

Gathering data at a regional level to plan for marine conservation zones – how can we achieve this?

Marine Objective Theme: Science for Integrated Marine Management

What's the problem?

We want to protect and conserve important habitats and species found in the UK's marine environment and have a duty to do so. One way to do this is through the identification, designation and management of areas considered important to protect. The UK Government has made a commitment to deliver such a network of marine protected areas, and have made provisions for this to occur in the Marine and Coastal Access Act 2009 (via the Marine Conservation Zone mechanism). The Joint Nature Conservation Committee and Natural England have established four MCZ Regional Projects to help take forward the identification of MCZs. Active engagement with stakeholders whom have an interest in the marine environment and live and work in and around the sea is considered vital to ensure areas selected for MCZs are widely supported. So we need to understand more fully where people use the marine environment.

What are the aims of the project?

It is important to ensure the best data is accessed and made available for the UK MPA planning process. In order to achieve this, there was a need to collate a range of data (e.g. biological, physical and socio-economic) from a range of organisations for use by those responsible for the identification of MPAs (The MCZ Regional Projects)

Objectives of this research project have been to not only collate data to improve data layers on biological and physical aspects of the marine environment, but to also consider what GIS capabilities were required to support the implementation of Marine Conservation Zone process. On completion of a review of GIS needs, two areas were identified: the need to collate data at a regional level to enter into the process; and the need for a tool to assist planners in identifying areas, given the wealth of data and information that will need to be analysed.

Data is easier to collate from those sectors which have a National Body, for example, the Cables Industry, but it's more difficult to collect data on activities such as angling, diving and other recreational activities which are more dispersed. It's important that such data is included in the MCZ process so this component of the project was completed to develop a Regional Data Collection Tool to allow such data to be collected.

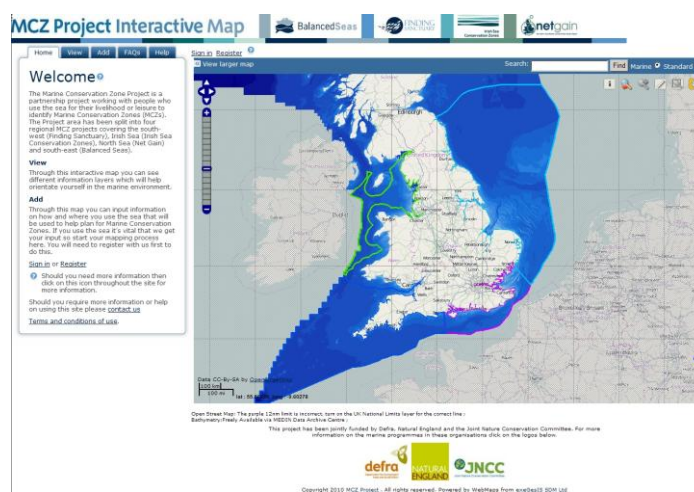


Figure 1. MCZ Project Interactive webGIS (Source: exeGesIS)

Which policy areas will the research inform?

This work will support the delivery of Marine Conservation Zones (MCZs), a new mechanism which has been delivered as part of the Marine and Coastal Access Act 2009. The current aim is to designate a network of sites in 2012.

The development of this tool may also be of use to the Marine Management Organisation (MMO) whom will be responsible for taking forward Marine Planning in UK waters (under Defra jurisdiction).

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What are the results from the project and how will they be used?

The output of this element of the research project has been the 'MCZ Project Interactive Map' web site which provides a simple and convenient method for stakeholders to feed information about their use of the marine environment into the MCZ process. The information submitted will be analysed and considered by the MCZ Regional Projects as they go forward in identifying and selecting MCZs.

In addition to the collection of data, a wide range of data layers including human activities, marine habitats and species as well as physical data layers can be viewed on the interactive map. These have been provided for contextual reasons, to help the stakeholder orientate themselves when entering their individual data. Using this tool, stakeholders can record where they currently carry out activities such as fishing, diving, recreation and leisure. In addition, Liaison Officers for the MCZ Regional Projects can also input data that they have collected as part of their interviews. The key stakeholder groups that can include their data in the tool are: charterboat owners, divers, sea anglers, commercial fishermen, wildlife watchers and leisure users.

Any member of the public can register on the site, then enter data on the map under one or more stakeholder roles. An unlimited number of point, line or area records can be added, along with data relevant to the particular role; e.g. a Diver may record where they dive, notable habitats or geological features of interest. A sea angler could record where, how and what they fish as well as habitats.

The data collected will be automatically transferred to the MCZ Regional Projects where it is Quality Assured and then combined with other questionnaire data to build a detailed picture of the marine value and use. Throughout the process, the stakeholders have the ability to control how widely their data will be used; just for the MCZ project or for a wider range of marine work. In all cases data is kept in a format which maintains stakeholder anonymity with individual data submissions being amalgamated into single data layers on particular activities/uses.

As data is collected the aggregated data sets will be uploaded to the MCZ Project Interactive Map as coloured

contour maps for stakeholders to view and comment on as well as being used in the design of the MCZs.

The web site has produced a marine focussed interface at a national scale, which for the first time enables anyone to explore a wide range of existing data sets as well as contribute their knowledge to the MCZ process.

Use of an interactive map based web interface now provides the opportunity to collect data that has historically been difficult to gather in the marine environment. It is hoped that the resulting amalgamated data layers will be used not just for the MCZ process, but also for informing a wide range of other marine planning processes.

The webGIS can be accessed using the following URL www.mczmapping.org and will remain a live site for the duration of the MCZ Projects (until December 2011).

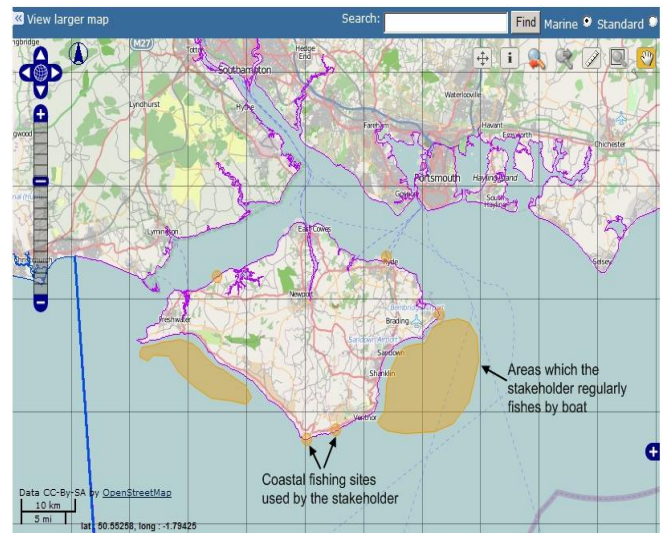


Figure 2. Example of stakeholder digitising on the WebGIS showing where they regularly fish near the Isle of Wight (Source: exeGesIS).

Where can I find further information about this and related research?

ABPmer is leading a consortium of organisations to deliver the contract objectives and is guided by a Project Steering Group consisting of all funding partners. For more information please contact Claire Brown (023) 8071 1840, cbrown@abpmer.co.uk and for specific information on the tool Tony Pettitt (tonyp@esdm.co.uk).



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