

# Review of the SNCBs advice to Defra on rMCZs

Prepared by the Independent Expert Review  
Group

June 2012

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Llywodraeth Cymru  
Welsh Government



Department of  
the Environment  
[www.doeni.gov.uk](http://www.doeni.gov.uk)



The Scottish  
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defra  
Department for Environment  
Food and Rural Affairs

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Any enquiries regarding this document/publication should be sent to us at:

[mcz@defra.gsi.gov.uk](mailto:mcz@defra.gsi.gov.uk)

PB13812

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## 1) Background

1. This report presents the review of the draft formal advice from Natural England and JNCC by the Independent Expert Review Group (IERG). The IERG reviewed the version of the draft formal advice that was completed on 18th May, 2012. For the purpose of this review, we will refer to that advice as the draft advice<sup>1</sup>. The ToRs of the IERG are shown in Annex 1.
2. Consistent with the ToR, the IERG review is limited to an assessment of (i) the application of the protocols in formulating the draft advice, (ii) the appropriateness and robustness of any additional evidence, analysis and assumptions used, (iii) the extent to which the rationale and evidence used support conclusions drawn and (iv) the objectivity and rigour used to formulate the draft advice. Therefore this report is not a full assessment of the quality of underlying data and information nor should it be taken as an implicit endorsement of the draft advice, but predominantly it is an audit of the process that was followed to develop the draft advice.
3. It should be noted that between the 18th May (draft advice received from SNCBs) and the 7th June (submission of draft IERG report to Defra) the IERG had only 11 working days within which to consider the draft advice, formulate their comments and submit their final report. This presented a considerable challenge given the volume of material submitted for review and the importance which should be attached to independent external review as the highest level of QA.
4. In this report the IERG presents some general comments on the draft advice, followed by specific comments relating to each ToR.

## 2) General comments on the draft advice

5. In general terms, but with some significant caveats, NE and JNCC have sought to apply the published protocols in developing the draft advice. The process by which evidence is used to draw conclusions in general has been transparent and uncertainty is also handled in a relatively transparent way

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<sup>1</sup> It should be noted that the "Review of the SNCB's advice to Defra on rMCZs", prepared by the Independent Expert Review Group does not include comments on Section 4.4 (Advice on recommended features not listed in the Ecological Network Guidance representativity guidelines) of the draft advice. Section 4.4 was provided to the IERG much later than the rest of the draft advice so, the IERG had insufficient time to adequately review this section prior to the submission of its final report.

6. The IERG views the use of a-priori protocols as a positive and constructive step toward the goal of more evidence-based decision making.
7. In some cases it is difficult to assess whether protocols had been applied, see for example the comment in Table 1 about the information provided in QA proforma (comment # 4, Table 1).
8. Furthermore, the role and application of expert judgement remains difficult to interpret, with more weighting apparently given to NE or JNCC 'expertise' than to other sources of 'expertise' but without showing why this was appropriate.
9. NE and JNCC have reviewed the conclusions of the Regional Projects (RP) and suggest alternative conclusions/findings when they deem it necessary. However, having set up the stakeholder-led Regional Projects to generate, collate and interpret the evidence necessary and to recommend MCZ designation, NE and JNCC must be seen to employ robust and transparent methods when advocating changes to the original RP recommendations. To this extent the IERG has concerns that there are parts of the analysis (in particular section 4.2 of the draft advice) that are not supported by a suitably published and reviewed protocol.
10. Most of the draft advice is evidence-based but see specific comments in Table 2 of this report concerning section 5.1 of the draft advice. Furthermore, NE and JNCC provide subjective comment on policy decisions in section 6.1, in particular their interpretation of the role of MCZ in relation to (a) policies other than MCAA, including the Marine Strategy Framework Directive (MSFD) and (b) other management measures. It is not clear to what extent comments on policy interactions have been considered/ reviewed outside NE and JNCC. If these comments are NE and JNCC opinions or interpretations that appear only in the draft advice they should be expressed as such, rather than presented as a factual policy analysis. The IERG has not assessed whether the comments in the draft advice are either in line with those formally given by the SNCB elsewhere or by Defra.
11. The specific application of processes and protocols in translating evidence into advice is not always clear to the reader. The IERG advocate a much stronger use of specific examples throughout the SNCBs Advice when illustrating how the processes and protocols have been applied in reaching specific decisions. This approach would help to clarify and explain some areas where it is not easy to understand how NE and JNCC's conclusions were derived from the analysis they conducted. This would also indicate and clarify the repercussions of that advice.

12. If all MCZs are not to be designated simultaneously, in contrast to the original proposal for a coherent MPA network, then a robust and effective process for identifying those sites considered to be of highest priority is essential. To this end the IERG support the NE and JNCC's additional criteria for assessing priorities in site designation (section 6.1.3). The IERG agree that these criteria are an important consideration and reference to them should be included within the "Advice to Defra" section within document 6.1.
13. The IERG note that this draft advice has been produced before the outcome of the In-Depth review of evidence and that Defra will need to take this into account when considering the draft advice and that of the SAP. It is unfortunate that the draft Advice has not included an appropriate protocol for conducting evidence searches and looking for suitable information to provide Defra with greater certainty that the evidence is the best available and fit for purpose.
14. Throughout the draft advice there seems little consideration given to potential bias in the evidence base and how this might be minimized. In this instance, bias is regarded as an inclination in primary data sources to present or report a particular perspective at the expense of alternatives. This problem links with the lack of overall strategy for critical appraisal of study quality. Studies that are designed to minimise bias should be given greater weight in decision making than those that are not.

**3) Review the draft formal advice from Natural England and JNCC against the protocols listed under phase 1 and provide views on their application in the formulation of the draft advice**

**3.1 Protocol A**

15. Sections 1 to 3 appear to have been produced in accordance with Protocol A.
16. However, in other parts of the draft advice it is not clear how NE and JNCC responded to the independent reviews of material they used to support their work. For example, did NE and JNCC use evidence to challenge reviews or accept the reviews and change processes? There was sometimes more emphasis on the process of undertaking a review than reporting on the

response to the outcome of the review (e.g. sections 4.2.6 and 4.2.13 of the draft advice).

17. The 'corporate standards' mentioned in Protocol A (footnote 6) have not been finalised and were not available to the Group at the time this review was undertaken. It is therefore impossible for the IERG to determine if they have been applied.

### **3.2 Protocol B**

18. Sections 1 to 3 appear to have been produced in accord with Protocol B. However, for some parts of sections 4-6 of the draft advice, it is not clear whether protocol B has been fully followed. This includes concerns about QA (e.g. comment #4, Table 1) and appropriateness/relevance of evidence provided (e.g. comment# 12, Table 2, comment #2, Table 3).

### **3.3 Protocols E and F**

19. Generally the protocols E and F seem to have been followed quite faithfully. Some issues arose on which the protocols give no guidance (e.g. 'sense check') and this should be given more room for explanation and assessment of bias. See Table 2 in this document for more details on this.
20. Annex 2 of Protocol F contains a useful and persuasive set of definitions. However, those definitions are not used widely and consistently in the protocols and SNCB advice. For example, the description of reference condition as 'towards the upper end of favourable condition' is unhelpful and different from the one used in the Ecological Network Guidance and Annex 2 of Protocol F. Also, MSFD definition in the glossary is not correct. SNCBs need to ensure that the definitions are correct and used consistently.

### **3.4 Protocol G**

21. In its present form, Protocol G was delivered to the IERG with the draft advice on 18th May. The IERG note that it had been revised substantially from the version that the IERG commented upon in Task 1 (completed December 2011) and from the revised version subsequently commented upon in January 2012.
22. This suggests that Protocol G has continued to change during the period over which the draft advice was being developed. The IERG note, therefore, that Protocol G does not constitute an *a priori* protocol against which the processes followed by JNCC and NE can be assessed. However, with that



caveat noted, the draft advice does conform to the version of Protocol G supplied to the IERG on 18th May.

23. Consistent with the protocol it is important to note there is uncertainty about vulnerability that the risk score does not capture. This should be upfront because any appreciation of the uncertainty surrounding the information is immediately lost once equation 1 is applied. Addressing this does not necessarily require a complex reweighting scheme, but a comment to 'note that there may be uncertainty underlying the number of features with moderately – high vulnerability to pressures' would be appropriate in the documents that are based on this protocol.

### **3.5 Protocol H**

24. Protocol H describes the process that was followed in determining the contribution of existing MPAs to the network design principles set out in the ENG. The IERG is not well placed to assess whether the process was followed in practice during the period when the Regional Projects were heavily reliant on the SNCB advised contributions in developing their recommendations for the MCZ network. However, it is known that many detailed revisions of the contributions were necessary. As written the Protocol is a cogent and logical description of a non-trivial process and there is no reason to suppose that it has not been followed closely in developing the draft advice.

### **3.6 Other issues**

25. The QA process for section 6.1 and 6.2 is missing and no specific protocol exists for the process adopted to determine priorities for designation and sites most at risk.
26. The procedure described in the technical document that the SNCBs prepared to support section 4.2 in the draft advice (Approach to develop section 4.2 – Advice on MCZs recommendations) was not peer-reviewed as a distinct protocol. The IERG notes that a protocol to describe the process of defining and reviewing Conservation Objectives would have been appropriate.

### **3.7 Comments on the protocols themselves**

27. Protocol E is an important description of the procedure being used to assess data quality and hence scientific certainty, however, the IERG has a concern that Protocol E seems to rely ambiguously on quality assessments by the data owner, (bottom of p5). It is questionable whether such assessments are adequate for the purposes of Protocol E but the text simply states, 'Where appropriate quality assessments are not available

from the data owners this will be noted, and the information subjected to the protocol as outlined here'. However, there is no indication of how adequacy or appropriateness will be assessed. Concern about the assessment process was expressed in the IERG's original comments on the draft protocol E but no action was taken by the SNCBs in response.

### ***3.8 Comments relating to ENG and other guidance and their application***

28. IERG recognises that the scientific principles underlying the development of ecological networks are still evolving and therefore support a pragmatic approach to the application of ENG, since this is also seen as an evolving process. In the draft advice the SNCBs have adopted a more pragmatic approach in some instances in the application of the principles described in the ENG and the IERG agrees with that decision.

### 3.9 Specific comments by section

**Table 1. Comments on specific sections of the advice that relates to this ToR**

Comment number	Section	Paragraph/Text	Comment	Proposed Action
1.	4.1	4.1.30 “It is clear that the guidance on viability is not completely applicable to coastal sites”	The analysis departed from the ENG because EN and JNCC did not consider that the guidance on viability was strictly applicable for coastal sites. This seems a reasonable departure given uncertainty about the concept of ‘viability’	No action
2.	4.1	4.1.31 “connectivity was achieved with few exceptions”	This appears to be an acceptable deviation from the ENG. the original guidelines were chosen to be pragmatic rather than evidence based given weaknesses in the Roberts analysis.	No action
3.	4.2		It is claimed that this section has been prepared according to protocols A to F, but protocol F (page 5) specifically excludes this topic. In fact there is no specific protocol which fully describes this piece of work, which seems to have been a late addition.	Make it clear that there is no published protocol for this work.
4.	4.2		The QA proforma provided at the end of Section 4.2 is not compatible with protocol A in judging that there are no uncertainties to comment upon in the complex process described in the Sections	Amend the relevant proforma and text to

			4.2 and 5.2 in particular	ensure that uncertainty is treated as required by protocols A and B.
5.	5.1	Table 5.1.1	How does this methodology relate to Protocol E?	Clarify how Protocol E relates to Table 5.1.1.
6.	6.2		Section 6.2 has been drafted based on protocol G, in particular. The analysis and advice are well argued	No action
7.	Annex 2	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.	It is correct that the evidence base is constantly evolving, but the SAP review during period of work also identified that the Regional Projects were missing a lot of what was already available. The SAP were also concerned that even if evidence was used, it was not referenced and so could not be checked. It is assumed that these deficiencies are being remedied by the currently-underway In-Depth review due to report in the Summer 2012.  It is essential to catalogue these data, but sources in the catalogue were subject to doubt (e.g. Fishermap) at the time and concerns still remain. Just because data were used does not mean they were fit for purpose, as commented by the SAP and the previous IERG analysis, the best available evidence can still be inadequate.	Edit text to more accurately reflect the status of the evidence base and the outcome of the In Depth review (to the extent possible).
8.	Glossary	General	While the draft advice follows the protocols in defining the terms and giving a glossary, it is considered that the terms need to be peer-reviewed and in some cases are not in keeping with current theory. For example, resilience is defined but is more similar to the definition of resistance (the ability to recover from stress cf. the	The glossary should be in keeping with current published definitions. To help achieve this it would

			ability to withstand the effects of stressors, respectively).	be useful if the glossary were independently peer-reviewed. Once established the glossary should be consistently applied throughout the draft advice document.
9.	Glossary		The term 'best available evidence' should be defined in terms of the validity of data and susceptibility to bias in the way it was generated (e.g. study design).	Term needs to be defined.
10.	Glossary		The concepts of favourable condition and favourable conservation status need to be reconciled, especially in relation to the meaning and use of the Reference Area concept. For example, the Glossary gives these in detail whereas in contrast the 'reference condition' is defined as being 'at the upper end of favourable condition'.	Ensure that these terms are consistent and that their terminology is used consistently.

## **4) Comments on the appropriateness and robustness of any additional evidence, analysis and assumptions used**

### **4.1 General comments**

29. In developing their draft advice the SNCBs undertook additional work to develop the evidence base. The IERG did not review the detail of the new data and analysis underlying the development of the evidence base. The SNCB also conducted retrospective analysis using the data that the RP used but applied different analytical approaches or assumptions. The IERG is concerned about the appropriateness and robustness of some of these approaches and issues to be addressed are listed in Table 2.
30. The draft advice gives some cause for concern in the way in which NE and JNCC have either reinterpreted or recalculated the findings of the Regional Projects. At the same time, the draft advice has reassessed and reversed (given that there are only two – to recover or to maintain) the Conservation Objectives of a large number (43 of the 127) of the sites. If COs are changed then the SNCB need to clearly show the rationale for any change made.
31. The IERG is concerned that in several places the draft advice is unnecessarily critical of the Regional Projects for not using or citing all the evidence but both (a) the RP were not under instruction to write the site descriptions as fully defended (in an academic publishing sense in which all statements are referenced rigorously) and (b) more data and information are now available. The draft advice suggests that there were errors and discrepancies in the data submitted by the Regional Projects. It is not clear whether these were errors or whether it is just a case that more information is now available and is likely to become available.
32. The description of the process for selecting local and regional experts is not clear. Further information is required to explain how the SNCBs ensured that the process was transparent. The IERG assumes that these were 'in-house' experts. If this is the case then there is an issue of lack of independence. This is especially the case where the view of those 'experts' differed from that of the 'experts' involved by the RP.

## 4.2 Specific comments by section

**Table 2. Comments on specific sections of the advice that relates to this ToR**

Comment number	Section	Paragraph/Text	Comment	Proposed Action
1.	3.1	3.1.1 - JNCC received comments that rMCZs have been identified in offshore waters in the Finding Sanctuary area that will minimise impacts on UK fisheries interests at a cost to non-UK fisheries interests...	The history of the process is described but the text does not clarify whether the comments on a potential cost to non-UK interests were correct. These comments do not appear to be based on best available evidence.	The relevant text should be deleted on grounds of appropriateness and robustness- or if it is kept the SNCBs need to provide more information to explain the basis of those comments.
2.	4.1	4.1.18	Here one might expect a critical appraisal of the strength of evidence and a statement of where significant gaps limit the evidence base.	Provide an appraisal of the strength of evidence and significant gaps.
3.	4.2.4		The context within which the term “vulnerability” is used in this section needs to be more precisely defined. The report should make it clear that when using a “vulnerability assessment” to represent condition this assessment is considering both a feature’s sensitivity to a particular	Use consistent terminology.

			pressure as well as the extent to which that feature is currently exposed to the pressure.	
4.	4.2.6	Method for standardising fisheries information	The new evidence used in reassessing the pressures experienced by a site is all related to fishing/fisheries hence giving undue emphasis to one sector and thus not following the Ecosystem Approach.	Explain why pressures other than fishing activity were not considered in the analysis.
5.	4.2 .6	Method for standardising fisheries information	Apparently the procedure was peer reviewed by Cefas (para 4.2.13) but there is <u>no reference</u> to their assessment/report.	Provide reference to the material from the peer-review.
6.	4.2.6 & 4.2.13	Method for standardising fisheries information – inshore’	This section indicates that the methodology for this was peer reviewed by Cefas. This might be interpreted as suggesting that the peer review supported the method or that the method was substantially modified to account for the outcome of the peer review. However, this is not the case (see also comments on 120518_MCZ advice_Annex 10 JNCC site risk_v2.0.xlsx) since Cefas concluded that ‘The challenges imposed by weaknesses in the underlying data and the need to adopt a nationally consistent approach are considerable. We do not believe that the proposed methods provide anything more than an approximation of exposure attributed to <15m vessels, the possible exceptions being in the most intensively fished areas. The methods improve, but do not provide, consistency among regions. Outputs could readily and justifiably be challenged at MCZ, regional and national scales’ Clearly, we cannot assess if other references to peer review in this report raise	<p>The comments from the peer review process conducted by CEFAS should be made available together with the response of NE to that review and a description of how the review comments were (or were not) incorporated into the final methodology.</p> <p>When peer review has been conducted an audit trail that identifies the responses to reviewer comments should be made available. If the comments of reviewers are challenged, and therefore not acted upon, the reasons</p>



			similar issues but, in this Group's view, when a peer review was conducted but the review was not substantially acted upon the reasons why the review has been challenged or not taken into account should be stated to meet the requirements of the protocols. It is challenging to describe the distribution and intensity of inshore effort for the purposes of this analysis and it is consistent with the protocols to emphasise this uncertainty.	should be documented.
7.		4.2.20	JNCC undertook an initial assessment of exposure for the joint MCZs in June 2011, using 2006-'09 VMS data. It would be helpful to add something about the evidence relating to non-UK effort here. Since non-UK VMS cannot be linked to gear, then was this included in the analysis?	Comment on the treatment of non-UK VMS data.
8.		4.2.21	It is encouraging that JNCC later considered the information from both the VMS method and Natural England's standardised approach and evaluated any differences between both outputs.	Cross reference the evaluation and present the result of the evaluation. Indicate how the result of the evaluation was interpreted and taken into account.
9.	4.3	4.3.47 "produced (as part of the MCZ Handover Project <sup>(ref 12)</sup> a MCZ regional data catalogue that lists	It would be helpful to have a link to this rather than ref. 12, which was just a statement it was done.	Add a link to the catalogue.  Also, 120518_MCZ Advice_Annex2V1_0.docx should be referenced here.

		all the regional datasets used by the regional MCZ projects in their final recommendations		
10.	4.3	4.3.74 & 4.3.75	If reference condition and favourable condition were more clearly defined it may be possible to do more with available science than use an emerging understanding of reference condition to move towards a stage when 'it will also be possible to define the level of activity possible to achieve an acceptable and sustainable favourable condition'.	Provide clear and consistent definitions of reference condition and favourable condition.
11.	5.1	5.1.11	This paragraph refers to a procedure described as a 'sense check'. From the evidence of the comments in table 5.1 it has had a substantial effect in lifting the confidence of many intertidal and some near shore sites. This additional step needs to be more clearly described and justified otherwise it could be viewed as simply a way of adjusting the result to fit in with NE's desired outcome. Particularly as such internal peer-review may be perceived as a relatively weak process. More details need to be given to reassure the users of the advice, for example, is there verifiable evidence available to sustain the advice of the NE qualified local advisors to increase confidence in the presence (mostly) of features? Even though there is a footnote which suggests "A sense check is a form of validation by regional advisers and specialists using their local, national, ecological and sector knowledge to check that the assessment results are appropriate ('sensible') to the site under consideration", this is not enough to convince that this is a sufficiently independent process.	The SNCBs need to provide more details about how the "sense check" process was conducted and how the qualified local advisors were chosen. Also a clear statement is required about whether and, if so how, verifiable evidence was used as part of the process. It would be helpful if the examples of the evidence used could be provided.

12.	5.1	<p>5.1.5. For inshore sites, an additional step was added at the end of the confidence assessments (see 5.1.10 below).</p> <p>5.1.10. To undertake the evidence assessment, all data were imported into a Geographical Information System (GIS).</p>	<p>Section 5.1.5 The use of the GIS system seems very sensible. However, it begs the question why was this approach only used for inshore sites?</p>	<p>Clarify why this approach was only used for inshore sites.</p>
13.	5.1	<p>Table 5.1.1 and paragraphs 5.1.14 and 5.1.15</p>	<p>It is not clear as to what constitutes a “qualified local advisor”, “relevant specialist”, regional advisors”. The document should clearly define how EN would identify and quality assure those advisors. See also comment #12 in this Table and general comments in section 4.1</p>	<p>Provide a description of the criteria used to identify those advisors or experts including information about whether the experts were independent.</p>
14.	5.1		<p>It is important to clarify how the SNCBs handled any bias in the report due to expert opinions, local knowledge etc used in the draft advice. It is not clear from the SNCBs report whether the QA process should be able to address issues with bias.</p>	<p>Explain how bias was handled.</p>
15.	5.1	5.1.16	<p>How did the automated process described in section 5.1.16 sit with the manual process? How were discrepancies dealt</p>	<p>Clarify in text.</p>

			with?	
16.	5.2		It is surprising that there is not more direct evidence of intertidal feature condition given the extensive NE local advisor knowledge of the presence of such features noted in Section 5.1. There is no equivalent reticence in applying local knowledge to the identification of potentially damaging pressures however (section 5.2.7).	Explain/comment on the paucity of direct evidence of intertidal feature condition.
17.	5.2	Figure 5.2.1	Figure 5.2.1 does not seem to make sense. How can you have low confidence in condition when you have assessed a features condition and found it favourable? To make that judgement you must have a reasonable idea, and so moderate confidence at least, what condition the feature is in, i.e. "favourable".	Review and report on compatibility among judgements.
18.	5.2	5.2.29	Does this imply that Protocol F can be improved? If so, how?	Clarify
19.	5.2	5.2.31	Will this process only take place on designated sites?	Clarify
20.	6.1	General	Given that section 6.1 described a variety of reasons to prioritise designation of a site it seems a little strange that the only reason fully explored is that of "risk of damage or deterioration". It would have been useful to conduct a matrix review of all sites across all the various reasons for assigning a high priority for designation.	Expand consideration to cover all identified reasons or justify the decision to only consider risk of damage or deterioration.
21.	6.2	6.2.10	The numerator in the equation of paragraph 6.2.10 should read 'number of features with mod-high vulnerability to any pressures <b>to which they are exposed</b> '. The bolded qualification may be self-evident but perhaps not to	Check and modify equation.

			everyone and it is simple to correct.	
22.	Annex 5		This gives implications of sites not being designated, largely relating to ENG issues, but for reasons of balance it is also important to make clear that the absence of designation does not necessarily mean the condition of the environment will not be favourable.	Modify text.
23.	Annex 8		The approach supports more effective interpretation of the data describing presence and extent, and broadly links more recent and more frequent data to higher confidence. The details of the process could be debated, but the outcome is considered to be fit for purpose.	No action required.
24.	Annex 8	Glossary	Some definitions are very opaque. Definitions critical to interpretation of the evidence still need to be clarified (e.g. exposure). There are two different definitions for impact.	Review definitions and check the use of terms in the entire text follows these definitions.
25.	Annex 10		Risk as identified here is only based on number of features with CO and number of recover objectives. This excludes any information about uncertainty in features presence etc presented.	Some details are needed on how estimates of uncertainty could inform this part of the analysis.

## **5) Comments on whether the rationale and evidence used support conclusions drawn**

### **5.1 General comments**

33. It is difficult to know what to make of the generally invisible evidence that is described as 'first-hand experience' and that adduced during the QA process. Protocol B describes a process which is heavily reliant on such information and expert judgement. The Group is concerned about the traceability and transparency of that part of the analysis which makes it difficult to comment on the rigour of the analysis and whether the new set of evidence support the conclusions drawn. For this reason, the IERG asked the SNCBs to provide the minutes from the evidence panel meetings for review. The IERG did not receive that material in time to consider it as part of this review (but see action recommended in comment #11, Table 2).
34. The information provided by stakeholders which is not quantified or verifiable is judged to have low confidence by protocol E and yet the SNCB indicate that they are doing the same with unsubstantiated evidence from their own officers. It is not clear how knowledge of JNCC or NE experts affected the confidence level in the assessment outcomes.
35. There are concerns regarding the draft advice being given, for example whether it will require users to understand the repercussions of the chain Designation-Objectives-Management-Monitoring. The draft advice suggests that the last part of this will link to a national appraisal of monitoring but the IERG questions whether the authors understand the repercussions of indicating that changes in condition are to be detected by monitoring against natural and anthropogenic change. This will require a very large monitoring effort and is unlikely to be affordable for all sites.
36. The draft advice links the management of the sites to monitoring and surveillance but the IERG questions whether the repercussions of this draft advice are understood. Logically the COs must be defined quantitatively and then the degree of compliance and uncertainty (whether the CO are complying) has to be determined. This requires a very extensive monitoring campaign based on rigorous hypothesis testing, and probably involving (because of the inherent variability and dynamic nature of the marine areas) a very large number of replicates.

## 5.2 Specific comments by section

**Table 3. Comments on specific sections of the advice that relates to this ToR**

Comment number	Section	Paragraph/Text	Comment	Proposed Action
1.	2.4	2.4.7 - "We consider that all of the network design principles need to be met to have the best chance of delivering biodiversity benefits for the marine environment (Natural England and the Joint Nature Conservation Committee 2010)',.	Do JNCC and NE mean for the marine environment or 'within the MCZ and RA'? The extrapolation to benefits outside, especially if pressures are displaced, does not appear to be supported by the evidence presented. This view is repeated in several places, the draft advice should not conflate displacing pressure to achieve local benefits with achieving wider benefits for the marine environment (e.g. GES on the scale of marine regions and sub-regions). This is also relevant to subsequent comments on the interplay between MCAA MCZ and the MSFD, since the MSFD provides for a range of measures to modify the absolute levels of pressure as well as its distribution.	Clarify what 'benefits for the marine environment' means and the scale at which these are expected to be achieved.
2.	2.4	2.4.7 - "We consider that all of the network	The advice also needs to recognise the uncertain nature of the activity-pressure-impact evidence on a site-specific basis (i.e. just because an activity occurs at a site does not imply there	Clarify the role of mitigation in the presumed activity-pressure-

		design principles need to be met to have the best chance of delivering biodiversity benefits for the marine environment (Natural England and the Joint Nature Conservation Committee 2010)',.	has to be a resulting impact).	impact chain.
3.	4.1	4.1.34	The text on RA implies benefits that are unlikely to be supported by evidence and the material that is cross-referenced does not provide strong evidence to support that. The scale of the proposed RA, even if all activity in them were banned, seem far too small to 'boost the resilience of marine ecosystems and the recovery of biodiversity and ecological processes' except at a very local scale or in conjunction with other actions to modify the intensity and distribution of pressure on larger scales. Given the scales of the RA, it is arguable whether 'they are critical for informing the development of 'Good Environmental Status' under the MSFD when GES for biodiversity and food webs is not defined as an unimpacted state but based on sustainable impacts (with arguably some aspiration to reduce impacts further, but not	Review the evidence-base for the potential benefits of RA. Justify the reasons why RA may inform the development of GES and/ or cite the relevant evidence.



			described in explicit terms) e.g. 'biological diversity is maintained' or that all elements of marine food webs 'occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity'	
4.	4.1		The IERG acknowledge that the draft advice is following the instruction to the SNCB to prioritise the implementation of the sites but it still takes the view that logically the network will only be coherent if implemented in full. Again, logically, the RP were under instructions which indicated that if the ENG were followed in their entirety then this would result in a coherent network of MCZ. Hence, achievement of a coherent network as defined in the ENG requires all proposals to be implemented (cf. section 4.1).	No action
5.	4.1	4.1.54 - 'a process for identifying reference areas should be reviewed to determine the balance between a science led process (for identifying sufficient 'conservation sites' for the	The IERG recognise that the design of reference areas must be based on the best available science.	The draft advice should be clearer in its support for the use of science to inform the design of reference areas.

		ENG) and a stakeholder-led process where there is local support for a highly protected area'		
6.	5	General	Based on the results presented in the report, the confidence level of the assessment always increased as a result of the assessment being sense checked by an expert. Is that right? This appears to imply that the experts were always in agreement with the outcome of the assessment.	The SNCBs need to explain the process followed and logic behind it better.
7.	6	General	References to MSFD might be confusing and do not seem to be in line with the work that the SNCBs were asked to do. This is an area where the scope of the draft advice goes beyond the policy driver the SNCBs were tasked to address	The SNCBs should make it clear when they are commenting on policy drivers that are outside the scope of this draft advice.
8.	6.1	6.1.7	The statement that the 'establishment of MPAs and MPA networks are the only specific measures referred to directly by the Directive (Article 13(4) <sup>2</sup> )' is misleading as Annex VI (referred to in Articles 13(1) and 24) gives a much wider list of measures showing that area closures are just one of a number of measures to be considered to achieve GES.	If comments on the interpretation of MSFD are retained (cross reference general comments above) then review the text of the MSFD and modify statement in 6.1.7 to take account of comments on other management measures.

9.	6.1	6.1.12	The subsequent argument through section 6.1.12 is not logical. The process will depend on targets for the descriptors that are adopted, and these are not known yet. Mostly the MSFD applies at larger scales, so area closures would be part of a package of measures designed to consider the impacts of local management on wider areas, for example the displacement of fishing pressure to adjacent, unprotected areas. This was the reason for highlighting a broad range of measures in the Annex.	If comments on the interpretation of MSFD are retained (cross reference general comments above) then modify text in 6.1.12 to reflect the current status of MSFD implementation.
10.	6.1	Fig 1	Fig 1 can also be questioned owing to the scale issue. MCZ and GES apply on different scales. The possible exception is when MCZ are used to protect the most sensitive habitats and activity will, by definition, only be relocated to less sensitive habitats within region where GES is sought.	Briefly review the consequences of GES and the condition of MCZ being assessed at different scales and caveat or remove Fig 1.
11.	Annex 4	A4.2	There are some misleading generic statements here. They need to be qualified by saying 'in the protected areas' as the benefits beyond boundaries are equivocal (as the authors mention) and may be lost altogether if pressure is displaced. The subsequent evidence in Section A4.6 is all about effects inside the MPA. True, of course, but mention does need to be made of effects outside. This could be read as selective use of evidence that is against guidance, because evidence is selected to support benefits inside MPA and not for marine environment as a whole. It may also misrepresent the potential benefits of MPA in contributing to changes in state at the regional scale, which are mentioned elsewhere in the report in relation to the MSFD for example.	Clarify when you are referring to 'benefits' inside and outside MPA to ensure the evidence is balanced.

## **6) Comments on the objectivity and rigour by which Natural England and JNCC have formulated their final draft advice**

### **6.1 General comments**

37. The development of protocols was an approach to add objectivity in a process that could be very subjective. The process has largely followed the protocols and provides reassurance that effort was taken to increase the objectivity of the process.

38. There was some deviation from the protocols, which has been indicated elsewhere in this document, but these deviations remain exceptions rather than the rule.

## **7) Minor comments on the draft advice document**

### **7.1 General comments**

39. It is difficult considering all the parts of the Advice separately and that there is a large task to reconcile the different sections. Hence it would have been preferable to get the unified document which had been proof-read

40. The section and paragraph numbering is confusing and there are errors in cross-referencing paragraphs, annexes, appendices, etc.

## 7.2 Specific Comments by section

**Table 4. Comments on specific sections of the advice**

Comment number	Section	Paragraph/Text	Comment	Proposed Action
1.	general		Species names not in italics.	Ensure all species names are in italics.
2.	1.2	Viii	Does the draft standard 'Quality assurance of use of evidence including peer review' need a reference, assuming this is the Hopkins paper.	Add reference if a reference to 'Quality assurance of use of evidence including peer review' is available.
3.	4.1	Figure 4.1.1	It was difficult to reconcile the categories described in the Legend with the specific areas on the map. It would be clearer to use blocks of colour to define the 4 RP areas, then for the boundaries of the CP2 regions and the MPZs/RAs use a coloured line to indicate that it is a boundary. This would be more in line with the accepted convention for annotating maps.	Check all sections to ensure figures are clearly annotated.
4.	4.3	4.3.6	There is a confusion here caused by the fact that the same numbers have been used to number paragraphs and sections.	The documents should be thoroughly proof read to avoid confusion generated from incorrect section number.

5.	5.2	general	The “Advice to Defra” and the “Key messages” simply repeat each other. Given this, are both sections really necessary?	Consider if both sections are necessary.
6.	5.3		When will Defra contract MB0116 report and what methodology has been used?	It is necessary to ensure that comments about the adequacy and completeness (fit-for-purpose) of the evidence are applied to the SNCB and In-Depth review alike.
7.	Annex 5	rMCZ 35	Under rMCZ 35 Isles of Scilly Sites (Finding Sanctuary) (Natural England lead) ‘to clarify these restrictions, the local group agreed that the fishermen reserve the right to hand line (which will be minimal).’	Clarify text.
8.	Annex 7		Reflects the abundance of ‘low confidence’ assessments.	Add commentary to provide advice on appropriate responses to evidence when there is ‘low confidence’.

## Annex 1: Terms of Reference for the IERG

The Group's Terms of Reference are:

To provide independent scientific knowledge, advice and judgement to support the provision of the highest quality SNCB scientific input to the Ministerial decisions on Marine Conservation Zone (MCZ) site designations.

To deliver the independent scientific advice the Group is charged with developing and publishing its own operating principles and working methods while ensuring these are consistent with the GCSA's guidelines on the use of scientific and engineering advice in policy making and the public service values and standards in public life set out below.

The Panel will carry out its work in two phases:

**Phase 1** Review the protocols by which the Natural England and the Joint Nature Conservation Committee (JNCC) will conduct the work necessary to formulate their formal advice on the MCZ recommendations from the Regional MCZ Projects and comment on whether these reflect best practice and are fit for purpose. The protocols are

- A strategic protocol which will state the principles underpinning the Statutory Nature Conservation Body advice On Marine Conservation Zone designation;
- A protocol for quality assurance and an independent expert review;
- A technical protocol for assessing the scientific confidence of the presence and extent of features in recommended marine conservation zones - this standard needs to build on the principles within the MCZ Project levels of evidence paper;
- A technical protocol for assessing scientific confidence of feature condition – this protocol needs to build on the vulnerability assessment work;
- A technical protocol for assessing Marine Conservation Zones most at risk;
- A technical protocol on assessing the contribution of existing sites to the network – JNCC/MPA Technical Group will advise on whether this may be better addressed through parallel work ongoing between the UK SNCBs on defining the obligations to an ecologically coherent network;

**Phase 2** Review the draft formal advice from Natural England and JNCC:

- against the protocols listed under phase 1 and provide views on their application in the formulation of the draft advice
- taking account of the conclusions of the review against the protocols, provide views on the draft advice including
  - a) on the appropriateness and robustness of any additional evidence, analysis and assumptions used
  - b) whether the rationale and evidence used support conclusions drawn
  - c) on the objectivity and rigour by which Natural England and JNCC have formulated their final advice.

### **Out of Scope**

Socio-economic evidence being used to develop the impact assessment.

### **Membership**

Professor Mike Elliott, University of Hull

Dr Simon Jennings, Centre for Environment, Fisheries & Aquaculture Science

Professor Andrew Pullin, Bangor University

Dr Peter Ryder, Chair of Science Advisory Panel

Dr Steve Widdicombe (Chair), Plymouth Marine Laboratory

### **Reporting**

The Group will report to Defra, Natural England and JNCC. It will provide a report summarising its deliberations after each of the phases described above

Phase 1 by December 9<sup>th</sup>, 2011

Phase 2 is expected to start anytime between May 21<sup>st</sup> and May 30<sup>th</sup>. The Group will have 11 working days to produce the review report.

The proposed format of the reports will be agreed with Defra, Natural England and JNCC and the final report of each phase will be published.

### **Information Requirements**

The Group will be provided with

- the Ecological Network Guidance



- the Project Delivery Guidance
- the final report and site recommendations from the Regional MCZ Projects
- the Science Advisory Panel (SAP) advice to SNCBs and Defra on the final reports from the Regional MCZ Projects
- the Science Advisory Panel assessment of the ecological evidence base used by the Regional MCZ Projects
- as necessary, the scientific papers and other evidence referenced by the regional MCZ projects for each recommendation
- as necessary, evidence provided by government (e.g. MB 102 and 106) and others (e.g. REC Data layers) to support the work of the regional projects
- the Defra note for JNCC, NE, Regional projects and SAP: Recommended MCZs – Advice and information to support Government decision making

### **Additional expertise**

The Group may need to seek expert advice or opinion from outside the Group to ensure they are able to provide the robust scientific advice required. The Chair of the Group must before seeking such external advice or opinion obtain agreement from the MPA Network Project Board and ensure those providing such advice do so in accordance with these Terms of Reference, including complying with the public service values and standards in public life detailed above.

### **Secretariat**

The secretariat will be provided jointly by Defra, Natural England and JNCC. It will provide administrative support for any meetings including the taking and publishing of minutes. It will also support the Group in gaining access to any technical information it may require and will assist with the drafting and preparation of reports.

### **Public service values**

The chair and members of the IERG must at all times:

- observe the highest standards of impartiality, integrity and objectivity in relation to the advice and information they provide;
- be accountable to the Secretary of State and the public more generally for its activities and for the standard of advice it provides; and
- in accordance with Government policy on openness, comply fully with the code of practice on Access to Government Information.
- follow the Seven Principles of Public Life set out by the Committee on Standards in Public Life.