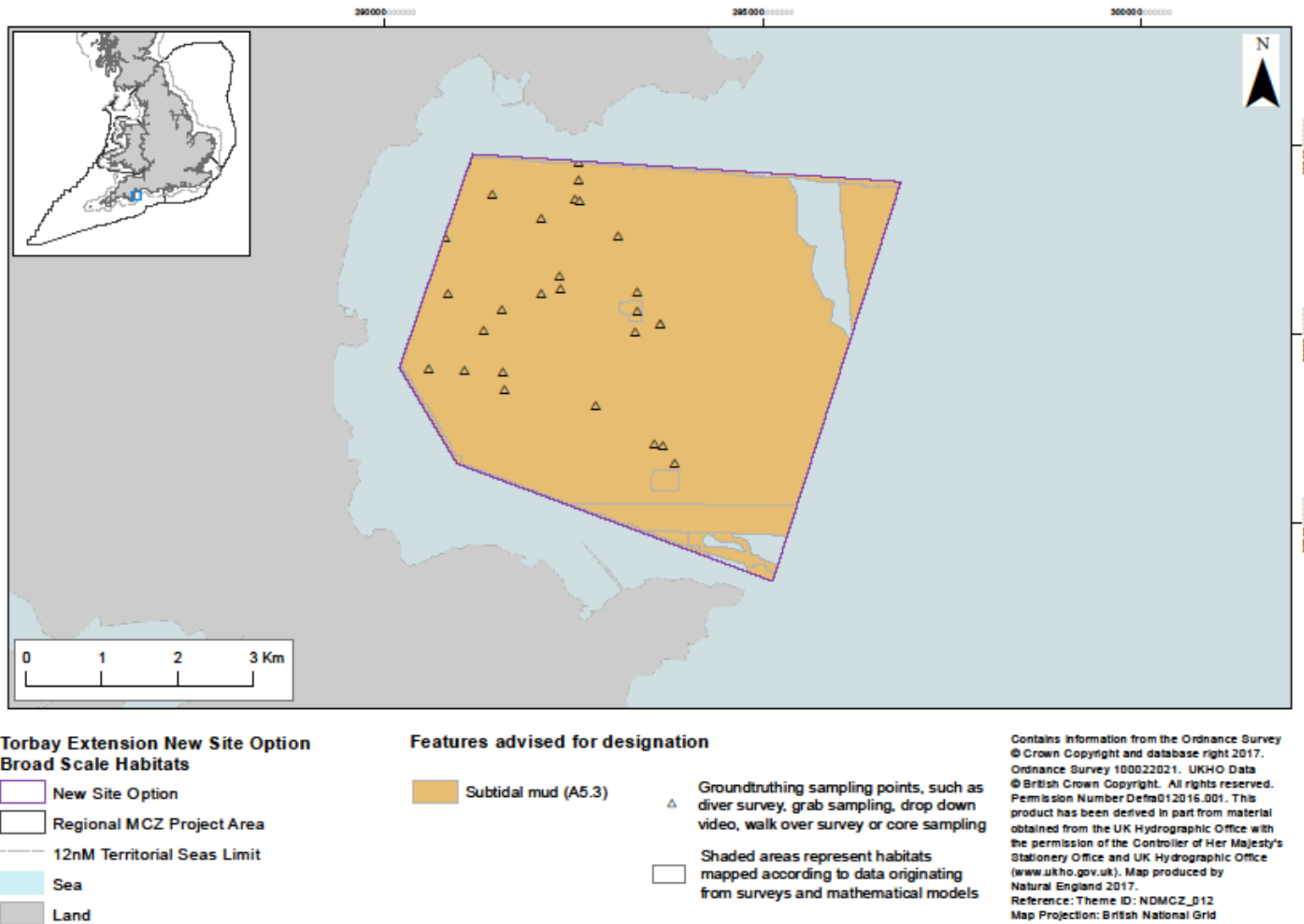


Figure 11 Location of mapped broad-scale habitats in Torbay Extension new site option

6.5 Results

All assessment results are listed in **Annex 4: Results tables**. For descriptions and introductions to the results tables please see Section 3 of the **Advice overview document**

Table 6 contains a summary of Natural England's pre-consultation assessment results for the Torbay Extension new site option

Feature name	Confidence in feature presence	Confidence in feature extent	Current likely condition of feature	Advice on the General Management Approach (GMA)
Subtidal mud	High	Moderate	Unfavourable	Recover

6.6 Natural England's understanding of likely stakeholder opinion (based on informal engagement, between approximately September 2016 and March 2017)

Natural England has engaged with the Devon and Severn IFCA and Tor Bay Harbour Authority regarding this site.

Devon and Severn IFCA provided details of the activities which they are aware are currently occurring within the site. No boundary amendments were proposed. Devon and Severn IFCA had some concerns regarding the Torbay Extension new site option. They explained that this area is important for the fishing industry for several reasons. Many of the vessels, whose home ports are located in the Bay (Brixham being one of the largest in England), use it to test gear and ensure that it is working before going out into the channel. A variety of fishing activities including pelagic and demersal trawling, scalloping, netting, rod and lining and potting occur within the bay, and fishermen will come to Torbay to fish in bad weather when they cannot go anywhere else. If the management of mobile gear is required then this may lead to an increase in potting and netting and a subsequent conflict of gear with recreational anchoring. This would also displace the mobile gear to another location. From a recent consultation on the IFCA's Mobile Fishing Permit conditions, the IFCA will need to consider seasonal access to important trawl grounds within the bay. Natural England has been consulted on this and it is thought that a Monitoring and Control Plan could be developed to allow the fishery assess to this area and to monitor effort, trial technical gear adaptations, survey gear impacts on the habitat and develop trigger points to reassess management measures.

The IFCA are also aware that the site is important for anchoring and much of the anchoring is for safety in bad weather, as Torbay is recognised as an important safe haven during severe storms. There was concern from the IFCA that if fishing activities such as mobile gear required restrictive management but anchoring activity was not similarly managed this could appear unfair. There was also concern expressed by the IFCA that if anchoring continued in the Torbay Extension site the MCZ boundary would not be seen as providing any protection/conservation benefit. An assessment of the level of impacts of anchoring (by all vessels and during all seasons) should be carried out and compared to the low level of scallop dredging that takes place in the site boundary. This would provide a balanced approach to the designation and future management of activities.

Torbay Harbour has provided details of the activities that they are aware are occurring within the site and this information has been provided to Defra but is also summarised below.

The Harbour Authority are opposed to the designation of the site as they feel the management measures would be incompatible with how the bay has historically and is currently being used by the authority and

shipping in general, as well as the recreational boating and fishing sectors. They explained that the area is an important Port of Refuge on the south coast of the UK, as there is no other anchorage on the south coast in a reasonable distance that provides shelter from the South. The bay is a designated anchorage on Admiralty charts for good reason; anchoring has always occurred within the bay and this is part of the maritime heritage of the Torbay community. The next nearest strategic sheltered anchorages are Falmouth and Portland, not insignificant distances away in poor weather conditions. If anchoring was not allowed within the site, the local economy would lose vital income and vessels would be forced to anchor in more exposed areas off the coast, unnecessarily increasing the risk to the vessel, her master and crew and the cargo, as well as the surrounding environment.

In 2014 at least 185 ships anchored in Tor Bay and in 2015 at least 115 vessels used the anchorage in Tor Bay (however not all vessels will have been reported to the Harbour Authority). AIS data will no doubt provide further evidence of vessel traffic using the bay and moving to and from the anchorage areas. The bay has always been a busy anchorage area and each year the numbers will be different depending on the frequency of severe weather.

Commercial shipping regularly uses Tor Bay to anchor for essential repairs, in water/underway surveys, crew changes and storing, all providing jobs and income that are important to the struggling local economy in Torbay.

The leisure boating sector and fishing industry lay anchors/sinkers throughout the bay area as part of normal navigation as well as deploying multiple racing marks and a plethora of static fishing gear marks. In addition to this activity the Harbour Authority lay over 60 seasonal navigational marks using anchors or blocks and these are laid and recovered each summer season. As part of the vital tourism economy many different vessels enjoy anchoring in Tor Bay to view local firework displays throughout the summer season and they also anchor to view the annual Torbay Air Show.

Torbay is also a growing cruise ship destination with Torquay being an anchorage port of call. On average eight cruise ships visit annually and this is a growing trade that is becoming increasingly important to the area.

The Harbour Authority suggested that restrictions on anchoring will almost certainly be poorly received by the leisure, fishing and shipping industries. The Harbour Authority's opinion was that there is no scope for a boundary amendment to this site to minimise the potential impacts on these activities. The Harbour Authority explained that they had made it clear from the start of the Finding Sanctuary project that none of the bay should be designated and that as a result a compromise was reached when defining the existing Torbay MCZ boundary. Furthermore, in December 2016, the British Ports Association (BPA) called on Ministers to introduce 'port zoning' in and around UK harbour areas to support jobs and trade post-Brexit. The BPA Chairman Rodney Lunn wrote to the Transport and Environment Ministers outlining the new concept that would see both marine and land areas within ports being classified as special areas for growth. These zones would be safeguarded against the impact of marine designations and planning system challenges allowing ports to fast-track developments and have certainty about future activities. Ports throughout the UK now face increasing restrictions stemming from marine and planning designations, often representing a challenge to their statutory duties and future plans. As pre-existing economic areas, ports are defined by in private legislation and are unable to move or change their limits, forcing them to undertake costly programmes to continue operating. Significant resistance to this site is therefore expected.

7 New site option – Fal and Helford Estuaries

7.1 Purpose of site

The species of conservation importance (SOCI), **Native oyster (*Ostrea edulis*)**, currently represents a network shortfall in the Western Channel and Celtic Sea region and the Fal and Helford Estuaries new site option has been proposed in order to address this replication gap in the network.

7.2 Site description and boundary notes

The Fal and Helford Estuaries new site option encompasses both the Fal and Helford Estuaries and overlaps with the Fal and Helford SAC designated for Annex I habitats - Reefs, Sandbanks which are slightly covered by seawater at all times, Large shallow inlets and bays, Estuaries, Mudflats and Sandflats not covered by seawater at low tide and Atlantic salt meadows. Although the estuaries are already designated as an SAC, the intertidal habitats inhabited by native oyster are not consistently protected within the SAC boundary (*see below*) and the native oyster feature itself is also not protected by the SAC. The Fal and Helford Estuaries site option covers a total area of approximately 28 km².

The boundary for the Fal and Helford Estuaries new site option encompasses the vast majority of both estuaries, including intertidal areas to include native oyster habitat. This site option overlaps much of the SAC currently designated in the area, but does not extend into Falmouth Bay, between the two estuaries.

The proposed MCZ boundary for the Fal and Helford Estuaries site follows the boundary of the Fal and Helford SAC within the estuaries. However, the boundary of the MCZ site is set at mean high water, whereas the boundary of the SAC is set at mean low water. There are a few exceptions to this. Where the SAC is underpinned by an intertidal SSSI, such as the Lower Fal and Helford Intertidal SSSI, the boundary of the SAC also extends to mean high water. Where the SAC is underpinned by an SSSI which extends into the terrestrial, such as the Upper Fal Estuary and Woods SSSI, the boundary of the SAC extends to highest astronomical tide, higher than the boundary of the proposed MCZ site.

The Fal and Helford Estuaries new site option also overlaps with the third-party proposed 'Carrick Roads' highly mobile species MCZ. Therefore whilst each site is a potential Tranche 3 MCZ in its own right, should both be designated they would need to be combined as one site to avoid overlapping MCZ designations.

This site option was initially identified and developed through the stage one method of using the best available biophysical data to identify new site options ([JNCC and Natural England 2016](#)).

To see details of the currently understood gaps in the MPA network, and how this site option contributes towards filling them, please see [Appendix 1](#).

7.3 Boundary map

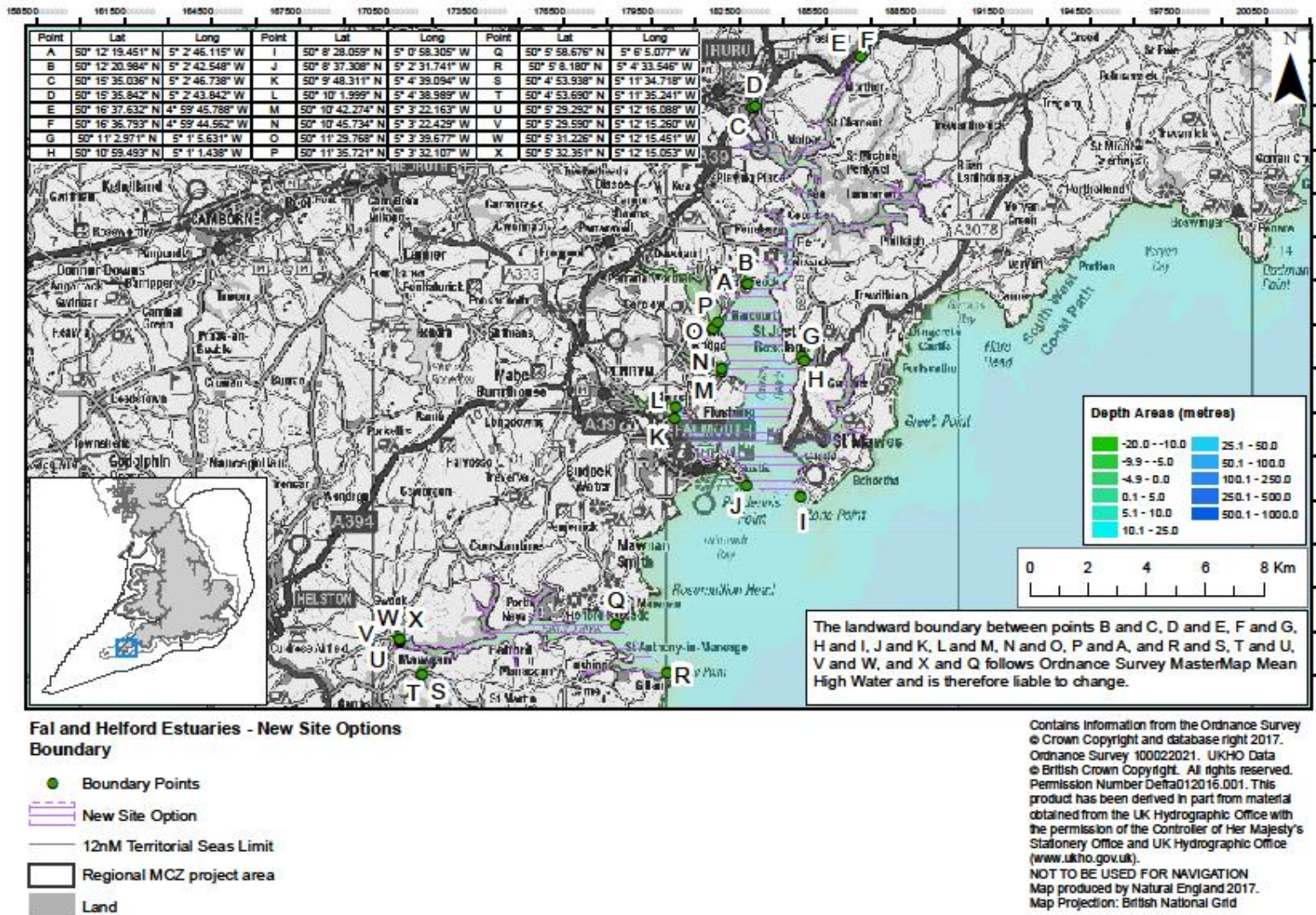


Figure 12 Fal and Helford Estuaries new site options boundaries

7.4 Feature map

No feature map has been provided for the Fal and Helford Estuaries new site option, as native oyster (*Ostrea edulis*) is a commercially sensitive species.

7.5 Results

All assessment results are listed in **Annex 4: Results tables**. For descriptions and introductions to the results tables please see Section 3 of the **Advice overview document**

Table 7 contains a summary of Natural England's pre-consultation assessment results for the Fal and Helford Estuaries new site option

Feature name	Confidence in feature presence	Confidence in feature extent	Current likely condition of feature	Advice on the General Management Approach (GMA)
Native oyster (<i>Ostrea edulis</i>)	High	High	Unfavourable	Recover

7.6 Natural England's understanding of likely stakeholder opinion (based on informal engagement, between approximately September 2016 and March 2017)

Stakeholder engagement for this site has so far been limited to the Cornwall Inshore Fisheries and Conservation Authority (CIFCA) who provided information in January 2017 about the current activities taking place within the Fal Estuary and the statutory management that is now in place. This included details of the native oyster and mussel fisheries and the Fal Fishery Order 2016 which was introduced to ensure the long term survival of stocks of these species in the area. The CIFCA also commented that, as designation of the Estuary as an MCZ would likely be with a Recover GMA, this would result in a restriction on the use of towed gear (such as those currently used in the oyster and mussel fisheries), which would lead to the loss of those local businesses. The CIFCA response further states that it regards these fisheries to be well managed and warns that their closure and the subsequent loss of local business would be publically and politically controversial. Natural England provided further comment to Defra in relation to the Fal Regulating Order and the advised 'Recover' GMA (see **Annex 4 – Results tables**), for their consideration, noting that whilst the native oyster fishery in the Fal is considered to be well managed through a regulatory order at the present time, this may not fully meet the conservation objectives if the site were to be designated. It is therefore likely that additional monitoring will be required within the site in order to determine whether or not amendments to the existing management regime are required; however, Natural England does not believe the closing of the fishery or significant changes to the management of the fishery to be a likely outcome of this designation. Nevertheless, given the exposure of the feature to pressures to which it is sensitive as a result of the fishery (i.e. abrasion and removal of target species), Natural England's advice is that a Recover GMA is more appropriate than a Maintain GMA, based on the current available evidence.

8 New site option – Helford Estuary

8.1 Purpose of site

The species of conservation importance (SOCI), **Native oyster (*Ostrea edulis*)**, currently represents a network shortfall in the Western Channel and Celtic Sea region and the Helford Estuary new site option has been proposed in order to contribute to filling this replication gap in the network.

8.2 Site description and boundary notes

The Helford Estuary new site option encompasses the Helford Estuary, southwest of Falmouth in Cornwall, and overlaps with the Fal and Helford SAC designated for Annex 1 habitats of Reefs, Sandbanks which are slightly covered by seawater at all times, Large shallow inlets and bays, Estuaries, Mudflats and sandflats not covered by seawater at low tide and Atlantic salt meadows. Although the estuary is already designated as an SAC, the intertidal habitats inhabited by native oyster are not consistently protected within the SAC boundary. The Helford Estuary site option covers an area of approximately six km².

The proposed MCZ boundary for the Helford site follows the boundary of the Fal and Helford SAC within the estuary. However, the boundary of the MCZ site is set at mean high water, whereas the boundary of the SAC is set at mean low water. Where the SAC is underpinned by an intertidal SSSI, such as the Lower Fal and Helford Intertidal SSSI, the boundary of the SAC also extends to mean high water.

This site option was initially identified and developed through the stage one method of using the best available biophysical data to identify new site options ([JNCC and Natural England 2016](#)).

To see details of the currently understood gaps in the MPA network, and how this site option contributes towards filling them, please see [Appendix 1](#).

8.3 Boundary map

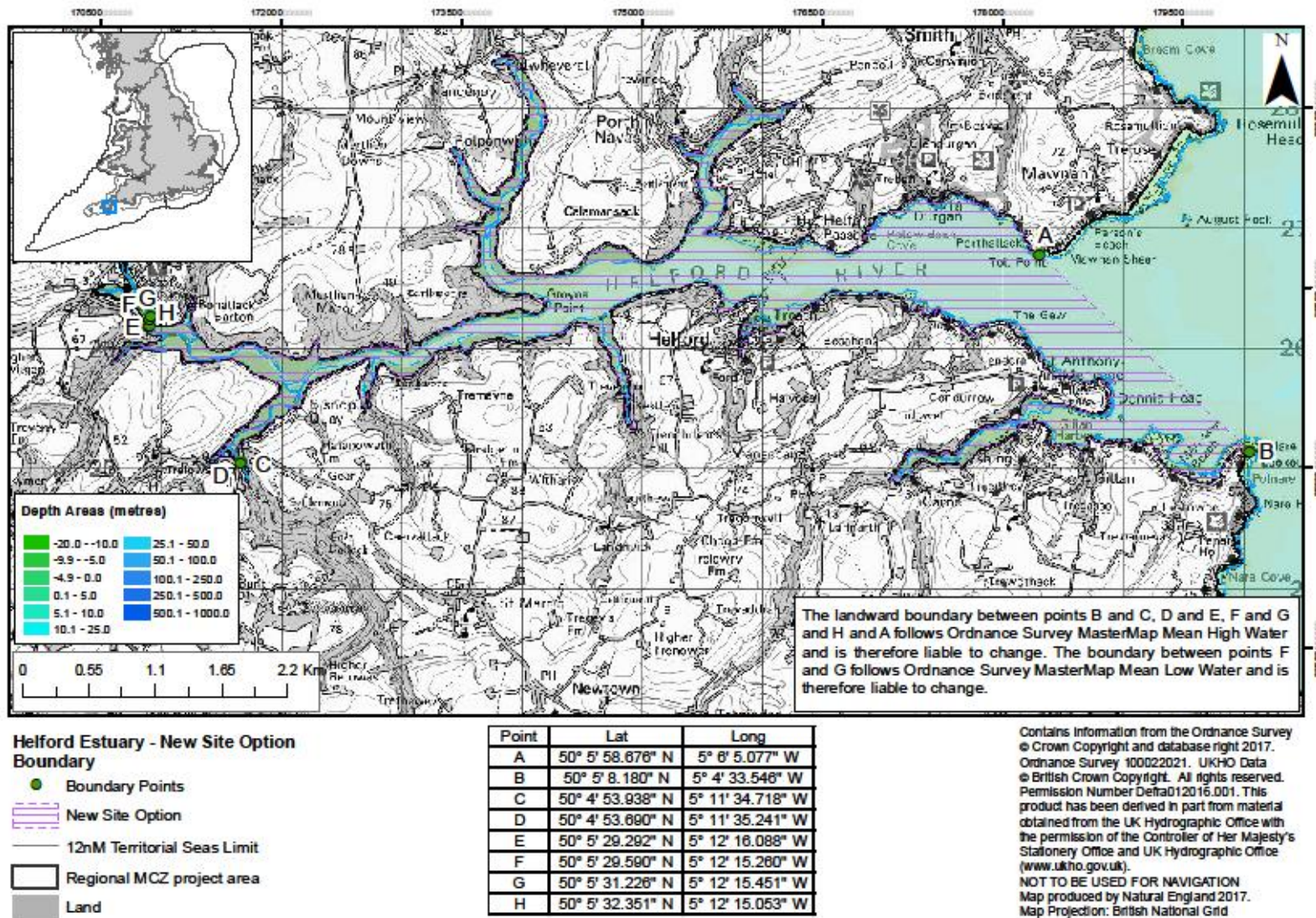


Figure 13 Helford Estuary new site option boundary

8.4 Feature map

No feature map has been provided for the Helford Estuary new site option, as native oyster (*Ostrea edulis*) is a commercially sensitive species.

8.5 Results

All assessment results are listed in **Annex 4: Results tables**. For descriptions and introductions to the results tables please see Section 3 of the **Advice overview document**

Table 8 contains a summary of Natural England's pre-consultation assessment results for the Helford Estuary new site option

Feature name	Confidence in feature presence	Confidence in feature extent	Current likely condition of feature	Advice on the General Management Approach (GMA)
Native oyster (<i>Ostrea edulis</i>)	High	High	Unfavourable	Recover

8.6 Natural England's understanding of likely stakeholder opinion (based on informal engagement, between approximately September 2016 and March 2017)

Stakeholder engagement for this site has so far been limited to the Cornwall Inshore Fisheries and Conservation Authority (CIFCA), who provided information in January 2017 on the current activities taking place within the Helford Estuary and the associated management measures. The CIFCA stated that the Duchy of Cornwall own the fishing rights to the Helford River and lease these to private companies, which cultivate shellfish in the river. As of March 2017, the Duchy was seeking a new operator for the fishery that would focus on the cultivation of native oysters, rather than the Pacific oysters that had been farmed there previously. The CIFCA provided further comment on the impact of designating an MCZ with a Recover GMA for native oysters in the river, suggesting that this could prevent successful operation of the oyster farm, although continued dredging activity within the river may still be compliant with this designation as it is restricted to only a small area of the site. The CIFCA also states that cultivating oysters in the site could potentially help populations recover to a favourable condition.

9 New site option – North West of Lundy

9.1 Purpose of site

The broad-scale habitat, **Subtidal coarse sediment**, currently represents a network gap in the Western Channel and Celtic Sea region and the North West of Lundy new site option has been proposed in order to contribute to reducing this shortfall in the network.

To see details of the currently understood gaps in the MPA network, and how this site option contributes towards filling them, please see [Appendix 1](#).

9.2 Site description and boundary notes

The North West of Lundy new site option is located approximately 15 kilometres northwest of Lundy Island and Lundy MCZ (designated in 2013 for spiny lobster) and Lundy SAC (designated for Reefs, Sandbanks which are slightly covered by sea water all the time and Submerged or partially submerged sea caves). The North West of Lundy new site option covers an area of 173 km² extending in an arc between the six and twelve nautical mile limits.

Data from both EUSeaMap and the Benthic Ecology Characterisation Report for the cancelled Atlantic Array offshore wind farm suggest that the North West of Lundy new site option fully comprises subtidal coarse sediment.

This site option was developed and proposed to Natural England by the North Devon Biosphere group following the removal of the original Regional Project recommended North of Lundy site which was to be co-located with the (since dropped) Atlantic Array Windfarm. This alternative proposal was submitted to Natural England and with agreement from Defra is included in this advice as a new site option given its contribution to the network gap for subtidal coarse sediment. The boundary of the North West of Lundy new site option was agreed with local stakeholders because the original proposal was in a very economically active area.

9.3 Boundary map

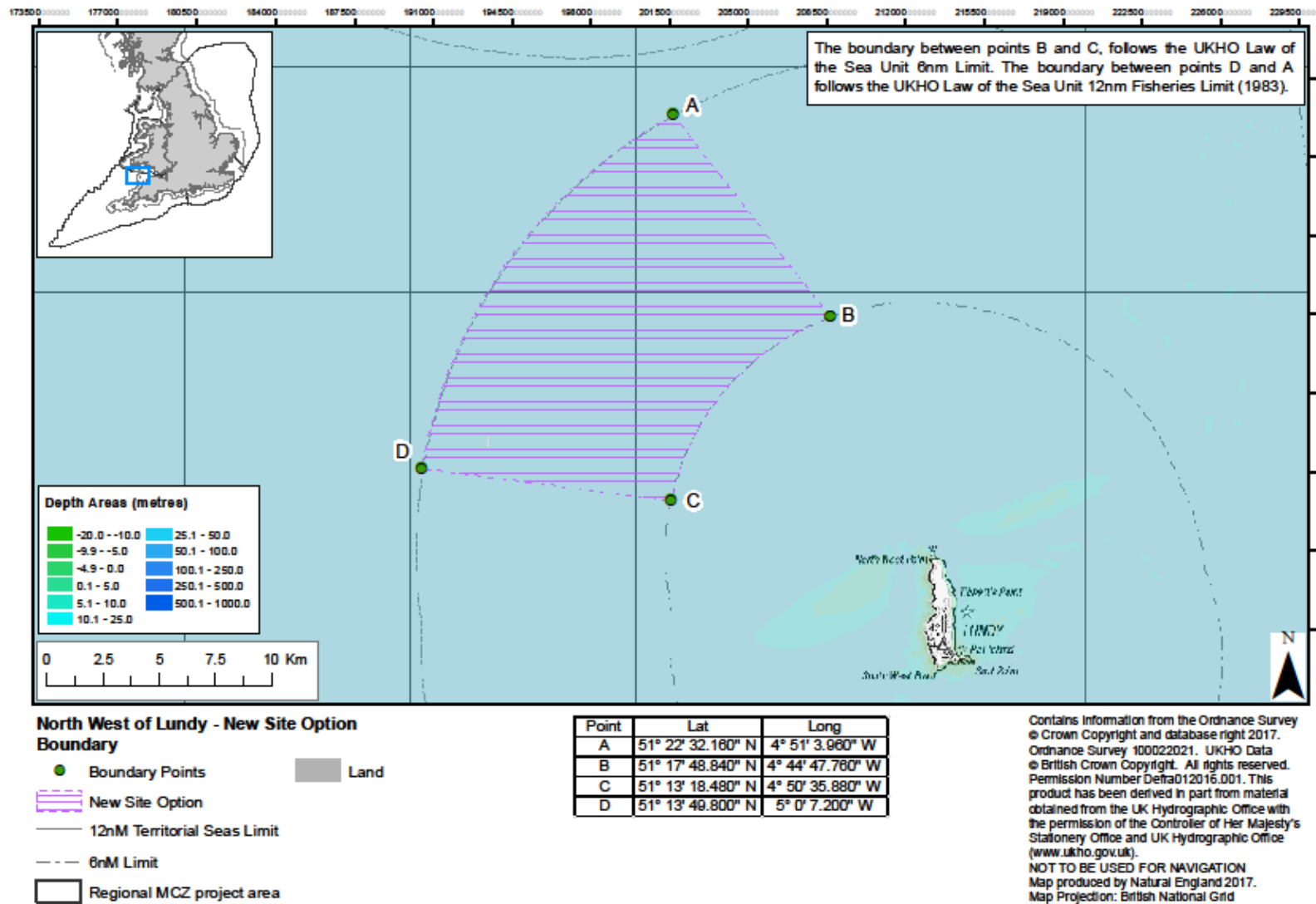


Figure 14 North West of Lundy new site option boundary

9.4 Feature map

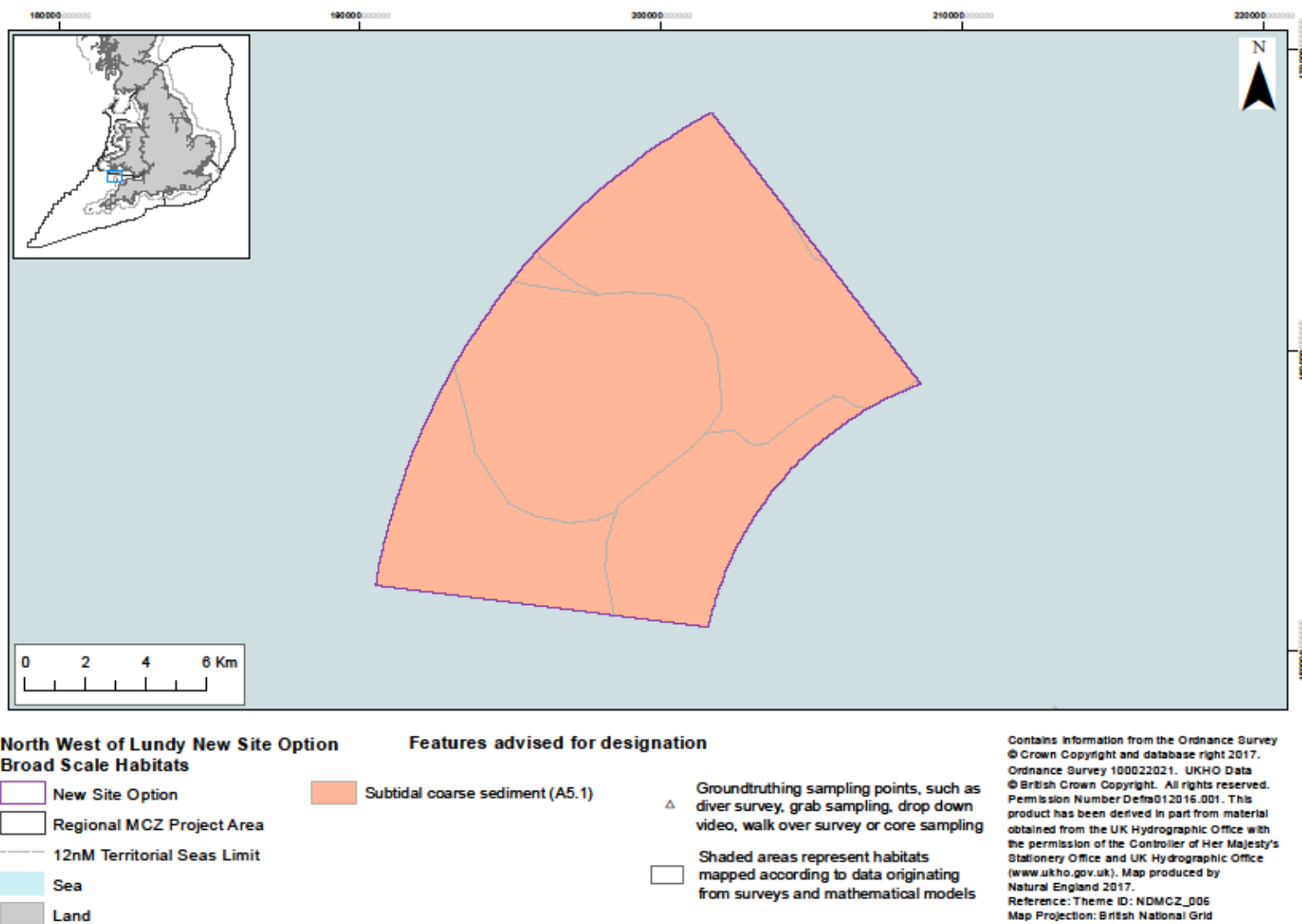


Figure 15 Location of mapped broad-scale habitats in North West of Lundy new site option

9.5 Results

All assessment results are listed in **Annex 4: Results tables**. For descriptions and introductions to the results tables please see Section 3 of the **Advice overview document**

Table 9 contains a summary of Natural England's pre-consultation assessment results for the North West of Lundy new site option

Feature name	Confidence in feature presence	Confidence in feature extent	Current likely condition of feature	Advice on the General Management Approach (GMA)
Subtidal coarse sediment	Moderate	Moderate	Unfavourable	Recover

9.6 Natural England's understanding of likely stakeholder opinion (based on informal engagement, between approximately September 2016 and March 2017)

For this new site proposal there has been contact with the North Devon Biosphere Reserve Group (NDBR) who have led on coordinating North Devon stakeholder input to the MCZ process throughout and encompass valuable views from a wide range of stakeholders, including fishermen. They have also been in direct communication with Defra over plans for the site so there are unlikely to be any unexpected issues during consultation. Devon Wildlife Trust (DWT) has also been involved in discussions about the site, and was keen to offer survey resources to increase the evidence available for it.

Overall the stakeholders are positive about the location of the site. They suggested it as their preferred alternative to the previously proposed Atlantic Array co-location site. The boundary (between six and twelve nautical miles) was agreed with local stakeholders because the original proposal was in a very economically active area.

However, the NDBR did raise a concern about the cumulative impact of this site option and the offshore 'West of Lundy' new site option². An extract from an email from Andy Bell (NDBR Manager) follows:

"The North west of Lundy site is all that the inshore north Devon area can offer without having a large detrimental impact on the local economy. So the ask of the Belgian and French delegations for Bristol Channel to provide more protected subtidal sand and gravel is met through that measure; there isn't any more to give. Our Biosphere Reserve marine and extending out towards the Celtic Sea area is the Marine Pioneer area for Defra, where we are trying to experiment with getting a better managed fishery and conservation outcome. We can't do this if the whole area becomes closed or unviable for a fishery."

Further discussions are planned with the MMO; however our current understanding is that they are supportive of the site.

² Please note that JNCC have amended the West of Lundy new site option since this feedback was received from the NDBR. However, whether this would affect the stakeholders' expressed concerns is currently unknown.

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Appendix 1 Overview of the contribution to the MPA network of inshore and offshore site options being considered as potential MCZs in 2017



Overview of the contribution to the MPA network of inshore and offshore site options being considered as potential MCZs in 2017

February 2017

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Emma Novak, Hannah Carr, Hugh Wright and Jon Davies (JNCC) and Heidi Pardoe, Tom Barnfield, Ross Bullimore (Natural England)

1 Summary

The present paper provides an overview of how inshore and offshore New Site Options identified by Natural England and JNCC could address remaining shortfalls in the MPA network in Secretary of State waters (see [JNCC 2016](#)). JNCC and Natural England have been able to identify 12 New Site Options based on available data. These New Site Options, alongside the remaining site recommendations from the regional MCZ projects, provide Defra with the opportunity to select a Third Tranche of potential MCZs to complete the MPA network in Secretary of State waters. The paper describes the current shortfalls together with the potential site options available for each region.

2 Introduction

2.1 Purpose of this advice

In summer 2016, JNCC completed an analysis of Defra's progress towards achieving an ecologically coherent MPA network in Secretary of State waters ([JNCC 2016](#)). Defra indicated the MPA network should achieve the targets advised by JNCC and Natural England in the Ecological Network Guidance (ENG) ([Natural England and JNCC 2010](#)). The analysis revealed a shortfall in the protection of several features in four out of five Charting Progress (CP2) regions³ that overlap with Secretary of State (SoS) waters; where the analysis concluded a habitat or species is not considered to be adequately protected within the existing MPA network in the region. Some features were still considered as a shortfall after considering the potential contribution from remaining Regional Project recommended MCZs (rMCZs); these shortfalls are summarised in Table 1. To mitigate the shortfalls, JNCC and Natural England developed new offshore and inshore options respectively. These options provide additional contributions towards meeting the shortfall in features that could be considered by Defra alongside the rMCZs that are also under consideration in Tranche 3. Initial Areas of Search (AoS) to meet shortfalls were discussed with stakeholders for both offshore and inshore sites separately and developed into New Site Options.

The purpose of this paper is to provide an overview, by region, of the inshore and offshore New Site Options that have been developed by Natural England and JNCC and the contribution that these could potentially make towards meeting the targets set out for the MPA network in Secretary of State waters. The paper was developed to clearly summarise the current options that could contribute towards the shortfalls that were identified in the JNCC network assessment ([JNCC 2016](#)), to be considered by Defra alongside JNCC and Natural England's formal Tranche 3 pre-consultation advice.

³ No feature shortfalls were identified within the Northern North Sea region and therefore no New Site options have been proposed for this region.

Table 1 The remaining gaps for Broad-scale habitats, Habitat Features of Conservation Importance (FOCI) and Species FOCI in the MPA network, after considering the potential contribution from remaining recommended MCZs from the Regional MCZ Projects.

CP2 Region	Remaining shortfalls in the MPA network		
	Broad-scale habitats	Habitats FOCI	Species FOCI
Southern North Sea		Sheltered muddy gravels	Native oyster (<i>Ostrea edulis</i>)
Eastern Channel	Subtidal coarse sediment Subtidal sand Subtidal mud Subtidal mixed sediments	Maerl beds	
Western Channel & Celtic Sea	Subtidal coarse sediment Deep-sea bed		Native oyster (<i>Ostrea edulis</i>)
Irish Sea	Subtidal coarse sediment		

The following sections provide a region by region overview of the remaining gaps for Broad-scale habitats, Habitat Features of Conservation Importance (FOCI) and Species FOCI in the MPA network, after considering the potential contribution from remaining recommended MCZs from the Regional MCZ Projects. Each section provides a regional overview map, and a high level overview of the residual gaps listed in Table 1 and New Site Options identified by JNCC and Natural England. This is then followed by a table setting out the detail around the gap for each feature, which network criteria it relates to and what the size of the gap is. A separate table then lists both New Site Options and Regional Project rMCZs that could contribute to addressing the gaps. It should be noted however that many of the other listed features for these sites could also be contributing to shortfalls in the existing MPA network (or may do so depending on decisions over other Tranche 3 rMCZs/MCZs). JNCC and Natural England's advice on 'data sufficiency' should be referred to for further information about these features, along with JNCC's pivot tool.

3 Overview of sites by region

3.1 Southern North Sea

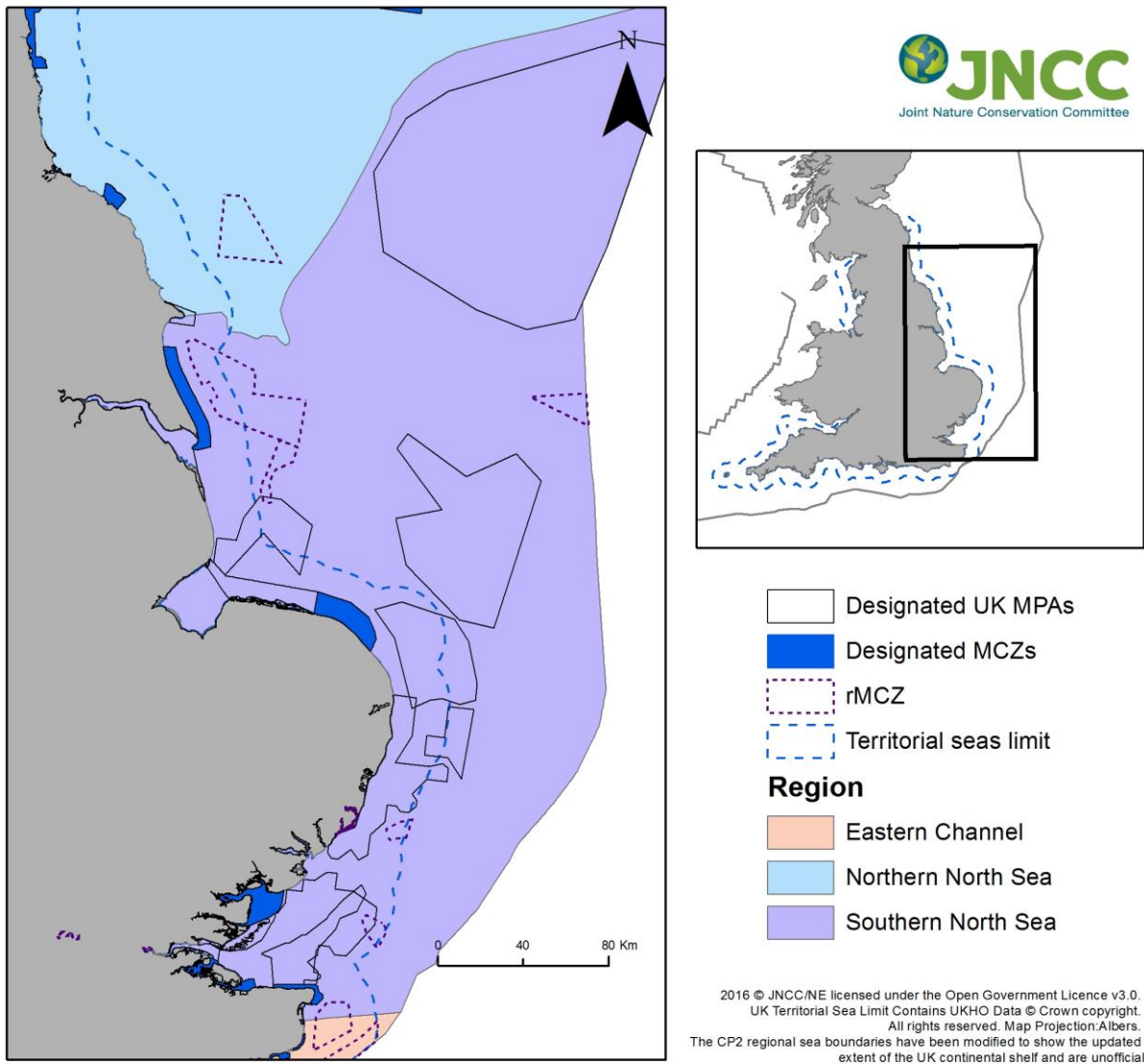


Figure 1 Overview map of MCZs, rMCZs and New Site Options in the Southern North Sea biogeographic region.

All broad-scale habitat features are adequately represented within the Southern North Sea region however a shortfall was identified for Sheltered muddy gravels and Native oyster (*Ostrea edulis*) FOCI (Table 2). During the initial stage of development of AoS, Natural England determined that the **only** suitable option for further protecting Sheltered muddy gravels in the region was the area previously proposed as the Stour and Orwell Estuaries rMCZ i.e. it was only possible to identify 1 further replicate and not 2. Natural England also advised Defra that the site could have provided the additional replicate for Native oyster (*Ostrea edulis*). Based on the best available evidence, Natural England has also been unable to identify any alternative or additional new site options for Native oyster. Defra did not request further advice on this site option as it had previously been decided that the rMCZ was not suitable for designation.

Table 2 Southern North Sea region: Overview of the Features of Conservation Importance (FOCI) for which there is considered a shortfall in protection.

FOCI	Minimum Target in the ENG	Current number of replicates protected within existing MPAs	Number of replicates with potential Tranche Three rMCZs/MCZs also included	Additional number of replicates required to meet ENG target
Sheltered muddy gravels	3 replicates	0	1	2
Native oyster (<i>Ostrea edulis</i>)	3 replicates	1	2	1

Table 3 Southern North Sea region: All potential site options (rMCZs from the regional MCZ projects – note no New Site Options) that could contribute to mitigating the shortfalls set out in Table 2, noting the other features associated with each option.

Site options	Potential network contribution of shortfall features		Other features ⁴
	Sheltered muddy gravels	Native oyster (<i>Ostrea edulis</i>)	
Regional Project recommended MCZs (note the criteria contributions of each rMCZ/MCZ are part of the 'Potential total number of replicates' presented in Table 2)			
Alde Ore Estuary (Inshore)	1 replicate		Estuarine rocky habitats, Smelt (<i>Osmerus eperlanus</i>), Orfordness (Subtidal geological feature)
Cromer Shoal Chalk Beds (Inshore)		1 replicate	

⁴ Does not include features for which we have no confidence in their presence and extent.

3.2 Eastern Channel

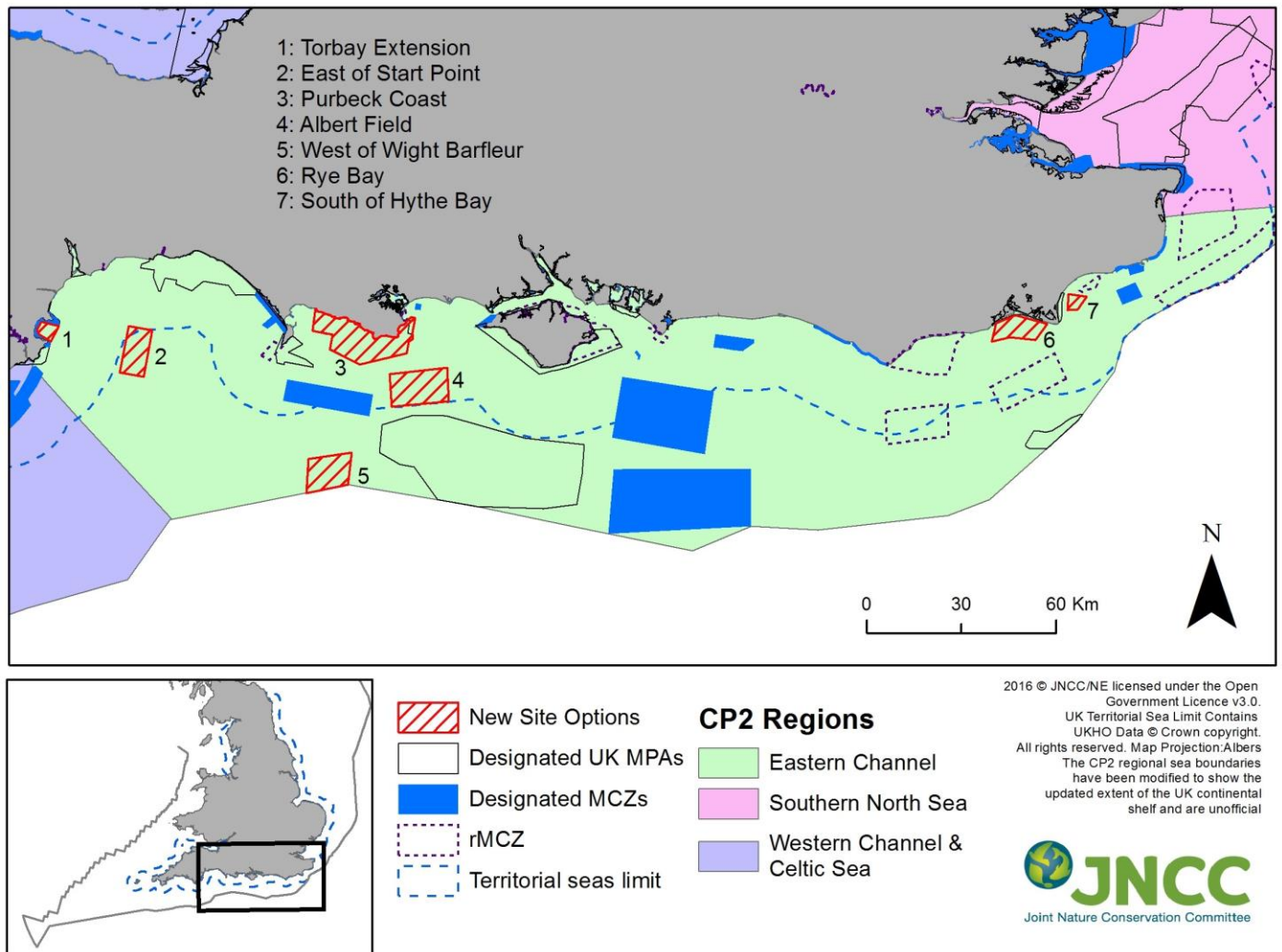


Figure 3 An overview of the distribution of designated MPAs (SACs, SPAs and MCZs), rMCZs and New Site Options in the Eastern Channel biogeographic region.

JNCC's network analysis (2016) identified shortfalls in the Eastern Channel region for the protection of the broad-scale habitats Subtidal coarse sediment, Subtidal sand, Subtidal mud and Subtidal mixed sediments, and the replication of Maerl beds Feature of Conservation Interest (FOCI)⁵. Table 4 provides an overview of the shortfalls for the broad-scale habitat features in the region and Table 5 for the shortfall in FOCI. Two offshore New Site Options have been developed by JNCC and five inshore options by Natural England to address these gaps. The offshore options are West of Wight Barfleur and East of Start Point, and the inshore options are Albert Field, Purbeck Coast, Rye Bay, Torbay Extension and South of Hythe Bay. These options would contribute as follows:

- West of Wight Barfleur was identified to contribute towards the shortfall in Subtidal mixed sediments but could also contribute to subtidal coarse sediment;

⁵ Subsequent to this advice being provided to Defra in February 2017, JNCC advised that once fisheries measures are implemented within the Wight-Barfleaur SAC (designated for Annex I Reef) a substantial area of subtidal coarse sediment would also be afforded protection incidentally. This will encompass an area of approximately 445km² and if Defra are content to consider the feature protected in this site by the virtue of the management planned, it would make a large contribution to the protection of this feature in the region and contribute to the remaining shortfall in the MPA network.

- East of Start Point & Rye Bay for Subtidal sand;
- Albert Field for Subtidal coarse and Subtidal mixed sediments;
- Purbeck Coast for Subtidal coarse sediment, Subtidal mixed sediments and Maerl beds; and,
- Torbay Extension and South of Hythe Bay for Subtidal mud

Table 4 Eastern Channel region: Overview of the broad-scale habitat features for which there is considered a shortfall in protection. All values are rounded to the nearest integer to reflect residual uncertainty in the underlying spatial data.

Habitat	Minimum Target in the ENG	Current area protected within existing MPAs	Potential total area with Tranche Three rMCZs/MCZs also included	Additional area required to meet ENG target
Subtidal coarse sediment	17% (~2,115 km ²)	~9% (~1067 km ²)	~14% (~1742 km ²)	~3% (~373 km ²)
Subtidal sand	15% (~422 km ²)	~4% (~98 km ²)	13% (~367 km ²)	2% (~55 km ²)
Subtidal mud	15% (~81 km ²)	~2% (~11 km ²)	5% (~26 km ²)	10% (~55 km ²)
Subtidal mixed sediments	16% (~540 km ²)	~9% (~300 km ²)	~14% (~458 km ²)	~2% (~82 km ²)

Table 5 Eastern Channel region: Overview of the Features of Conservation Importance (FOCI) for which there is considered a shortfall in protection.

FOCI	Minimum Target in the ENG	Current number of replicates protected within existing MPAs	Potential total number of replicates with potential Tranche Three rMCZs/MCZs also included	Additional number of replicates required to meet ENG target
Maerl Beds	3 replicates	0	1	2 ⁶

⁶ Purbeck Coast inshore new site option has been proposed to provide one of the two replicates needed to address this shortfall (see Table 6). Based on our best available evidence, Natural England and JNCC have not been able to identify any additional new site options for this feature and so although there would only be two options in the region, we would not consider this a true gap if the two Tranche 3 options (Purbeck Coast and Bembridge rMCZ – Table 6) were taken forward.

Table 6 Eastern Channel region: All potential site options (rMCZs from the regional MCZ projects and New Site Options) that could contribute to mitigating the shortfalls set out in Tables 4 and 5, noting the other features associated with each option. All values are rounded to the nearest integer to reflect residual uncertainty in the underlying spatial data.

Site options	Potential network contribution of shortfall features					Other features ⁷
	Subtidal coarse sediment	Subtidal sand	Subtidal mud	Subtidal mixed sediments	Maerl beds	
New site options (note the adequacy criteria contributions of each new site option should be considered in relation to the 'additional area required to meet the ENG target' presented in Table 4 or 'Additional number of replicates required to meet ENG target' presented in Table 5)						
Albert Field (Inshore)	<1% (~79.5 km ²)			Unknown contribution ⁸		
East of Start Point (Offshore)		~4% (~114km ²)				N/A
Purbeck Coast (Inshore)	~1% (~104 km ²)			~3% (~98km ²)	1 replicate	High energy intertidal rock. Moderate energy intertidal rock. Intertidal coarse sediment. Stalked jellyfish (<i>Haliclystus species</i>). Peacock's tail (<i>Padina pavonica</i>).
Rye Bay (Inshore)		~3% (~92km ²)				N/A
South of Hythe Bay (Inshore)			Unknown contribution ⁹			N/A

⁷ Does not include features for which we have no confidence in their presence and extent

⁸ Only point data are available for this feature and therefore the area cannot be calculated.

⁹ Only point data are available for this feature and therefore the area cannot be calculated.

Site options	Potential network contribution of shortfall features					Other features ⁷
	Subtidal coarse sediment	Subtidal sand	Subtidal mud	Subtidal mixed sediments	Maerl beds	
Torbay Extension (Inshore)			~4% (~24 km ²)			N/A
West of Wight Barfleur (Offshore)	<1% (~55 km ²)			~3% (~82km ²)		N/A
Regional Project recommended MCZs (note the adequacy criteria contributions of each rMCZ/MCZ are part of the 'Potential total area' calculations presented in Table 4 or 'Potential total number of replicates' presented in Table 5)						
Beachy Head East (Inshore)	1% (~125 km ²)	~2% (~48 km ²)				High energy intertidal rock. Intertidal coarse sediment. Intertidal mixed sediments. High/Moderate energy circalittoral rock. Infralittoral rock and thin mixed sediment. Infralittoral rock and thin sandy sediment. Blue Mussel beds. Littoral chalk communities. Peat and clay exposures. Ross worm (<i>Sabellaria spinulosa</i>) reefs. Subtidal chalk. Infralittoral rock and thin mixed sediment. Infralittoral rock and thin sandy sediment. Native oyster (<i>Ostrea edulis</i>). Short snouted seahorse (<i>Hippocampus hippocampus</i>).
Bembridge ¹⁰ (Inshore)	<<1% (~4 km ²)	<<1% (~4 km ²)	1% (~5km ²)	~2% (~61 km ²)	1 replicate	Ross worm (<i>Sabellaria spinulosa</i>) reefs. Seagrass beds. Sea-pens and burrowing megafauna communities. Sheltered muddy gravels. Common

¹⁰ Area calculations are based on original (Regional Project recommended) rMCZ boundary

Site options	Potential network contribution of shortfall features					Other features ⁷
	Subtidal coarse sediment	Subtidal sand	Subtidal mud	Subtidal mixed sediments	Maerl beds	
						maerl (<i>Phymatolithon calcareum</i>). Native oyster (<i>Ostrea edulis</i>). Peacock's tail (<i>Padina pavonica</i>). Short snouted seahorse (<i>Hippocampus hippocampus</i>). Stalked jellyfish (<i>Haliclystus</i> species). Stalked jellyfish (<i>Calvadosia campanulata</i>). Tentacled lagoon-worm (<i>Alkmaria romijni</i>).
East Meridian (Eastern Side) (Offshore)	~2% (~193 km ²)					N/A
Goodwin Sands (Inshore)	~1% (~102km ²)	~2% (~68 km ²)				Moderate energy circalittoral rock. Moderate energy infralittoral rock. Blue Mussel beds. Ross worm (<i>Sabellaria spinulosa</i>) reefs. English Channel outburst flood features.
Hythe Bay (Inshore)			2% (~10 km ²)			N/A
Inner Bank (Offshore)	<1% (~33 km ²)	~4% (~102 km ²)	<1% (~1 km ²)	~2% (~63 km ²)		N/A
Norris to Ryde (Inshore)	<<1% (<1 km ²)	<<1% (~4 km ²)	Unknown contribution ¹¹	<<1% (~1km ²)		Low energy intertidal rock. Estuarine rocky habitats. Peat and clay exposures. Seagrass beds. Sheltered muddy gravels. Native oyster (<i>Ostrea edulis</i>).

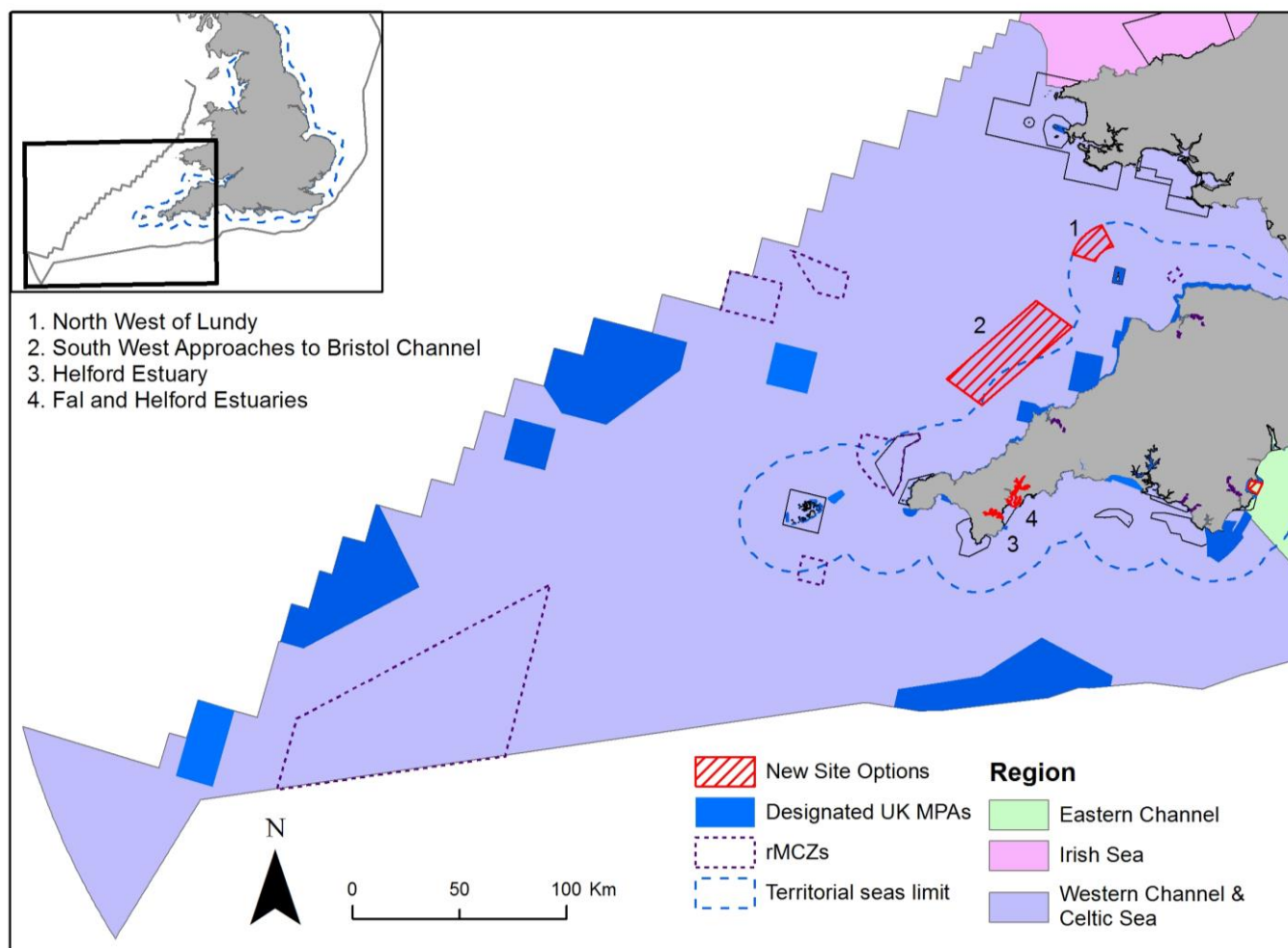
¹¹ Only point data are available for this feature and therefore the area cannot be calculated.

Site options	Potential network contribution of shortfall features					Other features ⁷
	Subtidal coarse sediment	Subtidal sand	Subtidal mud	Subtidal mixed sediments	Maerl beds	
						Tentacled lagoon-worm (<i>Alkmaria romijni</i>).
Offshore Foreland (Inshore)	~2% (~207 km ²)	~1% (~37 km ²)				High energy circalittoral rock. Moderate energy circalittoral rock. High energy infralittoral rock. English Channel outburst flood features
Selsey Bill and the Hounds (Inshore)		<<1% (~2 km ²)		<1% (~6km ²)		High energy infralittoral rock. Moderate energy infralittoral rock. Low energy infralittoral rock. Moderate energy circalittoral rock. Peat and clay exposures. Infralittoral rock and thin sandy sediment. Short snouted seahorse (<i>Hippocampus hippocampus</i>). Bracklesham Bay
South of Portland (Inshore)	<<1% (~3 km ²)	<<1% (< 1 km ²)		<<1% (~8km ²)		High energy circalittoral rock. Moderate energy circalittoral rock. Portland Deep.
Studland Bay (Inshore)	<<1% (<1 km ²)	<<1% (~2km ²)		Unknown contribution		Moderate energy intertidal rock. Intertidal coarse sediment. Intertidal sand and muddy sand. Intertidal mud. Intertidal mixed sediments. Low energy infralittoral rock. Seagrass beds. Sheltered muddy gravels. Long snouted seahorse (<i>Hippocampus guttulatus</i>). Short snouted seahorse (<i>Hippocampus hippocampus</i>). Native oyster. (<i>Ostrea edulis</i>).
Yarmouth to Cowes ¹²	<<1% (~5 km ²)		<<1% (<1km ²)	<<1% (< 1km ²)		Moderate energy intertidal rock. Low energy intertidal rock. Intertidal coarse sediment. High

¹² Area calculations are based on original (Regional Project recommended) rMCZ boundary
 Produced by JNCC & Natural England

Site options	Potential network contribution of shortfall features					Other features ⁷
	Subtidal coarse sediment	Subtidal sand	Subtidal mud	Subtidal mixed sediments	Maerl beds	
(Inshore)						energy infralittoral rock. Moderate energy infralittoral rock. High energy circalittoral rock. Moderate energy circalittoral rock. Subtidal biogenic reefs. Intertidal underboulder communities. Littoral chalk communities. Peat and clay exposures. Sheltered muddy gravels. Subtidal chalk. Estuarine rocky habitats. Fragile sponge and anthozoan communities on subtidal rocky habitats. Native oyster beds (<i>Ostrea edulis</i>). Native oyster (<i>Ostrea edulis</i>). Lagoon sand shrimp (<i>Gammarus insensibilis</i>). Bouldner Cliff geological features

3.3 Western Channel and Celtic Sea



2016 © JNCC/NE licensed under the Open Government Licence v3.0. UK Territorial Sea Limit Contains UKHO Data © Crown copyright. All rights reserved. Map Projection: Albers. The CP2 regional sea boundaries have been modified to show the updated extent of the UK continental shelf and are unofficial.



Figure 3 An overview of the distribution of designated MPAs (SACs, SPAs and MCZs), rMCZs and New Site Options in the Western Channel and Celtic Sea biogeographic region.

JNCC's network analysis (2016) identified shortfalls in the Western Channel and Celtic sea region in the protection of the broad-scale habitats Subtidal coarse sediment and Deep-sea bed¹³, and for the replication of Native oyster (*Ostrea edulis*) Feature of Conservation Importance (FOCI). Table 7 provides an overview of the percentage area shortfalls for the broad-scale habitat features in the region and Table 8 for the shortfall in the FOCI. One offshore and three inshore New Site Options have been developed by JNCC and Natural England. The offshore option is South West Approaches to Bristol Channel, and the inshore options are North West of Lundy, Helford Estuary and Fal and Helford Estuaries. South West Approaches to Bristol Channel and North West of Lundy will contribute towards the shortfall in Subtidal coarse sediment in the region whilst Helford Estuary and Fal and Helford Estuaries are options for addressing the shortfall for the replication of Native oyster.

¹³ JNCC will be providing separate advice on the feature Deep-sea bed and so no further information on the shortfall is provided in this document.

Table 7 Western Channel and Celtic Sea region: Overview of the broad-scale habitat features for which there is considered a shortfall in protection in the Secretary of State waters section of the Western Channel and Celtic Sea region. All values are rounded to the nearest integer to reflect residual uncertainty in the underlying spatial data.

Habitat	Minimum Target in the ENG	Current area protected within existing MPAs	Area with potential Tranche Three rMCZs/MCZs also included	Additional area required to meet the ENG target
Subtidal coarse sediment	17% (~6024 km ²)	~7% (~2501 km ²)	~14% (~4,803 km ²)	~3% (~1221 km ²)

Table 8 Western Channel and Celtic Sea region: Overview of the Features of Conservation Importance (FOCI) for which there is considered a shortfall in protection.

FOCI	Minimum Target in the ENG	Current number of replicates protected within existing MPAs	Number of replicates with potential Tranche Three rMCZs/MCZs also included	Additional number of replicates required to meet ENG target
Native oyster (<i>Ostrea edulis</i>)	3 replicates	2	2	1

Table 9 Western Channel and Celtic Sea region: All potential site options (rMCZs from the regional MCZ projects and New Site Options) that could contribute to mitigating the shortfalls set out in Tables 7 and 8, noting the other features associated with each option. All values are rounded to the nearest integer to reflect residual uncertainty in the underlying spatial data.

Site options	Potential network contribution of shortfall features		Other features ¹⁴
	Subtidal coarse sediment	Native oyster (<i>Ostrea edulis</i>)	
New site options (note the adequacy criteria contributions of each new site option should be considered in relation to the 'additional area required to meet the ENG target' presented in Table 7 or 'Additional number of replicates required to meet ENG target' presented in Table 8)			
Helford Estuary (Inshore)		1 replicate	N/A
Fal and Helford Estuaries (Inshore)			N/A
North West of Lundy (Inshore)	~1% (~173 km ²)		N/A
South West Approaches to Bristol Channel (Offshore)	~3% (~1105km ²)		Moderate energy circalittoral rock. Subtidal sand.
Regional Project recommended MCZs (note the adequacy criteria contributions of each rMCZ/MCZ are part of the 'Potential total area' calculations presented in Table 7 or 'Potential total number of replicates' presented in Table 8)			
Cape Bank (Offshore)	~1% (~333km ²)		Moderate energy circalittoral rock. Spiny lobster (<i>Palinurus elephas</i>).
Isles of Scilly Sites – Bristows to the	<< 1% (~14km ²)		Moderate energy circalittoral rock.

¹⁴ Does not include features for which we have no confidence in their presence and extent
 Produced by JNCC & Natural England

Site options	Potential network contribution of shortfall features		Other features ¹⁴
	Subtidal coarse sediment	Native oyster (<i>Ostrea edulis</i>)	
Stones MCZ			
Morte Platform	<< 1% (~20km ²)		High energy circalittoral rock. Moderate energy circalittoral rock.
North-East of Haig Fras	<< 1% (~57km ²)		Subtidal sand. Subtidal mud.
South of Celtic Deep	<< 1% (~144km ²)		Moderate energy circalittoral rock. Subtidal sand. Subtidal mixed sediments.
South of the Isles of Scilly	<< 1% (~42km ²)		Subtidal sand. Subtidal mixed sediments. Subtidal coarse sediment/Subtidal mixed sediments habitat mosaic. Fan mussel (<i>Atrina fragilis</i>).
South-West Deeps (East)	~5 % (~1693km ²)		Subtidal sand. Deep-sea bed.

3.4 Irish Sea

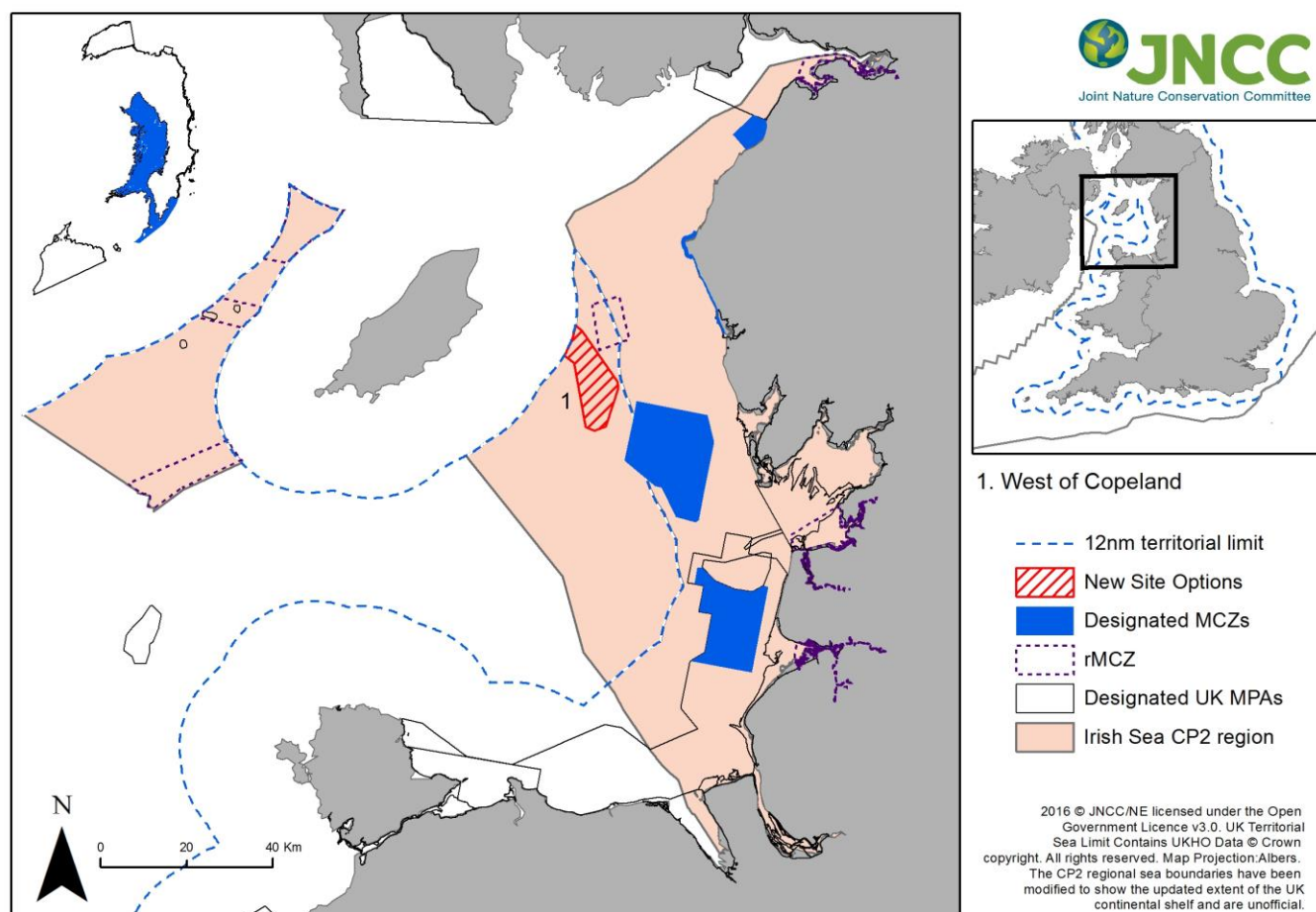


Figure 4 An overview of the distribution of designated MPAs (SACs, SPAs and MCZs), rMCZs and New Site Options in the Secretary of State waters part of the Irish Sea biogeographic region

JNCC's network analysis (2016) identified a shortfall in the protection of Subtidal coarse sediment in the Irish Sea region; Table 10 provides an overview of the shortfalls. One offshore New Site Option has been developed by JNCC to address this shortfall. The West of Copeland New Site Option could contribute ~10% of the Subtidal coarse sediment protected in the region. No inshore New Site Options have been proposed for this region.

Table 10 Irish Sea region: Overview of the broad-scale habitat features for which there is considered a shortfall in protection in the Secretary of State waters part of the Irish Sea region. All values are rounded to the nearest integer to reflect residual uncertainty in the underlying spatial data.

Habitat	Minimum Target in the ENG	Current area protected within existing MPAs	Area with potential Tranche Three rMCZs/MCZs also included	Additional area required to meet ENG target
Subtidal coarse sediment	17% (~124km ²)	~6% (~40km ²)	~7% (~48km ²)	~10% (~76km ²)

Table 11 Irish Sea region: All potential site options (rMCZs from the regional MCZ projects and New Site Options) that could contribute to mitigating the shortfalls set out in Table 10, noting the other features associated with each option. All values are rounded to the nearest integer to reflect residual uncertainty in the underlying spatial data.

Site options	Potential network contribution of shortfall features	Other features ¹⁵
	Subtidal coarse sediment	
New site options (note the adequacy criteria contributions of each new site option should be considered in relation to the 'additional area required to meet the ENG target' presented in Table 10)		
West of Copeland (Offshore)	~10% (~73km ²)	Subtidal sand. Subtidal mud. Subtidal mixed sediments.
Regional Project recommended MCZs (note the adequacy criteria contributions of each rMCZ/MCZ are part of the 'Potential total area' calculations presented in Table 10)		
South Rigg (Offshore)	~1% (~8km ²)	Moderate energy circalittoral rock. Subtidal sand. Subtidal mud. Subtidal mixed sediments. Sea-pen and burrowing megafauna communities

4 Bibliography

JNCC (2016). *Assessing progress towards an ecologically coherent MPA network in Secretary of State Waters in 2016*. <http://jncc.defra.gov.uk/page-7119>

NATURAL ENGLAND AND JNCC (2010). *The Marine Conservation Zone Project: Ecological Network Guidance*. Sheffield and Peterborough, UK: Natural England and JNCC.

¹⁵ Does not include features for which we have no confidence in their presence and extent
Produced by JNCC & Natural England

Appendix 2: Additional informal advice on the Rye Bay new site option boundary

This additional advice describes a potential boundary amendment to the Rye Bay new site option. Qualitative advice on this potential boundary amendment has been requested by Defra (in May 2017) as they wish to consider excluding two commercial anchorage areas from the site (**Figure 1**), in order to reduce the socio-economic impacts of the site. There is no reason on conservation or evidence grounds to amend the boundary of this new site option.

This informal advice is provided on the basis of expert judgement. Natural England provides below a qualitative assessment of how the boundary amendment (**Figure 2**) might affect Natural England's pre-consultation Tranche 3 advice (provided to Defra in February 2017).

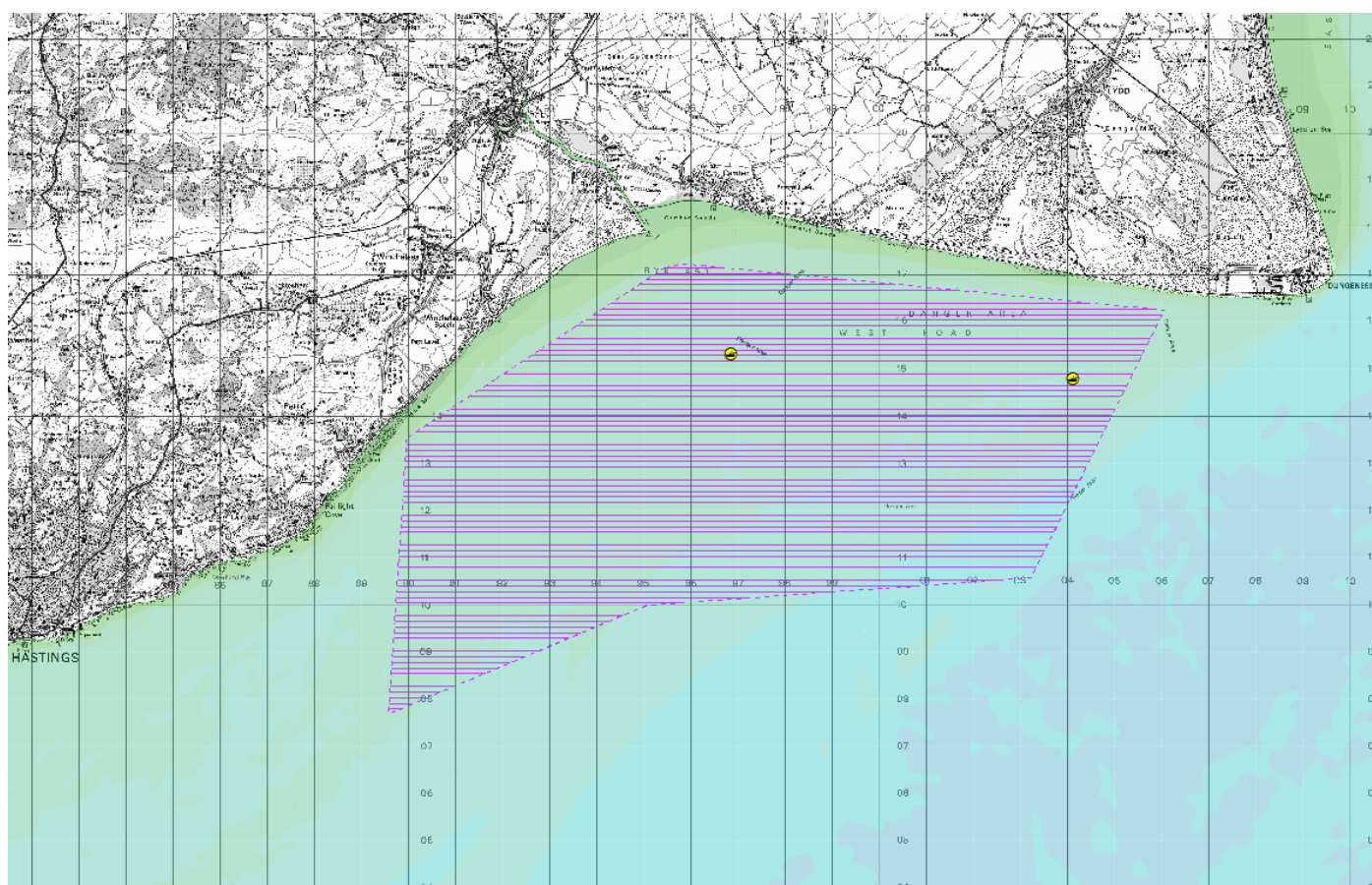


Figure 16 Map showing the location of the commercial anchorage points in relation to the current boundary of the Rye Bay new site option

Appendix 2: Additional informal advice on the Rye Bay new site option boundary

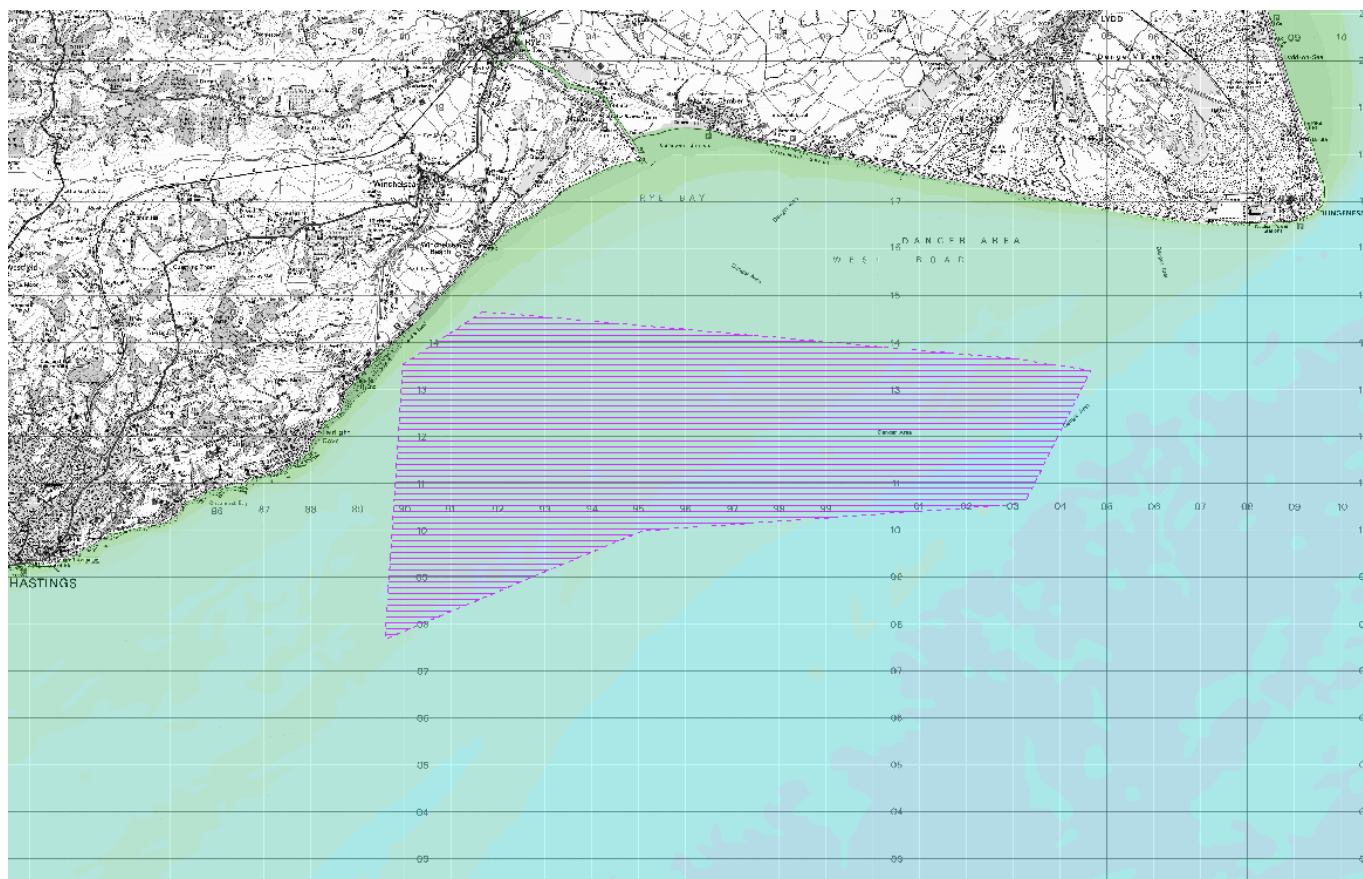


Figure 17 Potential boundary amendment to the Rye Bay new site option to exclude the commercial anchorage points shown in Figure 1

Implications for Natural England's advice on confidence in feature presence and extent:

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Feature	Approximate loss of known extent from site with revised boundary	Implications for confidence in feature presence and extent
Subtidal sand A5.2	One point record for the subtidal sand feature previously supporting feature confidence is removed by the revised boundary	Pre-consultation advice on confidence in feature presence/extent: High/High Loss of records will not affect this confidence assessment, based on expert judgement.

Implications for Natural England's advice on the General Management Approach (GMA):

Natural England's GMA advice indicates the likely condition of the features based on their vulnerability (exposure x sensitivity) to the activities that occur within the site, rather than direct evidence on the condition of the features.

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Feature	Natural England's pre-consultation advice on the GMA	Implications for GMA if boundary were amended
Subtidal sand A5.2	Recover Fisheries datasets (MB117) indicate a moderate intensity of demersal trawling; Sussex IFCA provided sighting and effort maps which also indicate moderate levels of demersal trawling within the site. Personal communications with the harbour master indicate that the designated anchorage site is used regularly by commercial ships throughout the year. As the feature is moderately-highly sensitive to these activities, a recover is advised. (Triggering activities - demersal trawling; berths moorings and anchorages and vessel anchorage)	The advised GMA would remain as Recover as the potential boundary amendment does not remove the exposure of the feature to demersal trawling (this would be the only triggering activity should the boundary be revised).

Implications for the site's contribution to the MPA network

JNCC and Natural England's '*Overview of the contribution to the MPA network of inshore and offshore site options being considered as potential MCZs in 2017*' (see Appendix 1 of this advice annex (**Annex 3 - Advice on new site options**)) describes the current contribution of the Rye Bay new site option to the shortfall for subtidal sand in the Eastern Channel region (see Tables 4 and 6 of Appendix 1).

The shortfall is currently ~2% (~55km²) and with the current boundary (**Figure 1**) Rye Bay would contribute ~3% (~92km²) of subtidal sand to the network.

If the boundary were amended as shown in **Figure 2** above, the site would instead contribute ~2% (~58km²) of subtidal sand to the shortfall in the Eastern Channel region.