

Decision on first marine plan areas October 2010

© SeaZone Solutions Limited 2005 [SZ042010.001]

© Crown Copyright and database right 2010. All rights reserved. Ordnance Survey Licence No. 100022861.

Contents

Executive summary	1
Introduction	4
Comparison of Defra criteria and MMO decision streams	4
Stakeholder engagement in plan area selection	6
Assessment of coastal stakeholder partnerships	7
Technical report of economic, environmental and social information	10
Implications of current and proposed marine protected areas.....	12
Future pressures and their implications.....	13
Implications of planning inshore and offshore together	15
Implications of planning with bordering nations.....	17

Executive summary

The Marine Management Organisation's (MMO) decision methodology for selecting the first two marine plan areas to be planned is based on seven decision streams that were examined collectively to ensure a robust decision was made. We received advice from the Department for Environment, Food and Rural Affairs (Defra) on criteria that should be considered in determining the first areas for plan making. The MMO's seven decision streams are listed below, and the following table was produced to show how the decision streams address the criteria advised by Defra. The decision streams are:

1. Stakeholder engagement in plan area selection.
2. Assessment of coastal stakeholder partnerships.
3. Technical report of economic, environmental and social information.
4. Implications of current and proposed marine protected areas.
5. Future pressures and their implications.
6. Implications of planning inshore and offshore together.
7. Implications of planning with bordering nations.

Summary of decision streams

1. Stakeholder engagement in plan area selection

Stakeholders were engaged through face to face discussions and through a letter requesting viewpoints and evidence that pointed towards which areas might be planned first. Overall there was strong agreement that an inshore and offshore area should be planned together, delivering efficiency savings to both the MMO and stakeholders and ensuring that a whole ecosystem approach was followed. The specific areas suggested by some stakeholders to be planned first were South West Inshore and Offshore, North West, and East Inshore and Offshore.

2. Assessment of coastal stakeholder partnerships

The MMO carried out an assessment of the characteristics of coastal stakeholder partnerships (CSPs) that would offer scope for meaningful stakeholder engagement to inform marine planning. Specifically, these were judged to be:

- constituting a long-term management body rather than a pressure group, occasional conference or time-limited project
- demonstrating a multi-sectoral focus on marine issues (that is those affecting land or water below mean high water springs)
- publishing a list of members, board members or steering group partners on a website accessible to all
- publishing spatial strategies, management plans or meeting actions at regular intervals on a website accessible to all
- not constituting a statutory body or produce a statutory plan under UK legislation (the list therefore excludes, for example, area of outstanding natural beauty management plans).

An analysis of existing CSPs that comply with these characteristics showed that, given there are at least three CSPs in each inshore area, there are no clear contenders for consideration over other areas.

3. Technical report of economic, environmental and social information

The MMO worked with the Centre for Environment, Fisheries and Aquaculture Science (Cefas) to undertake a quantitative assessment of the marine plan areas based on sustainable development criteria. The resulting technical report concluded that:

- the **North West area** scored highly for total number of human activity and environmental sensitivity and the middle category for social characterisation
- the **East Inshore area** scored highly in terms of total numbers of human activities and the opportunity to tackle coastal community deprivation through the development of new marine activities (through MMO input)
- the **South West Offshore area** scored highly on potential sea bed impacts and **South West Inshore and Offshore areas** are also among the most environmentally sensitive
- **South Inshore and Offshore areas** both have high levels of activity and are tending most towards poor status or declining condition.

4. Implications of current and proposed marine protected areas

The implications of current and proposed marine protected areas (MPAs) showed that current MPAs feature in all inshore marine areas. There is significant coverage of new candidate special areas of conservations (SACs) in the **East Inshore and Offshore areas**, and some coverage in the **South West Inshore area**. Existing SACs with marine components are present in all inshore plan areas.

There are large areas of new special protected areas (SPAs) that would benefit from early planning. These are the **North East Inshore, East Inshore and South East** areas but there is no one area that stands to benefit to a greater extent. There are also notable areas of existing SPAs with marine components in these areas.

5. Future pressures and their implications

An analysis of future pressures on marine areas has shown that most areas will be impacted as a result of the demand on the overall marine resource. There are several activities that will be introduced or increase their existing use (wind, tidal and wave energy, carbon capture and storage, gas storage) but the biggest and most imminent new pressure arises from the step change in marine wind energy.

The Crown Estate's Round 3 zoning has identified that about 6,000 wind turbines could be deployed, resulting on over 25 gigawatts (GW) of power potential, compared with the 8 GW from both Round 1 and Round 2 zoning. The analysis shows that **East Offshore and East Inshore** areas will experience the majority of the step change in forecast wind turbine deployment.

6. Implications of planning inshore and offshore together

As mentioned earlier, there was significant feedback from stakeholders on the benefits of planning an inshore and offshore area at the same time. This feedback was received by Defra during the consultation on the boundaries of the marine plan

areas and resulted in the alignment of inshore and offshore boundaries so the MMO could plan them at the same time if appropriate.

The MMO supports a bio-geographical regional seas approach to delivering ecosystem based marine planning and management. The separation of bioregional marine plans into inshore and offshore marine plans could result in a duplication of effort, time and resources from coastal stakeholders, including local authorities.

There are efficiency benefits to be gained by producing inshore and offshore plans together. The integration between terrestrial and marine plans would be facilitated by planning inshore and offshore together. It would encourage engagement from terrestrial authorities in the wider marine area and generate more consideration of land based impacts on the marine environment and vice versa.

Therefore, in light of the feedback above and bearing in mind trends in current public finances, we are recommending to plan together for adjacent inshore and offshore areas.

7. Implications of planning with bordering nations

In terms of planning the areas that border other administrations, it is worth noting that the approaches to marine planning being taken by England, Scotland and Wales are different. This reflects the differences in nature of the marine areas/regions under the administration of each country.

England, Scotland and Wales are cooperating with each other to ensure that co-ordination of marine planning across bordering marine areas/regions takes place. The timetables for marine planning will not be able to be aligned by April 2011 to allow for marine planning at the borders. For England, this means that it is not appropriate to bring forward North West, North East or South West Inshore and Offshore areas for marine planning from April 2011.

Stakeholders in plan areas bordering Scotland and Wales have strongly advised the MMO to carry out marine planning in a co-ordinated fashion with these administrations. The MMO agrees as it will ensure that when the time comes to marine plan at the borders, we can do so in a holistic way. Therefore, this decision stream removes the **North West**, **North East** and **South West** from being selected for marine planning.

Overall summary of decision streams

We have used the decision streams, aligned to the criteria advised by Defra, to conclude that:

- we should plan an inshore and offshore area together
- we should avoid planning at the borders until the MMO, Marine Scotland and the Welsh Assembly Government can align planning timetables – this will not be possible by April 2011
- the East Inshore and East Offshore areas, when planned together, will deliver the greatest sustainable development gain due to the step change in marine activity

in the offshore area and the impacts this will have in terms of pressure on other uses and the natural environment. In addition, planning the East offers significant opportunities to deliver socio-economic gain to deprived communities along the east coast of England, even outside the immediate plan area.

Introduction

The MMO is tasked with delivering statutory marine plans in the areas that make up English inshore and offshore regions. Marine plan making is due to start in April 2011.

Statutory marine plans will apply the Government's Marine Policy Statement and implement tailored and locally specific marine policy objectives and targets for each of the English marine plan areas. Their overall objective is to contribute to the achievement of sustainability in the marine area by enabling strategic management of marine activities, achieving integration of different objectives, managing conflicts and complementarities and taking account of how ecosystems function. This will significantly contribute towards the UK vision of clean, healthy, safe, productive and biologically diverse oceans and seas.

The MMO's decision methodology is based on the advice from Defra on the criteria that should be considered in determining the first areas for plan making.

Consideration was made on how best to carry out decision making analysis for each criterion. This resulted in the creation of seven decision streams that relate to the 11 criteria (see table below). Each decision stream contributed to the overall decision.

The seven decision streams are:

1. Stakeholder engagement in plan area selection.
2. Assessment of coastal stakeholder partnerships.
3. Technical report of economic, environmental and social information.
4. Implications of current and proposed marine protected areas.
5. Future pressures and their implications.
6. Implications of planning inshore and offshore together.
7. Implications of planning with bordering nations.

Comparison of Defra criteria and MMO decision streams

Defra criteria	MMO decision stream
1. Existing sustainability of activities or uses and other processes taking place in the area	Technical report
2. Focusing planning effort where it will have the greatest impact on achieving sustainable development	Technical report Future pressures

3. Integrating management of border areas (including at the coast and cross border working with the devolved marine plan authorities and across international borders)	Implications of planning with bordering nations
4. Contribution to wider Government policy, such as on air quality, noise pollution	Can only be assessed at a plan area level
5. Contribution to climate change adaptation or mitigation	Technical report
6. Achievement of 'Good Environmental Status' (as required by the Marine Strategy Framework Directive)	Technical report Marine protected areas network
7. The resources available to the MMO	Implications of planning inshore and offshore together
8. External considerations (such as other planning programmes, other marine plans being prepared by the MMO, terrestrial plans and river basin management plans)	No significant difference between plan areas at a national level
9. Local factors (such as local data availability, complexity and intensity of activity in the area, marine conservation zones and other marine protected area designations, other projects or developments under consideration, nationally significant and/or other infrastructure projects, preparedness of area)	Marine protected areas network Future pressures
10. The quality and quantity of existing coastal or marine management arrangements	Coastal stakeholder partnerships
11. The benefits or otherwise of drawing up plans for the inshore and associated offshore region at the same time	Implications of planning inshore and offshore together

Stakeholder engagement in plan area selection

Background

The majority of stakeholder engagement has focused around the Marine Policy Statement (MPS), both in development and during the public consultation launched by Defra in July 2010. There has also been consultation by the MMO with key national level organisations on marine plan area selection, which was launched in August 2010.

National stakeholder workshops

A number of stakeholder events and meetings have been held in support of the MPS, marine planning and marine licensing consultations.

Stakeholder Focus Group (SFG)

The group was set up by Defra to:

- act as a sounding board and to give feedback on policy issues
- contribute as a group to the policy development process, and to issues that arise during the development of policy products
- support the Defra Marine Stewardship Team in producing policy documents that are fit for purpose and that will contribute to meeting the objectives of the new Marine Planning System and licensing
- share their knowledge and understanding of the objectives and benefits of marine planning and the marine licensing system across the marine sector.

The MMO are now working with Defra on transition arrangements for the MMO to chair the SFG in the future, once the MPS is completed. This will need to be with the agreement of the group members, reflecting the movement of the work from policy to delivery.

One-to-one stakeholder meetings

A number of one-to-one stakeholder meetings were held during September and October, mainly with members of the SFG, to discuss specific issues/concerns on the MPS and new planning system.

Consultations

- Marine plan areas: November 2009 to February 2010
- Marine Policy Statement pre-consultation: March to May 2010
- Marine Policy Statement public consultation: July to October 2010
- Marine Planning System public consultation: July to October 2010
- MMO consultation on plan areas: August to September 2010

Summary of national stakeholder responses from MMO request

As part of the MMO's commitment to stakeholder engagement, a letter was sent to 44 national stakeholders in August offering the opportunity to input further information into the selection of the first marine plan areas. Our commitment to social, economic and environmental sustainable development was highlighted as well as confirmation that the initial Defra consultation responses were being reviewed. Information, such as the weighting or approach to the criteria; key

information or analysis and any conclusions that may be formed from the annex data was requested from these key national stakeholders.

Ten of the forty-four responded with two indicating no preference for first plan areas. Of the eight respondents that indicated a preference, six commented that inshore and offshore areas should be planned together for reasons such as stakeholder involvement, bio-geographical zones and the whole ecosystem approach. The areas that came out on top were **South West Inshore** and **Offshore**, **North West** and **East Inshore** and **Offshore** from those stakeholders that indicated a preference.

Reasons given for choosing the **South West**: three respondents said that the range of issues, including renewables, shipping, ports, nature, fishing and, coastal protected landscapes were a reason to consider the South West. Three pointed out the comprehensive stakeholder partnerships in the area and three noted that it was important to choose an area with cross-border working. Two noted the advanced marine conservation zone project and one highlighted the Severn Estuary as an important area for unique habitats, tidal energy resource and flood risk management.

Reasons given for choosing the **North West**: three respondents noted that a head start for marine planning had been made through the pilot planning project. Three noted the importance of involving the devolved administrations. Two respondents highlighted the existing available evidence base and the wide range of issues in the area. Two also mentioned that the area would provide a useful demonstration of how inshore and offshore areas could be planned together. One mentioned that stakeholders were familiar with marine planning issues.

Reasons for choosing the **East**: three respondents highlighted the complexity of issues in the area, specifically mentioning Round 3 wind farms, fishing, shipping and candidate special areas of conservation. One respondent mentioned the importance of Dogger Bank across a number of industries and interests. Two noted cross-border planning opportunities with Europe and one respondent mentioned that the area was high in coastal change, included most of the southern North Sea bio-geographic regional sea and the potential for funding streams.

Other reasons highlighted including choosing an area rich in data, an area where the greatest impact on sustainable development would be achieved and an area that would have favourable integration of border management.

Assessment of coastal stakeholder partnerships

The MMO will be exploring a number of local and national engagement mechanisms in order to effectively deliver the Marine Planning System in England. The engagement mechanisms within plan areas will be explored through the Statement of Public Participation (SPP), for each individual plan area.

A crucial part of the MMO's work is to understand the density, roles, structures and spatial coverage of existing non-statutory coastal stakeholder partnerships (CSPs) around the English coast. This assessment is an initial attempt to list all such partnerships as of August 2010.

Defining CSPs is difficult, as definitions differ according to the criteria used and names can sometimes mislead. For example, some bodies with “forum” in their name are in fact umbrella bodies for smaller CSPs. Others are themselves the organisation that produces plans and strategies.

Therefore, for the purposes of this exercise, and to appear on the list below, a CSP must satisfy all of the following criteria:

- Constitute a long-term management body active as of August 2010, rather than a pressure group, occasional conference or time-limited project.
- Demonstrate a multi-sectoral focus on marine issues (that is those affecting land or water below mean high water springs).
- Publish a list of members, board members or steering group partners on a website accessible to all.
- Publish spatial strategies, management plans or meeting actions at regular intervals on a website accessible to all.
- Not constitute a statutory body or produce a statutory plan under UK legislation (the list therefore excludes area of outstanding natural beauty management plans)¹.

The more a CSP has common ground with the aims and objectives of the MMO, the more likely it is that collaborative working between the two will be mutually beneficial and productive.

It is therefore no coincidence that the MMO itself seeks to fulfil the first four of these criteria in its own planning work. The fifth criterion is included solely in order to differentiate voluntary CSPs from statutory bodies, with whom the MMO has already been directed by Defra to engage.

Based on the above criteria, there are, as of August 2010, 30 coastal stakeholder partnerships in England². They are listed by plan area below.

South West Inshore (seven CSPs)

- Avon Estuary Forum (Devon Maritime Forum³)
- Fowey Estuary Partnership
- Salcombe/Kingsbridge Estuary Partnership (DMF)
- Severn Estuary Partnership
- Tamar Estuaries Consultative Forum
- Taw/Torridge Estuaries Forum (DMF)

¹ Area of outstanding natural beauty management plans are statutory under the Countryside and Rights of Way Act 2000.

² This list has been derived from the following sources: Coastnet.org.uk, information from Coastal Partnership Working Group at the Coastal Futures conference 2010, the Entec Financial Benefits to Working in Partnership at the Coast report (July 2008, see Appendix A), and Defra’s list of consultees on the Coastal Change policy, available at <http://www.defra.gov.uk/corporate/consult/coastal-change/consultlist.htm>

³ Where a CSP is part of an umbrella body, the umbrella body’s name appears in brackets. Devon Maritime Forum’s objectives, which do not appear to include the publication of spatial management strategies of its own over and above those of its constituent member CSPs, are available in its business model at http://www.devonmaritimeforum.org.uk/dmf_business_model.pdf

- Yealm Estuary Management Group (DMF)

South Inshore (six CSPs)

- Dorset Coast Forum
- Exe Estuary Management Partnership
- Hamble Estuary Partnership
- Isle of Wight Estuaries Project⁴
- Solent Forum
- Teign Estuary Partnership

South East (six CSPs)

- Colne Estuary Partnership
- Crouch and Roach Estuary Project
- Medway Swale Estuary Partnership (Kent Coastal Network⁵)
- Stour and Orwell Estuary Management Group
- Thames Estuary Partnership (Kent Coastal Network)
- Thanet Coast Project (Kent Coastal Network)

East Inshore (three CSPs)

- Alde and Ore Estuary Planning Partnership⁶
- Humber Management Scheme
- Wash Estuary Strategy Group

North East Inshore (three CSPs)

- Druridge Bay Partnership
- Durham Heritage Coast
- North Yorkshire and Cleveland Coastal Forum

North West Inshore (five CSPs)

- Duddon Estuary Partnership
- Morecambe Bay Partnership
- North West Coastal Forum⁷
- Sefton Coast Partnership
- Solway Firth Partnership

This analysis tells us that there are CSPs in all the inshore areas and therefore all the inshore areas have the advantage of existing partnerships that the MMO can work with to facilitate stakeholder participation.

⁴ The Hamble Estuary Project and the Isle of Wight Estuaries Project both appear to overlap with the Solent Forum area. The precise nature of the relationship between the two requires further research.

⁵ Likewise, Kent Coastal Network does not appear to produce spatial management strategies of its own over and above those of its individual members.

⁶ Not to be confused with the separate Alde and Ore Association.

⁷ The North West Coastal Forum area appears to overlap with those of all other CSPs in this plan area.

Technical report of economic, environmental and social information

The MMO commissioned the Centre for Environment, Fisheries and Aquaculture Science (Cefas) to undertake a quantitative assessment of the marine plan areas based on sustainable development criteria. The technical report and the methodological feeder report associated with it can be provided on request.

The Cefas technical report took as its starting point the premise that the marine plan areas to be planned first should be those that make the greatest contribution to the achievement of sustainable development within the UK marine area. As such, this work broke down sustainable development into its social, economic and environmental components, and presented a quantitative analysis using readily available data based on the following sustainable development focused criteria.

1. Intensity of human activity (as a proxy for economic activity).

This criterion broadly examined the pattern of human activity in the marine environment. It particularly focused on the range and intensity of existing and planned activities, and potential future natural resource utilisation.

2. The extent to which the environmental aspects of sustainable development are currently being delivered.

This criterion examined the broad scale environmental status of each plan area and included an examination of differences in sensitivity/resilience between areas based on natural physical dynamics and biological diversity. A key challenge for this criterion was the need to attempt to provide sub-national differentiation of environmental status when data sets either tend to be national (therefore generalised), or local (therefore too detailed).

3. The contribution towards achieving the social aspects of sustainable development.

Work under this criterion provided a review of broad scale social aspects of sustainable development with an emphasis on gaining an understanding of social inequalities and differences across England's coastal towns. This approach allowed exploration of the contribution that marine planning might make towards the potential resolution of maritime related social deprivation.

Where empirical analysis was used to guide report recommendations, an objective assessment method was adopted which included:

- a combination of geographic information system (GIS) analysis
- ranking/matrix creation
- plan area discrimination using principal component analysis (PCA)
- scenario testing.

Cefas noted that data coverage and type was patchy and inconsistent across plan areas and that further urgent work is required to identify, negotiate access to, and collate strategically important datasets at the plan area level. It was also noted that

the adaptive capacity of different plan areas to marine climate change will be an important consideration over forthcoming years.

The individual and combined technical analysis that informed the production of this report identified the following conclusions.

1. On sustainable development grounds the **North West** marine plan area scored highly. This plan area was in the top category for both human activity and environmental sensitivity and the middle category for social characterisation. **East Inshore** and **South West Inshore** also score highly in the overall assessment of sustainability.
2. In terms of total numbers of human activities, the **East Inshore** marine plan area scored highly. Cefas suggested that, based on the available evidence, approaching this area first would show the greatest promise in terms of deprived communities linking to the economic benefits associated with marine planning. Cefas suggested that the **East Inshore** plan area could be planned at the same time as the **East Offshore** as there are physical links across these eastern areas between marine activities offshore and east coast towns, such as oil and gas pipelines and wind farm electricity cables. These links, importantly, extend beyond the immediate borders of the **East Inshore** area, meaning that there would be benefit to the North East coast of England as well from planning economic activities in the **East Offshore** area. Cefas also suggested that the **East Inshore** area is significant across a wide range of industries including shipping and ports, tourism and recreation and marine aggregates. From a futures perspective, **East Offshore** will also be one of several areas where significant levels of offshore energy are anticipated.
3. Ranking in terms of potential sea bed impacts showed that the **South West Offshore** plan area scored highly. **South West Inshore** and **Offshore** areas are also amongst the most environmentally sensitive.
4. **South Inshore** and **Offshore** both have high levels of activity and are tending most towards poor status or declining condition.

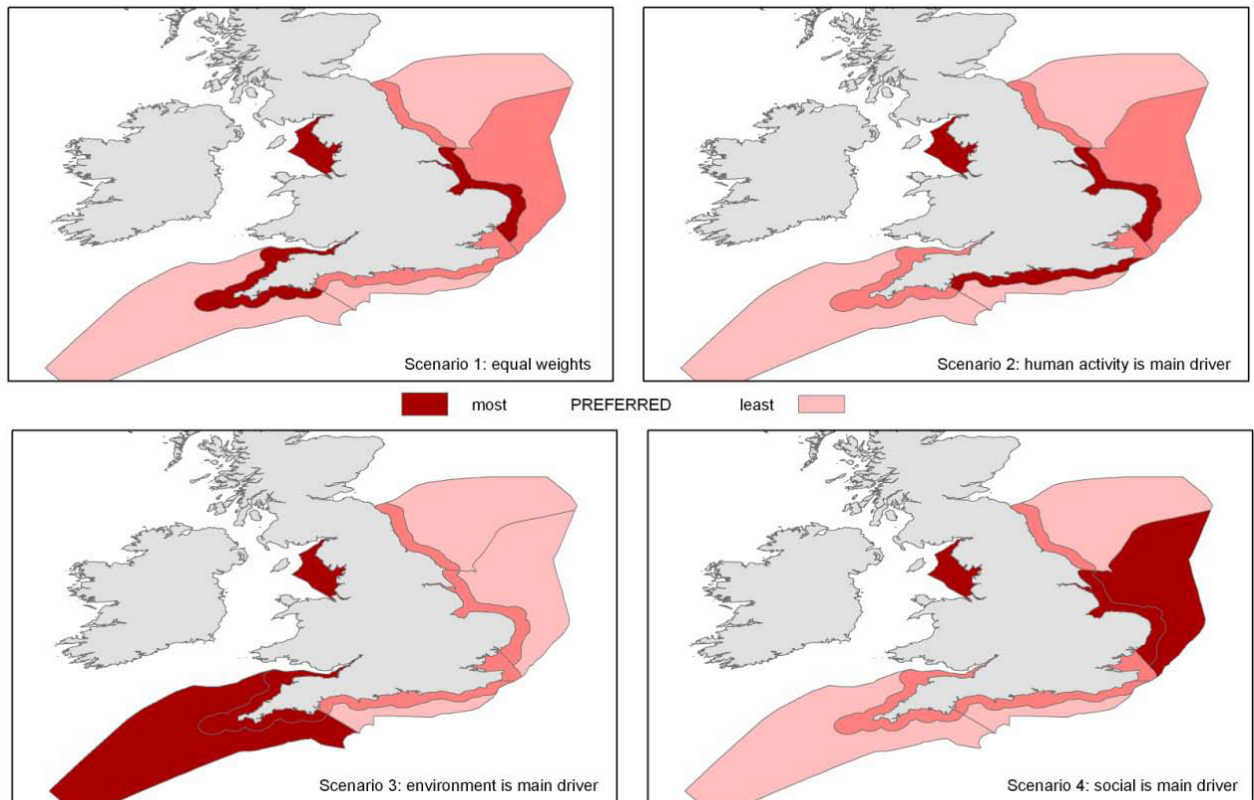


Figure 1: Marine plan area selection scenarios

Implications of current and proposed marine protected areas

Background

Marine protected areas (MPAs) are designated sites at sea that protect habitats and species from damage and disturbance. The UK Government is committed to having a well understood and supported ecologically coherent network of MPAs substantially in place by end 2012.

The role of the MMO will be to implement effective management measures for the MPAs and ensure that marine planning delivers the conservation of these sites within the wider context of sustainable development.

The MPA network

There are five designations which together will form the MPA network in England:

1. Sites of special scientific interest (SSSI): there are some SSSIs which extend below low water mark, although most are land based.
2. Special protection areas (SPAs): protects populations of specific species of birds of European importance.
3. Special areas of conservation (SACs): in this context, primarily protects marine habitats of European importance.
4. Ramsar sites: protect internationally important sites for wetland birds.
5. Marine conservation zones (MCZs): will protect nationally important habitats, species and geology.

Taking into account marine conservation zones

The four marine conservation zones projects in England are currently undertaking a significant stakeholder engagement process to establish recommendations on locations of MCZs. The work will not be completed until 2011. This means that any current mapped out locations of MCZs (and broad areas of search) may be significantly different in April 2011 when the MMO begins plan making in the first marine plan area.

Therefore, for the purposes of establishing where to plan first, the MMO has not taken into account the location of proposed MCZs. This has no bearing on the approach the MMO may take when selecting which plan areas to pursue after the first plan areas.

In summary

The majority of existing marine protected areas around England are within 12 nautical miles. The majority of existing pressures on marine protected areas are also within 12 nautical miles.

SSSIs with intertidal/marine features provide significant coverage throughout all of England's inshore plan areas, but in many cases are less prominent in areas of dense coastal development. There are notable exceptions to this, such as the Solent region within the **South Inshore** plan area.

There is significant coverage of new candidate SACs in the **East Inshore** and **Offshore** areas, and some coverage in the **South West Inshore** area. Existing SACs with marine components are present in all inshore plan areas. There are SACs in every cross border area where the MMO's plan area boundaries interact with devolved administrations, for example the Severn Estuary and the Solway Firth.

There are large areas of new SPAs in the **North East Inshore**, **East Inshore** and **South East** areas. There are also notable areas of existing SPAs with marine components in these areas.

Future pressures and their implications

Charting Progress 2 provides an assessment of the productivity of our seas, and the extent to which human uses and existing natural pressures are affecting their quality. It addresses specific species, habitats and economic issues of the eight UK marine regions. It also helps show whether current environmental protection measures are working, and aims to provide policy makers, planners and the public with a clear evaluation of our progress towards the vision.

The work conducted as part of Charting Progress 2 presents an overview of the situation in the UK at present and is a valuable baseline of current human activities and pressures for the UK seas. A condensed version of this summary is presented below.

Activity	Productivity		Pressure
	Trend	Output	Trend
Oil and gas	I	D	NC
Maritime transport	NC	NC	NC
Telecom cables	I	I	I
Leisure and recreation	I	I	I
Defence: military	NC	?	NC
Fisheries	NC	NC	C
Aquaculture	I	NC	I
Water abstraction	NC	NC	NC
Mineral extraction	NC	NC	NC
Renewable energy	LI	LI	LI
Coastal defence	LI	LI	LI
Waste disposal	NC	NC	NC
Education	NC	NC	NC
Research and development	NC	NC	NC
Power transmission	NC	NC	NC
Storage of gases	NC	NC	NC

I = increase, LI = large increase, D = decrease, NC = no change at all, C = change but no overall difference.

Future pressures and implications

The Crown Estate has conducted some modelling of potential uses of the seabed utilising their Marine Resource System (MaRS) tool.

It should be noted that this preliminary work has been shared with the MMO for internal use only to assist us in our marine planning. No information relating to the summary of The Crown Estate's work should be released without prior written consent from The Crown Estate.

Wind

Depth of water is the major limiting factor and can be used as a proxy more usefully than the wind resource itself. Fixed foundation turbines are the dominant technology used for offshore wind energy generation. There is good potential for these devices in **East Offshore**, particularly around Dogger Bank, the Humber and the Thames. This has led to the establishment of the Round 3 wind energy zones, which will represent a step change in marine activity. The **South Inshore** and **South West Inshore** also have potential for storage.

Floating turbines are an emerging technology, although it is not clear when these will be deployed commercially. Current understanding is that these will need to be placed at depths of 100 to 500 metres, which excludes the area in the southern North Sea and coastal areas because they are too shallow. Therefore, **South West Offshore**, **North East Offshore** and **North West** were found to have the most potential.

Wave

Wave technology is part of an emerging marine renewable industry and there are currently many types of potential devices that could capture wave energy. Work to date has grouped these technologies into four broad types: shoreline, nearshore, offshore and deep water. The main determining factor when categorising these devices is water depth. Wave resources are particularly dominant in the west of the UK therefore primary interest is focused in the **South West** area.

Tidal

As with wave, the tidal industry is still maturing and there are many potential devices that could come to the forefront of tidal stream electricity generation. Tidal currents also have many complex hydrodynamic properties and it is difficult to identify a single threshold that matches all industry technology interests. Generally, tidal stream devices require a minimum flow and existing research (Carbon Trust, npower Juice, Scottish and Northern Ireland's strategic environmental assessments) suggests that mean spring tide currents of greater than 1.5 metres a second provide an opportunity for energy generation. In the modelling exercise by The Crown Estate, the Severn Estuary (**South West Inshore**), Portland Bill, Isle of Wight, **South West Inshore** and the Norfolk coast showed the best potential for future development.

Aggregates

For this exercise, knowledge on current aggregate sites was used. The areas identified as having the highest potential were areas with existing licenses, that is **South West Inshore** (Bristol Channel), **East Inshore**, **South Inshore**, **South Offshore** and the **North West**.

Carbon capture and storage

The potential for carbon capture and storage is based on the availability of depleted oil and gas fields and saline aquifers. The **North East Offshore**, **East Offshore**, **North West** and **East Inshore** are, therefore, believed to have potential for storage.

Cables and pipelines

Future additional cables laying will be required to connect offshore renewable energy devices to the transmission network. It is also expected that there will be further interconnection of networks. Cables are also required for telecommunications purposes. Pipelines are required for the transmission of gas, including, potentially, carbon dioxide. The inshore areas adjacent to Round 3 zones in the North Sea, South coast, South West and North West are important. In addition, telecommunications cables are predicted in the **South West**, **South East**. **South Offshore** shows the least potential.

Implications of planning inshore and offshore together

During Defra's consultation on the marine plan areas, a significant number of comments were made by stakeholders in relation to the benefits of treating the inshore and offshore areas as one unit. For example, instead of having an East Inshore area and an East Offshore area, there would be one East area.

The Marine and Coastal Access Act restricts marine plans to being within a single marine region, either inshore or offshore. However, adjacent plans in the inshore and offshore areas may be developed at the same time through a single combined process where appropriate.

Taking on board the consultation responses, Defra made changes to the boundaries of the areas to allow for the alignment between inshore and offshore plan areas where appropriate.

Since the original Defra consultation on marine plan areas, there has continued to be widespread agreement amongst stakeholders that it would be beneficial to plan adjacent inshore and offshore areas at the same time.

The MMO supports a bio-geographical regional seas approach to delivering ecosystem based marine planning and management. In some respects, the planning boundary between inshore and offshore at 12 nautical miles could be seen to be at odds with this approach and the concept of strategic spatial integration within marine planning. While this boundary is a legal limit, it does not always represent a whole ecosystem approach to planning.

The separation of bio-regional marine plans into inshore and offshore marine plans could result in a duplication of effort, time and resources from coastal stakeholders, including local authorities. There are efficiency benefits to be gained by producing inshore and offshore plans together. The integration between terrestrial and marine plans would be facilitated by planning inshore and offshore together. It would encourage engagement from terrestrial authorities in the wider marine area and generate more consideration of land based impacts on the marine environment and vice versa. Managing impacts in the offshore areas caused by industries connected to the land (such as renewables) will be more difficult without engagement from terrestrial stakeholders.

The inshore-offshore boundary is important for marine industry, particularly aggregates and renewables. Many existing marine aggregate permissions and future applications straddle the boundaries as well as many of the Round 3 offshore wind energy zones. To avoid difficulties in development and decision making, it would make sense to plan across these boundaries in an integrated manner.

The MMO is committed to working with key nature conservation partners and stakeholders to help deliver an integrated network of marine protected areas through the delivery framework of marine planning. For this to be fully effective, it would be preferable to plan inshore and offshore areas together where there are nature conservation designations that cross the boundary.

One of the conclusions of the Cefas technical report was that the East Inshore and Offshore areas were most suited to being planned together for socio-economic reasons, as well as all the reasons already mentioned. There are physical links across these eastern areas between marine activities offshore and east coast towns, such as oil and gas pipelines and offshore wind cables. The East Inshore area is significant across a wide range of industries including shipping and ports, tourism and recreation and marine aggregates. From a futures perspective, East Offshore

will also be one of several areas where significant levels of offshore energy are anticipated, which will rely on infrastructure and development inshore and in the coastal zone to be planned effectively.

In summary

- National stakeholders tend to have interests in the offshore plan areas and local stakeholders tend to have interests in inshore plan areas – by planning together, the widest possible spread of stakeholders is achieved.
- Economic, social and environmental processes cross inshore and offshore divides, so a wide range of processes can be planned for in a holistic way.
- Planning an inshore-offshore divide together reduces the burden on stakeholders in both plan areas, as they will not have to feed into two different processes.

Implications of planning with bordering nations

The Marine and Coastal Access Act 2009 divides English waters into marine regions with an inshore (0 to 12 nautical miles⁸) and offshore region (12 to 200 nautical miles). The act also creates offshore regions around Scotland, Wales and Northern Ireland⁹.

The act refers to “marine plan authorities” that are responsible for planning in each region with the exception of the Scottish and Northern Ireland inshore regions which is or will be covered by separate legislation, such as the Marine (Scotland) Act 2010.

The UK Government is working with the devolved administrations to ensure that marine planning operates smoothly and consistently across the administrative boundaries between England, Wales, Scotland and Northern Ireland. Details of the joint arrangements will be set out in cross-administration concordats. The concordats will be publicly available and are likely to set out principles such as joint consultation arrangements (so that plan preparation is co-ordinated across borders), and the use of cross-border bodies where appropriate.

Although there is no legal responsibility for different administrations in the UK to plan jointly or at the same time in areas which cross a planning boundary, there is a commitment to coordinate timetables where possible.

The act requires that a marine plan authority which intends to create a marine plan next to or relating to the marine region of another marine plan authority (or the Scottish inshore region) must give notice to, among others, that plan authority (or the Scottish ministers in the case of a marine plan relating to or next to the Scottish inshore region) before it begins preparation¹⁰. This is to ensure that each administration has as much notice as possible and can prepare for their involvement, or perhaps decide to plan at the same time. This will be most beneficial in areas that

⁸ As the landward boundary of Marine Plans is mean high water springs, this means that in some locations, Marine Plan areas will extend for some miles inland along the estuaries of tidal rivers.

⁹ Most relevant legislation divides the UK marine area into inshore and offshore parts. This is because international and EU law usually places different rights and obligations on states in respect of their territorial waters (0 to 12 nautical miles).

¹⁰ Paragraph 1 of schedule 6 to the Marine and Coastal Access Act 2009.

are particularly complex to manage, such as cross-border estuaries and the Irish Sea.

England's marine area also borders that of the Crown dependencies. Crown dependencies legislate for their own territorial waters. The MMO should keep the Crown dependencies advised of any matters which may either impact on or be of interest to them. There may also be opportunities in consultation with the Crown dependencies to seek joined up approaches across jurisdictional boundaries.

As highlighted in the 'Road Map for Marine Spatial Planning: Achieving common principles in the EU'¹¹, where plans in England's marine area adjoin the geographic area of one or more sovereign states¹² or affect in any way the functions for which another state is responsible, it is recommended that governments either side of the border should seek to co-operate with and consult each other. To this end they should notify each other about planning activities so that any possible implications can be considered at an early stage. This would not affect the competence of any state to adopt their respective plans.

Current state of play with bordering nations

The approaches to marine planning being taken by England, Scotland and Wales are different. This reflects the differences in nature of the marine areas/regions under the administration of each country.

England, Scotland and Wales are cooperating with each other to ensure that coordination of marine planning across bordering marine areas/regions takes place.

The timetables for marine planning will not be able to be aligned by April 2011 to allow for marine planning at the borders. For England, this means that it is not appropriate to bring forward North West, North East or South West Inshore and Offshore areas for marine planning from April 2011.

Stakeholders in plan area bordering devolved administrations have strongly advised the MMO to carry out marine planning in a coordinated fashion with Scotland and/or Wales. The MMO agrees and it will ensure that when the time comes to plan at the borders, we plan in a holistic way.

Bordering EU member states are at differing stages of marine planning and have used different approaches, some being more holistic than others. It will not be possible to plan at the same time as them and, even if this was an option, the difference in approaches to marine planning would limit the advantages of simultaneous planning.

The North East Offshore and the East Offshore areas are bordered by European states which have, to varying extents, progressed marine planning in their own waters and have an open dialogue with England. The MMO will build on this open

¹¹ Available at http://ec.europa.eu/maritimeaffairs/spatial_planning_en.html and based on the Marine Strategy Framework Directive (2008).

¹² The seven sovereign states whose waters border England's marine area are Norway, Denmark, Germany, the Netherlands, Belgium, France and the Republic of Ireland.

dialogue to ensure that the cross-border impacts of current and future planned marine activities are understood and, wherever possible, mitigated.