Title of Proposal

Scottish Nature Conservation Marine Protected Area (MPA) Project, Socio-Economic Analysis, Hatton-Rockall Basin (HRB)

Purpose and intended effect

- Background

The Scottish Government is committed to a clean, healthy, safe, productive and biologically diverse marine and coastal environment that meets the long-term needs of people and nature. In order to meet this commitment our seas must be managed in a sustainable manner - balancing the competing demands on marine resources. Biological and geological diversity must be protected to ensure our future marine ecosystem is capable of providing the economic and social benefits it yields today.

The introduction of the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009 means the Scottish Government now has the authority to introduce statutory marine planning for Scotland's seas. The Marine (Scotland) Act provides powers to designate MPAs out to 12 nautical miles (nm), and the Marine and Coastal Access Act provides powers to designate out to the rest of Scottish waters. The advice to Marine Scotland from their Statutory Nature Conservation Bodies (Scottish Natural Heritage (SNH) and the Joint Nature Conservation Committee (JNCC)) recommended the designation of a minimum of 29 of the 33 MPAs identified would be required to achieve an ecologically coherent network. Following recommendations from a Marine Scotland commissioned independent review of the science underpinning the network, Marine Scotland have put forward 30 MPA sites for designation, each with their own impact assessment, that adequately represent search features (features is a collective term for species, habitats and geology) in the network.

The Hatton-Rockall Basin MPA proposal lies to the far west of Scotland in offshore waters and is aimed at protecting deep sea sponge aggregations and mud habitat. The site boundary encompasses an area of geodiversity interest known as polygonal fault systems and sediment drifts. The site is located offshore to the west of the Outer Hebrides. There are two broad conservation objectives for the creation of a Scottish network of MPAs: either to conserve features in their current state, or to afford them protection to enable recovery to a state in which they remain healthy and productive. For the proposed Hatton-Rockall Basin site the conservation objective for all features is to conserve but with the caveat that our knowledge on the condition of the proposed protected features is uncertain.

<table>
<thead>
<tr>
<th>Summary of Features and Conservation Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feature</strong></td>
</tr>
<tr>
<td><strong>Biodiversity Features</strong></td>
</tr>
<tr>
<td>Deep sea sponge aggregations</td>
</tr>
<tr>
<td>Offshore deep sea muds</td>
</tr>
<tr>
<td><strong>Geodiversity Features</strong></td>
</tr>
<tr>
<td>Marine Geomorphy of the Scottish Shelf bed-</td>
</tr>
<tr>
<td>sediment drifts, polygonal fault systems</td>
</tr>
</tbody>
</table>
Objective

The purpose of Nature Conservation MPAs is to safeguard nationally important species, habitats and geology across Scotland’s marine environment. MPAs are being designed to complement existing site-based measures. The intention is to designate and manage MPAs under the sustainable use principle.

An MPA network will support greater national and international ecological coherence as stipulated by:

- the Marine (Scotland) Act 2010
- the Marine and Coastal Access Act 2009
- the Convention on Biological Diversity
- the World Summit on Sustainable Development
- the OSPAR1 convention

Proposed MPAs are based primarily on scientific evidence, and MPA search features have been used to underpin the initial selection of possible MPA locations. MPA search features, identified by SNH and JNCC, represent species, habitats and natural features of conservation importance for which spatial measures are thought to be an appropriate conservation measure.

Evidence in this BRIA is drawn from the work of statutory nature conservation body JNCC2 and consultants ABPmer and eftec3. It brings together the science-led arguments for designation and the projected potential social and economic consequences of such action. This will enable Scottish Ministers to make a balanced judgment on whether the proposed Hatton-Rockall Basin site should be designated as an MPA. The site has been identified for designation as an MPA due to the confirmed presence of biodiversity and geodiversity features detailed above.

This BRIA examines the socio-economic impact of designating the proposed Hatton-Rockall Basin site as an MPA. The assessment period covers the 20 year period from 2014 to 2033 - reflecting the time horizon within which the majority of impacts are expected to occur. As with any socio-economic assessment related to environmental designations, the findings should be considered as estimates, and in cases where greater uncertainty exists, such as for fisheries, are deliberately presented as worst-case scenarios to build in necessary caution.

In addition a range of scenarios are presented to account for the inherent uncertainty associated with such proposals. Lower, intermediate and upper scenarios have been developed to reflect the requirements for management measures, the spatial extent of features and the extent to which OSPAR/BAP4 features are already afforded protection. The intermediate scenario is viewed as the best estimate. The estimated impacts across the three scenarios commonly vary quite significantly.

Rationale for Government intervention

The Scottish Government has a number of international commitments to deliver a network of MPAs. Scotland’s marine environment provides: food; energy sources (wind, wave and tidal

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1 Oslo and Paris Commission
2 http://jncc.defra.gov.uk/page-5469
3 http://www.scotland.gov.uk/Publications/2013/08/9645
4 Biodiversity Action Plan
power, minerals and fossil fuels); routes and harbours for shipping; tourism and recreational opportunities; and sites of cultural and historical interest. Scotland’s seas contain important distinctive habitats and support a diverse range of species that require protection in order to be conserved or for recovery to be facilitated. Due to the competing demands placed upon Scotland’s marine resources, more effective management is required so that a balance between conservation and sustainable use can be struck. Currently there is not sufficient protection in place to ensure that the marine environment is properly protected and complex ecosystems safeguarded. With the aid of the Marine (Scotland) Act and the Marine and Coastal Access Act the Scottish Government is better able to offer conservation measures to those features most in need of protection via the designation of a new MPA network. This network will afford greater assurance to features which are considered to most deserve our protection, either because they are rare, threatened or declining.

An ecologically coherent network of well-managed MPAs is vital to conserve and regenerate our seas, in turn protecting the many goods and services they provide now, and for generations to come.

Consultation

- **Within Government**

Consultation has been undertaken with policy colleagues within Marine Scotland, including aquaculture, nature conservation, marine renewables, fisheries and fresh water fisheries, as well as Transport Scotland, which has responsibility for ports, harbours and ferries. Historic Scotland and the Scottish Environmental Protection Agency have also been consulted. Meetings were held with policy officials within these Government departments and agencies to discuss the development of the Nature Conservation MPAs. We have also been working with Defra and other UK Departments on the join up between Scottish MPAs and the wider UK contribution to the OSPAR North East Atlantic MPA network.

- **Public Consultation**

Over the summer of 2013, Marine Scotland consulted on a number of proposals to take forward integrated marine planning for Scotland’s seas, including MPAs. This consultation provided an opportunity for all stakeholders to comment, formally, on the proposed MPA network. The consultation sought views on whether 33 areas should be considered as possible Marine Protected Areas to supplement existing protected areas and create a wider network. Comments were also sought on a range of management options. Responses were submitted using the consultation questionnaire, by email or in paper copy. Submissions were received from 14,703 individuals and organisations. This included 332 standard consultation responses.

- **Business**

Discussions with businesses, including representatives from oil and gas, aquaculture, renewables, fishing and ports as well as ecotourism and recreational interests have taken place both preceding and during the consultation period. In addition, industry representatives are updated regularly via the Marine Strategy Forum and bilateral discussions. Marine Scotland is continuing engagement with stakeholders through regular bi-lateral meetings with key organisations, ad hoc meetings with other interests, and regular sectoral meetings. In addition, Marine Scotland oversaw a Project Advisory Group whose membership comprised of one member from each marine interest as well as four fishing interests, to ensure wide representation.
Options

Option 1: Do nothing

Option 1 is the ‘Do nothing’ option; this is the baseline scenario. Under this option, there is no change to the management measures in place at the Hatton-Rockall Basin site. Accordingly, no additional management measures would be required.

Option 2: Designate site as a Nature Conservation Marine Protected Area

Option 2 involves the formal designation of the Hatton-Rockall Basin site. Designation would provide recognition and protection to the natural features of the site while also contributing to the wider Scottish and UK MPA network.

- Sectors and groups affected

The following sectors have been identified as present (or possibly present in the future) within the proposed Hatton-Rockall Basin MPA site and potentially interact with one or more of the features:

- Telecomm Cables
- Public Sector

While the above sectors are all potentially operational within the proposed MPA site, not all will be impacted by designation.

One operational telecom cable (TAT 10B west section) overlaps with deep sea sponge aggregations (all scenarios) and offshore deep sea muds (all scenarios) within the proposed MPA boundary. However, no cost impacts are foreseen as the site is located beyond the 12 nautical mile threshold (within which licences are required for cables).

Affected sectors may be impacted to a greater or lesser degree by designation depending on which scenario is pursued and which management option is preferred.

Benefits

Option 1: Do nothing

No additional benefits are expected to arise from this policy option.

Option 2: Designate site as a Nature Conservation Marine Protected Area

Designation will help to conserve the range of biodiversity and geodiversity in Scottish waters. It will complement (not duplicate) other types of designation and provide an essential contribution to establishing an ecologically coherent network of MPAs. In the absence of MPAs, there would be areas of Scotland’s marine environment and a high number of species and habitats that would continue to be unprotected.

On designation, appropriate management will reduce the risk that the extent, population, structure, natural environmental quality and processes of features protected will decrease or degrade over time. The risk that the features will be adversely affected by human activities is greater if not protected by an MPA. In addition, beyond a certain point of degradation, changes to ecosystems may be large and irreversible, resulting in a significant societal cost.
Avoiding such a reduction in ecosystem services is thus a key benefit of designation.

While it may not be possible with current levels of research to monetise benefits with a satisfactory degree of rigour, it is clear that many of the benefits relate to aspects of our lives that we take for granted and for which it is good practice and common sense to maintain through protection measures such as MPAs.

**Contribution to an Ecologically Coherent network**

Scotland's seas support a huge diversity of marine life and habitats, with around 6,500 species of plants and animals, with plenty more no doubt to be found in the undiscovered deeps of the north and west of Scotland. Our seas account for 61% of UK waters and remain at the forefront of our food and energy needs, through fishing, aquaculture, oil and gas, and new industries such as renewables, as well as recreation activities and ecotourism. An ecologically coherent network of well-managed MPAs is vital to conserve and regenerate our seas, in turn protecting the many goods and services they provide now, and for generations to come. Furthermore it is likely that a network of Nature Conservation MPAs will demonstrate beneficial network effects, i.e. the benefit from the network as a whole may be greater than the sum of the benefits from the individual MPAs. These effects are potentially of great importance in marine protected areas because of the lack of barriers and mobility of species.

**Ecosystem Services Benefits**

Ecosystems are very complex, and it is thought that the more complex an ecosystem is the more resilient it is to change. Therefore, if it is damaged or if a species or habitat is removed from that ecosystem, the chances of survival for those services reduce as the ecosystem becomes weaker. However, by conserving or allowing the species and habitats that make up that ecosystem to recover, we can be more confident of the continuation of the long-term benefits the marine environment provides.

Non-use value of the natural environment is the benefit people get simply from being aware of a diverse and sustainable marine environment even if they do not themselves ‘use it’. We take for granted many of the things we read about or watch, such as bright colourful fish, reefs and strange shaped deep sea curiosities, to lose them would be a loss to future generations that will not be able to experience them. Due to the scientific uncertainty involved it is challenging to put a true value on this, but the high quality experience and increasing knowledge of Scotland’s seas can be better preserved through measures such as MPAs. It is expected that non-use value will be attained as a result of designation both from the knowledge that the features are receiving adequate protection along with the wider conservation objectives that designation supports. Whilst ecosystem services benefits at an individual site level cannot be easily calculated, the non-use value to Scottish households of marine conservation in Scottish waters generated by a well-functioning MPA network as a whole is estimated to be within the range of £239–583 million\(^5\) over the 20 year assessment period.

For more details on the anticipated benefits to ecosystem services see appendix A.

**Costs**

**Option 1: Do nothing**

This option is not predicted to create any additional costs to the sectors and groups outlined

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\(^5\) [http://www.scotland.gov.uk/Publications/2013/08/9645](http://www.scotland.gov.uk/Publications/2013/08/9645)
above. However, it should be noted that the societal cost of not designating could be both large and irreversible relative to the current condition of the marine environment. The absence of management measures to conserve the identified features may produce future economic and social costs in terms of increased marine habitat and biodiversity degradation. The option to not designate holds the potential to undermine the overall ecological coherence of the Scottish MPA Network. This potentially large and irreversible societal cost avoided is presented within the benefits section of the 'do designate' scenario (option 2) to avoid double counting the same impact.

**Option 2: Designate site as a Nature Conservation Marine Protected Area**

Costs have been evaluated based on the implementation of potential management measures. Where feasible costs have been quantified, where this has not been possible costs are stated qualitatively. All quantified costs have been discounted in line with HM Treasury guidance using a discount rate of 3.5%. Discounting reflects the simple actuality that present consumption is preferred to future consumption.

**Public Sector**

The decision to designate Hatton-Rockall Basin as a Nature Conservation MPA, would result in costs being incurred by the public sector in the following areas:

- Preparation of Statutory Instruments
- Development of voluntary instruments
- Site monitoring
- Compliance and enforcement
- Promotion of public understanding

The majority of these costs will accrue at the national level and as such have not been disaggregated to individual site level. Only the preparation of Statutory Instruments has been estimated at the site level.

<table>
<thead>
<tr>
<th>Site-specific Public Sector Costs (£Million, 2014-2033)</th>
<th>Lower Estimate</th>
<th>Intermediate Estimate</th>
<th>Upper Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation of Statutory Instrument</td>
<td>0.005</td>
<td>0.005</td>
<td>0.005</td>
</tr>
<tr>
<td>Total Quantified Public Sector Costs</td>
<td>0.005</td>
<td>0.005</td>
<td>0.005</td>
</tr>
</tbody>
</table>

**Total Costs**

Total quantified costs are presented in present value terms.

<table>
<thead>
<tr>
<th>Total Present Value of Quantified Costs (£Million, 2014-2033)</th>
<th>Lower Estimate</th>
<th>Intermediate Estimate</th>
<th>Upper Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Sector</td>
<td>0.005</td>
<td>0.005</td>
<td>0.005</td>
</tr>
<tr>
<td>Total Present Value of Costs</td>
<td>0.005</td>
<td>0.005</td>
<td>0.005</td>
</tr>
</tbody>
</table>

**Scottish Firms Impact Test**

This section is informed by evidence gathered during the consultation phase. In addition to
the formal consultation process there has been regular and ad hoc meetings with a number of businesses and interests potentially affected by this proposal. Many of the businesses potentially affected include some small and micro-sized firms. Additional costs imposed by designation have the potential to fall on small businesses.

Officials undertook three series of visits inviting local fishermen and related interests. The first was pre-consultation to encourage these businesses to respond, during the consultation as part of the wider joint marine consultations, and lastly as part of a study that was considering the potential effects of fisheries displacement which may occur as a consequence of future MPA management.

In total there were over 70 events across the country and the locations were designed to take in local interests that may be affected or interested in any of the proposed MPAs. These events were well attended by fishermen as well as their federation or association representatives, particularly: the Scottish Fishermen's Federation, the Shetland Fishermen's Association, the Orkney Fishermen's Association, the Scottish Whitefish Producer's Association, the Clyde Fishermen’s Association, the Mallaig and North-West Fishermen's Association, and the Western Isles Fishermen's Association.

The development of the MPA proposals has been undertaken in dialogue with marine stakeholders, including national, international and local fishermen and fishing interests. The Marine Strategy Forum has provided strategic level engagement on MPA network development, and Fishing Focus provides a further national forum for engagement on MPAs. We are continuing engagement with stakeholders, including businesses through regular bi-laterals with key organisations, ad hoc meetings with other interests, and regular sectoral meetings. In addition, Marine Scotland oversaw a Project Advisory Group whose membership comprised of one member from each marine interest as well as four fishing interests, to ensure wide representation.

- **Competition Assessment**

Designation of the proposed Hatton-Rockall Basin site as an MPA will not affect marine activities where businesses operate within a given spatial area or where developers require a spatial licence for new or amended operations. No such affected activity currently exists at the proposed Hatton-Rockall Basin site.

**Competition Filter Questions**

*Will the proposal directly limit the number or range of suppliers? e.g. will it award exclusive rights to a supplier or create closed procurement or licensing programmes?*

**No.** No such affected activity currently exists at the proposed Hatton-Rockall Basin site.

*Will the proposal indirectly limit the number or range of suppliers? e.g. will it raise costs to smaller entrants relative to larger existing suppliers?*

**No.** No such affected activity currently exists at the proposed Hatton-Rockall Basin site.

*Will the proposal limit the ability of suppliers to compete? e.g. will it reduce the channels suppliers can use or geographic area they can operate in?*

**No.** No such affected activity currently exists at the proposed Hatton-Rockall Basin site.

*Will the proposal reduce suppliers' incentives to compete vigorously? e.g. will it encourage...*
or enable the exchange of information on prices, costs, sales or outputs between suppliers?

No. No such affected activity currently exists at the proposed Hatton-Rockall Basin site.

- Test run of business forms

It is not envisaged that designation of the proposed Hatton-Rockall Basin site will result in the creation of new forms for businesses to deal with, or result in amendments of existing forms.

**Legal Aid Impact Test**

It is not expected that the proposed Nature Conservation MPA will have any impact on the current level of use that an individual makes to access justice through legal aid or on the possible expenditure from the legal aid fund as any legal/authorisation decision impacted by the proposed MPA will largely affect businesses rather than individuals.

Discussions with Scottish Government Legal colleagues are on-going but at this stage it is not envisaged that new MPAs will have any legal aid impacts.

**Enforcement, sanctions and monitoring**

Responsibility for compliance, monitoring and enforcement of the provisions will be carried out by Marine Scotland. Reserved issues will continue to be addressed by the respective departments within the UK government. The Plan will be delivered through the existing marine licensing system, nature conservation measures, in addition to Scottish Planning Policy and other licensing/consenting frameworks. Enforcement and authorisation decisions within these frameworks carried out by public authorities must have regards to new MPAs, these include: local authorities, The Crown Estate, port and harbour authorities and terrestrial planning authorities.

**Implementation and delivery plan**

The suite of new MPAs will be put before the Scottish Parliament in 2014 and if adopted they will have statutory status. Once in place, public bodies will have to take any authorisation or enforcement decision in accordance with appropriate MPAs unless relevant consideration indicates otherwise. The MPA network will be reviewed every six years to ensure that they are meeting, or are capable of meeting, the agreed conservation objectives and whether any additional management is likely to be required.

**Summary and recommendation**

Option 2 - designate the site as a Nature Conservation Marine Protected Area - is the preferred option.

Designation will help to conserve the range of biodiversity and geodiversity in Scottish waters. It will complement (not duplicate) other types of designation and provide an essential contribution to establishing an ecologically coherent network of MPAs. In the absence of MPAs, there would be areas of Scotland’s marine environment and a high number of species and habitats that would continue to be unprotected. On designation, appropriate management will reduce the risk that the extent, population, structure, natural environmental quality and processes of features protected will decrease or degrade over time. The risk that the features will be adversely affected by human activities is greater if not protected by an MPA.
Declaration and publication

I have read the Business and Regulatory Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs. I am satisfied that business impact has been assessed with the support of businesses in Scotland.

Signed:

Richard Lochhead

Date:

21st July 2014

Richard Lochhead, Cabinet Secretary for Rural Affairs and Environment

Scottish Government Contact point:

Marine_Environment_Mailbox@scotland.gsi.gov.uk
## Summary of Ecosystem Services Benefits arising from Designation of the Site as an MPA

<table>
<thead>
<tr>
<th>Services</th>
<th>Relevance to Site</th>
<th>Baseline Level</th>
<th>Estimated Impacts of Designation</th>
<th>Value Weighting</th>
<th>Scale of Benefits</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish for human consumption</td>
<td>Moderate.</td>
<td>Nil</td>
<td>Nil</td>
<td>Minimal</td>
<td>Nil</td>
<td>Low</td>
</tr>
<tr>
<td>Fish for non-human consumption</td>
<td></td>
<td>Nil</td>
<td>Nil</td>
<td>Minimal</td>
<td>Nil</td>
<td>Low</td>
</tr>
<tr>
<td>Gas and climate regulation</td>
<td>Nil - Low</td>
<td>Nil - Low</td>
<td>Nil, or at best a very low level of protection of parts of ecosystem providing these services</td>
<td>Low</td>
<td>Nil - Low</td>
<td>High</td>
</tr>
<tr>
<td>Natural hazard protection</td>
<td>Nil - Low</td>
<td>Nil - Low</td>
<td></td>
<td>Low</td>
<td>Nil - Low</td>
<td>High</td>
</tr>
<tr>
<td>Regulation of pollution</td>
<td>Nil - Low</td>
<td>Nil - Low</td>
<td></td>
<td>Low</td>
<td>Nil - Low</td>
<td>High</td>
</tr>
<tr>
<td>Non-use value of natural environment</td>
<td>Moderate – protected feature, and contribution of the site to MPA network, have non-use value.</td>
<td>Non-use value of the site may decline</td>
<td>Nil, no change in key characteristics of site</td>
<td>Moderate</td>
<td>Nil - Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Recreation</td>
<td>Minimal</td>
<td>Minimal</td>
<td>Minimal</td>
<td>Minimal</td>
<td>Minimal</td>
<td>Low</td>
</tr>
<tr>
<td>Research and Education</td>
<td>Polygonal faults and biodiversity of the deep sea sponges gives research interest.</td>
<td>Low, may decline</td>
<td>Nil, no change in key characteristics of site</td>
<td>Minimal</td>
<td>Minimal</td>
<td>Low</td>
</tr>
<tr>
<td>Total value of changes in ecosystem services</td>
<td>Very low value partly because of little information</td>
<td></td>
<td></td>
<td>Minimal</td>
<td>Minimal</td>
<td>Low</td>
</tr>
</tbody>
</table>