

Marine Conservation Zone Project

Conservation Objective Guidance

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Written jointly by Natural England and the Joint Nature Conservation Committee

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1 Introduction

This Conservation Objective Guidance (COG) sets out the process for drafting a conservation objective for the features identified within the proposed Marine Conservation Zones (MCZs). The Marine and Coastal Access Act 2009 (MCA, 2009)¹ requires designation orders to include the conservation objectives for the MCZ. These draft conservation objectives will be refined over the period from the initial identification of potential MCZs in 2010/11 through to their expected designation in late 2012, see Table 1 below. JNCC and Natural England as the Statutory Nature Conservation Bodies (SNCBs)² are responsible for the process but will seek the active input of the regional stakeholder groups (RSGs), the regional MCZ project teams and the public authorities to ensure the final objectives recommended accurately reflect the prevailing situation.

Table 1 Steps in developing the conservation objective

	Actions	Information	Organisation	Deadline
1	Discuss the sensitivities of features within the regional stakeholder group. Log objections and assumptions and seek advice from SNCBs when needed.	Collation table (Activities to features) and MPA reporting tool (PRISM, PISA)	RSGs RPs	Preparation for 3 rd iteration
2	RSG agree draft conservation objective. Log objections and assumptions.	Collation table, COG & ENG	RSGs RPs	Preparation for 3 rd iteration
3	Drafting of conservation objectives.	CO Template	RPs RSGs	Spring 2011
4	Circulate draft conservation objective to SNCBs for comments & log objections & assumptions & seek advice from SNCBs if objections are overriding.		RPs RSGs	Spring 2011
5	Finalise conservation objective drafts & send recommendations to SNCBs.	COG, ENG & SNCB guidance & advice	RPs	June 2011
6	Recommendations reviewed by SNCBs to ensure that the CO's follow the guidance and log any differences.	COG, ENG	SNCBs	Summer 2011
7	SNCBs provide recommendations and their advice to Defra.		SNCBs	November 2011
8	Defra submits recommendations for public consultation.		Defra	Spring 2012
9	Defra composes the designation orders including conservation objectives		Defra	Late 2012

¹ http://www.legislation.gov.uk/ukpga/2009/23/pdfs/ukpga_20090023_en.pdf

² Such as Countryside Council for Wales, Northern Ireland Environment Agency, Scottish Natural Heritage, Natural England and JNCC

1.1 The purpose of this guidance

This Conservation Objective Guidance is the formal, joint advice of JNCC and Natural England based on current understanding of the legislative requirements as of Autumn 2010. It outlines the Marine Conservation Zone (MCZ) draft conservation objectives content and structure and recommends a process for regional stakeholder groups to follow so they can propose the initial draft conservation objectives. The guidance follows approaches for setting conservation objectives for existing Marine Protected Areas (MPAs); ensuring the products are consistent across the different designation processes. It is extremely important that the regional stakeholder groups discuss and agree, as much as possible, the draft conservation objectives as these will provide the basis for discussions on management and the potential socio-economic implications for sectors. These implications are to be included in the impact assessments.

Developing conservation objectives is a continual process; from initial drafting through to the formal version adopted at designation, and continuing with subsequent reviews and revision post-designation. The process requires both evidence and expert judgement since our understanding of the effect of human activities on marine ecosystems is imperfect. This guidance sets out where evidence and judgement play their part and the role of stakeholders, Statutory Nature Conservation Bodies (SNCBs, e.g. JNCC and Natural England) and public authorities in the different steps.

Templates of draft conservation objectives are provided (see Tables 2 & 6), accompanied by a step-by-step description of the process to be followed. The process adopted is based on best available evidence (sometimes that will be limited evidence, which is recognised and accepted by the JNCC, Natural England and Defra).

1.2 What is a conservation objective?

A conservation objective is a statement describing the desired ecological/geological state (quality) of a feature³ for which an MCZ is designated (Table 2). The conservation objective establishes whether the feature meets the desired state and should be *maintained*, or falls below and should be *recovered to favourable condition*. The current condition of an MCZ feature is described according to the condition scale provided in Annex 6 of the Ecological Network Guidance⁴ (ENG). Protected sites in the UK use the term *Favourable Condition* to represent the desired state of their features. More detail about favourable condition is described in section 4.7 of the ENG and later in this document.

The SNCBs are required to provide advice on those pressures derived from human activities which, if present at sufficient intensity, may prevent the feature attaining favourable condition. Such advice guides the public authorities in the development of management regimes, to ensure the features achieve or maintain their target (favourable) condition. Identifying such pressures will enable public authorities, developers, stakeholders and SNCBs to identify those activities which can cause deterioration in MCZ feature condition and which may need to be managed so as to reduce the pressure on the feature. The SNCBs, acting on behalf of the appropriate authority, will monitor and report on the status of MCZ features in relation to their target condition (see section

³ A feature can be a habitat, a species, a geological formation or a geomorphological process.

⁴ http://jncc.gov.uk/pdf/100705_ENG_v10.pdf

124 of the Marine and Coastal Access Act 2009). Such status reports will allow public authorities to assess the success or otherwise of their management measures and where necessary, amend the measures accordingly.

The regional stakeholder group (RSG), with support from the project team will try to ascertain if the activities present at a site are likely to put a feature at risk of not achieving favourable condition. The current condition of the feature is the key element in defining the draft conservation objective. The RSG with support from the regional MCZ project staff will need to make a decision, based on the condition of the feature, as to whether the objective will be **to maintain** (feature is not likely to be sensitive to the current type and level of activities taking place at the site), or **to recover**⁵ (feature is likely to be sensitive to the activities occurring at the site). The outcome of this decision will dictate whether activities can continue largely as they are (but managed to ensure no increase in pressures to which it is sensitive) or need managing to reduce pressures.

Additionally, as stated within the ENG, at least one viable reference area should be identified for each broadscale habitat and Feature of Conservation Interest (FOCI). Reference areas aim to achieve reference condition through the removal or prevention of extractive, depositional and human-derived disturbing or damaging activities. Reference condition can serve as a benchmark against which other areas of the marine environment can be compared as part of long term monitoring and assessment (see Section 6.2 of ENG for further information). Table 3 shows that reference condition⁶ is reached at the upper end of favourable condition.

⁵ Recovery does not necessarily mean returning to former state.

⁶ Reference condition is a state where there are no, or only very minor, changes to the values of the hydromorphological, physic-chemical and biological quality elements which would be found in the absence of anthropogenic disturbance (http://www.wfduk.org/wfd_concepts/CIS_Glossary).

Table 2 Template of draft conservation objective

Conservation Objective										
1 Maintain/ recover	[Insert sentence on the importance of the feature]. Subject to natural change, [maintain or recover] the [insert name of feature] to favourable condition [by 2020 and maintain thereafter], such that:									
2 Attributes ⁷ and parameters (indicated by *) of feature (insert the attributes and parameters list specific to the feature)	<table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; width: 33%;"><u>Habitat</u></th> <th style="text-align: center; width: 33%;"><u>Species</u></th> <th style="text-align: center; width: 33%;"><u>Geological/ Geomorphological</u></th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <p>the</p> <ul style="list-style-type: none"> • extent, • diversity, • community structure, • natural environmental quality*, and • natural environmental processes* </td> <td style="vertical-align: top;"> <p>the</p> <ul style="list-style-type: none"> • natural range, • habitat extent, • population structure, • population density, • size structure, • natural environmental quality*, and • natural environmental processes* </td> <td style="vertical-align: top;"> <p>the</p> <ul style="list-style-type: none"> • extent, • component features, • spatial distribution, • integrity • natural environmental quality*, and • natural environmental processes* </td> </tr> <tr> <td colspan="3" style="text-align: center; padding-top: 10px;">representative of the [feature] in the biogeographic region are all [maintained or recovered].</td> </tr> </tbody> </table>	<u>Habitat</u>	<u>Species</u>	<u>Geological/ Geomorphological</u>	<p>the</p> <ul style="list-style-type: none"> • extent, • diversity, • community structure, • natural environmental quality*, and • natural environmental processes* 	<p>the</p> <ul style="list-style-type: none"> • natural range, • habitat extent, • population structure, • population density, • size structure, • natural environmental quality*, and • natural environmental processes* 	<p>the</p> <ul style="list-style-type: none"> • extent, • component features, • spatial distribution, • integrity • natural environmental quality*, and • natural environmental processes* 	representative of the [feature] in the biogeographic region are all [maintained or recovered].		
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representative of the [feature] in the biogeographic region are all [maintained or recovered].										
Advice on operations										
3 Pressures	[Feature] is sensitive to the pressures: - [list all pressures to which the feature is sensitive as bullets, including those from the combined table] ⁸ ,									
Human activities	Human activities which cause these pressures will need to be managed if they prevent the conservation objectives from being achieved to ensure the MCZ contributes to an ecologically coherent and well-managed network of Marine Protected Areas.									

⁷ Definitions of attributes are provided in the glossary

⁸ If the feature's sensitivity to all pressures present is unknown and the feature condition cannot be assessed and therefore the draft objective cannot be set, seek guidance from SNCBs in this case (See Table 4 for connection to the vulnerability assessment).

Ideally, recent survey data would be available to assess the current condition of features in MCZs under consideration. Where data are available which adequately describe the feature's condition, it should be used to assess condition and set the objective. However, time and resources are constrained and it is unlikely there will be a detailed survey of each MCZ feature to establish their current condition prior to site designation. In many cases survey and monitoring data will not be available for an area, and it will be necessary to determine feature condition indirectly, by assessing whether the activities currently occurring are likely to have caused damage to the feature. All existing information should be collated to assess the feature's **likely condition** and set the draft conservation objective to be either **maintain** or **recover**. This follows existing MPA approaches which consider information on the feature's **sensitivity to pressures**, combined with evidence (including local knowledge and information) of current **exposure to activities** exerting those pressures to derive the feature's **vulnerability**. The feature's vulnerability is an indicator of its likely condition and the draft conservation objective can be set appropriately; the process is described in more detail in section 2.3.

Reference areas are to be treated separately, as there is no requirement to establish the current condition of features within a reference area.

1.3 Who will be using the conservation objectives?

Conservation objectives will be used by:

- Regional stakeholder groups to identify likely management implications in MCZs and to assess the resulting social and economic implications. This will be done through development of the Impact Assessment;
- Public authorities (i.e. MMO, IFCA, harbour authorities) are required to take active steps to best further (or, if not possible, least hinder) the conservation objectives for MCZs when exercising their functions (Marine and Coastal Access Act 2009, Section 125) and to consider the effect of proposed activities on MCZ features before authorising the activities (Marine and Coastal Access Act 2009, Section 126);
- SNCBs to advise public authorities, developers and other stakeholders on how to adapt activities (if deemed necessary) in order to ensure MCZ features achieve favourable condition;
- SNCBs to establish monitoring of features to assess if favourable or reference condition is being reached;
- SNCBs to regularly report, on behalf of the appropriate authority, on the extent to which the conservation objectives are being achieved, as is also the case for existing sites within the MPA network.

2 Setting a draft conservation objective – maintain or recover

Achieving an ecologically coherent network of MPAs requires the features to achieve favourable condition to ensure they make their contribution. The UK is obliged, under the OSPAR Convention, to achieve a 'well-managed' network of MPAs by 2016. MPAs are also considered an important measure to assist Member States to meet their obligation under the EU Marine Strategy Framework Directive to achieve or maintain Good Environmental Status in the marine environment

by 2020. Features within MCZs should reach favourable condition by 2020 at the latest to support the delivery of the UK’s international obligations. Determining the current state of features and setting the appropriate objective to *maintain* or *recover* is fundamental to MCZs making their contribution to delivering the UK’s international obligations.

2.1 Feature condition

As a minimum, the feature(s) of an MCZ should reach favourable condition by 2020 with no further degradation permitted. The draft conservation objective is set from an assessment of the current condition of the feature:

- where the feature is assessed to be in **favourable condition** the draft objective will be set to **maintain** at this state;
- where the feature is assessed to be in **unfavourable condition** the draft objective will be set at **recover** (to favourable condition by 2020 and when achieved maintain thereafter), as illustrated in Table 3.

Table 3 Feature condition and objectives for MCZs

CONDITION	UNFAVOURABLE	FAVOURABLE	
OBJECTIVE	RECOVER (management of certain activities may be required to remove pressures to which the feature is sensitive)	MAINTAIN (current levels of activities are compatible with the feature, managed to ensure no increase in pressures)	MAINTAIN/RECOVER (all extractive, depositional or human-derived disturbing & damaging activities to be removed or prevented)



Minimum target condition



Reference condition

The process to determine feature condition and thereby the draft objective is described in section 2.3. Natural England and JNCC will provide advice and support to the regional MCZ project staff, if needed, to determine if a feature is in favourable condition.

2.2 Reference condition

Reference areas are places in which all extractive, depositional or human-derived disturbing or damaging activities are removed or prevented, allowing the feature to recover to achieve reference condition representing the un-impacted condition of a feature (and, consequently, all features within the area should recover to reference condition, see Table 3). JNCC and Natural England are developing guidance on which activities are compatible and are not compatible with reference areas. Activities considered damaging or disturbing will need to be mitigated. The default draft conservation objective for reference areas will be ‘**recover**’. However, if all extractive, depositional and human-derived disturbing and damaging activities (as specified in the Reference Area Guidance⁹) have already been removed or mitigated against, the objective can be **maintain**. In contrast to non-reference areas, the management of activities within reference areas is not determined by assessing feature condition.

⁹ JNCC & Natural England, 2010. Draft Marine Conservation Zone Reference Areas: Guidance document for regional MCZ projects.

2.3 Assessing feature condition

As mentioned previously, a feature is **vulnerable** when it is **exposed**¹⁰ to a pressure (from human activity) to which it is **sensitive**. The degree to which the feature is vulnerable is dependent on the degree of sensitivity and the level of exposure (see Table 4). Some members within RSGs may have the necessary expertise/local knowledge to provide input to feature vulnerability assessments, which the regional MCZ project staff may undertake with RSG approval. In particular, they may have the knowledge of the level of exposure of the feature to pressure(s) in each MCZ being considered and this should be discussed by the RSG and incorporated into decision-making on exposure, vulnerability assessment and conservation objectives.

The table provided (Table 4) may be subject to change and is draft, precautionary and it should be used as a starting point to determine feature vulnerability and likely condition on which to base a draft conservation objective (see Table 2). A pragmatic approach should be adopted when assessing feature vulnerability; there may be occasions where the level of exposure to certain activities may not result in the level of pressure to which a feature is highly or moderately sensitive, SCNB advice is available to aid the assessment of likely feature condition.

Table 4: Draft vulnerability table to be used to determine MCZ feature draft conservation objectives.

Feature's exposure to pressure	Feature's sensitivity to pressure				
	High	Moderate	Low	Not sensitive	Sensitivity not assessed
Exposed	High to moderate vulnerability	High to moderate vulnerability	Low vulnerability	Low vulnerability	Unknown vulnerability
Not exposed	Low vulnerability	Low vulnerability	Low vulnerability	Low vulnerability	Unknown vulnerability
Exposure unknown	Unknown vulnerability	Unknown vulnerability	Unknown vulnerability	Unknown vulnerability	Unknown vulnerability

Key: High or moderate vulnerability = feature condition is likely to be **unfavourable** and the draft objective will be set at **recover**. **Low or no vulnerability** = feature condition is likely to be **favourable** and the draft objective will be set at **maintain** (see table 3). **Unknown vulnerability** = feature's sensitivity to pressure is unknown and so feature condition is **unknown**; the draft objective **cannot be set**, seek guidance from SNCBs in this case.

JNCC and Natural England jointly developed a collation table (provided separately from this guidance) which makes it possible to cross-reference the features-sensitivity matrix¹¹ and the pressures-activities matrix¹². It allows users to extract a list of the activities¹³ which can create pressures to which the feature is sensitive. It is important to consider the limitations and assumptions which are highlighted within the guidance note which accompanies the combined table. Sensitivity pressure benchmarks may be used as a starting point to guide discussions on

¹⁰ The relative exposure of the interest features or the habitats that support them to the effects of operations, resulting from human activities currently occurring on the site. The assessment of exposure can include the spatial extent, frequency, duration and intensity of the pressure where this information is available.

¹¹ ABPmer, 2010. Accessing and developing the required biophysical datasets and data layers for Marine Protected Areas network planning and wider marine spatial planning purposes Report No 22 Task 3 Development of a Sensitivity Matrix (pressures-MCZ/MPA features) Final August 2010.

¹² JNCC, 2010. Pressures-activities matrix.

¹³ Activities occurring outside the site that could exert pressures on features should also be considered.

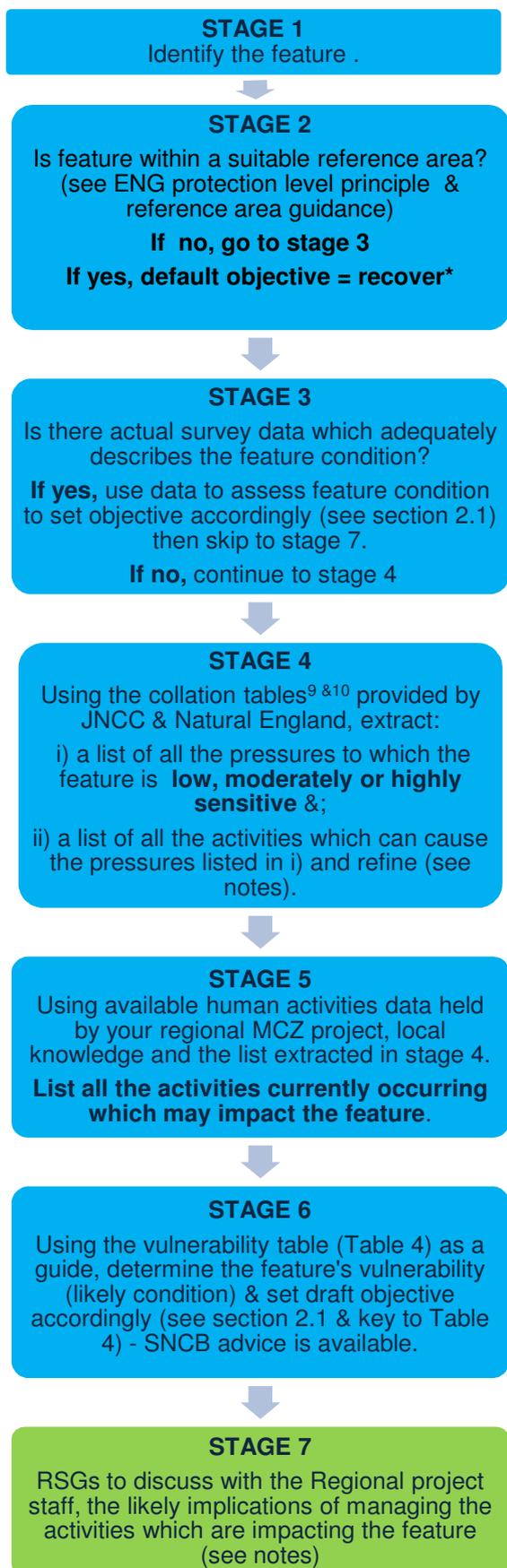
whether the collation table can be used to assess the sensitivity level and therefore vulnerability. The sensitivity benchmarks have not been devised for assessing exposure and therefore should not be relied upon for this purpose. Information on exposure from stakeholders (local knowledge and information) as well as national activity datasets (e.g. VMS) should be used.

To develop the draft conservation objectives, and to help RSG discussions, the regional MCZ projects staff can make a coarse assessment of feature vulnerability in the absence of real data which adequately describes feature condition, by following the process provided in Figure 1. The complete list of pressures to which the feature is sensitive, must be included in the conservation objective because public authorities will need to be aware of all pressures caused by activities, that may occur in the future, as well as those that occur currently (see Stage 4 in Figure 1).

Discussions around likely management implications should also take account of existing protected sites which neighbour or overlap the MCZ under consideration (Sites of Special Scientific Interest, Special Areas of Conservation, Special Protection Areas etc.). It may be possible that management measures within existing protected sites may already afford some level of protection for the MCZ feature being assessed (seek advice from public authorities for further information on existing management).

SNCBs may review the draft conservation objectives ahead of the final recommendations to ensure they meet the ENG and COG to log any concerns and advice which will be submitted to Defra in November 2011 (see Table 1). All such reviews we hope to undertake in partnership with stakeholders, but this will be dependent on time and resource constraints.

Figure 1 Process for assessing feature condition – setting the draft objective.



Contact JNCC & Natural England if the feature is not listed in the ENG.

* Unless all activities which are incompatible with reference areas have been removed or mitigated against, according to the Reference Area Guidance. If so, the draft objective can be set at maintain. See Annex I for draft conservation objective template for features which lie partly or wholly within a reference area.

If actual survey data are available which adequately describes current feature condition then this should be used in place of the vulnerability assessment. Regional project staff will perform this assessment with SNCB help, if needed.

Stage 4 can be completed by the regional project staff (RPs). The pressures list should be refined using common sense, (i.e. where a feature is sensitive to surface abrasion there is really no need to list that it is also sensitive to shallow and structural abrasion). Features with a range of sensitivity to a pressure should be included in list i) – Low to high, low to moderate and moderate to high. See guidance note accompanying collation tables.

Stage 5 can be completed mainly by the regional project staff but with RSG input, using local knowledge and expertise.

Stage 6 can be completed by RPs if the RSG wish. The vulnerability assessment & draft objective can then be presented to the RSGs to initiate discussions on likely management implications and to determine support for the objective.

If likely management implications are acceptable then draft objective stands (log objections & construct the draft objective – see section 2.4 & template provided in figure 2). If unacceptable, can objective be changed & still ensure the ENG and the guidance is met? If not, seek advice from SNCBs.

2.4 Structuring the draft conservation objective

Once the draft objective has been set following the process described in Figure 1, the draft conservation objective must take the format shown in the template provided in Table 2 unless a feature lies partly or wholly within a reference area, in which case the draft conservation objective should be structured using the template provided in Table 6 of Annex 1.

Draft lists of attributes have been provided jointly by JNCC and Natural England (shown in Table 2) which are to be placed into the draft conservation objective. If a feature is a habitat, insert the list for habitats; if the feature is a species insert the species attributes listed, and if the feature is geological or geomorphological insert the appropriate list into the conservation objective.

As mentioned previously, a common sense approach is recommended when listing the pressures to which the feature is sensitive.

A worked example for the feature 'sea-pen and burrowing megafauna community' with a draft conservation objective of 'maintain' is provided in Table 5 for reference.

Table 5 Example of draft maintain conservation objective (not suitable for features which lie partly or wholly within a reference area- see Annex I)

Section	
1 Conservation Objective	The sea-pen and burrowing megafauna community contains all three sea pen species which are not known to be present in any other MCZ and is on the list of Threatened and/or Declining Species. Subject to natural change, maintain the sea-pen and burrowing megafauna communities at favourable condition, such that:
2 Attributes ¹⁴ and parameters (indicated by *) (insert the attributes list specific to the feature)	The <ul style="list-style-type: none"> • extent, • diversity, • community structure, • natural environmental quality*, and • natural environmental processes* representative of the sea-pen and burrowing megafauna communities in the biogeographic region are all maintained.
Advice on operations	
3 Pressures	The sea-pen and burrowing megafauna community is sensitive to the pressures: <ul style="list-style-type: none"> • Organic enrichment • Physical loss (to land or freshwater habitat) • Siltation rate changes (low) • Temperature changes - regional/national • Temperature changes - local • Salinity changes - local • Physical change (to another seabed type) • Siltation rate changes (high) • Surface abrasion: damage to seabed surface features • Physical removal (extraction of substratum) • Removal of target species (lethal) • Removal of non-target species (lethal)
4 Human activities	Human activities which cause these pressures will need to be managed if they prevent the conservation objectives from being achieved to ensure the MCZ contributes to an ecologically coherent and well-managed network of Marine Protected Areas.

¹⁴ Definitions of attributes are provided in the glossary

3 Role of Regional Stakeholder Groups in setting conservation objectives

Roles of RSGs:

The Key roles of the stakeholder groups are to:

- Discuss and agree, where possible, (with all objections and assumptions logged) a draft conservation objective for each MCZ feature identified;
- Decide what areas should be identified as reference areas;
- Provide any additional quantitative information on attributes whenever possible (specialists within the RSGs)
- Discuss and endorse (if possible) the draft conservation objectives after advice from SNCBs & Regional Project Teams (for timeframes please see Table 1).

3.1 What information do regional stakeholder groups need to provide?

Regional stakeholder groups will be expected to provide their local knowledge and expertise to assist the regional MCZ project teams in the feature vulnerability assessment. The RSGs must also discuss the likely management implications of draft conservation objectives. This discussion will aid the RSGs in coming to a decision as to whether or not they support the draft conservation objective.

It is important to understand that these draft conservation objectives are initial judgements which may, in some cases, highlight where further evidence is required to establish the formal conservation objective at the point of designation in late 2012. More detailed evidence may be required to finalise the objective and for public authorities to set effective and proportionate management measures to deliver favourable condition by 2020. JNCC and Natural England expect to review the draft objectives in terms of whether the guidance is being followed. We hope to discuss the review of conservation objectives with stakeholders (dependent on time and resource constraints) ahead of the formal consultation in early 2012, and again prior to designation, particularly if any new evidence becomes available during the consultation.

For the recommendations of proposed MCZs to be submitted to JNCC and Natural England, the draft conservation objective for each feature within a site must be provided, accompanied by additional information which supports the decision reached on whether the feature is to be maintained or recovered (either actual survey data adequately describing current feature condition directly or failing that, the output of the vulnerability assessment accompanied by justifications for decisions made). Together they will form a key component of the formal consultation package in early 2012, and then the designation order for those sites that are progressed. These packages will be the result of the collaborative contributions from the regional stakeholder groups, the regional MCZ project teams, JNCC and Natural England.

The MCZ recommendation should include the following:

- A conservation objective for each feature within the proposed MCZ, as described in Section 2.4, following the appropriate templates and example provided;
- A list of all the activities likely to impact the feature (this will already have been compiled during Stage 4 of the process of setting the draft conservation objective).
- Where there are outstanding disagreements over the final recommendations of sites and/or conservation objectives, these should be highlighted and logged as part of the package of recommendations submitted to the Natural England and JNCC in August 2011.
- Supporting information should include:
 - A brief description of the feature, including maps where available;
 - A description of feature status (whether it is regarded as threatened/rare/declining); this is an opportunity to provide a brief justification as to why the feature is of conservation interest and meets the ENG criteria;
 - A short paragraph expanding on what is provided in section 1 of the conservation objective, stating the contribution of the feature in the site to achieving an ecologically coherent and well-managed network of Marine Protected Areas;
 - Information, where available, on feature condition (from survey data) to the feature and;
 - Exposure to the activities which cause the pressures and
 - Vulnerability of the feature(s) to those pressures;

4 Review of conservation objectives

The draft conservation objectives proposed by the regional stakeholder groups will be reviewed by SNCBs to ensure the conservation objectives met the guidance (e.g. ENG, Reference Area Guidance and COG) and any differences will be logged and advice provided to Defra. The conservation objectives will be subject to review and to formal consultation by Defra prior to designation and there will also be opportunities to amend them if new site-specific information is obtained. In addition, they will be subject to periodic review post-designation (minimum six year review) by the SNCBs (as are existing protected sites) to support the reporting of progress on the achievement or otherwise of favourable condition. Periodic review will incorporate the results of ecological monitoring, updated activities data and, if possible, a better understanding of feature sensitivity to human-derived pressures. Where ecological monitoring or updated activities information indicates a feature is at favourable condition, a recover objective will be amended to maintain; any decline in feature condition will lead to amendment of a maintain objective to recover and trigger an investigation into the appropriateness of the MCZ's management regime, as well as an assessment of methods used to set objectives and a review of monitoring methods, to ensure feature condition is being adequately assessed.

Annex I Reference area draft conservation objective

Where all, or part, of a feature within a proposed MCZ lies within a reference area the draft conservation objective for the feature within the reference area should be developed using the template in Table 6 below.

Table 6 Template conservation objective for features within reference areas

Section										
1 Conservation Objective	[Insert sentence on the importance of the feature]. Subject to natural change, [maintain or recover] the [feature] to favourable condition [by 2020 and maintain thereafter], and recover the [feature] in the area marked on map X to reference condition, such that:									
2 Attributes ¹⁵ and parameters(indicated by *) (insert the attributes list specific to the feature)	<table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; width: 33%;"><u>Habitat</u></th> <th style="text-align: center; width: 33%;"><u>Species</u></th> <th style="text-align: center; width: 33%;"><u>Geological/ Geomorphological</u></th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <p>the</p> <ul style="list-style-type: none"> • extent, • diversity, • community structure, • natural environmental quality*, and • natural environmental processes* </td> <td style="vertical-align: top;"> <p>the</p> <ul style="list-style-type: none"> • natural range, • habitat extent, • population structure, • density, • size structure, • natural environmental quality*, and • natural environmental processes* </td> <td style="vertical-align: top;"> <p>the</p> <ul style="list-style-type: none"> • extent, • component features, • spatial distribution, • integrity • natural environmental quality*, and • natural environmental processes* </td> </tr> <tr> <td colspan="3" style="padding-top: 10px;"> <p>representative of the [feature] in the biogeographic region are all [maintained or recovered].and the [feature] area marked on map X is [maintained or recovered] to reference condition.</p> </td> </tr> </tbody> </table>	<u>Habitat</u>	<u>Species</u>	<u>Geological/ Geomorphological</u>	<p>the</p> <ul style="list-style-type: none"> • extent, • diversity, • community structure, • natural environmental quality*, and • natural environmental processes* 	<p>the</p> <ul style="list-style-type: none"> • natural range, • habitat extent, • population structure, • density, • size structure, • natural environmental quality*, and • natural environmental processes* 	<p>the</p> <ul style="list-style-type: none"> • extent, • component features, • spatial distribution, • integrity • natural environmental quality*, and • natural environmental processes* 	<p>representative of the [feature] in the biogeographic region are all [maintained or recovered].and the [feature] area marked on map X is [maintained or recovered] to reference condition.</p>		
<u>Habitat</u>	<u>Species</u>	<u>Geological/ Geomorphological</u>								
<p>the</p> <ul style="list-style-type: none"> • extent, • diversity, • community structure, • natural environmental quality*, and • natural environmental processes* 	<p>the</p> <ul style="list-style-type: none"> • natural range, • habitat extent, • population structure, • density, • size structure, • natural environmental quality*, and • natural environmental processes* 	<p>the</p> <ul style="list-style-type: none"> • extent, • component features, • spatial distribution, • integrity • natural environmental quality*, and • natural environmental processes* 								
<p>representative of the [feature] in the biogeographic region are all [maintained or recovered].and the [feature] area marked on map X is [maintained or recovered] to reference condition.</p>										
Advice on operations										
3 Human activities	Reference areas should be managed to remove or prevent all extraction, deposition or human-derived disturbance and damage.									

¹⁵ Definitions of attributes are provided in the glossary

Glossary

Appropriate authority – the appropriate authority is Welsh Ministers (for an area in Wales), Scottish Ministers (for an area in the Scottish offshore region) and in any other case, the Secretary of State.

Attribute - a selected characteristic of a feature which is used to provide an indication of the condition of the feature to which it applies, for example, extent, diversity, typical species, species composition, range and distribution of characteristic communities, topography and sediment character.

Biogeographic region: An area of animal and plant distribution having similar or shared characteristics throughout (IUCN-WCPA 2008).

Biological diversity: Includes diversity of species and their relative abundances.

Community – a group of animals, and or plants, living within a defined area or zone and functioning together as the living part of an ecosystem.

Community structure – certain measures used to describe ecological and biological characteristics of species within a community e.g. age classes, sex ratios, distribution of species, abundance, biomass, reproductive capacity, recruitment, range and mobility.

Density – number of living individuals within a given area.

Exposure - the relative exposure of the interest features or the habitats that support them to the effects of operations, resulting from human activities currently occurring on the site. The assessment of exposure can include the spatial extent, frequency, duration and intensity of the pressure where this information is available.

Extent - the area covered by a habitat or community.

Favourable condition – the state of a feature when all conservation objectives are being met. SNCBs will provide advice, where possible, on what minimum favourable condition looks like for each MCZ feature measured against its attributes. The term **Favourable** encompasses a range of ecological condition depending on the objectives for individual features. At the lower end of favourable, sites may be at risk of declining into unfavourable condition. Where all extractive, depositional and other damaging activities are prevented, the feature should reach **Reference conditions** by 2020.

Habitat extent – the area of the habitat being used by the feature species.

Management Measures - Management measures are ways to manage activities in marine protected areas in order to maintain or improve the condition of its features. Specific measures may include legislative measures, financial, administrative (i.e. permits), practical and planning measures, physical modifications (such as buoys and signs), and education.

Natural environmental processes – Biological and physical processes that occur naturally in the environment e.g. water circulation, sediment deposition and erosion etc. should not deviate from baseline at designation or reference conditions (depending on whether the objective).

Natural environmental quality – variables that can be used to measure the quality of the natural environment e.g. chemical quality parameters of water, suspended sediment levels, radionuclide levels etc should not deviate from baseline at designation (if available) or reference conditions.

Natural range – the biogeographical range over which the feature species naturally occurs.

Population structure – the age/size distribution and sex ratio of species within a population.

Public authority – means any of a Minister of the Crown, a public body or a public office holder. The meaning of “public body” and “public office holder” are given in section 322(1) of the Marine and Coastal Access Act 2009 for example, MMO, IFCA and harbour authorities.

Reference condition – the state where there are no, or only very minor, changes to the values of the hydromorphological, physico-chemical, and biological quality elements which would be found in the absence of anthropogenic disturbance.

Reference area - As sites or parts of sites, where all extraction, deposition or human-derived disturbance and damage is removed or prevented.

Sensitivity – the intolerance of a species or habitat to damage from an external factor and the time taken for its subsequent recovery. For example, a very sensitive species or habitat is one that is adversely affected to a great extent by an external factor arising from human activities or natural events (killed/destroyed, 'high' intolerance) and is expected to recover over a very long period of time, i.e. >10 or up to 25 years ('low'; recoverability). Intolerance, and hence sensitivity, must be assessed relative to change in a specific factor. See <http://www.marlin.ac.uk/sensitivityrationale.php> for further information.

Sensitivity pressure benchmarks - The pressure definitions and benchmarks were established by ABPmer and MarLIN under the MB102 sensitivity matrix contract. Where practicable three benchmarks were developed for each pressure, where the benchmarks describe the breakpoints between high/medium and medium/low pressure level, and the mid-point between these two benchmarks (defined as medium pressure). This medium pressure was used for assessing the sensitivity score within the overall sensitivity matrix. The pressure benchmarks were further refined following review during the workshops.

Unfavourable condition – the state of the feature is currently unsatisfactory and management is required to enable favourable condition to be achieved. Where the feature is **Unfavourable**, a further assessment is made as to whether the state of the feature is:

Vulnerability - The likelihood that a habitat, community or individual (or individual colony) of a species will be exposed to an external factor to which it is sensitive. The vulnerability is assessed by combining the sensitivity of the feature to a pressure with the exposure of the feature to the pressure. The term vulnerability is sometimes used instead of impact where evidence of both feature sensitivity and exposure to a pressure strongly suggests an impact will occur (or has occurred), but no direct verification has been possible. See <http://www.marlin.ac.uk/glossary.php?letter=V> for further information.

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