JNCC
Joint Nature Conservation Committee

NATURAL ENGLAND

Marine Conservation Zone Project

JNCC and Natural England's advice to Defra on recommended Marine Conservation Zones

July 2012

Executive Summary

Marine Protected Areas (MPAs) are an important tool to protect the marine environment. MPAs help society use the goods and services provided by the sea in a sustainable manner. The UK supports international agreements and European obligations to protect the marine environment, which include designating MPAs. Marine Conservation Zones (MCZs) are a new form of MPA created under the Marine and Coastal Access Act 2009 (MCAA) to conserve marine animals, plants and their habitats, together with areas of geological importance. By conserving these species and habitats, MCZs will join other types of MPA to create a network in the UK's seas, and contribute to wider European and global initiatives.

The Joint Nature Conservation Committee (JNCC) and Natural England set up a project in 2008 to give sea-users (stakeholders) the opportunity to recommend possible MCZs to UK Government. The MCZ Project had four regional projects that covered the inshore waters around England and the offshore waters around England, Wales and Northern Ireland (known as the Defra marine area). The Governments in Wales, Scotland and Northern Ireland also have projects to identify MPAs in their waters. We provided support to these regional MCZ projects to help them deliver recommendations that would meet the Government's needs under the MCAA. We published the Ecological Network Guidance (ENG) in July 2010 to guide the projects on how to identify and recommend an appropriate suite of MCZs that would meet Government policy. The ENG lists the marine animals, plants and their habitats, collectively known as features, that need protection. In September 2011, these regional MCZ projects recommended 127 MCZs to JNCC and Natural England. The recommended MCZs cover approximately 15% of the Defra marine area. They included 65 areas proposed for high levels of protection known as reference areas. Defra, the UK Government Department responsible for MCZs, asked JNCC and Natural England to review these rMCZs to check how they compare with scientific standards and comply with government requirements.

Defra asked that our evidence-based scientific advice should provide:

- An overview of the regional MCZ project process that recommended possible MCZs;
- An assessment of the available scientific evidence supporting the regional MCZ project recommendations;
- An assessment of the recommended MCZs most at risk of damage from human activities which, together with any other reasons, suggest any MCZs receive priority protection;
- Advice on the contribution of MCZs towards meeting the Government's aim of creating an ecologically coherent network of MPAs; and
- JNCC and Natural England's overall view of the regional MCZ project recommendations.

The report presenting JNCC's and Natural England's formal advice on the MCZ recommendations from the regional MCZ projects runs to over 1,500 pages including technical annexes setting out the detailed assessments. The present text provides an overview of our report and our main conclusions and key messages for Defra.

When compiling our advice, we have endeavoured to comply with the Government Chief Scientific Adviser's guidelines for preparing scientific advice, and the recommendations of the Graham-Bryce report that reviewed the evidence process for selecting marine Special Areas of Conservation (SACs). Our advice has been comprehensively checked and quality assured through our internal systems, reviewed by an independent expert review group commissioned by Defra, and finally reviewed and signed-off by our respective independent non-executive boards. Our assessments followed published peer-reviewed protocols and used the best evidence available at the time. Overall, we are content that our advice is a

quality-assured product, fit for purpose, to assist the Government to make decisions on the designation of MCZs.

JNCC and Natural England anticipate that by designating MCZs to meet the network design principles set out in the ENG, and particularly for features not represented in existing MPAs, MCZs will make an appropriate contribution towards the requirements of the MCAA. We conclude that the regional MCZ projects' recommendations followed the ENG and therefore reflect the requirements of the MCAA and Defra policy. The recommendations met the basic requirement to identify MCZs for rare, threatened and representative marine flora and fauna as well as features of geological and geomorphological interest, whilst taking social and economic impacts (costs and benefits) into account.

The ENG sets out a series of principles and guidelines for the design of a network of MPAs that would be ecologically coherent based on international best practice and published science. We **advise** that overall the recommendations submitted by the regional MCZ projects, when combined with the contribution of existing MPAs, have met many of the network design principles and represent not only good progress towards the achievement of an ecologically coherent network but also a balance between the ecological requirements for the network and minimising impact on socio-economic interests. Therefore, we support the recommendations submitted by the regional MCZ projects, subject to the additional recommendations proposed in our advice.

JNCC and Natural England assessed the evidence to support the presence and extent of the features within the recommended MCZs. Our analyses of the 1,205 features conclude we have greater confidence in the presence of a feature than its extent. We have high confidence in 41% of assessments for presence, but 36% of features have low confidence. We had high confidence in 16% of assessments for a feature's extent, with 56% assessed as low confidence. We gave a score of 'no confidence' for both presence and extent to less than 5% of features.

We also considered the evidence to assess the current condition (ecological quality or state) of the features in the rMCZs. For all but 19 features, we **conclude** that there is a low confidence in the assessment of current condition. We fully expected such a low result because there have been few studies that collected suitable data to assess the state of a feature; most studies provide data on the presence and extent of features. Detailed evidence on the condition of species and habitats is sparse, except perhaps within existing designated sites. We discuss some of the recent, ongoing and planned survey work to improve the evidence on MCZ features. We note that the availability of evidence is only one factor when considering whether a recommended MCZ should go forward for designation.

JNCC and Natural England published the Conservation Objective Guidance to help the regional MCZ projects propose draft conservation objectives for the features in their recommended MCZs. We reviewed these draft conservation objectives and **advise** that the objectives for 61 features are changed from what was recommended by the regional MCZ projects. Five of these changes refer to features located in the offshore area and the remaining 56 changes are to features in the inshore area. This is because some inshore features were not assessed nor given a conservation objective by the regional MCZ projects, our advice now offers draft objectives for these features. In addition, the majority of the advised changes in the inshore area are as a result of the assessment that standardised fisheries spatial data collated from the four regional projects. We advise that 39 change from maintain to recover and 22 change from recover to maintain. Overall, these amendments only represent changes to less than 5% of the 1205 features recommended by the regional MCZ projects.

JNCC and Natural England note that any prioritisation of recommended MCZs for designation can be based on a number of criteria, including for example, the evidence base, the levels of stakeholder support, the potential economic consequences, and the contribution towards meeting the UK's national and international commitments. We **advise** that the designation of recommended MCZs should be prioritised to

ensure that those species and habitats identified under international and European obligations but not adequately represented in existing MPAs are represented within MCZs in the Defra marine area to enable the UK to meet its international commitments.

A feature within an MCZ is considered to be at risk of damage or deterioration if it is vulnerable to a pressure arising from human activities. A feature is vulnerable to a pressure when it is both sensitive to, and exposed to, that pressure. We **advise** that 33 inshore, 15 offshore and 11 joint recommended MCZs are at higher risk of damage or deterioration due to prevailing pressures from human activities.

Our advice reviewed the regional MCZ project approach since it was the first time a stakeholder-led process had been used to recommend MPAs in the UK. There were regional differences in the engagement and governance structures established by the regional MCZ projects. However, we believe that in all but one case these differences did not materially affect the development of recommendations but reflected the geographical variation between the project areas. Not surprisingly, there was significant variation in the extent to which members of the regional stakeholder groups liaised with their constituents to ensure sector-wide views were considered during the MCZ planning meetings and there were some complaints from both local stakeholders and international stakeholders. However, the regional MCZ project teams conducted over 2,300 interviews with stakeholders (individuals and organisations) to gather information on their use of the sea. The teams organised over 150 regional or local events and produced over 500 media articles and interviews. We estimate that the organisations engaged by the regional MCZ projects have, through their membership, shared data representing over 600,000 stakeholders.

We engaged international stakeholders through a series of bespoke visits and through group meetings such as those held by the EC fisheries Regional Advisory Councils (RAC). Most international engagement focused on fisheries stakeholders where we held meetings in Belgium, France, Denmark, Ireland, Netherlands and Spain; and we also attended 10 RAC meetings. We took a similar approach with UK fishers from Northern Ireland, Scotland and Wales to ensure their views were considered during the regional MCZ project process.

JNCC and Natural England **commend** the MCZ process as an effective means to identify MPAs involving stakeholders, particularly noting the benefits arising from increased public awareness of marine biodiversity, greater understanding between stakeholders of respective positions and their ownership of the recommendations. Such benefits will assist in future management of any MCZ and the achievement of Government’s aim for an ecological coherent network of well managed MPAs.

Summary of JNCC and Natural England advice to Defra

About this advice

The marine environment is an essential part of our heritage and future. The seas around the UK are home to over 8,000 species including many of international and European importance, from corals and jelly fish to seahorses and kelp forests. The marine environment contributes substantially to our economic and social well-being. It supports a range of industrial and recreational activities, is a major source of food and plays an important role in climate regulation – absorbing and retaining more carbon dioxide than the land. Marine habitats and species provide beneficial ecosystem processes and services to society. The 2011 UK National Ecosystem Assessment (Austen, et al. 2011) describes these benefits which include the provision of food; reduction of climate stress[1]; genetic resources; energy; blue biotechnology; fertiliser (seaweed); coastal protection; waste detoxification and removal and disease and pest control; tourism, leisure and recreation opportunities; a focus for engagement with the natural environment; physical and mental health benefits; and cultural heritage and learning experiences.

We know that human activities can adversely affect our marine environment and reduce the benefits it can provide to society. Marine Protected Areas (MPAs) are an important tool to integrate human activities with better protection of the marine environment. Marine Conservation Zones (MCZs) are a new form of MPA created under the Marine and Coastal Access Act 2009 (MCAA). MCZs will protect both nationally important habitats and species, together with examples of more commonly occurring habitats representative of the UK's marine flora and fauna. By conserving these species and habitats, MCZs will join other types of MPA[2] to create a network in the UK's seas, and contribute to wider European and global initiatives.

Defra asked the Joint Nature Conservation Committee (JNCC) and Natural England to set up a project in 2008 to give sea-users (stakeholders) the opportunity to recommend possible MCZs to UK Government. The MCZ Project had four regional projects that covered the inshore waters around England and the offshore waters around England, Wales and Northern Ireland (known as the Defra marine area). To meet Government policy and international commitments such as the OSPAR Convention and the Convention on Bioloigcal Diversity (Defra 2010a, 2010b, HM Government 2010, OSPAR 2010, CBD 2010a) we developed the Ecological Network Guidance (ENG). We published the ENG in July 2010 to guide the projects on how to identify and recommend an appropriate suite of MCZs (Natural England and the Joint Nature Conservation Committee 2010). The ENG lists the marine animals, plants and their habitats, collectively known as features, that need protection. In September 2011, the regional projects proposed 127 recommended MCZs to JNCC and Natural England[3]. These recommendations included 65 areas recommended for high levels of protection, known as reference areas – some within MCZs or existing MPAs and some as standalone MCZs. Overall, the recommended MCZs cover approximately 15% of the Defra marine area. Defra, the UK Government department responsible for MCZs, asked JNCC and Natural England to review these recommended MCZs to check how they compare with scientific standards and comply with government requirements.

Defra asked that our evidence-based scientific advice should provide:

- An overview of the regional MCZ project process that recommended possible MCZs;

[1] Climate stress is reduced through the regulating carbon and other biogases.

[2] Other MPAs will comprise Special Area for Conservation (SACs) and Special Protection Areas (SPAs) under the EC Habitats and Birds Directives respectively, the marine elements of Sites of Special Scientific Interest (SSSIs), Ramsar sites (RAMSAR

[2] Other MPAs will comprise Special Area for Conservation (SACs) and Special Protection Areas (SPAs) under the EC Habitats and Birds Directives respectively, the marine elements of Sites of Special Scientific Interest (SSSIs), Ramsar sites (RAMSAR Convention) and other national designations being planned in Scotland, Wales and Northern Ireland.

[3] Reports are available on www.balancedseas.org, www.finding-sanctuary.org, www.irishseaconservation.org.uk, www.netgainmcz.org

- An assessment of the available scientific evidence supporting the regional MCZ project recommendations;
- An assessment of the recommended MCZs most at risk of damage from human activities which, together with any other reasons, suggest any MCZs receive priority protection;
- Advice on the contribution of MCZs towards meeting the Government's aim of creating an ecologically coherent network of MPAs; and
- JNCC and Natural England's overall view of the regional MCZ project recommendations.

The full report presenting JNCC's and Natural England's formal advice on the MCZ recommendations from the regional MCZ projects runs to over 1,500 pages including technical annexes setting out the detailed assessments. The present text provides a summary of the advice and the key messages for Defra. JNCC and Natural England have jointly written this advice. However, we have different geographical remits (with JNCC advising on nature conservation beyond 12 nautical miles and Natural England advising within 12 nautical miles). We therefore specify where advice to Defra is from both organisations or from one organisation. Where we use 'we' or 'us' we mean JNCC and Natural England.

Our formal advice contains our evidence-based assessment of stakeholders' recommendations developed through the regional MCZ projects. We have endeavoured to comply with the Government Chief Scientific Adviser's guidelines for preparing scientific advice (Government Office for Science 2010), and the recommendations of the Graham-Bryce report that reviewed the evidence process for selecting marine Special Areas of Conservation (Graham-Bryce 2011). Our advice has been comprehensively checked and quality assured through our internal systems, reviewed by an independent expert review group commissioned by Defra, and finally reviewed and signed-off by our respective independent non-executive boards. Our assessments followed published peer-reviewed protocols[4] and used the best evidence available at the time.

The follow sections describe JNCC and Natural England's conclusions following our review of the regional MCZ projects' recommendations and set out our formal advice and key messages. Our advice is organised around Defra's request set out above.

Advice on the MCZ Project process

JNCC and Natural England established the Marine Conservation Zone Project in 2008, setting up four regional MCZ projects that gave stakeholders the responsibility to develop recommendations on the features, boundaries and conservation objectives of MCZs. To facilitate the delivery of the required outputs from the four regional MCZ projects, we provided the regional MCZ project teams and regional stakeholder groups with the Project Delivery Guidance (PDG) (Natural England and JNCC 2010). Since publication, the timetable for delivery and specific requirements for the regional MCZ projects were changed and we will be identifying amendments made to the delivery timetable and other changes to the process through an addendum to be published in summer 2012.

The regional MCZ projects submitted their recommendations in September 2011. JNCC and Natural England **conclude** that the regional MCZ projects broadly followed the PDG and therefore the outputs reflect the requirements of the MCAA and Defra policy. The recommendations met the basic requirement to identify MCZs for rare, threatened and representative marine flora and fauna as well as features of geological and geomorphological interest, whilst taking social and economic impacts (costs and benefits) into account.

[4] The protocols can be viewed at www.jncc,defra.gov.uk/page-5999

There were regional differences in the engagement and governance structures established by the regional MCZ projects. However, we believe that in all but one case these differences did not materially affect the development of recommendations but reflected the geographical variation between the project areas.

There was significant variation in the extent to which members of the regional stakeholder groups liaised with their constituents to ensure sector-wide views were considered during the MCZ planning meetings. A number of stakeholders made complaints feeling that their views were not reflected in the recommended MCZ identification process.

The Named Consultative Stakeholder (NCS) process was criticised by stakeholders as they felt the regional stakeholder groups did not take on board their opinions. International stakeholders and particularly non-native English speakers struggled to contribute as NCS due to vast amount of information produced by the regional MCZ projects. We **recommend** that Defra ensures that the public consultation is widely advertised to all sectors with a clear invitation to comment on the proposed MCZs and associated Impact Assessment. We **suggest** the consultation material is translated into other EU languages to help stakeholders in other Member States to engage.

National and international stakeholders found the UK MPA process to be very resource-intensive due to needing to engage in the four regional MCZ projects, the Scottish Marine Protected Area Project, Welsh MCZ project and Natura 2000 process. We advise that sufficient resources be assigned to regional, national and international stakeholder engagement for the remainder of the MPA processes, to maintain and build relationships, communications and trust.

We **conclude** that the regional MCZ projects' recommendations for conservation objectives submitted in September 2011 reflect the views of the regional stakeholder groups, and not JNCC, Natural England or Public Authorities. Further work has been undertaken by JNCC and Natural England to refine the conservation objective recommendations. We **consider** it vital that processes in line with the requirements of the MCAA are put in place to enable our conservation objective advice to be refined as new information becomes available. We **advise** that any changes from the conservation objectives identified by the regional stakeholder groups may lead to a requirement for management that differs from stakeholder expectations.

We **advise** Public Authorities that once it is confirmed that sites are to be designated they should consider initiating a programme of stakeholder engagement to identify management measures that will deliver the conservation objectives of designated MCZs and ensure they are understood and as widely supported as possible.

In order to manage MPAs in UK offshore waters and certain areas between 6 and 12 nautical miles, it will be necessary to seek measures under the EU's Common Fisheries Policy. It is important in this context that all fishing fleets with an interest in MPAs are treated equitably regardless of national origin. We **advise** that due to risk of challenge regarding equity in MCZ decision making, an assessment of the risks associated with achieving site management through the Common Fisheries Policy is undertaken.

Stakeholders were engaged through various meetings and forms of correspondence, but some stakeholders did not fully engage in the MCZ Project at an early stage. There was a knock-on effect of the regional MCZ projects being inundated with requests as the MCZ Project progressed. Although wider project communications were extensive, we acknowledge that some stakeholders were not aware that recommended MCZs and recommended reference areas were being proposed in areas they use or have an interest in until after the submission of final recommendations.

In order to ensure stakeholder involvement during the MCZ consultation and designation phase, we will continue our engagement efforts with national and international stakeholder organisations. Although

stakeholders voiced concerns about the project, good relationships have been formed through the course of engagement work. It is important to continue working with these stakeholders.

Advice on the regional MCZ project recommendations

Assessment of recommendations against the Ecological Network Guidance

The ENG sets out a series of principles and guidelines for the design of a network of MPAs that would be ecologically coherent based on international best practise and published science. We **advise** that overall the recommendations submitted by the regional MCZ projects, when combined with the contribution of existing MPAs, have met many of the network design principles and represent not only good progress towards the achievement of an ecologically coherent network but also a balance between the ecological requirements for the network and minimising impact on socio-economic interests. Therefore, we **support** the recommendations submitted by the regional MCZ projects, subject to the additional recommendations proposed in our advice.

JNCC and Natural England **note** that the degree to which the network design principles have been achieved will ultimately depend on the final suite of recommended MCZs put forward for designation.

We **suggest** that Defra should further consider whether geological or geomorphological features are adequately incorporated in rMCZs for geo-conservation in the marine area and that geological stakeholders should be involved in any further process.

We **advise** that some features or sites may appear to have less information than others in terms of contribution to the network design principles and ecological benefits; however, this may be a reflection of limited data and evidence rather than an indication of their importance.

Natural England **advises** that Defra and Natural England agree an approach to deal with the issue of overlapping designations between Sites of Special Scientific Interest (SSSI) and MCZs and then apply this approach to the relevant features.

JNCC and Natural England **advise** that an approach will need to be agreed with Defra to deal with the issue of overlapping designations between MCZs and Special Areas of Conservation (SACs) in particular to assess if the alteration of the SAC boundaries is the best way forward for the protection of the relevant features and the simplification of the designation processes.

We **note** that the current recommendations include some features that could be seen as gaps within the SAC network as those features are not currently represented within the SAC network within the respective regional seas. Therefore, JNCC and Natural England **advise** that an approach for the assessment of MCZ proposals in relation to potential gaps on the SAC network will need to be agreed with Defra.

We need to develop a new base map of marine habitat features that takes into account the results of the evidence assessment and any new data that become available to JNCC and Natural England in the future. JNCC and Natural England **propose** a further assessment is undertaken on all features within MCZs and existing MPAs before the public consultation to account for any new information. It should include new information from the evidence reviews (Section 5.1); any suggested changes to the feature and site recommendations following the results of our assessments on site/feature recommendations; and any new evidence gathered from survey work (Section 5.3) and the Defra contract MB0116 ‘in-depth review of evidence assessment’. The new base map should be used to re-run the analysis of the contribution of existing MPAs and then recalculate whether all proposed MPAs meet the ENG guidelines for replication, adequacy, viability and connectivity. We **suggest** that further work is undertaken to fill the remaining gaps in recommended MCZs taking into account biogeographical considerations and to inform the progress towards the development of an ecologically coherent network.

JNCC and Natural England **conclude** that with regards to the achievement of the ENG guidelines, the largest gap is around 'the protection principle' as there is a shortfall on the overall composition, design and viability of the recommended reference areas. JNCC and Natural England **advise** that the protection principle is an intrinsic part of the development of the MPA network. We consequently **advise** that the approach to realising the benefits of high levels of protection is reviewed in the light of the experience of the MCZ Project, existing literature evidence and the experience of other countries in the EU and globally, in order to establish a process that will realise these benefits [within the network].

Advice on conservation objectives

JNCC and Natural England published the Conservation Objective Guidance (COG) (Natural England & JNCC 2011a) to help the regional MCZ projects propose draft conservation objectives for the features in their recommended MCZs. We have reviewed these recommendations and consider that an alternative conservation objective may be more appropriate for some features. Our advice reviewed all information currently available. In some instances, JNCC or Natural England disagrees with the initial vulnerability assessments, due to gaining extra information or first-hand experience of a site. We also completed some of the vulnerability assessments which were provided incomplete in the final recommendations (Annex 7 of the main advice package contains a full list of revised conservation objectives). Our advice is provided to Defra alongside the draft conservation objectives in the final recommendations. We provide an explanation where alternative conservation objectives are proposed.

JNCC and Natural England **advise** that for 61 features their conservation objectives are changed from what was recommended by the regional MCZ projects. Five of these changes refer to features located in the offshore area and the remaining 56 changes are to features in the inshore area. This is because some inshore features were not assessed and given a conservation objective by the regional MCZ projects, these have been completed. In addition, the majority of the advised changes in the inshore area are as a result of the assessment that standardised fisheries spatial data collated from the four regional projects. We advise that 39 change from maintain to recover and 22 change from recover to maintain. Overall, these amendments only represent changes to less than 5% of the 1,205 features recommended by the regional MCZ projects.

JNCC and Natural England **advise** that greater clarity is made in future documentation between the actual conservation objective (of achieving favourable (or reference) condition) and the action (maintain or recover) part of the objective. This should help clarify the difference between the objective which is set and the feature's condition that is subject to change over time.

A significant focus has been placed in the MCZ process on understanding if the recommended features are considered to be in unfavourable or favourable condition (and therefore require a 'recover' or 'maintain' objective). Whilst this is a useful exercise in informing the possible implications of the recommendations, JNCC and Natural England **advise** stakeholders and management authorities that a 'maintain' objective does not necessarily mean that no management of activities will be required. Conversely, a 'recover' objective does not necessarily mean that all activities will require significant management intervention to achieve favourable condition. JNCC and Natural England **advise** that the implications of any conservation objective are site specific and dependent on a number of variables, for example how the sensitivity of sub-features varies.

JNCC and Natural England **note** that the assessment of a feature's condition and whether it requires recovery to achieve its conservation objective (or not) is an ongoing process informed by best available evidence. The 'action' (recover/maintain) part of the objective is likely to change over time depending on periodic reviews of evidence on its ecological state, updated activities information and improvements in the definition of favourable condition. Section 5.2 of the full advice document provides an assessment on the

present confidence JNCC and Natural England have in the condition of the features in recommended MCZs.

Advice on highly mobile species recommended by the regional MCZ projects

The MCAA allows for the designation of any species in MCZs. Defra policy guidance describes in more detail the links between highly mobile species and MCZs, particularly features that are listed on annexes of the Habitats and Birds Directives. Defra policy is clear about avoiding duplication with other legislation and that MCZs should only be proposed for habitats and species which are protected under the Habitats and Birds Directives in exceptional circumstances, where they are essential to meet the ecological coherence objectives of the wider MPA network. JNCC and Natural England provided additional guidance to the regional MCZ projects on the information they needed to provide to support proposals for features not required to meet the representativity guidelines in the ENG.

Regional stakeholder groups recommended some mobile features for designation in recommended MCZs that they felt should be protected. Natural England has assessed these proposals against set criteria using the evidence provided by the regional stakeholder groups.

Of the 29 mobile species features proposed in recommended MCZs that are not listed as being required for representativity in the ENG, Natural England **notes** that 21 may be suitable for designation as this is likely to provide conservation benefits to the species. These are:

- Razorbill and guillemot in Bideford to Foreland Point recommended MCZ
- Black guillemot in Cumbria Coast recommended MCZ
- Black bream in Kingmere recommended MCZ
- Balearic shearwater and basking shark in Land's End recommended MCZ
- Razorbill, puffin, manx shearwater and guillemot in Lundy recommended MCZ
- Guillemot, razorbill, kittiwake, fulmar and puffin in Padstow Bay and Surrounds recommended MCZ
- Black throated diver, great northern diver, slavonian grebe, great crested grebe, red-necked grebe and guillemot in Torbay recommended MCZ.

Natural England **notes** that although many of the bird species are protected under the Birds Directive, in the terrestrial environment SSSIs are also notified for birds. Natural England also **notes** that in line with the proposed Habitats Regulations there may be scope to designate the habitats supporting these birds.

Advice on the available scientific evidence to support recommended MCZs

Advice on the evidence for the presence and extent of features

JNCC and Natural England assessed confidence in the evidence supporting the presence and extent of 1,205 features within the 127 recommended MCZs. Assessments of high, moderate, low and no confidence for both the presence and extent of features were carried out in line with technical protocol E. JNCC and Natural England used all data available during the assessment process to analyse confidence. We list all data used. Section 5.3 contains a list of datasets that were not available to us at the time of the current evidence assessment due to confidentiality or accessibility issues, in addition to new datasets expected later in the year.

JNCC and Natural England assessed the evidence for the presence and extent of features within the recommended Marine Conservation Zones. The analysis of results show that at the level of the Defra marine area, we have greater confidence in feature presence than extent, with 41% (n=499) of assessments being high for presence against 16% (n=189) being high for extent. We gave 245 (20%)

features a score of moderate confidence for presence and 289 (24%) moderate confidence for extent. We gave 436 (36%) features low confidence for presence. We gave the majority of features, 680 (56%), low confidence for extent. We gave a score of 'no confidence' for both presence and extent to less than 5% of features.

Whilst ideally we would wish to have high confidence on the presence and extent of proposed features for designation, this is not always possible as the levels of confidence and availability of the evidence underpinning the recommendations is variable. The scale and accuracy of the evidence required to support the decisions at different stages of identification, designation and management are expected to be different as different levels of information will be required.

JNCC and Natural England **advise** that moderate and low confidence features should not necessarily prevent sites being progressed for designation, particularly if there is confidence on the presence of the feature, and a suitable rMCZ boundary can be delineated around the observed features. JNCC and Natural England **advise** that evidence on the extent of the feature might be more accurately determined after designation to support the development of management measures.

JNCC and Natural England **advise** that the evidence assessment presented here was based on the best available information at the time of the assessment. We advise that the information from datasets referred to in Section 5.3 (i.e. datasets not used in the current evidence assessment) and any other new information should be incorporated into the assessments of confidence in the presence and extent of features in the future, and that any updates to the assessments should follow the agreed protocols, in order to improve the evidence base underpinning MCZ recommendations and designation.

JNCC and Natural England **advise** that site selection assessment documents should be updated to incorporate the latest information from the evidence assessment and to reflect the increased knowledge and understanding of the features and site.

Advice on the evidence for the condition of features

JNCC and Natural England **advise** that the vulnerability assessments that supported the development of the majority of draft conservation objectives only provide a proxy indication of the likely condition and therefore are limited in their ability to provide confidence in actual condition.

For all but 19 features JNCC and Natural England **advise** that there is a low confidence in the assessment of condition. We expected this low result because the process was designed to use best available evidence, which for all but one feature relied upon assessments of vulnerability. Detailed evidence on the condition of species and habitats is sparse except, perhaps within existing designated sites.

Only one site has features with a high confidence score for condition – The Canyons in the Finding Sanctuary project area. It was also the only site for which there was direct evidence on condition (that was assessed in this process). Eighteen features have a moderate confidence score for condition. Of those 18, two features are in the offshore area and the remaining 16 are inshore.

Our advice on changing conservation objectives for some features (Section 4.2) only resulted in altering the confidence in the condition of only one feature, which increased from low to moderate confidence.

Defra, JNCC and Natural England are working to improve confidence in feature condition. This is being achieved through verification surveys being undertaken in 2012 and through an additional data mining contract being undertaken by ABPmer (MB0116). JNCC and Natural England **advise** that this may provide additional evidence that could improve the confidence in feature condition.

Although a high or moderate level of confidence in condition is useful at the time of designation, JNCC and Natural England **advise** that low confidence in condition should not prevent features and sites being

progressed to consultation and designation. Knowledge on condition will inevitably improve over time as further evidence is collated (although this is likely to take many years). JNCC and Natural England **advise** that any delays in the progression of sites due to lack of knowledge on condition is likely to have negative consequences for features while evidence is being gathered.

Additional advice on evidence

The evidence assessment was based on a wide number and range of national and regionally collected datasets and constituted the best available evidence for assessing feature presence and extent at the time of the assessment. JNCC and Natural England used the evidence available to us until 16 March 2012 to complete our assessments.

The data listed here are expected to contribute to our knowledge and understanding of the features within each site and to consolidate the evidence base for the presence and extent of features put forward for designation in recommended MCZs. Sites where the evidence assessment indicated relatively low confidence have been targeted for work to improve the evidence base. JNCC, Natural England and partner organisations have been working on a survey programme for the data collection of additional evidence to support the designation of features/sites.

JNCC and Natural England **advise** that the information from the additional datasets identified here, and additional data sources identified in the Defra contract MB0116 entitled 'In-depth review of the ecological evidence supporting the recommended MCZs', should be incorporated into the evidence assessment in the future. Where possible, we **advise** that the additional datasets should be used to update the evidence assessment for inclusion in the formal consultation documentation.

Further surveys will be required in the future in order to establish further baseline data for recommended MCZs, for monitoring purposes and to inform their future management. We **advise** that both the private and the public sectors should be made aware of the need to develop and maintain sound evidence bases for effective planning and management of MPAs. This will facilitate data collection both opportunistically and through targeted studies/surveys.

MCZs were identified following the network design principle of best available evidence. Best available evidence is constantly evolving. The regional MCZ projects used the most relevant regionally collected and national data and the recommendations were based on best available scientific evidence at that time. JNCC and Natural England **advise** that further work is needed to collate metadata for regionally sourced data to inform the evidence assessment of the recommended features. JNCC and Natural England **advise** that future evidence will be quality assured before inclusion in site assessment work to keep the best available scientific evidence up to date.

We recognise that the confidence on the evidence available will not be assessed in isolation, but considered alongside the conservation value of that feature, the risk of damage or decline if the feature is not designated and any socio-economic consequences of designation. However, any delays in the progression of sites due to lack of knowledge on evidence could increase the risk of serious or irreversible damage to the feature.

Advice on prioritising MCZs for designation

JNCC and Natural England **note** that any prioritisation of recommended MCZs for designation can be based on a number of criteria, including for example, the evidence base, the levels of stakeholder support, the potential economic consequences, and the contribution towards meeting the UK's national and international commitments. We **advise** that the designation of recommended MCZs should be prioritised to ensure that those species and habitats identified under international and European obligations but not adequately represented in existing MPAs are represented within MCZs in the Defra marine area to enable the UK to meet its international commitments. Furthermore, we **suggest** that Defra may wish to consider

the value of a full prioritisation analysis against these criteria in order to understand how an individual rMCZ might contribute to each individual criterion.

In developing an ecologically coherent MPA network, JNCC and Natural England **suggest** that international and European obligations should be used to help prioritise rMCZs for designation. In particular the European Union Marine Strategy Framework Directive (EU MSFD), the Convention for the Protection of the marine environment of the North-East Atlantic (OSPAR Convention) and the Convention on Biological Diversity (CBD) all recommend that certain species and habitats are represented, replicated and protected in MPA networks. These species and habitats are broadly, if not directly, equivalent to the broad-scale habitats and Features of Conservation Importance (FOCI) listed in the ENG.

Many of the broad-scale habitats and FOCI listed in the ENG are already protected in our current MPAs (for example, some FOCI are designated features of SACs). As such, JNCC and Natural England **advise** that designation of rMCZs should be prioritised to ensure sufficient representation and replication of broad-scale habitats and FOCI that are not protected within existing MPAs in the Defra marine area.

Moreover, JNCC and Natural England **suggest** that the sufficient representation and replication of broad-scale habitats and FOCI should take account of finer-scale biogeographic variation at the scale of the Charting Progress 2 regional seas to build additional resilience into the network.

Finally, JNCC and Natural England **note** that establishing areas with high levels of protection for a range of benthic habitats will improve our understanding of the unimpacted state of these features to enable a better definition of reference conditions. Such an approach would provide a contribution to achieving some of the proposed targets for Good Environmental Status (GES) across our seas.

Advice on recommended MCZs most at risk

A feature within a MCZ is considered to be at risk of damage or deterioration if it is vulnerable to a pressure arising from human activities. A feature is considered vulnerable to a pressure when it is both sensitive to, and exposed to, that pressure. JNCC and Natural England assessed the risk to features using information from the vulnerability assessments undertaken by the regional MCZ projects and JNCC and Natural England staff.

Natural England **considers** that 33 inshore recommended Marine Conservation Zones are of higher risk of damage or deterioration and have a stronger case for earlier designation as MCZs.

Natural England **advises** that 11 of the 33 inshore recommended MCZs have an overall higher risk of damage or deterioration to non-sensitive and sensitive features. These sites are:

- South of Falmouth (FS 31)
- Tamar Estuary (FS 27)
- The Isles of Scilly (FS 35) – sub-site Bristows to the Stones (FS 35d)
- Chesil Beach and Stennis Ledges (FS 19)
- Hythe Bay (BS 26)
- Folkestone Pomerania (BS 11.4)
- Norris to Ryde (BS 19)
- Bembridge (BS 22)
- Kingmere (BS 16)
- Sefton Coast (ISCZ 13)
- Hilbre Island Group (ISCZ 14)

Natural England **advises** that the remaining 22 inshore recommended MCZs are only high risk because they contain highly sensitive features which are subject to one or more pressures causing damage or deterioration. These sites are:

- Cumbrian Coast (ISCZ 11)
- Poole Rocks (FS 14)
- Lundy rMCZ (FS 41)
- The Manacles (FS 32)
- Studland Bay (FS 15)
- Torbay (FS 22)
- Skerries Bank and Surrounds (FS 24)
- The Isles of Scilly (FS 35) (sub-sites Bishop to Crim (FS 35c), Gilstone to Gorregan (FS 35e), Hanjague to Deep Ledge (FS 35f), Lower Ridge to Innisvouls (FS 35h), Men a Vaur to White Island (FS 35i), Pennenis to Dry Ledge (FS 35j), Plympton to Spanish Ledge (FS 35k) , Smith Sound Tide Swept Channel (FS 35l),Whitsand and Looe Bay (FS 28)
- Padstow Bay (FS 38)
- Dover to Deal (BS 11.1)
- Dover to Folkstone (BS 11.2)
- Beachy Head West (BS 13.2)
- Beachy Head East (BS 13.1)
- Offshore Brighton (BS 14)
- Swale Estuary (BS 10)
- Yarmouth to Cowes (BS 23)
- Thames Estuary (BS 05)
- Stour and Orwell Estuaries (BS 02)
- The Needles (BS 20)
- The Medway Estuary (BS 06)
- Thanet Coast (BS 07)

JNCC **considers** that 15 fully offshore recommended MCZs are at higher risk of damage or deterioration and have a stronger case for earlier designation as MCZs. These sites are:

- The Canyons (FS 01)
- South-West Deeps (West) (FS 03)
- North-West of Jones Bank (FS 04)
- Greater Haig Fras (FS 05)
- East of Jones Bank (FS 06)
- South of Celtic Deep (FS 09)
- Celtic Deep (FS 10)
- East of Celtic Deep (FS 11)
- Western Channel (FS 12)
- South-East of Falmouth (FS 30)
- East of Haig Fras (FS 07)
- Compass Rose (NG 12)
- Slieve Na Griddle (ISCZ 07)
- South Rigg (ISCZ 06)
- Markham's Triangle (NG 07).

JNCC and Natural England **consider** that 11 joint rMCZs are at higher risk of damage or deterioration and have a stronger case for earlier designation as MCZs. These sites are:

- East Meridian (BS 29)
- East Meridian – Eastern Side (BS 29.2)
- Mud Hole (ISCZ 01)

- Cape Bank (FS 36)
- Holderness offshore (NG 09)
- Inner Bank (BS 31)
- South of the Isles of Scilly (FS 13)
- Ordford Inshore (NG 01b)
- West of Walney (ISCZ 02)
- West of Walney (extension) (ISCZ 02a&b)
- South Dorset (FS 16)

JNCC and Natural England response to issues raised by the Science Advisory Panel

The Science Advisory Panel (SAP) also assessed the regional MCZ project recommendations publishing their report in November 2011[5]. Defra asked JNCC and Natural England for comments on the SAP's advice. Overall, we welcome the SAP's independent assessment of the regional MCZ projects final recommendations. We considered the issues and shortfalls they identified and offered a series of detailed responses in the full version of our advice. The following comments reflect some of the more generic issues.

We **support** the view that further work to address the remaining shortfalls and gaps towards the development of an ecologically coherent MPA network needs to be informed by a full assessment of the network principles at the biogeographical level, which incorporates all the new evidence gathered in the meantime. The work to address shortfalls and gaps should be done iteratively with Defra, the Devolved Administrations and Statutory Nature Conservation Bodies, working together with stakeholders as the MPA network develops and individual MCZs are designated.

We **agree** that the identification of new sites to deliver an ecologically coherent MPA network should consider the inclusion of areas of additional ecological importance to maximise their contribution to ecosystem function, biodiversity and/or resilience in the marine environment.

Given the relatively low level of pick-up of Geological Conservation Review sites and geological and geomorphological features, and of geological stakeholder involvement in the MCZ process, we **advise** that further consideration with the involvement of geological stakeholders is required in order to accurately assess the adequacy of the incorporation of geological and geomorphological features in the recommended MCZs.

We **advise** that further development/better understanding of feature sensitivity to pressures should be a priority area for future research. Such improved understanding would significantly assist future revisions to conservation objectives and the implementation of proportionate and effective management measures.

We **support** the view that a comprehensive activities monitoring scheme should be implemented within and adjacent to MCZs and that the responsibility for compliance monitoring (of activity against management measure) is clearly assigned to a Public Authority. Furthermore, we **agree** that the development and implementation of long-term marine biodiversity monitoring and surveillance strategies for MCZs that would help us to 1) understand natural change and isolate that from change brought about by pressures caused by human activities, and 2) test assumptions that management of activities is being effective, should be a priority.

We **advise** that marine biodiversity monitoring and surveillance strategies should be supported by and integrated with activity-specific monitoring undertaken by public authorities (for example the Department of Energy and Climate Change ensuring post-construction monitoring of wind farms or the Environment Agency assessing effects of pollution discharges).

[5] The SAP report is available on www.defra.gov.uk/publications/2011/11/15/pb13680-sap-mcz-assessment/

We disagreed with the SAP's views on the lack of representativity of tide-swept channels in Finding Sanctuary and some of their general comments on conservation objectives (see Section 4.3 for details).

We **note** that there were important differences between the SAP assessment and the evidence assessment in Section 5.1 of our full advice. We used geographically referenced data displayed in a geographic information system to determine whether the information source actually supports the feature recommendation. Our assessment made the distinction between the data available to assess confidence in the a) presence and b) extent of a feature within a recommended MCZ, rather than the SAP's assessment of evidence at a site level that did not explicitly consider the recommended features within a recommended MCZ. Finally, our evidence assessment considers all the evidence available to us that may be held nationally or locally whereas the SAP focused only on the evidence used by the regional MCZ projects.

Despite these differences, we **advise** that the SAP and our assessments of the evidence base for recommended sites/features in recommended MCZs should be used together, and that any differences in results should be viewed as a reflection of the different methodologies adopted.

Advice on the contribution of MCZs to a network of Marine Protected Areas

National and international legislation and Defra policy guidance set the framework and objectives for the creation of a MPA network and for the identification and designation of MCZs and their conservation objectives. Whilst the MCAA does not refer directly to an ecologically coherent network due to the complexities of defining this in legislation, Defra has instead covered ecological coherence through policy guidance.

The ENG was developed in discussion with Defra to reflect government policy and the requirements of the MCAA. JNCC and Natural England **advise** that the ENG was based on the Convention for the Protection of the marine environment of the North-East Atlantic (OSPAR Convention) and other international guidance and complied with Defra policy. The approach to producing the guidelines was agreed by the then Minister for Marine and Natural Environment.

JNCC and Natural England produced the ENG as practical guidance using the best available evidence. Our approach was validated through independent peer review. It was extensively reviewed before publication both internally and externally and by Defra, the SAP and stakeholders with new research on connectivity, adequacy and viability that was commissioned by JNCC and Natural England, externally peer reviewed by international scientists and approved by the Defra, JNCC and Natural England Chief Scientists. We are **satisfied** that it meets our respective corporate standards for producing quality-assured advice.

The ENG has strong links to guidance from OSPAR on developing an ecologically coherent MPA network and identifying MPAs. The seven network design principles and five further practical considerations for the design of the network developed in the ENG were drawn from that Defra guidance which captures the themes of the design principles set out by OSPAR (OSPAR 2006-3). Interpretation of the design principles into practical guidance was evidence-based, but necessarily involved expert judgement where the science is still developing.

The COG is the formal guidance from JNCC and Natural England on the process for drafting conservation objectives for features within recommended MCZs. It was developed in discussion with Defra to reflect government policy and the requirements of the MCAA. The COG was based on good practice from the Natura 2000 process. It was reviewed internally, by other Statutory Nature Conservation Bodies, Defra and Defra Arm's Length Bodies and tested by the regional stakeholder groups. We are **satisfied** that it meets our respective corporate standards for producing quality-assured advice.

Where direct evidence on feature condition was not available, COG proposes an indirect approach via a vulnerability assessment to assess likely feature condition. Vulnerability assessments rely on an

understanding of feature sensitivity to particular activities and the COG acknowledges that prevailing scientific knowledge of such sensitivity is variable in quality and quantity. Similarly, our knowledge of the levels of exposure of features to activities at a feature, site level or even regional scale is also variable. This lack of knowledge further supports the earlier comments by the SAP and ourselves that a comprehensive activities monitoring programme is required.

We are confident that the ENG meets the requirements of sections 117, 118 and 123 of the MCAA. JNCC and Natural England **conclude** that a suite of MCZs that meet the design principles and other considerations of the ENG with conservation objectives based on the COG, should contribute to the conservation and network requirements of the MCAA as they apply to England's territorial waters and UK offshore waters of England, Wales and Northern Ireland. However, any compliance cannot be fully assessed until MCZs are designated, and considered alongside other MPAs in the Defra marine area.

We cannot assess how the network will contribute to the conservation or improvement of the marine environment until we know which recommended MCZs will be designated and how effectively management measures are implemented and thus whether conservation objectives are likely to be met. Monitoring of all MPAs will be essential to understand their contribution to conserving or improving the marine environment.

We **conclude** that the features protected in existing MPAs and recommended for protection in recommended MCZs do represent the range of features present in the Defra marine area. However, if certain habitat types not protected by existing MPAs (for example subtidal muds) are not designated in recommended MCZs then the network may no longer meet this condition.

JNCC and Natural England **consider** that the existing MPAs and recommended MCZs reflect that conservation of a feature may require the designation of more than one site. However, we **advise** that replication within biogeographic areas would be prudent to build resilience into the network to effectively conserve features.

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