

Annex H8 Approach for assessing impacts on flood and coastal erosion risk management (coastal defence)

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H8.1 This annex outlines the method taken to assess the impacts of recommended Marine Conservation Zones (rMCZs) on flood and coastal erosion risk management (FCERM) activities (coastal defence). This applies to coastal and estuarine rMCZs only. FCERM activities are defined as those set out in the shoreline management plan (SMP) for the coastal area in which the rMCZ is located.

H8.2 An SMP is 'a large-scale assessment of risks associated with coastal processes and helps to reduce these risks to people and the developed, historic and natural environment' (Defra, 2006). SMPs are non-statutory plans that aim to manage the future impact of floods and coastal erosion on property, infrastructure and human welfare. SMP policies comprise the following policies:

- 'No active intervention' – to allow the natural evolution of the coastline to continue without intervention;
- 'Managed realignment' – to allow natural processes to continue with minimal intervention (such as moving pathways and car parks, etc.);
- 'Hold the line' – to maintain the current line of defence with intervention (for example maintenance of defence walls or construction of new defences); and
- 'Advance the line' – new defences built seaward of existing defences.

H8.3 The method is presented under the following sections: (1) baseline description; (2) management scenario; (3) assessment of impact; and (4) limitations. One management scenario has been developed for this sector.

1 Baseline description

H8.4 The baseline describes the SMP policies that apply to each rMCZ and any known coastal defence or flood management works that are planned in each rMCZ. It is only provided for rMCZs that are assumed, for the purposes of the IA, to impact on FCERM licence applications and/or FCERM activities as identified by the Environment Agency and Natural England (pers. comm., 2011). Information for this was gathered from five workshops in 2011 (two for the Net Gain Project Area and one for each of the remaining regional MCZ project areas), held with regional representatives of the Environment Agency and Natural England.

2 Management scenario

H8.5 It is assumed that the potential impact of FCERM activities on features protected by MCZs will be managed under the existing marine licensing framework, as provided for under the Marine and Coastal Access Act 2009 (MCAA).

H8.6 The management scenario is based on site-specific advice provided by Natural England and the Environment Agency (pers. comm., 2011). They have identified which rMCZs are likely to incur an additional cost for future FCERM licence applications, which are anticipated to result in additional monitoring or mitigation costs for operators, and which are likely to be incompatible with SMP policies. Information for this was gathered from five workshops in 2011 (two for the Net Gain Project Area and one for each of the remaining regional MCZ project areas), held with regional representatives of the Environment Agency and Natural England. Advice for each rMCZ was

provided based on an assessment of whether the proposed FCERM activity¹ is a) likely to take place in the site, b) likely to take place near to sensitive MCZ features, and c) whether the scale and type of FCERM activity anticipated would impact on the conservation objectives of the MCZ features. More information is given in Annex I, Annex F and in the Evidence Base.

H8.7 The purpose of the management scenario is to ensure that the potential costs of rMCZs to FCERM activities, and to society as a whole, are realistically represented in the IA. However, the assumptions do not pre-judge any licensing decisions made with regard to future applications for FCERM activities within or near rMCZs. After MCZ designation, the management of activities in MCZs will be decided on a site-by-site basis and may differ from the IA assumptions.

2.1 Assumptions about the assessment of environmental impact

H8.8 Based on the advice of Natural England and the Marine Management Organisation (JNCC and Natural England, 2011a) , the IA assumes that additional costs will be incurred for future FCERM licence applications that are near to, or overlap with, MCZs. These costs are likely to comprise additional time to consider and report impacts of proposals on achieving the conservation objectives of features protected by MCZs (JNCC & Natural England, 2011a).

H8.9 MCZ habitats and species of conservation importance are on the Oslo and Paris Convention (OSPAR) List (of Threatened and/or Declining Species and Habitats) and/or on the UK List of Priority Species and Habitats (the UK Biodiversity Action Plan (BAP)) (JNCC and Natural England, 2011a). Impacts upon these features are already assessed and mitigated against for FCERM activities in the absence of MCZ designations. Therefore, there will not be additional costs in undertaking assessments of impacts on habitats and species of conservation importance as a result of MCZs (JNCC and Natural England, 2011a, b).

H8.10 However, additional costs will be incurred in assessing the impacts of future FCERM activities upon MCZ broad-scale habitats. This is because although impacts on habitats are currently assessed in the absence of MCZs, they are not specifically assessed for the broad-scale habitats protected by MCZs (JNCC and Natural England, 2011a, b). Following MCZ designation, the operator will need to take some additional time to identify whether those habitats are broad-scale habitats that are protected by an MCZ. As described in Natural England and JNCC (2011a), the additional requirements of the environmental assessment are likely to comprise:

- additional time to obtain information on the MCZ, its boundary, the features it protects and their conservation objectives; and
- additional time to consider the impacts of the proposed FCERM activity on the MCZ broad-scale habitat features.

H8.11 It is also assumed that the assessments of environmental impact for future licence applications will not need to consider the impact of the activity on the overall ecological coherence

¹ Throughout this paper, 'proposed FCERM scheme' refers to FCERM schemes that are anticipated as part of an SMP. Unless otherwise stated, no detailed FCERM scheme proposals have yet been designed or formally submitted for licence consideration.

of the MCZ network. This is because the IA assumes that if this is necessary, it will be undertaken by Natural England (JNCC and Natural England, 2011a).

2.2 Assumptions about additional mitigation

H8.12 The Environment Agency and Natural England have advised on the additional mitigation of impacts of FCERM activities on MCZ features that is likely to be needed compared with the mitigation provided in the absence of MCZs (Environment Agency and Natural England, pers. comm., 2011). The advice does not pre-judge future licensing decisions. In providing the advice, the Environment Agency and Natural England considered potential direct and indirect impacts (for example through sediment deposition) of FCERM activities on MCZ features. They also considered whether FCERM activities would entail deposition and/or extraction in rMCZ Reference Areas, as neither is permitted (JNCC and Natural England, 2010).

H8.13 The advice, which was provided for each rMCZ, identified:

- features in rMCZs that are not likely to be impacted by FCERM activities, for example, because they are offshore; and
- features in rMCZs that are likely to be affected by FCERM activities (described as part of the SMP) because they a) occur in the vicinity of the proposed FCERM activity, b) are sensitive to the scale and type of FCERM activity proposed, and c) their conservation objectives would be adversely affected by the FCERM activities that would deliver the SMP policy; and
- Where mitigation of impacts of FCERM activities on MCZ features may be needed and may be provided, the advice provided a description of the anticipated FCERM activities and what the mitigation might entail. This was limited in some instances because sufficient information about the proposed FCERM scheme was not available; and
- SMP policies that are likely to be incompatible with conservation objectives of the rMCZ features because a) mitigation of impacts of FCERM activities on MCZ features cannot be provided whilst also delivering the SMP policy and b) delivery of the SMP policy is essential for social and/or economic reasons. This is discussed further in Section 2.3 below.

H8.14 The IA uses assumptions about the additional mitigation that is likely to be needed because the outcome of any future licensing decisions is not yet known. The assumptions do not pre-judge the outcomes of licensing decisions relating to applications for specific proposals. Following MCZ designation, the management of activities in MCZs will be decided upon on a site-by-site basis and may differ from the scenarios employed in the IA.

H8.15 Where mitigation of impacts of FCERM activities on MCZ features may be needed and may be provided, scenarios are used in the analysis to reflect uncertainty about whether mitigation will be needed and what it might entail. The IA focuses on provision of mitigation that is additional to the mitigation that would be provided in the absence of MCZs. In some instances, the scenarios include costs of investigations (which would not have been carried out in the absence of MCZs) to identify whether impacts on MCZ features are arising as a result of FCERM activities. The IA acknowledges that costs of mitigating impacts may arise for these sites, but the costs are not estimated because it is not known at this stage what the mitigation would entail.

2.3 Assumptions adopted where achievement of rMCZ features' conservation objectives may be incompatible with SMP policy

H8.16 The Environment Agency and Natural England have identified that future FCERM activity (as defined by the SMP policy) may not be compatible with the conservation objectives of the features recommended for protection by five rMCZs (pers. comm., 2011). Three of these rMCZs are in the Net Gain Project Area (rMCZ NG 10 and rMCZ Reference Areas 3 and 6) and two are in the Balanced Seas Project Area (rMCZ 25.2 and rMCZ Reference Area 3). In these cases it is not possible to both deliver the SMP policy and mitigate the impacts of FCERM activities on MCZ features. This situation does not apply to any rMCZs (including rMCZ Reference Areas) in the Finding Sanctuary and ISCZ project areas.

H8.17 The IA assumes for all five rMCZs that the SMP policy is delivered. This is because the SMP policy in each of the five rMCZs provides significant protection to life, property and/or important assets (Natural England and Environment Agency, pers. comm., 2011; further details are provided in Annex I). The IA includes a scenario for these sites which assumes that FCERM activities impact on the MCZ's features. Because the IA assumes that all rMCZs will be designated, the cost of this is assessed in terms of the cost of the operator undertaking, or make arrangements for the undertaking of, measures of equivalent environmental benefit to the damage which the FCERM activities will or are likely to have in or on the MCZ (as required in Section 126(7) of the Marine and Coastal Access Act (2009)). Based on advice provided by Natural England (pers. comm., 2012) the IA assumes that this cost arises only for impacts on MCZ features' that occur as a result of new FCERM activities or maintenance of existing FCERM schemes in the future. It is assumed that it does not apply to impacts that occur as a result of natural processes or for impacts that have arisen in the past (for example, as a result of past implementation of FCERM schemes).

H8.18 Where there is uncertainty about whether FCERM activities will impact on the MCZ's features, the IA assumes that FCERM activities will not impact on the MCZ's features. In the absence of information about what undertaking, or make arrangements for the undertaking of, measures of equivalent environmental benefit would entail, how it would be determined, and whether it will be necessary, this impact has not been quantified in the IA.

H8.19 The impacts have been assessed in this way because the assessment is of the impacts of the regional MCZ projects' site recommendations that were submitted in September 2011. The Minister's decision about designating this site will be also informed by Natural England's and JNCC's statutory advice on MCZs that was published on 18 July 2012. For these five rMCZs, the advice suggests that the rMCZ recommendations are adjusted to increase the likelihood that the MCZ features' conservation objectives can be achieved as well as the SMP policies in these rMCZs. The adjustment is not included in the IA because the IA is an assessment of the regional MCZ projects' recommendations only.

3 Assessment of impact

3.1 Increased costs of assessing environmental impact

H8.20 An extra cost will be incurred for future licence applications for FCERM schemes to assess the impact of the scheme on MCZ features and their conservation objectives. The Environment

Agency has provided rough estimates of the number of future licence applications for FCERM activities that are likely to incur this extra cost. It is not possible to accurately identify the number of licence applications, as the detail of future FCERM requirements is simply not known at this time (Environment Agency, pers. comm., 2012). These estimates are only for FCERM schemes anticipated as part of SMPs. They do not include estimates of licence applications that may be submitted by private parties (Environment Agency, pers. comm., 2012). Unless otherwise indicated, it is assumed that a minimum of one licence application will be submitted per FCERM scheme. However, these estimates are subject to change, depending on the specific design of work required in the future (Environment Agency, pers. comm., 2012).

H8.21 The Environment Agency provided estimates for the number of future licence applications at county level for Norfolk, Suffolk, Kent and Essex, as a whole for Finding Sanctuary Project Area and for individual sites in the Irish Sea Conservation Zones (ISCZ) Project Area (Environment Agency, pers. comm., 2012). Therefore, it has not been possible to provide rMCZ site specific estimates (in Annex I) for all MCZ project areas. Summaries of estimated numbers of future licence applications are provided for each regional MCZ project area in Annex F.

H8.22 The Environment Agency estimates that for future licence applications, assessing the impacts of FCERM activities on MCZ features will entail approximately 0.5–1 day of additional work per licence application. In some cases further additional consultant time may be needed (Environment Agency, pers. comm., 2012). The Environment Agency has stated that it is inappropriate for the costs of this additional work to be estimated (Environment Agency, pers. comm., 2012). This is because consultancy fees differ widely, both between companies and geographically across England. Consequently it has not been possible for the additional costs for future licence applications to be estimated in the IA.

3.2 Increased cost of mitigation

H8.23 Where Natural England and the Environment Agency have identified that rMCZs are compatible with SMP policy but that additional mitigation of impacts of FCERM activities on MCZ features is likely to be needed, the costs of this have been estimated in the IA based on information provided by the Environment Agency (Environment Agency and Natural England, pers. comm., 2012). It has not been possible to estimate mitigation costs for sites where it is unclear what management options could be employed.

4 Limitations

H8.24 There are a number of limitations associated with the approach adopted in the IA that derive from the assumptions made for the purposes of the IA.

- In the absence of detailed information about FCERM activities over the next 20 years, the IA assumptions may underestimate or over estimate the amount of additional work that will be needed to assess impacts on MCZ features in support of future FCERM licence applications. In the absence of costs for additional work in licence applications for FCERM activities, the cost to the operator is not quantified in the IA.

- In the absence of information about future licensing decisions, the IA assumptions may underestimate or over estimate the costs of the additional mitigation that will be put in place in order to protect the MCZ features.
- In the absence of information about the decisions that will be made concerning rMCZs that are incompatible with essential FCERM activities, it has not been possible to quantify the impacts of these sites on FCERM.

References

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