

<b>Scottish MPA Project Management Options Paper</b>
<b>THE BARRA FAN AND HEBRIDES TERRACE SEAMOUNT NATURE CONSERVATION MPA</b>
JULY 2014

JNCC developed the present paper to support discussions with stakeholders about the management of activities within this Nature Conservation Marine Protected Area (MPA). The paper should only be considered a starting point for discussions around the ongoing process of developing any management necessary to deliver the conservation objectives of the designated features; the process will continue after site designation.

The paper does not attempt to cover all possible future activities and does not consider likely cumulative effects that could result from different types of activities being carried out within the MPA. However, it does consider a range of activities and developments considered to be taking place within the MPA at the point of writing, and focuses on where we consider there could be a risk of the protected features not achieving their conservation objectives.

The following documents provide further information about the protected features in terms of confidence in the evidence base and assessment of the MPA against the MPA Selection Guidelines and should be read alongside this Management Options Paper:

- Site Summary Document
- Data Confidence Assessment
- Detailed assessment against the MPA Selection Guidelines

The documents are all available at [www.jncc.defra.gov.uk/page-6489](http://www.jncc.defra.gov.uk/page-6489)

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## DEVELOPMENT OF MANAGEMENT OPTIONS FOR THE BARRA FAN AND HEBRIDES TERRACE SEAMOUNT MPA

### Management Options Summary

This section summarises JNCC's management options for the Barra Fan and Hebrides Terrace Seamount MPA. The options are being considered to eliminate or manage the risk of not meeting the conservation objective to conserve the protected features within the MPA. The full detail on these options is provided in the subsequent sections of the Management Options Paper. Discussions between sea users, scientists and managers will be needed to develop any subsequent management measures.

Activity	Management options
<b>Fishing activity:</b> <b>Bottom contacting mobile gear</b> (e.g. otter trawling)	<p><b>No additional management:</b> There is a risk of not achieving the conservation objectives for <b>burrowed mud, offshore deep sea muds and offshore subtidal sands and gravels</b>. The conservation objective would not be achieved for <b>seamount communities</b> and JNCC recommend that this option should not be applied.</p> <p><b>Reduce/limit pressures:</b> This option would reduce, but not entirely eliminate, the risk of not achieving the conservation objectives for <b>burrowed mud, offshore deep sea muds and offshore subtidal sands and gravels</b>. Appropriate management could include restrictions on fishing with damaging gears over a proportion of the extent of each of these features, and there may be a greater requirement for restrictions on gears that penetrate deeply into the sediment. The location of areas to be covered by management restrictions would be decided in consultation with fishers. Restrictions could be permanent in some cases or temporary/adaptive in others. If applied to the steep flanks of the seamount feature between depths where <b>seamount communities</b> are known to occur, this option would reduce, but not entirely eliminate the risk of seamount communities not achieving their conservation objectives.</p> <p><b>Remove/avoid pressures:</b> This option would reduce the risk of not achieving the conservation objectives for <b>burrowed mud, offshore deep sea muds, and offshore subtidal sands and gravels</b> to the lowest possible levels. This option would reduce the risk to <b>seamount communities</b> not achieving their conservation objectives to the lowest possible levels. JNCC recommend that this option should be applied to the entirety of the seamount feature in Scottish waters.</p>
<b>Bottom contact static gear</b> (e.g. set netting and line fishing)	<p><b>No additional management:</b> This option is considered to be sufficient for bottom contact static gear to achieve the conservation objectives for <b>burrowed mud, offshore deep sea muds, and offshore subtidal sands and gravels</b>. However, the conservation objective would not be achieved</p>

	<p>for <b>seamount communities</b>.</p> <p><b>Reduce/limit pressure:</b> The conservation objective would not be achieved for <b>seamount communities</b>.</p> <p><b>Remove/avoid pressure:</b> This is the only option that would achieve the conservation objective for <b>seamount communities</b> and JNCC recommend that this option should be applied where this feature is present.</p>
<b>Oil and Gas activity</b>	<p>The potential impacts of oil and gas activity on the protected features within the MPA will be assessed through the existing EIA process on a case-by-case basis. Early dialogue with DECC and JNCC would help identify and resolve any issues at an early stage.</p>

## **1 Introduction**

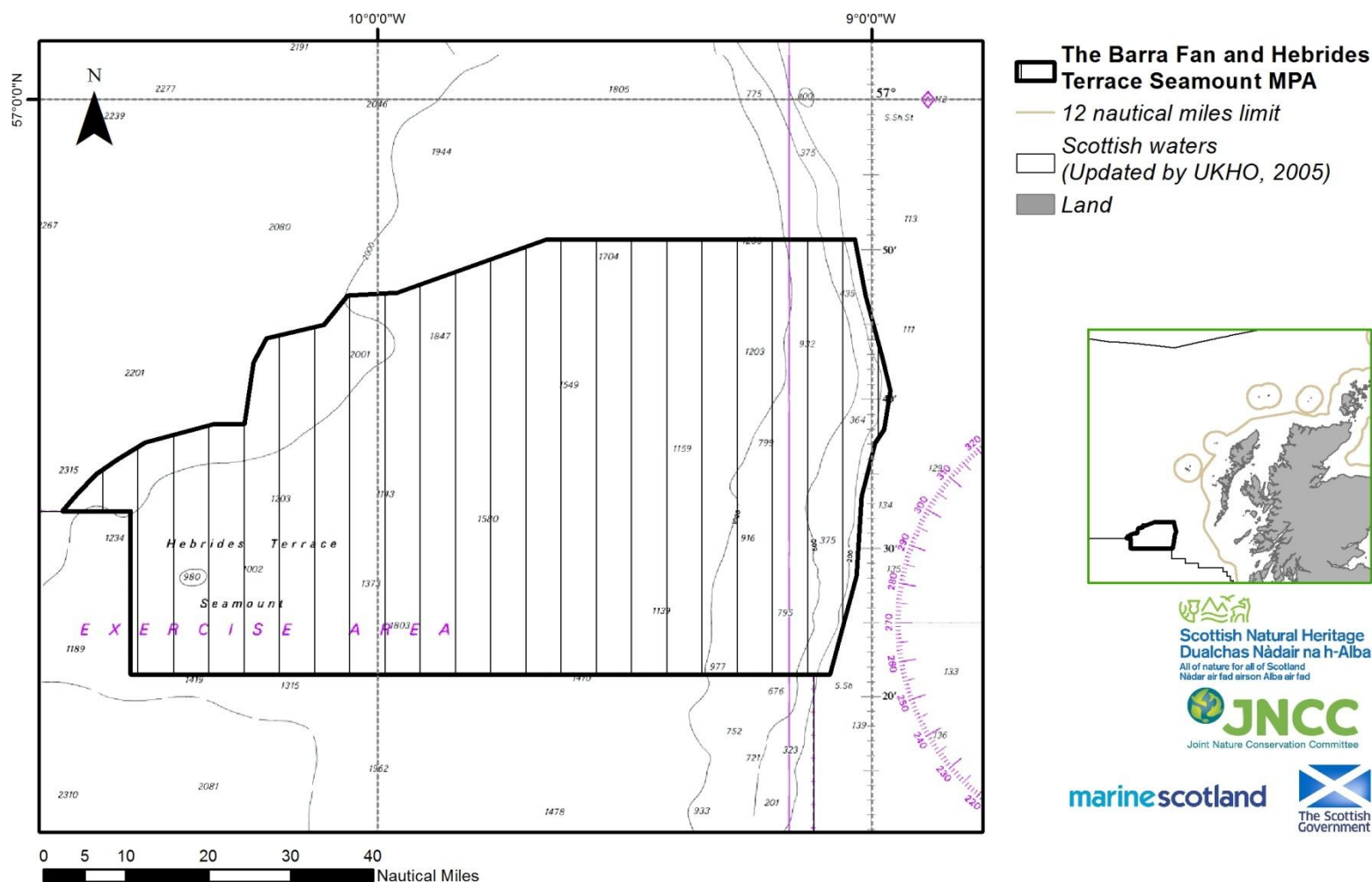
The Barra Fan and Hebrides Terrace Seamount Marine Protected Area (MPA) is located in offshore waters to the west of Scotland, adjacent to the boundary with Irish national waters, as shown in map 1. The MPA follows the continental shelf as it descends into the deep Rockall Trough, and includes the Hebrides Terrace Seamount. Seamounts are extinct volcanoes and hotspots for marine life, providing a hard surface suitable for the establishment of cold water corals, deep sea sponges and wider seamount communities. The Hebrides Terrace seamount is thought to be significant to the health of Scotland's seas due to the way it influences the movement of underwater currents, which bring a good supply of nutrients to the area. The area of the Barra Fan and Hebrides Terrace Seamount MPA is approximately 4,373 km<sup>2</sup>.

Further details on the MPA can be found in the Barra Fan and Hebrides Terrace Seamount Site Summary Document available at [www.jncc.defra.gov.uk/page-6489](http://www.jncc.defra.gov.uk/page-6489)

No licensed activities currently take place within the MPA, however, the eastern area of the MPA overlaps with an area identified with potential for oil and gas activity by the Department of Energy and Climate Change (DECC), and so may be subject to development in the future. Several different fisheries overlap the Barra Fan and Hebrides Terrace Seamount MPA. The main fishery targets deep-sea fish species, and is predominantly concentrated on the upper part of the seamount in the south-west, and along the shallower waters of the continental slope in the eastern section of the MPA. Trawling and long-lining for hake also occur in the shallower portion of the MPA. Vessel Monitoring System data suggests a multi-national fleet operates within the MPA, including vessels from a number of EU countries, Norway and the Faroe Islands.

JNCC produced the present document to provide background information on the development of management options for the Barra Fan and Hebrides Terrace Seamount MPA, and will use it to support ongoing stakeholder discussions. The document describes the known location and extent of protected features and our current knowledge of where activities take place within the MPA. It also presents the management options for each of those activities that JNCC currently consider capable of delivering the conservation objectives for protected features. The document encourages stakeholders with an interest in the area to input to the development of appropriate management measures that will ensure the Barra Fan and Hebrides Terrace Seamount MPA makes a genuine and long-lasting contribution to the protection of Scotland's marine environment.

Map 1 Location of the Barra Fan and Hebrides Terrace Seamount MPA



## 2 Roles

JNCC provides conservation advice to Scottish Government on how it might be possible to achieve the conservation objectives for the protected features within MPAs. JNCC's advice includes possible management options for controlling human activities in the Barra Fan and Hebrides Terrace Seamount MPA.

Marine Scotland lead the discussions on developing appropriate management with stakeholders, taking account of JNCC's and others' advice, identify the preferred management option and develop specific management measures with relevant authorities. Marine Scotland is responsible for making recommendations to Scottish Ministers on these measures and any review of site management in the future. Scottish Ministers will decide whether to implement these measures. Marine Scotland expect that licensed activities taking place within, or nearby, the MPA will continue to be managed through the existing licensing system. For MPAs in offshore waters, Marine Scotland expect the process under the EU Common Fisheries Policy that is already in place for delivering any fisheries management requirements for Special Areas of Conservation will be followed.

Stakeholders can provide additional evidence to support the development of management measures including local knowledge of the environment and of activities. Discussions with stakeholders will be one way of highlighting the implications of any management measures to JNCC, Scottish Government, and other regulators. This input will contribute to the development of well-designed and effective management measures.

## 3 Protected features and conservation objectives

The Barra Fan and Hebrides Terrace Seamount MPA has been designated as part of a network of new Nature Conservation MPAs, which is being established to help conserve a range of Scotland's important marine habitats, wildlife, geology and landforms. The Barra Fan and Hebrides Terrace Seamount MPA has been designated for the following protected features (as shown in maps 2a and 2b):

- Burrowed mud
- Offshore subtidal sands and gravels
- Offshore deep sea mud
- Orange roughy\*
- Seamount communities\*\*
- Continental slope\*\*
- Seamounts\*\*\*
- Geodiversity features\*\*\* – prograding wedges, continental slope turbidite canyons, slide deposits scour moat, continental slope, Hebrides Terrace Seamount, iceberg ploughmark fields \*\*\*\*

\* In the 1990's, a targeted demersal otter trawl fishery for orange roughy opened up in deep water west of Scotland. However, in recent years, a zero Total Allowable Catch (TAC) was implemented for orange roughy in ICES Division area VI, which has effectively ended the fishery in this region. As a result, orange roughy has not been considered further in the context of the management options below. However, if the zero TAC measure were to be lifted in the future, it may be necessary to identify management options for fisheries targeting orange roughy within this MPA.

\*\*In March 2013, the ICES/NAFO Joint Working Group on Deep-water Ecology (WGDEC) recommended a closure to all bottom-contact fishing practices that occur on the steep flanks

around the entirety of the Hebrides Terrace Seamount (i.e. in both UK and Irish waters)<sup>1</sup>. The purpose of their recommendations is to protect Vulnerable Marine Ecosystems; this includes species representative of seamount communities<sup>2</sup>.

\*\*\*These features are considered to have a low sensitivity to the pressures associated with marine activities taking place within the MPA<sup>3</sup>. As such, there is not considered to be a significant risk to the features achieving their conservation objectives and so, with the exception of iceberg ploughmark fields, these features have not been reported further in the context of the management options presented below.

\*\*\*\*The iceberg ploughmark fields are the only geodiversity features considered sensitive to the pressures associated with marine activities occurring within the MPA, and therefore, the only geodiversity feature considered for management. However, the feature overlaps with the distribution of offshore subtidal sands and gravels within the MPA and it is considered that the management options presented for offshore subtidal sands and gravels will also apply to the iceberg ploughmark fields, and will carry a similar perceived risk in terms of achieving the feature's conservation objectives. As such, this feature has not been reported further in the context of the management options explored below.

Conservation objectives set out the desired quality of the protected features within each MPA. JNCC recommend that the conservation objectives for the protected features within the Barra Fan and Hebrides Terrace Seamount MPA are 'conserve' for all features. The ecological condition of the features has not been verified by direct evidence so the uncertainty of the feature condition is noted alongside the objective (feature condition uncertain).

Improved evidence on the condition of these features will be collected as part of the six-year reporting cycle required under the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009, or through provision of other evidence, may result in modifications to JNCC's recommendations for management to achieve the features' conservation objectives.

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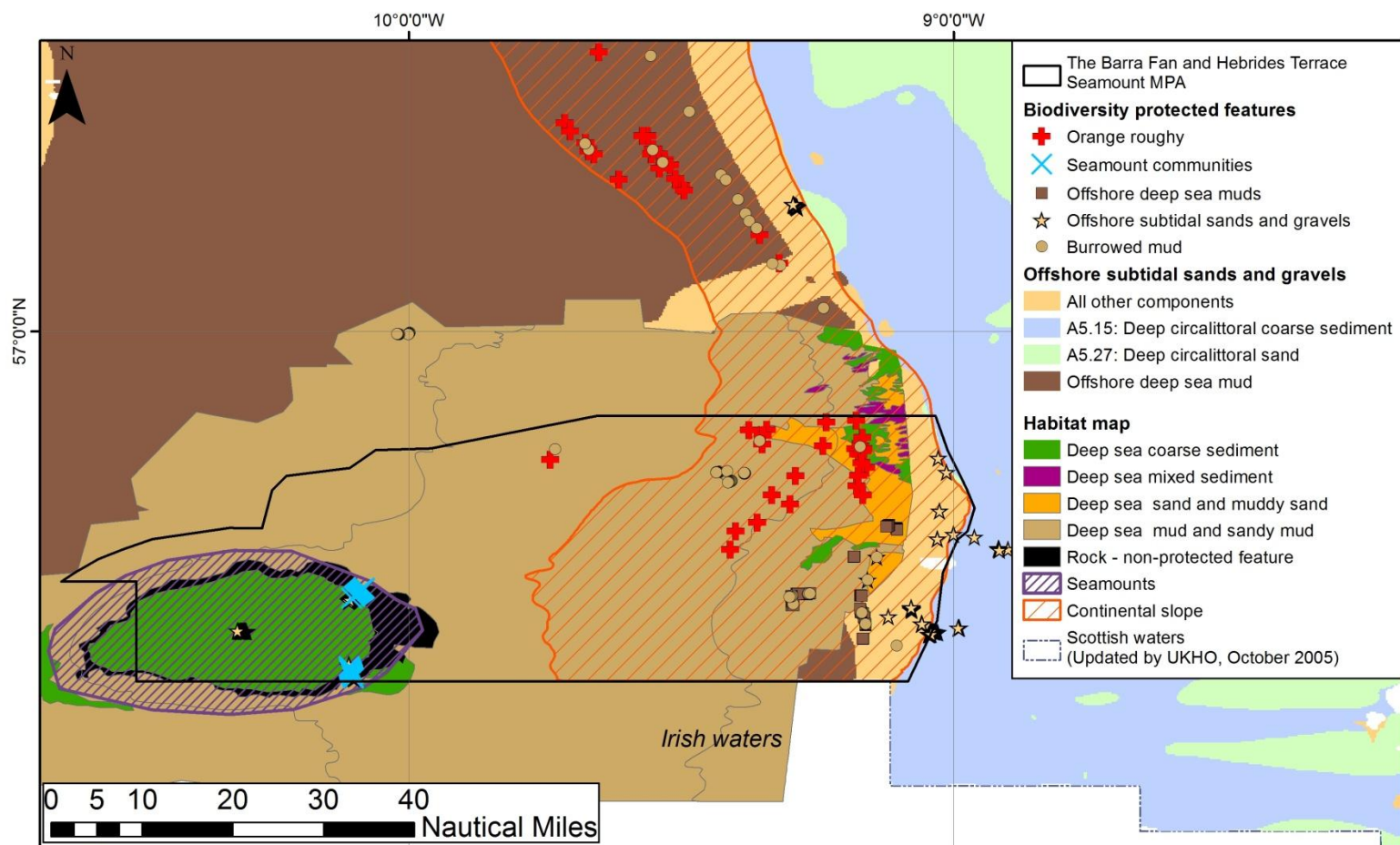
<sup>1</sup> ICES. (2013). Report of the ICES\NAFO Joint Working Group on Deep-water Ecology (WGDEC), 11-15<sup>TH</sup> March 2013, Floedevigen, Norway, ICES CM 2013\ACOM:28. 95pp

<sup>2</sup> Cross, T., Howell, K.L., Hughes, E. and Seeley, R. (*in prep.*). *Analysis of seabed imagery from the Hebrides Terrace Seamount*. Report to the Joint Nature Conservation Committee. 186pp.

<sup>3</sup> Brooks, A.J., (2013). Assessing the sensitivity of geodiversity features in Scotland's seas to pressures associated with human activities. *Scottish Natural Heritage Commissioned Report No. 590*.



Map 2a The distribution of biodiversity protected features within the Barra Fan and Hebrides Terrace Seamount MPA



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Dualaich Nàdair na h-Alba  
All of nature for all of Scotland  
Nàdar air fad airson Alba air fad

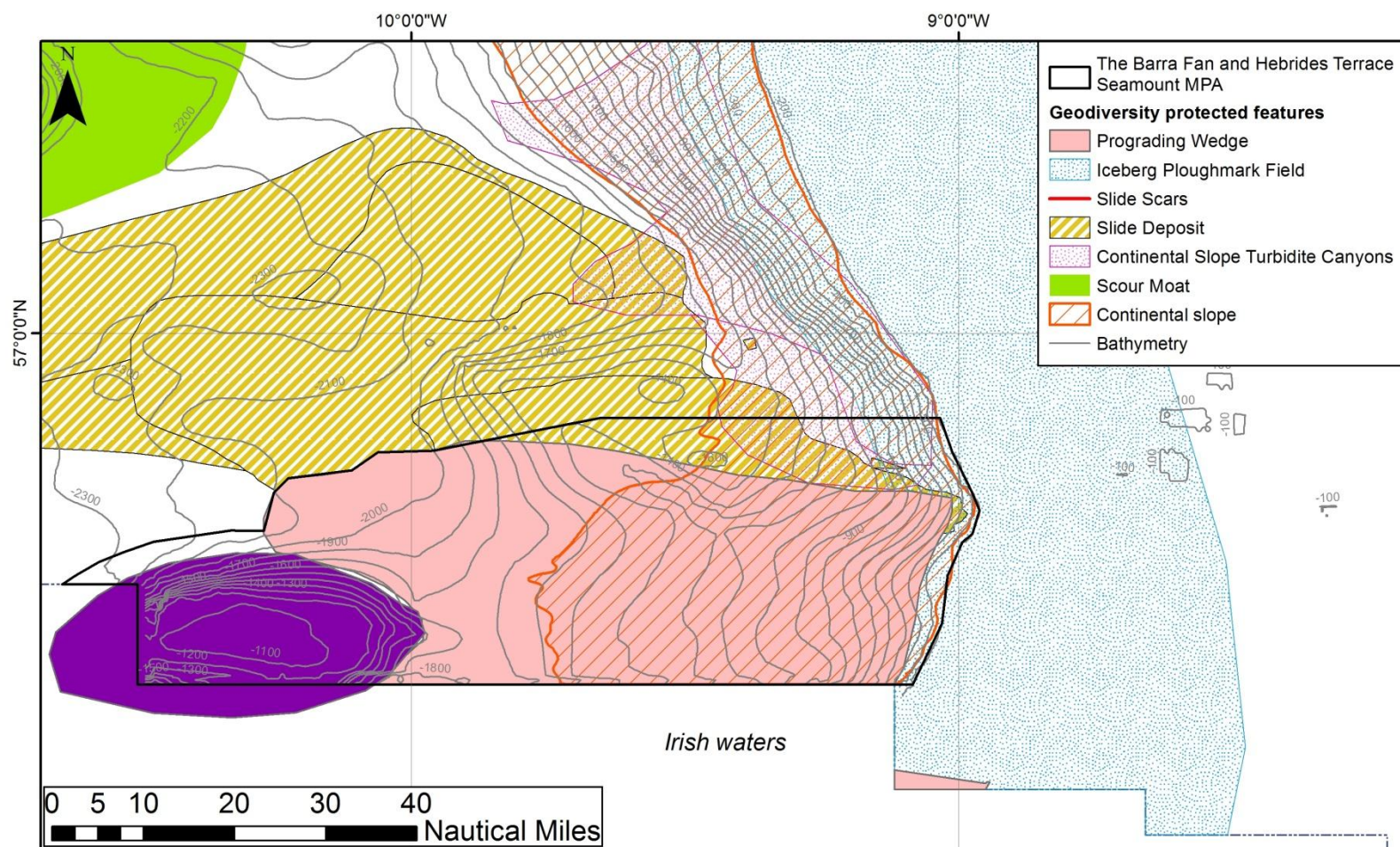
marinescotland

The Scottish Government

JNCC  
Joint Nature Conservation Committee

Map displayed in geographic coordinates WGS84. The exact limits of the UK Continental Shelf are set out in the Continental Shelf (Designation of Areas) Order 2013, Statutory Instrument 2013/3162 (© Crown Copyright). Scotland (Adjacent waters) Updated by the Law of the Sea Division, United Kingdom Hydrographic Office October 2005. Bathymetry © GEBCO, 2011. Biological data from Geodatabase of Marine features in Scotland (GeMSv4) © Crown Copyright, Habitat map © JNCC, 2014. All rights reserved.

Map 2b The distribution of geodiversity protected features within the Barra Fan and Hebrides Terrace Seamount MPA



## 4 Overview of activities

Table 1 below lists the human activities<sup>4</sup> believed to take place within or close to the Barra Fan and Hebrides Terrace Seamount MPA. Further discussions with those who use the area will continue to improve our understanding of these activities particularly in terms of the spatial distribution and intensity.

Those activities to which the protected features are sensitive are explored in detail in the next section. Activities to which the protected features are not thought to be sensitive (i.e. any interaction between the activity and the protected features is considered to be minimal) will not be considered further within this document. Any future change in the activities listed in Table 1, or the introduction of other activities not identified within the table would need to be considered on a case-by-case basis should they occur to establish the appropriate management actions.

**Table 1:** Overview of existing activities believed to take place within or close to the Barra Fan and Hebrides Terrace Seamount MPA

Activities considered capable of affecting the protected features	Activities <i>not</i> considered capable of affecting the protected features
<p>Fishing activities:</p> <ul style="list-style-type: none"> <li>• Line fishing</li> <li>• Set netting</li> <li>• Otter trawling</li> </ul> <p>Licensed activities:</p> <ul style="list-style-type: none"> <li>• DECC area of possible development for oil and gas activity</li> </ul>	<p>Shipping:</p> <ul style="list-style-type: none"> <li>• Commercial shipping</li> </ul> <p>Fishing activity*:</p> <ul style="list-style-type: none"> <li>• Pelagic trawling and purse seining</li> </ul>

\*Only the specific examples of the activity listed have been excluded, rather than the broad activity types.

## 5 Development of management options

JNCC developed management options for each MPA where we consider that some form of active management intervention may be necessary to achieve the conservation objective for each protected feature. We adopted a risk-based approach to identify appropriate management options i.e. our advice is focused where we believe there is a risk to not achieving the conservation objective for the protected features. We have used existing data and information on protected features and relevant activities, and also our understanding of the relationships between the protected features and activities. JNCC expect on-going discussions with stakeholders during the development of any management actions.

Our management options focus on the activities that cause a pressure to which a protected feature is sensitive. Pressures can be physical (e.g. abrasion of the seabed), chemical or biological. Different activities may cause the same pressure, e.g. fishing using bottom gears and aggregate dredging both cause surface abrasion which can damage the seabed although the scale and intensity of the pressure can vary between activities. Thus, the protected features of a MPA are considered sensitive to activities that could adversely affect their conservation value, especially if they are unable or are very slow to recover from damage.

<sup>4</sup> Initial lists do not include <15 m vessel activity. Information on fishing activity from the <15 m fleet is not routinely recorded and we are keen to improve our understanding of relevant activity with this possible MPA through discussions with stakeholders



The Features Assessment Sensitivity Tool ([FeAST](#)) reflects our current understanding of the interactions between activities, pressures and features and supports the first steps of the assessment of risk to the features not achieving their conservation objectives in the MPAs. The tool highlights that activities can give rise to a range of pressures, to which the protected features of the MPA may be sensitive. The online tool provides more detailed information including the evidence that has been used in developing these recommendations.

Risks to not achieving the conservation objectives have been identified where there is a spatial overlap between the protected features and activities associated with any pressures to which the features are sensitive. We have recommended management options to manage this risk. Specific details of the recommended management options for each activity are provided in the following sections. The overlap between different ongoing activities and/or planned developments and the protected features is described and where appropriate, mapped. The text focuses on interactions in terms of physical overlap but the assessment of risk in the future should also take account of the intensity and frequency of the activities occurring within, or nearby, the MPA.

JNCC identified the following three management options:

- no additional management required
- management to reduce/limit pressures
- management to remove/avoid pressures

All of the management options provided are based on the best available evidence of existing activities taking place within the MPA. The options do not preclude the introduction of a management measure in the future for new activities, or where an existing activity occurs at an increased intensity.

## **6 Management options**

Management options have been considered by activity, please click on the activities below to be directed to the relevant section:

### **Fishing Activity**

Mobile bottom contact gear:

- Otter trawling

Static bottom contact gear:

- Set netting
- Line fishing

### **Licensed Activities**

- Oil and gas

#### **6.1 Fishing activity**

JNCC has evaluated management options to manage the risk of not achieving the conservation objectives for the protected features of the Barra Fan and Hebrides Terrace Seamount MPA. A gradient of management options have been considered to reduce exposure to pressures, these have been described under three potential management scenarios below. Protected features may require a combination of these options to ensure that they achieve their conservation objective.

**a) No additional management**

**b) Additional management to reduce/limit pressures** – where fisheries managers may wish to consider a range of measures that could be used to reduce the risk to features by reducing fishing pressure or preventing its increase to unacceptably high levels. These could include:

- Area restrictions (e.g. permanently closing some or the entire extent of the feature)
- Temporal restrictions (e.g. closing parts of the extent of the feature on a rotational basis)
- Seasonal restrictions
- Gear restrictions (e.g. restriction on the use of more damaging gears)

Ideally, any measures would generally apply only to the part of the site where the feature is present. However, there may be circumstances in which it could be desirable to extend management measures beyond the known area of feature distribution, for example, where conditions are suitable for a feature to exist but there are insufficient data to confirm its presence.

**c) Additional management to remove/avoid pressures** – where fishing activities known to adversely affect the feature would be excluded and prevented from occurring in the future. Such exclusion would generally apply only to the part of the site where the feature is present, unless it was necessary to apply to a wider area or even the whole MPA.

The likely effects on the feature condition and the risk to the conservation objectives were assessed using the evidence described in the [JNCC/SNH MPA fisheries management guidance](#).

An estimation of >15m fishing activity taking place within the region of the MPA was derived from Vessel Monitoring System (VMS) data, with an average 2 hourly ping rate. VMS data for UK vessels were linked to skipper logbook information, which was used to determine the fishing gear being employed for each ping. For non-UK registered vessels where logbook information was not available, information on fishing gear employed was obtained from the 'primary gear' listed on the EU vessel register. All data were filtered using a simple speed rule of between 1 and 6 knots to indicate fishing activity for all gear types. Between 2006 and 2009, generalised values for intensity of effort were estimated by aggregating VMS data to a 0.05 x 0.05 decimal degree grid. This gridding method has the advantage quantifying effort at a specific spatial scale (hours per unit area (grid resolution) per year), however, it precludes analysis of patterns of activity below the resolution of the pre-defined grid. As a result, independent "pings" were analysed for the period 2009 to 2011. To ensure anonymity of the data source, discrete VMS ping data is presented only in instances where it would not compromise the anonymity of an individual vessel (i.e. there are multiple vessels operating in the same area).

### **6.1.1 Fishing activity: Mobile bottom contact gear**

#### Otter trawling

Otter trawling occurs in two distinct areas within the Barra Fan and Hebrides Terrace Seamount MPA. It occurs across the slope from the shallow shelf edge down to deep water at -1400m, and in deep water over the summit of the seamount from -1100m to -1400m, as shown in map 3. The trawl fishery across the slope is conducted by a number of EU member states including the UK, France and Spain. The majority of UK (maximum effort in any fishing grid <102 hours between 2006 and 2009) and Spanish (maximum effort in any fishing grid <15 hours between 2006 and 2009) otter trawling activity is concentrated on the upper slope (-200 to -800m) portion of the MPA.

By contrast, the evidence suggests that French demersal otter trawl activity occurs across the slope, with the majority (maximum effort in any fishing grid <374 hours between 2006 and 2009) occurring between -200m and -1000m depth, with evidence of lower level activity (maximum effort in any fishing grid <123 hours between 2006 and 2009) at greater depths from -1000m to -1400m. According to the available data, the French otter trawl fleet were the only fleet operating on the seamount between 2006 and 2011. Although a low intensity (maximum effort in any fishing grid <25 hours between 2006 and 2009), the fishery occurred across much of the summit down to -1400m.

There is also some evidence of Norwegian vessels operating across much of the MPA (maximum effort in any fishing grid <42 hours between 2006 and 2009), although based on the VMS data available, it has not been possible to distinguish between Norwegian demersal otter trawl and longline vessels. Further validation of the data will be required.

In the 1990's a targeted demersal otter trawl fishery for orange roughy opened up in deep water west of Scotland. However, in recent years, the zero TAC implemented for orange roughy in ICES Division area VI has effectively ended this fishery. Thus, evidence of recent effort in deep-water fisheries, such as the Barra Fan and Hebrides Terrace Seamount MPA, is unlikely to reflect historic fishing. However, if the zero TAC measure were to be lifted in the future, it may be necessary to identify management options for fisheries targeting orange roughy within this MPA.

**Management options**  
**Bottom contact mobile gear** (e.g. otter trawling)

**No additional management:** There is a risk of not achieving the conservation objectives for **burrowed mud, offshore deep sea muds** and **offshore subtidal sands and gravels**.

The conservation objective would not be achieved for **seamount communities** and JNCC recommend that this option should not be applied.

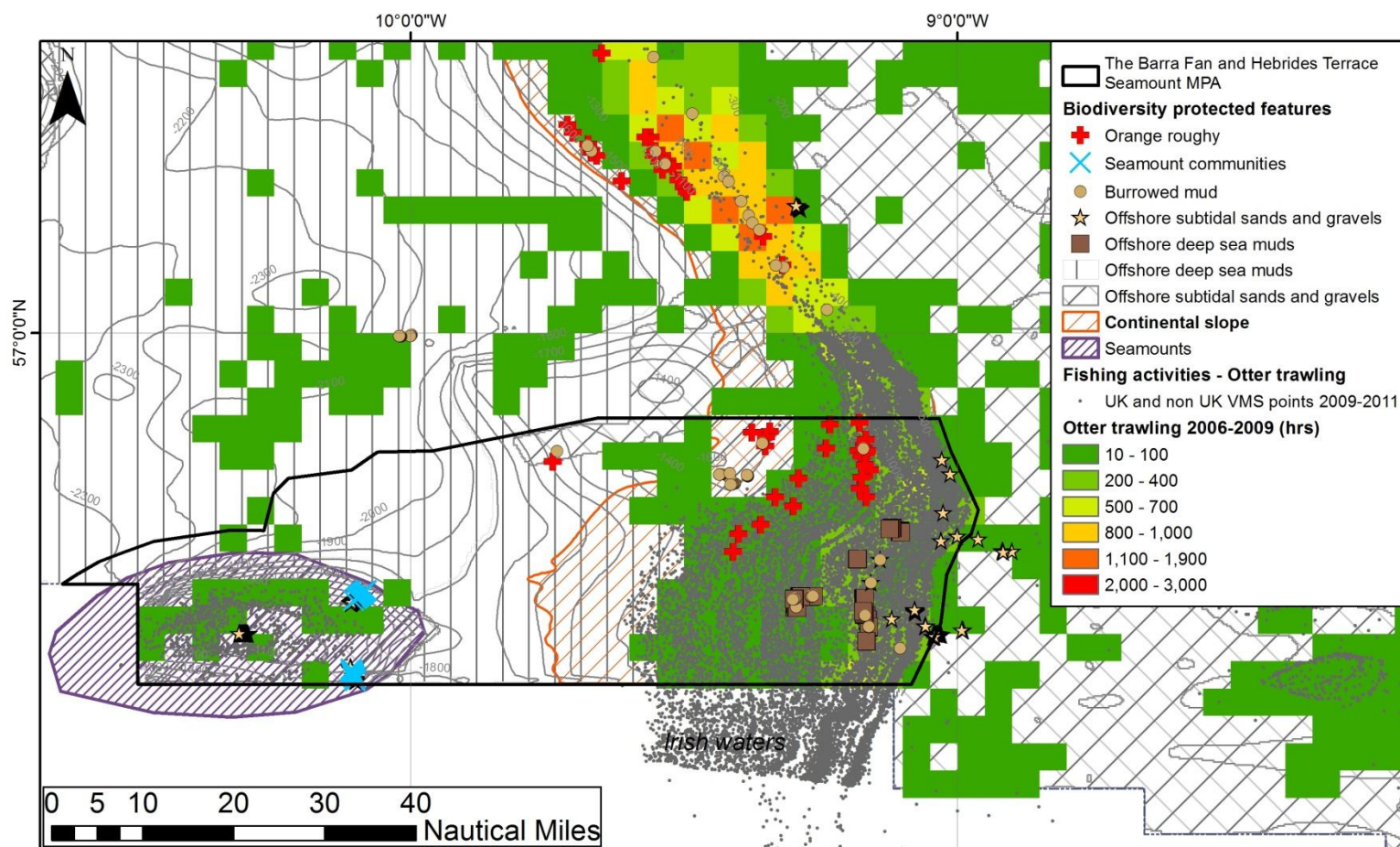
**Reduce/limit pressures:** This option would reduce, but not entirely eliminate, the risk of not achieving the conservation objectives for **burrowed mud, offshore deep sea muds** and **offshore subtidal sands and gravels**. Appropriate management could include restrictions on fishing with damaging gears over a proportion of the extent of each of these features, and there may be a greater requirement for restrictions on gears that penetrate deeply into the sediment. The location of areas to be covered by management restrictions would be decided in consultation with fishers. Restrictions could be permanent in some cases or temporary/adaptive in others.

If applied to the steep flanks of the seamount feature between depths where **seamount communities** are known to occur, this option would reduce, but not entirely eliminate the risk of seamount communities not achieving their conservation objectives.

**Remove/avoid pressures:** This option would reduce the risk of not achieving the conservation objectives for **burrowed mud, offshore deep sea muds**, and **offshore subtidal sands and gravels** to the lowest possible levels.

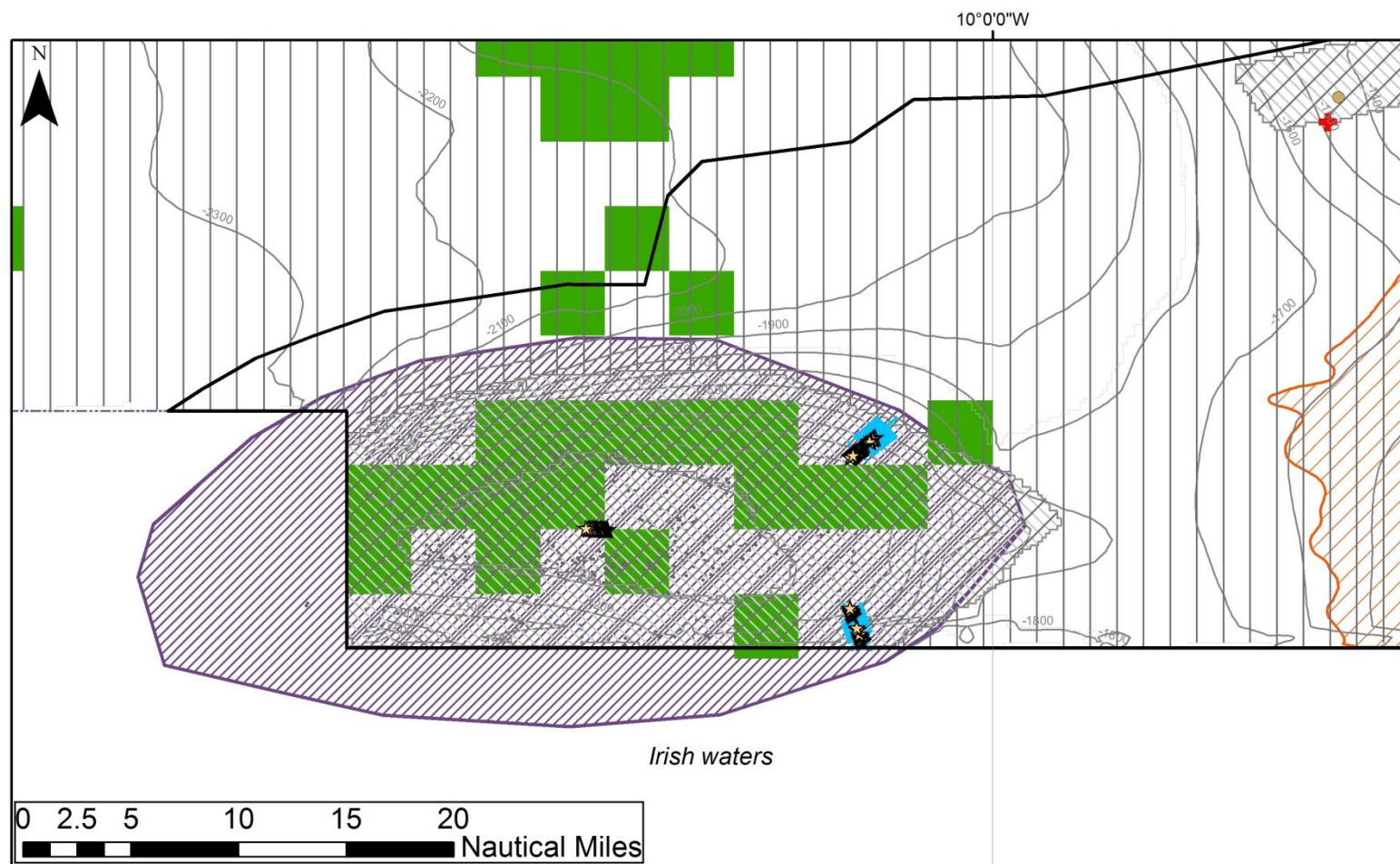
This option would reduce the risk to **seamount communities** not achieving their conservation objectives to the lowest possible levels. JNCC recommend that this option should be applied to the entirety of the seamount feature in Scottish waters.

Map 3: Location of otter trawling activity in relation to protected features



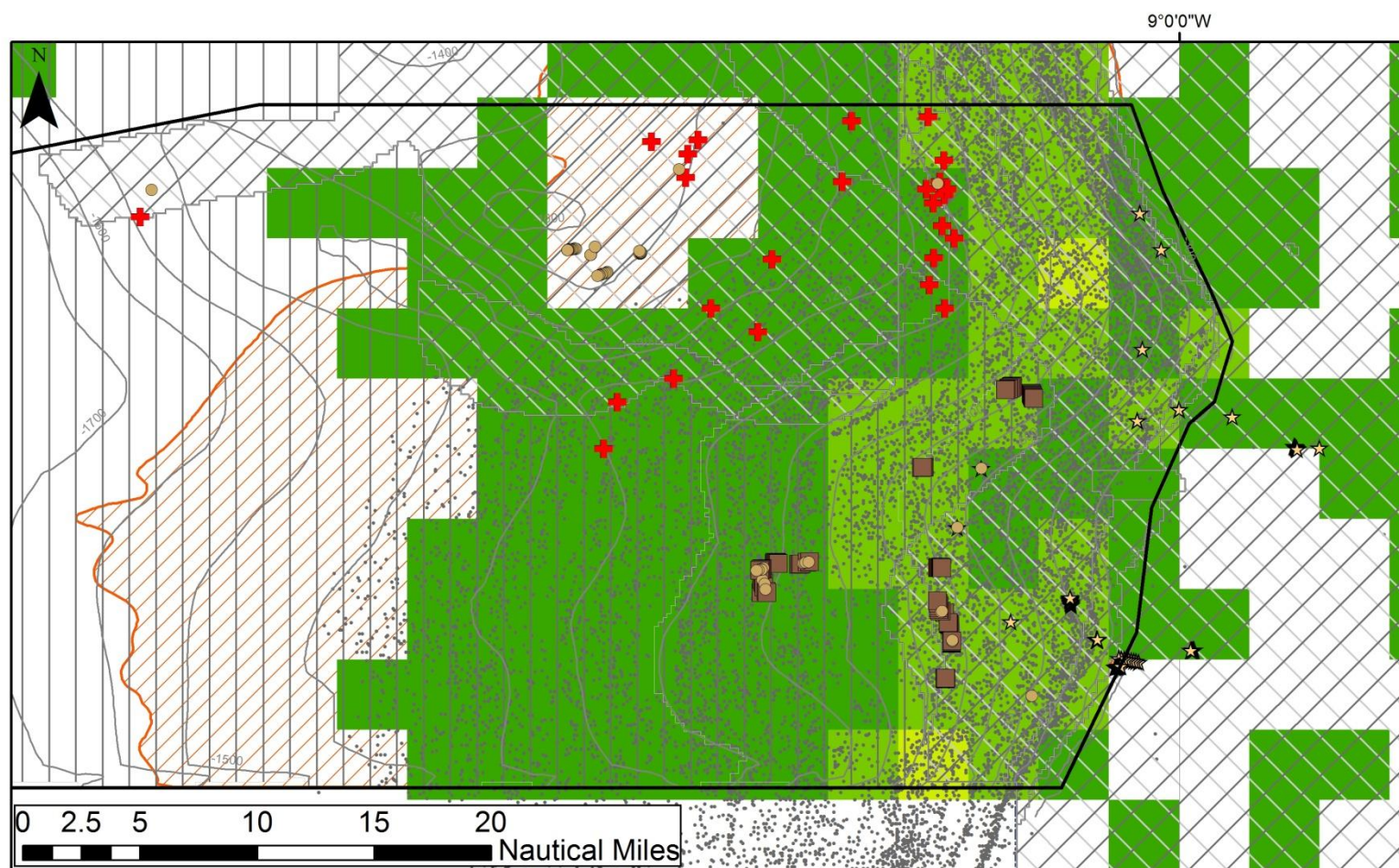


Map 3a: Zoomed map showing otter trawling activity in relation to protected features on the seamount (see map 3 for legend)





Map 3b: Zoomed map showing otter trawling activity in relation to protected features on the continental slope (see map 3 for legend)



  
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 Dualchas Nàdair na h-Alba  
 All of nature for all of Scotland  
 Nàdair air fad airson Alba air fad

**marinescotland**

  
**The Scottish Government**

 **JNCC**  
 Joint Nature Conservation Committee

Map displayed in geographic coordinates WGS84. The exact limits of the UK Continental Shelf are set out in the Continental Shelf (Designation of Areas) Order 2013, Statutory Instrument 2013/3162 (© Crown Copyright). Scotland (Adjacent waters) Updated by the Law of the Sea Division, United Kingdom Hydrographic Office October 2005. Bathymetry © GEBCO, 2011. Biological data from Geodatabase of Marine features in Scotland (GeMSv4) © Crown Copyright; MPA and geodiversity data © JNCC and SNH 2014. All rights reserved. Fisheries raster data © DEFRA 2010. Fisheries VMS point data © MS-2012.

## 6.2 Fishing activity: Static bottom contact gear

### Set netting

There is some evidence of French gill netting vessels operating at low intensity (maximum effort in any overlapping fishing grid <9 hours 2006-2009) in the deeper water (-600m to -1200m) slope section of the MPA, as shown in map 4.

### Line fishing

Long-lining in the MPA is concentrated on the upper slope predominantly between the -300m and -800m depth contours and is conducted by UK (maximum effort in any overlapping fishing grid <107 hours 2006-2009), Spanish (maximum effort in any overlapping fishing grid <411 hours 2006-2009), and French (maximum effort in any overlapping fishing grid <17 hours 2006-2009) registered vessels. There is also evidence of a lower intensity deep water (-900m to -1100m) UK registered long-line fishery (maximum effort in any overlapping fishing grid <12 hours 2006-2009), as shown in maps 5 and 5a. According to the data, the UK long-line fleet were the only fleet operating on the seamount between 2006 and 2011. Although low intensity maximum effort in any fishing grid (<12 hours between 2006 and 2009) effort principally occurred on the western slope of the seamount down to -1500m depth.

There is also some evidence of Norwegian vessels operating in the MPA (maximum effort in any fishing grid <39 hours between 2006 and 2009), concentrated along the -200m to -800m depth contour. However, based on the VMS data available it has not been possible to distinguish between Norwegian demersal long-line and otter trawl vessels.

**Management options**  
**Bottom contact static gear** (e.g. set netting and line fishing)

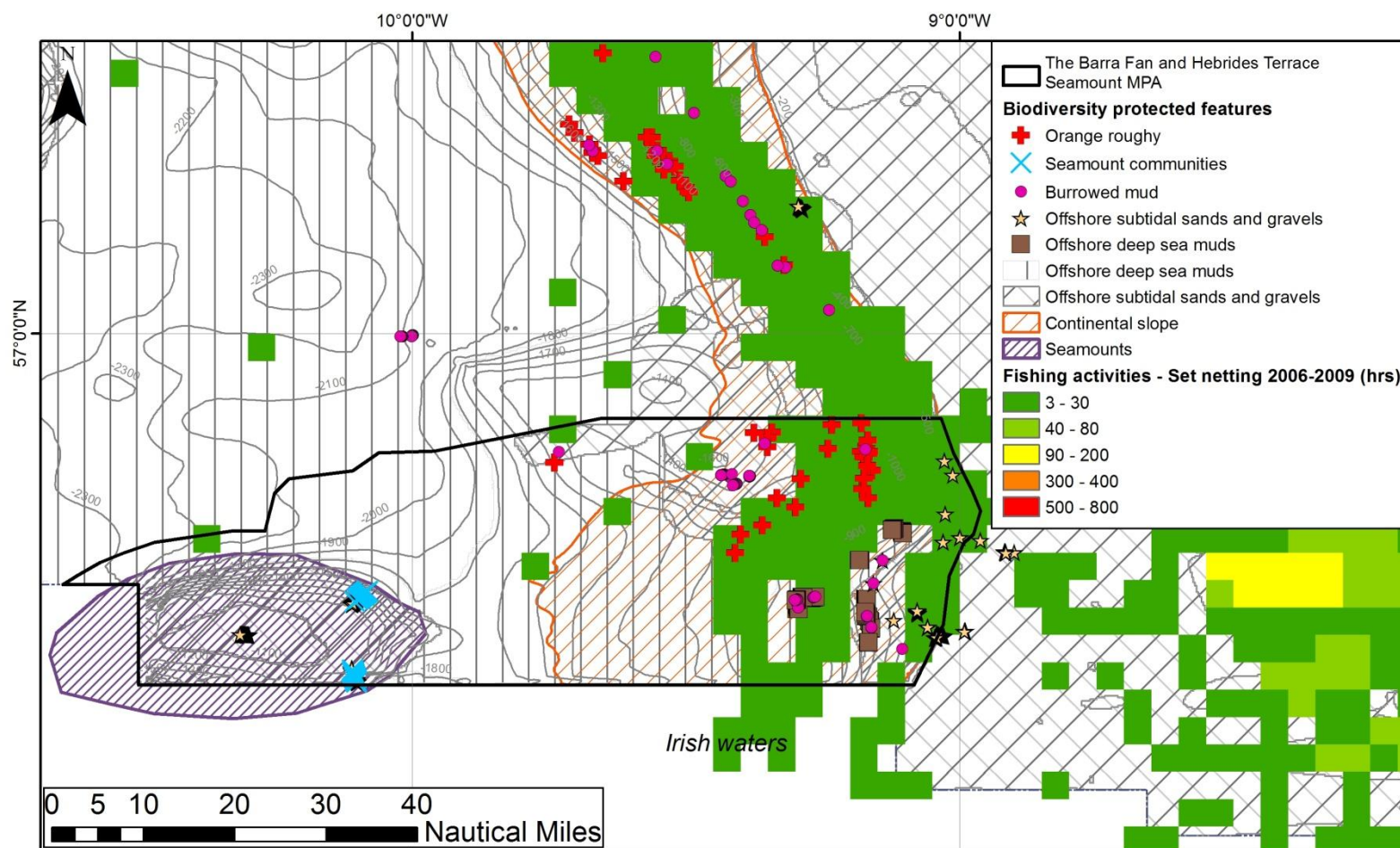
**No additional management:** This option is considered to be sufficient for bottom contact static gear to achieve the conservation objectives for **burrowed mud, offshore deep sea muds, and offshore subtidal sands and gravels**. However, the conservation objective would not be achieved for **seamount communities**.

**Reduce/limit pressure:** The conservation objective would not be achieved for **seamount communities**.

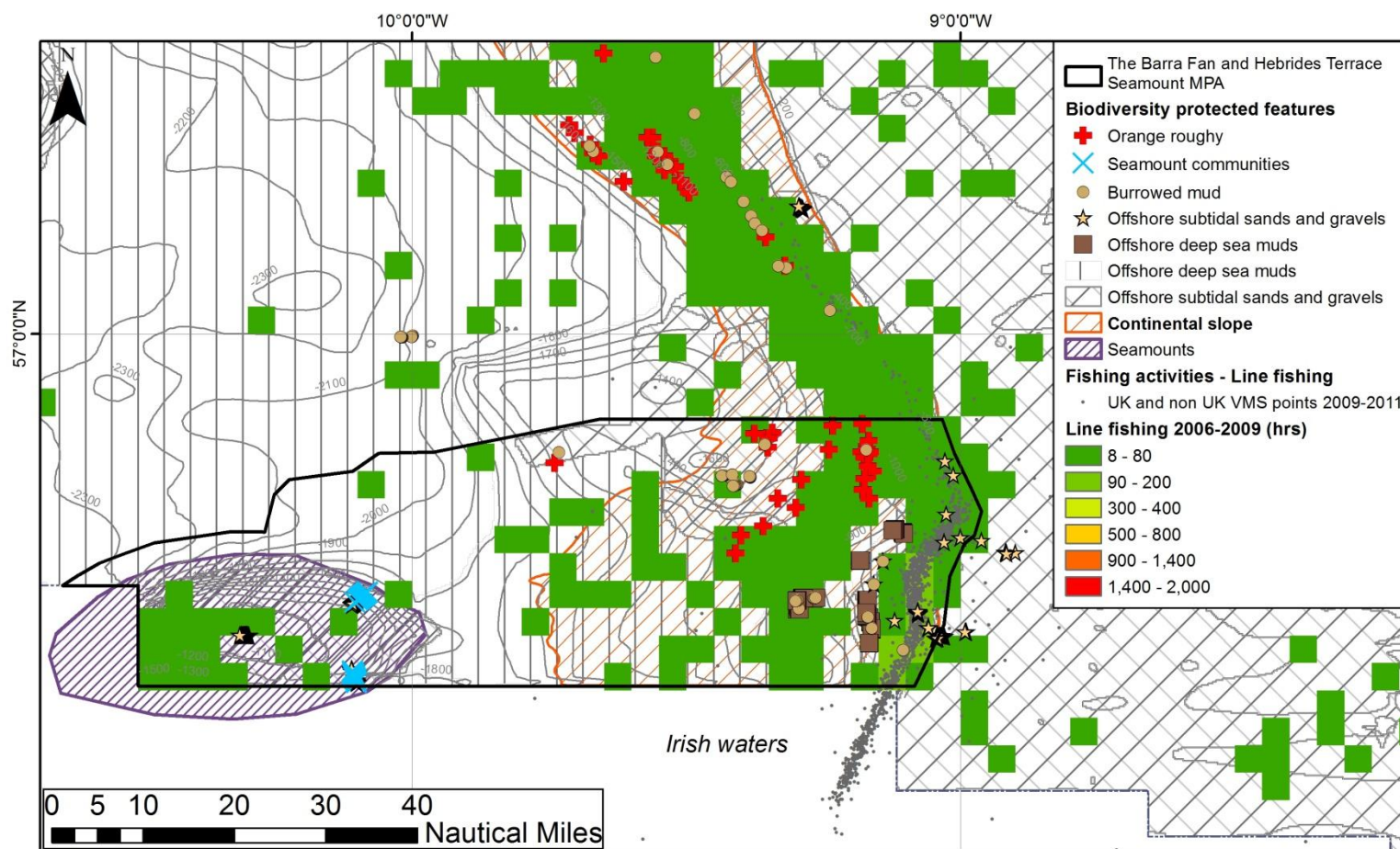
**Remove/avoid pressure:** This is the only option that would achieve the conservation objective for **seamount communities** and JNCC recommend that this option should be applied where this feature is present.



Map 4: Location of set netting activity in relation to protected features

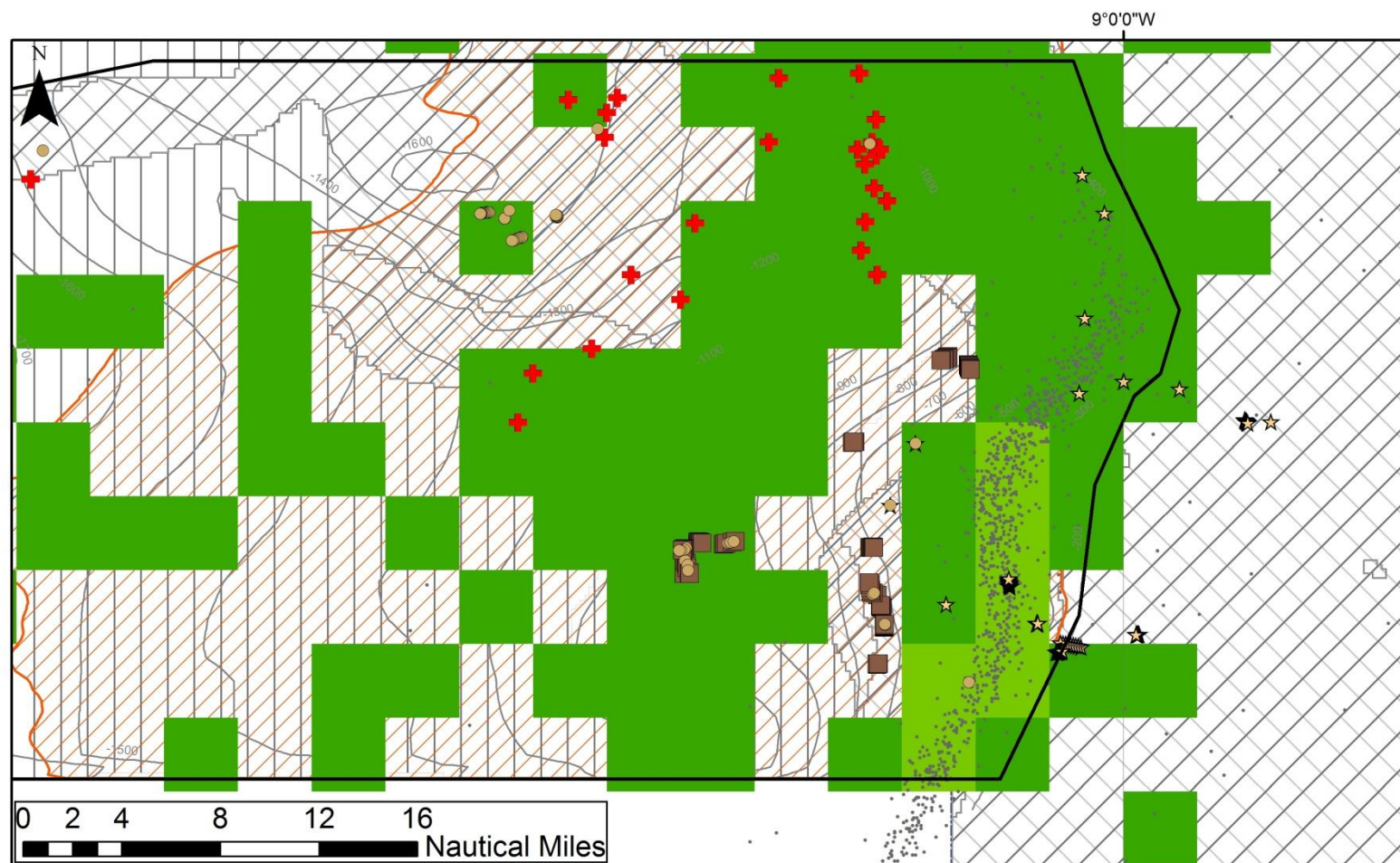


Map 5: Location of line fishing activity in relation to protected features





Map 5a: Zoomed map showing location of line fishing activity in relation to protected features on the continental slope (see Map 5 for legend)



  
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 All of nature for all of Scotland  
 Nàdair air fad airson Alba air fad

  
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Map displayed in geographic coordinates WGS84. The exact limits of the UK Continental Shelf are set out in the Continental Shelf (Designation of Areas) Order 2013, Statutory Instrument 2013/3162 (© Crown Copyright). Scotland (Adjacent waters) Updated by the Law of the Sea Division, United Kingdom Hydrographic Office October 2005. Bathymetry © GEBCO, 2011. Biological data from Geodatabase of Marine features in Scotland (GeMSv4) © Crown Copyright; MPA and geodiversity data © JNCC and SNH 2014. All rights reserved. Fisheries raster data © DEFRA 2010. Fisheries VMS point data © MS-2012.

### 6.3 Licensed activities

Marine Scotland Licensing Operations Team (MS-LOT), as the regulator for renewable energy operations in Scotland's seas, would be responsible for making the decision as to whether a proposed activity and/or development is capable of affecting (other than insignificantly)<sup>2</sup> the protected features of a Nature Conservation MPA.

For those activities and/or developments that MS-LOT considers require an EIA, JNCC is willing to engage at an early stage with MS-LOT and the developer to discuss the specific details of the proposed operation and/or development and offer advice on any potential effects. In so doing, JNCC will make reference to information on the sensitivity of the protected features to proposed activities and/or developments that is publicly available through 'FEAST' – The FEatures, Activities, Sensitivities Tool (Marine Scotland, 2013).

JNCC will consider the nature, scale, timing and duration of activities in providing its advice. Early engagement will facilitate discussions on which the information required to advise on possible implications to the protected features achieving their conservation objectives of the protected features. If JNCC identify a potentially significant effect, mitigation measures may be advised. Any such advice provided as part of the licensing process will need to be development specific. On this basis, the information JNCC provides as part of the (present) Management Options Paper is necessarily generic and therefore indicative.

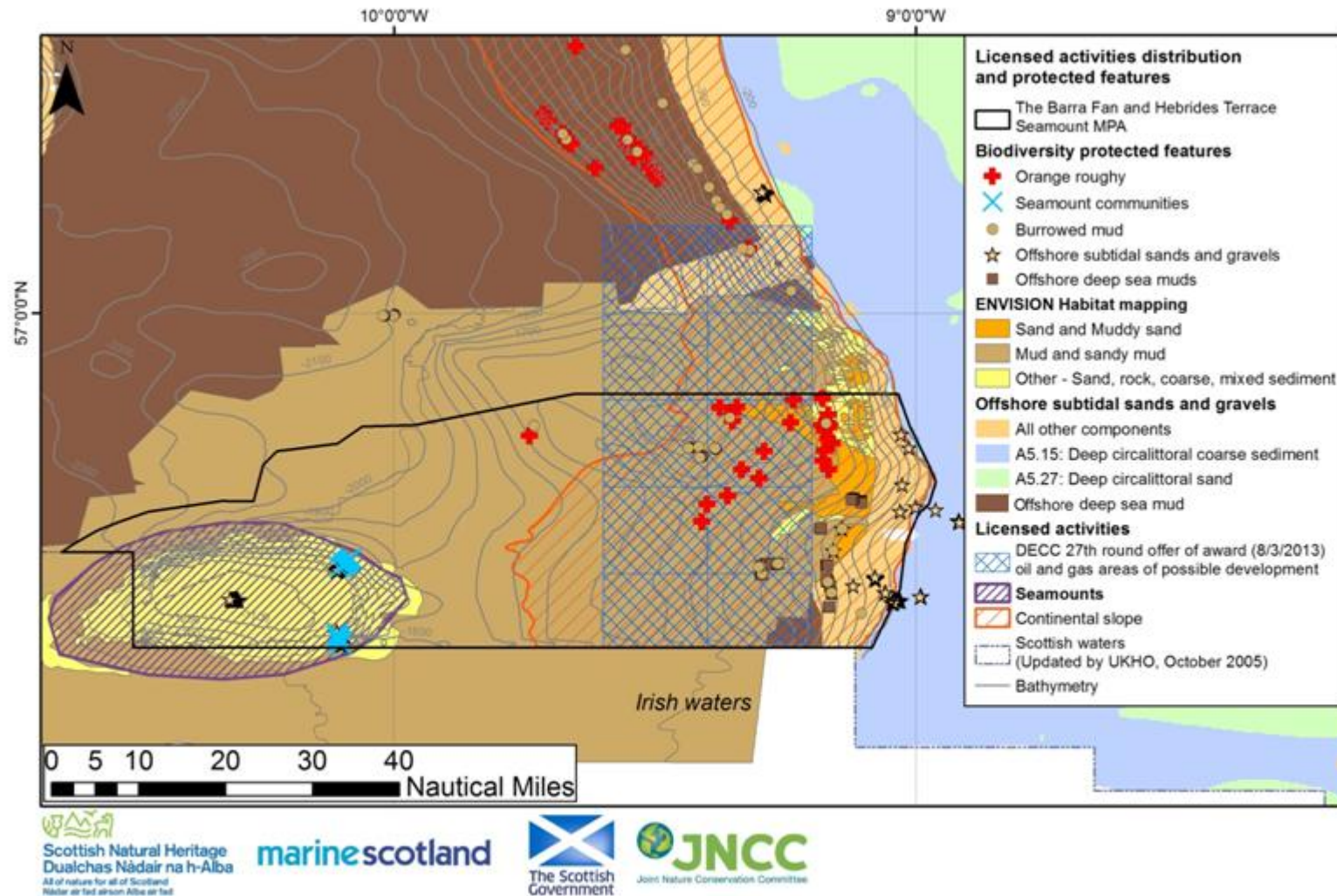
Further information on the regulatory framework concerning renewables activity within Nature Conservation MPAs is included in the [MPA Management Handbook](#).

#### 6.3.1 Oil and gas activity

Although no licensed activities currently take place with the MPA, part of the continental slope in the east of the MPA overlaps with an area identified as having potential for oil and gas activity by DECC, as shown in map 6, and so may be subject to development in the future.

<b>Management Options</b> <b>Licensed activities</b> (e.g. oil and gas activity)	The potential impacts of oil and gas activity on the protected features within the MPA will be assessed through the existing EIA process on a case-by-case basis. Early dialogue with DECC and JNCC would help identify and resolve any issues at an early stage.
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Map 6: Location of DECC oil and gas area of possible development in relation to protected features



Map displayed in geographic coordinates WGS84. The exact limits of the UK Continental Shelf are set out in the Continental Shelf (Designation of Areas) Order 2013, Statutory Instrument 2013/3162 (© Crown Copyright). Scotland (Adjacent waters) Updated by the Law of the Sea Division, United Kingdom Hydrographic Office October 2005. Bathymetry © GEBCO, 2011. Biological data from Geodatabase of Marine features in Scotland (GeMSv4) © Crown Copyright. All rights reserved.



## **7 Conclusions and further recommendations**

Marine Scotland will be responsible for making recommendations to Scottish Ministers on any management measures that may be required in the Barra Fan and Hebrides Terrace Seamount. These measures will be developed through on-going discussions with stakeholders. Any statutory measures will be subject to consultation and the processes normally required by the legislation will be utilised. Where fisheries management measures are necessary and the Nature Conservation MPA is located where Scottish Ministers do not have exclusive competence, Marine Scotland intend to apply to the European Commission for measures using the mechanisms of the EU Common Fisheries Policy. This process will include consultation on the measures at the EU level.

## **8 Further information**

The following documents are available for background information:

- SNH and JNCC MPA network advice (December 2012) – [www.jncc.defra.gov.uk/page-5510](http://www.jncc.defra.gov.uk/page-5510)
- The MPA Management Handbook - [www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork/engagement/ManagementHandbook](http://www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork/engagement/ManagementHandbook)
- FEatures Activities Sensitivity Tool (FeAST) - [www.marine.scotland.gov.uk/FEAST/Index.aspx](http://www.marine.scotland.gov.uk/FEAST/Index.aspx)
- JNCC and SNH Fisheries guidance – [www.jncc.defra.gov.uk/page-6498](http://www.jncc.defra.gov.uk/page-6498)

The following documents about the Barra Fan and Hebrides Terrace Seamount MPA are also available at [www.jncc.defra.gov.uk/page-6489](http://www.jncc.defra.gov.uk/page-6489):

- Site summary
- Data confidence assessment
- Detailed assessment against the MPA Selection Guidelines