

Marine Protected Areas and Climate Change Mitigation

Chris Davis

Marine Senior Specialist
Environment Analysis and Advice Team
Natural England

Overview

1. Marine Protected Area development in England
2. Marine Conservation Zone project
3. Links to climate change mitigation
4. Resilience design



Marine Protected Areas 2012



Government's vision

- **'Clean, healthy, safe, productive and biologically diverse oceans and seas.'**

Government's aim

- **'By 2012 we are aiming to have a well managed ecologically coherent network of marine protected areas that is well understood and supported.'**



International MPA Drivers



Policy driver	Target
WSSD	Establish representative networks of MPAs by 2012.
CBD	Establish representative networks of MPAs globally by 2012.
OSPAR	Establish an ecologically coherent network of well-managed MPAs in the north east Atlantic by 2010.
EU MSFD	Establish coherent and representative networks of marine protected areas contributing to good environmental status of Europe's seas.

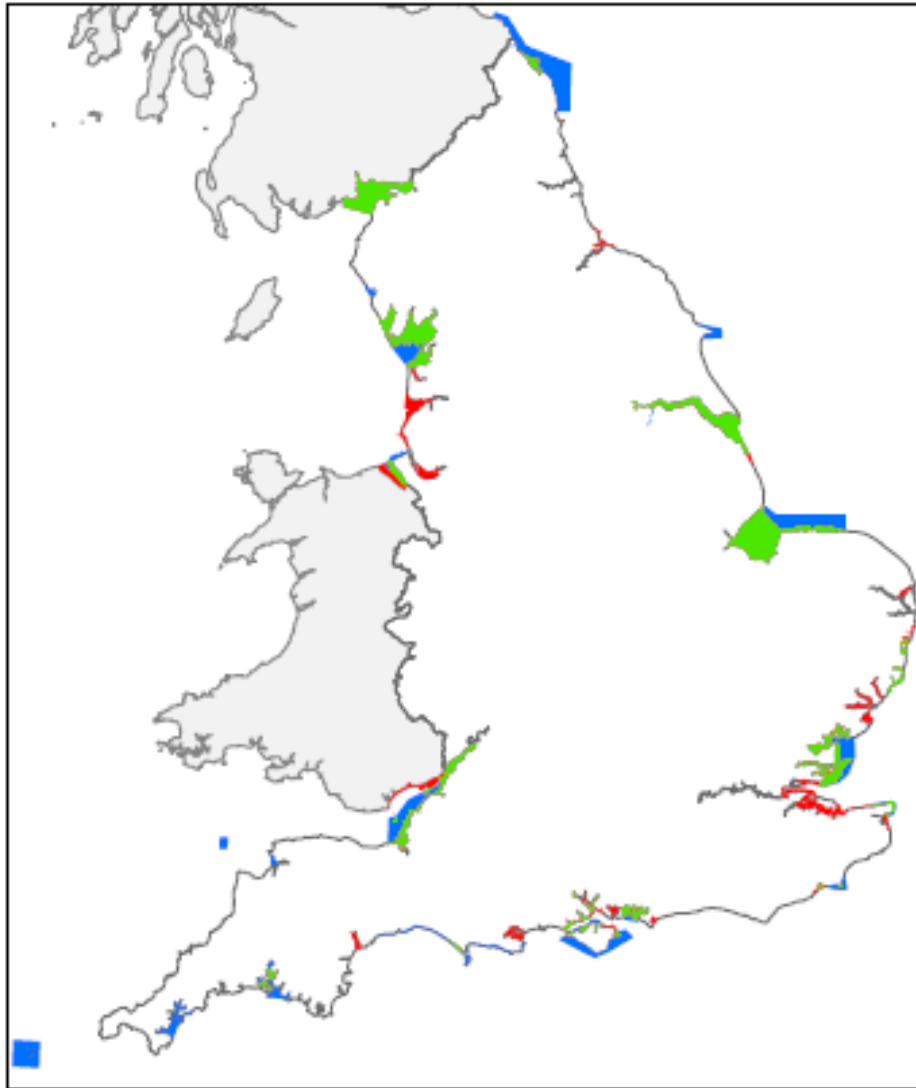
MPA 2012 - Network

The 2012 MPA network will consist of four designations –

- **National Marine Sites**
 - Sites of Special Scientific Interest
 - Marine Conservation Zones
- **European Marine Sites**
 - Special Areas of Conservation
 - Special Protection Areas
- Together they will form the 'ecologically coherent network'



Marine SAC and SPA Designations



- Marine SPA's
- Marine SAC's
- Overlap between SPA and SAC



Map produced by Science Services,
Natural England. Ref: ES07-08
© Crown copyright. All rights reserved. 10006203

NATURAL
ENGLAND

England's MPA Network

- 8% covered by SACs / SPAs sites
- Considerable intertidal and coastal areas designated SSSIs
- Only one 'highly protected site' 0.002%
- The UK has around 2% area protected

The Marine Conservation Zone Project



- New approach to Marine Protected Area planning
- Natural England and JNCC tasked with recommending sites to Government by Oct 2011
- Implementing the Marine and Coastal Access Act (almost)
- Partnership project



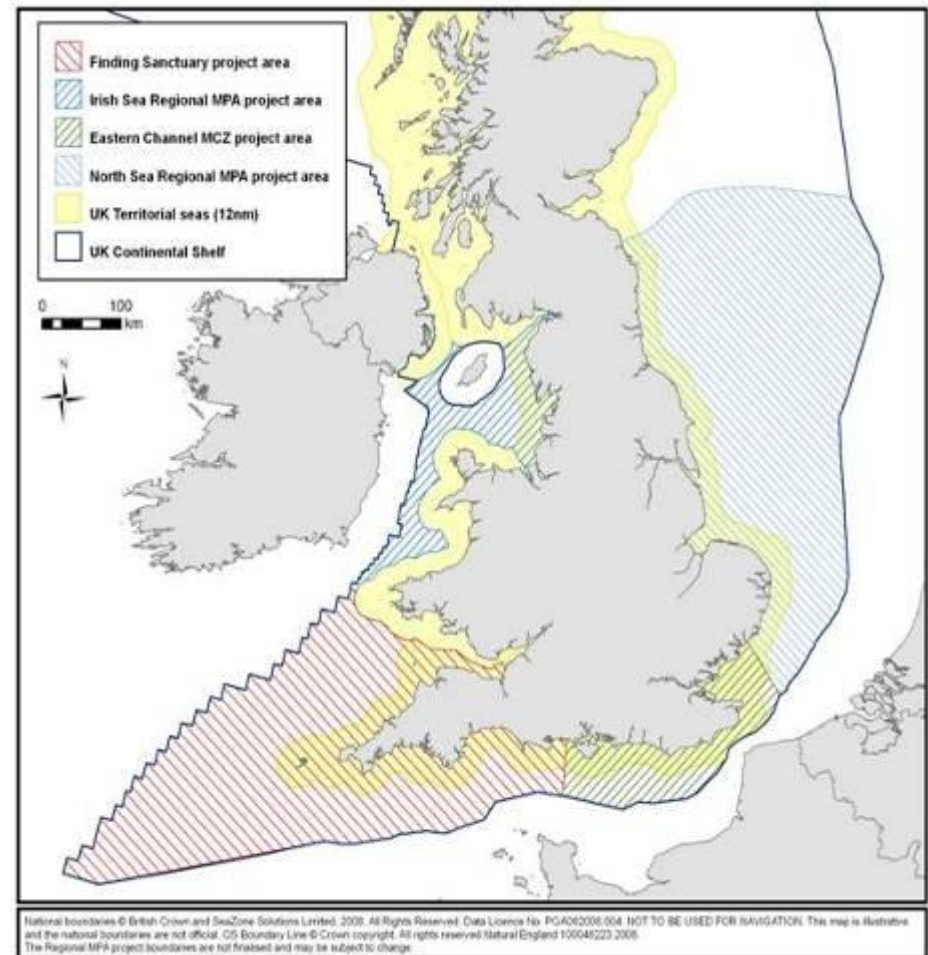
3. MCZs – Marine (&C.A.) Act

- MCZs can be designated for the purpose of conserving:
 - Marine flora or fauna
 - Marine habitats or types of marine habitat
 - Features of geological or geomorphological interest
- 'Conserving' should include:
 - Rare or threatened
 - Overall diversity
- Section 119 outlines a 'duty' to designate the network.



MCZ Designation Process

- Integrated inshore /offshore planning
- Delivered through four regional projects
- Places stakeholders centrally in the decision making
- Process open and transparent
- 'Bottom up, top guided process'



Socio-economic considerations



- Prioritisation based approach depending on ecological options
- Desirable to avoid ongoing or planned activities and integrate where synergies exist
- Aim is to reduce conflicts whilst delivering the network
- Impact Assessments will support the option analysis process



MPA Strategy and climate change



Marine biodiversity -

- *"helps to balance and maintain the earth's climate, and cope with climate change. A considerable proportion of human produced carbon dioxide is taken up by the sea with some of this consumed by plankton. Without such processes, it would be harder for us to cope with increasing carbon emissions."*

Defra draft MPA strategy



Climate change mitigation & MPAs



'The current network is limited in its ability to allow ecosystems to respond and adapt to the impacts of climate change (e.g. changes in distribution patterns of certain species).'

'A network of MPAs will be a valuable tool to help our biodiversity adjust to climate change.'



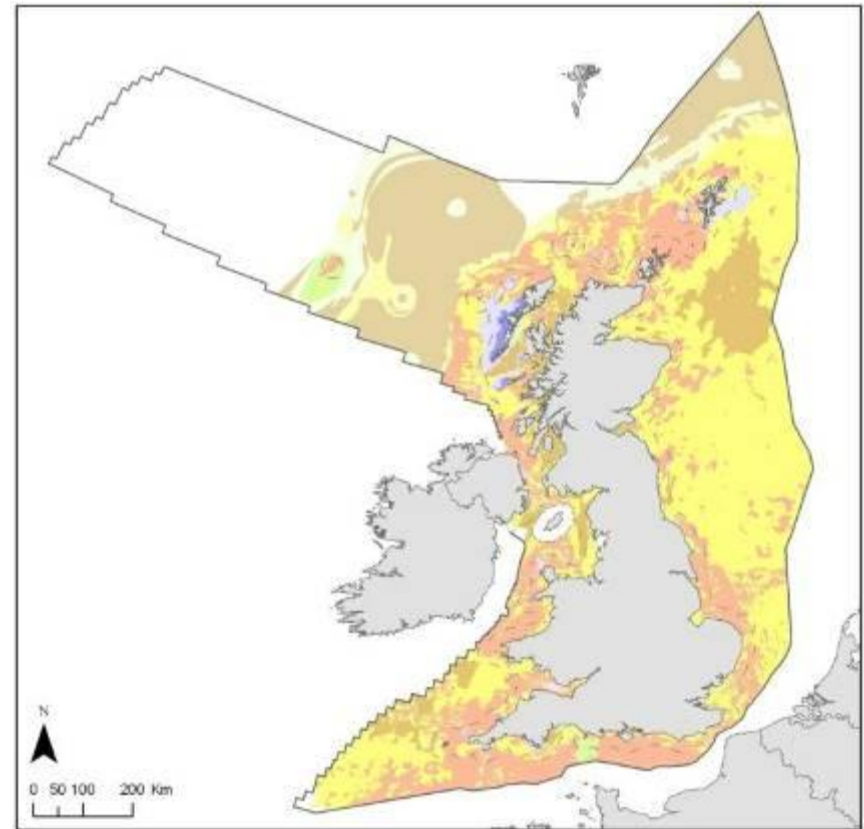
Defra draft MPA strategy

Designing for resilience

To develop a resilient MPA network 7 key design principles will guide identification (IUCN and OSPAR guidance) -

1. Representativity / Features
 - Include broad habitats
 - Features of conservation importance

Broad scale habitats



Designing for resilience

2. Replication

- Ensure that each broad scale habitat is replicated where possible in the network

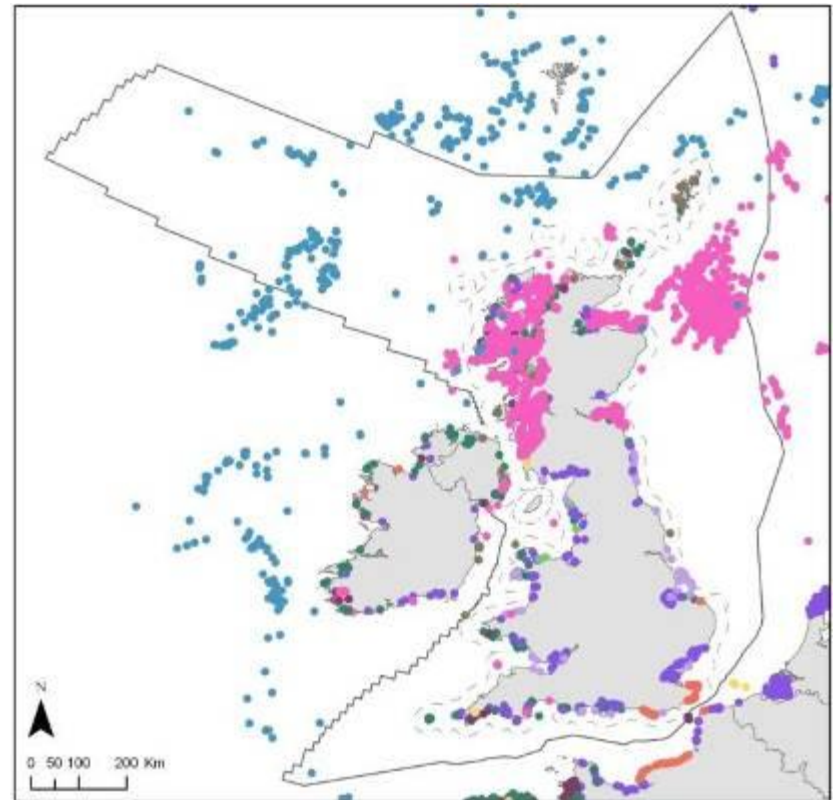
3. Viability

- Define the minimum recommended size of sites (inshore and offshore)

4. Adequacy

- Define ranges for broad scale habitats

Priority habitats



Designing for resilience

5. Connectivity

- Define the recommended distance between sites

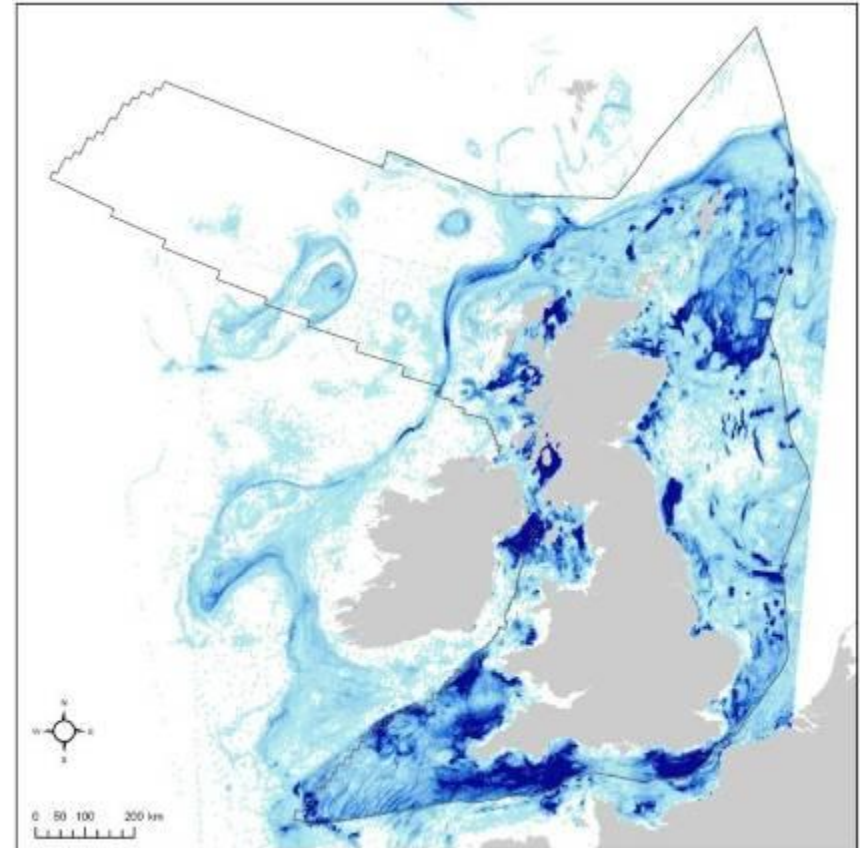
6. Protection

- Variable levels of protection from reference sites (highly protected) to sites that aim to maintain the protected feature

7. Best available science

- Guidance to be completed Spring '10

Fishing activity



Design for resilience

'The application of the MPA principles should deliver an MPA network that contributes to the **resilience** of the marine ecosystem. That is, an ecosystem which can absorb disturbances from some natural and human activities (such as climate change), recover from damage, and continues to provide ecosystem services.'

Defra draft Marine Act Guidance Note 1

Thank you

