

Title: A Suite of recommended Marine Conservation Zones in English Inshore Waters and English, Welsh and Northern Irish Offshore Waters IA No: Lead department or agency: Defra Other departments or agencies: The Joint Nature Conservation Committee (JNCC), Natural England	Impact Assessment (IA)		
	Date: 29/06/12		
	Stage: Development/Options		
	Source of intervention: Domestic		
	Type of measure: Other		
Contact for enquiries:			

Summary: Intervention and Options	RPC Opinion: RPC Opinion Status
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Cost of Preferred (or more likely) Option			
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCBon 2009 prices)	In scope of One-In, Measure qualifies as One-Out?
Unquantified	Unquantified	Unquantified	No
			In/Out/zero net cost

What is the problem under consideration? Why is government intervention necessary?

A biologically diverse marine environment is of high value to society. Human activities affect many sea bed habitats and communities, and although many human activities are well regulated, management does not necessarily aim to conserve habitats and species. People may not be aware of the full negative environmental impacts that their activities have, and there is no existing mechanism to ensure that the full costs of activities are taken into account. The resulting depletion of marine habitats and species negatively affects society as a whole. Government intervention is required to address these market failures. Through protecting marine habitats and species, the value of the marine environment to society can be maintained.

What are the policy objectives and the intended effects?

The Government aims to have 'clean, healthy, safe, productive and biologically diverse oceans and seas'. An ecologically coherent network of Marine Protected Areas (MPAs) is an essential part of this strategy and will help marine ecosystems adapt to climate change. The network of MPAs will contribute to meeting the UK's commitments to international agreements and obligations and the Marine Strategy Framework Directive. Marine Conservation Zones (MCZs) are an essential component of this. The procedure to identify MCZs helps to deliver the Government's aim of a well-managed network of MPAs that is understood and supported by stakeholders.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Only one policy option has been considered: that of designating MCZs. The purpose of the IA is to inform the Government of the economic, social and environmental impacts of designating the MCZs, not to inform the policy decision about whether the suite of MCZs should be designated. Other options are not considered, as Policy Option 1 represents the consensus of the regional stakeholder groups (RSGs) on the suite of MCZs that best meets the regional MCZ projects' aims. Numerous options were considered by the RSGs as iterations during the planning process. The final recommendations were chosen both for their contribution to meeting the statutory Ecological Network Guidance provided by JNCC and Natural England and because they minimise adverse social and economic impacts, thereby meeting the requirements of the Marine and Coastal Access Act 2009. The regional MCZ projects are recommending the suite of MCZs as a necessary contribution to the ecologically coherent network of MPAs in the UK.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: Month/Year					
Does implementation go beyond minimum EU requirements?			No		
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	Micro Yes	< 20 Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded: Unquantified		Non-traded: Unquantified

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible SELECT SIGNATORY: _____ Date: _____

Summary: Analysis & Evidence

Policy Option 1

Description:

FULL ECONOMIC ASSESSMENT

Price Base Year 2010	PV Base Year 2012	Time Period Years 20	Net Benefit (Present Value (PV)) (£m)		
			Low: Unquantified	High: Unquantified	Best Estimate: N/A

COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	£56.0m		£13.7m	£237.5m
High	£536.6m		£25.6m	£817.5m
Best Estimate	£151.2m		£17.1m	£365.5m

Description and scale of key monetised costs by 'main affected groups'

Quantified economic impacts on:

- Aggregate extraction (£0.04–£2.72m/yr, *best estimate: £0.043m/yr*);
- Aquaculture (£0–£0.28m/yr, *best estimate: £0.14m/yr*);
- Cables (£0.004–£0.01m/yr, *best estimate: £0.008m/yr*);
- Commercial fisheries (£1.04–£6.93m/yr, *best estimate: £3.45m/yr*);
- Flood and coastal erosion risk management (£0.001m/yr);
- National defence (£0.01m/yr);
- Oil and gas (£0.25–0.47m/yr, *best estimate: £0.36m/yr*);
- Ports, harbours, commercial shipping and disposal sites (£0.33–£2.00m/yr, *best estimate: £1.32m/yr*);
- Recreation (£0.92–£1.58m/yr, *best estimate: £1.32m/yr*); and
- Renewable energy (£0.02–£23.50m/yr, *best estimate: £3.54m/yr*).

Plus costs to the public sector of managing MCZs (£7.22–£8.23m/yr, *best estimate: £7.72m/yr*) and costs for ecological surveys (£6.71m/yr).

Other key non-monetised costs by 'main affected groups'

In the high cost scenario, potential unknown costs of mitigating impacts of inter-array cable protection on MCZ features arise for 3 yet to be consented wind farms in 3 rMCZs. There are potential unknown costs for mitigation in the high cost scenario for ports, harbours, shipping and disposal sites, arising from unknown future plans and proposals. In the high cost scenario, rMCZs result in unknown licence application costs for aggregate extraction in strategic resource areas. Further impacts upon archaeological activity in MCZs that are not MCZ Reference Areas could arise from mitigation of impacts of archaeological techniques on MCZ features. Further increased costs may arise for licence applications for yet to be discovered archaeology. In the high cost scenario, the impacts of 4 rMCZs on flood and coastal erosion risk management are assessed in terms of the provision of compensation for the effect on the sites' features (because mitigation is not feasible). Similarly, in both the high and low cost scenarios, impacts of 3 rMCZs on navigational dredges and impacts of 1 rMCZ on a designated shipping anchorage are assessed in terms of the cost of compensation for the effect on the sites' features.

As a result of rMCZs, there are unknown costs for 3 known coastal developments (in 2 rMCZs), 5 known port developments and potential future developments for tidal energy (in 3 rMCZs). Also unknown costs occur to 3 known proposed power interconnector cable routes. The latter has not been costed as the routes are not known. Unknown one-off costs for shipping incurred for purchasing updated charts and Sailing Directions with MCZ locations and management requirements. In addition, social and unknown economic impacts from effects on fisheries have not been costed. There may be potentially significant impacts on some businesses and local economies through restrictions on certain recreational activities and unknown costs to the public sector.

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional		Optional	Optional
High	Optional		Optional	Optional
Best Estimate	Unquantified		Unquantified	Unquantified

Description and scale of key monetised benefits by ‘main affected groups’

It has not been possible to monetise the benefits of designating the sites. This is because the benefits cannot be readily quantified and the majority of benefits are not traded, so cannot be easily valued.

Other key non-monetised benefits by ‘main affected groups’

Conservation of marine species and habitats for current and future generations, which people value. Maintenance or improvement in condition of the features and the value of their non-extractive ecosystem services. Benefits to nature-based recreation activities. Protection of resources will benefit research and education, as reference areas can be used to assess and improve understanding of the long-term impacts of human activities on marine ecosystems. This should lead to improved management of such activities.

Key assumptions/sensitivities/risks

Discount rate

3.5%

Key assumptions:

- Where rMCZ Reference Areas are located within a larger rMCZ, the impacts of the former are assessed separately from the latter.
- Implementation of management measures (and impacts) will start when rMCZs are designated, assumed to occur at the beginning of 2013. Where necessary, verification will be necessary to confirm the presence and extent of features within many sites. This is assumed to take place in advance of implementation of management management measures.
- Management will be decided after designation, so plausible scenarios are used to describe the additional management of activities that may be needed. Uncertainty in the management that may be required is addressed through the use of more than one scenario, which reflects the potential range of impacts. Scenarios do not pre-judge the management that will be required in practice and may be underestimates or overestimates of the true impact of MCZs.
- Management will be fully enforced and effective.
- Boundaries, the locations of features and conservation objectives in MCZs are as specified in the regional MCZ projects’ site recommendations.
- The total impact of the suite of rMCZs has been adjusted to account for site overlaps.
- Mitigation of impacts of licensed activities will be provided through the existing marine licensing framework. Existing consents that could impact on MCZ features will not be reviewed following designation of MCZs.
- Costs that operators incur voluntarily and costs that are incurred prior to designation of MCZs are discussed in the narrative but not included in costs presented in the IA summary.
- The cost to the commercial fishing sector is equivalent to the value of landings and GVA affected attributed to the area of rMCZs. This is likely to be an overestimate of the true value of landings affected as a proportion of effort currently expended within rMCZs is likely to be displaced to areas outside rMCZs.
- Displacement of activities may increase environmental degradation elsewhere.
- In the absence of MCZs (in the baseline) it is assumed that existing government policies and commitments related to the marine environment are fully implemented and achieve their desired goals.
- Fisheries management beyond 12 nautical miles (nm) and between 6nm and 12nm will be sought through the Common Fisheries Policy.

Risk that operators prefer to undertake developments elsewhere as a result of rMCZs, and risk of unidentified cumulative impacts of MPAs.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as
Costs: £10.19	Benefits: N/A	Net: N/A	Yes	IN/OUT/Zero net cost

Evidence Base (for summary sheets)

There is discretion for departments and regulators as to how to set out the evidence base. However, it is desirable that the following points are covered:

- Problem under consideration;
- Rationale for intervention;
- Policy objective;
- Description of options considered (including do nothing);
- Monetised and non-monetised costs and benefits of each option (including administrative burden);
- Rationale and evidence that justify the level of analysis used in the IA (proportionality approach);
- Risks and assumptions;
- Direct costs and benefits to business calculations (following OIOO methodology);
- Wider impacts (consider the impacts of your proposals, the questions on pages 16 to 18 of the IA Toolkit are useful prompts. Document any relevant impact here and by attaching any relevant specific impact analysis (e.g. SME and equalities) in the annexes to this template)
- Summary and preferred option with description of implementation plan.

Inserting text for this section:

Replace the notes on this page with the text for the evidence base.

To maintain consistent formatting, apply Styles from the toolbar. The **Paste Without Format** toolbar button can be used to paste text from other documents in the current style here.