

**Scottish MPA Project
Management options**

SOUTH WEST SULA SGEIR AND HEBRIDEAN SLOPE POSSIBLE MPA

This is a working draft which has been produced to support early discussions with stakeholders about management.

Following a decision by Scottish Ministers this site may be subject to formal consultation, at which point it will become a possible MPA. This document is largely aimed at supporting discussions during the formal consultation process and therefore we have used the term 'possible MPA' throughout.

Document version control

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DEVELOPMENT OF MANAGEMENT OPTIONS FOR THE SOUTH-WEST SULA SGEIR AND HEBRIDEAN SLOPE POSSIBLE MPA

Management Options Summary

The following table summarises the management options considered for the South-west Sula Sgeir and Hebridean Slope possible MPA to eliminate or manage the risk of not achieving the conservation objectives for the features designated. For more detail on these options, please read the full Management Options Paper. It is recommended that discussions take place between sea users, scientists and managers to determine which of these management options is the most appropriate.

Activity	Management options
Mobile bottom contact gear (e.g. beam and otter trawling)	<p>No additional management: There is a risk of not achieving the conservation objectives for burrowed mud, offshore deep sea mud and offshore subtidal sands and gravels.</p> <p>Reduce/limit pressure: This option would reduce, but not entirely eliminate, the risk of not achieving the conservation objectives for burrowed mud, offshore deep sea mud, and offshore subtidal sands and gravels. Likely management measures could include restrictions on fishing with damaging gears over a proportion of each feature's area. The location of areas to be covered by management restrictions would be decided in consultation with fishers.</p> <p>Remove/avoid pressure: This option would reduce the risk of not achieving the conservation objectives for burrowed mud, offshore deep sea mud, and offshore subtidal sands and gravels to the lowest possible levels.</p>
Static bottom contact gear (e.g. line fishing and set netting)	<p>No additional management: This option is considered to be sufficient to achieve the conservation objectives for burrowed mud, offshore deep sea muds and offshore subtidal sands and gravels.</p>

Introduction

The South-west Sula Sgeir and Hebridean Slope possible Marine Protected Area (MPA) is located to the north-west of the Western Isles. The possible MPA follows the seabed as it descends down the continental slope into the Rockall Trough and includes several different habitats, including sandy sediments, deep sea mud and examples of burrowed mud.

Further details of the possible MPA can be found in the South-west Sula Sgeir and Hebridean Slope site summary document.

The majority of the target fisheries within the South-west Sula Sgeir and Hebridean Slope possible MPA are concentrated on the upper continental slope target anglerfish, ling, tusk and hake. A deeper trawl fishery also exists down to 1400m, targeting deep water species such as roundnose grenadier, monkfish and black scabbard.

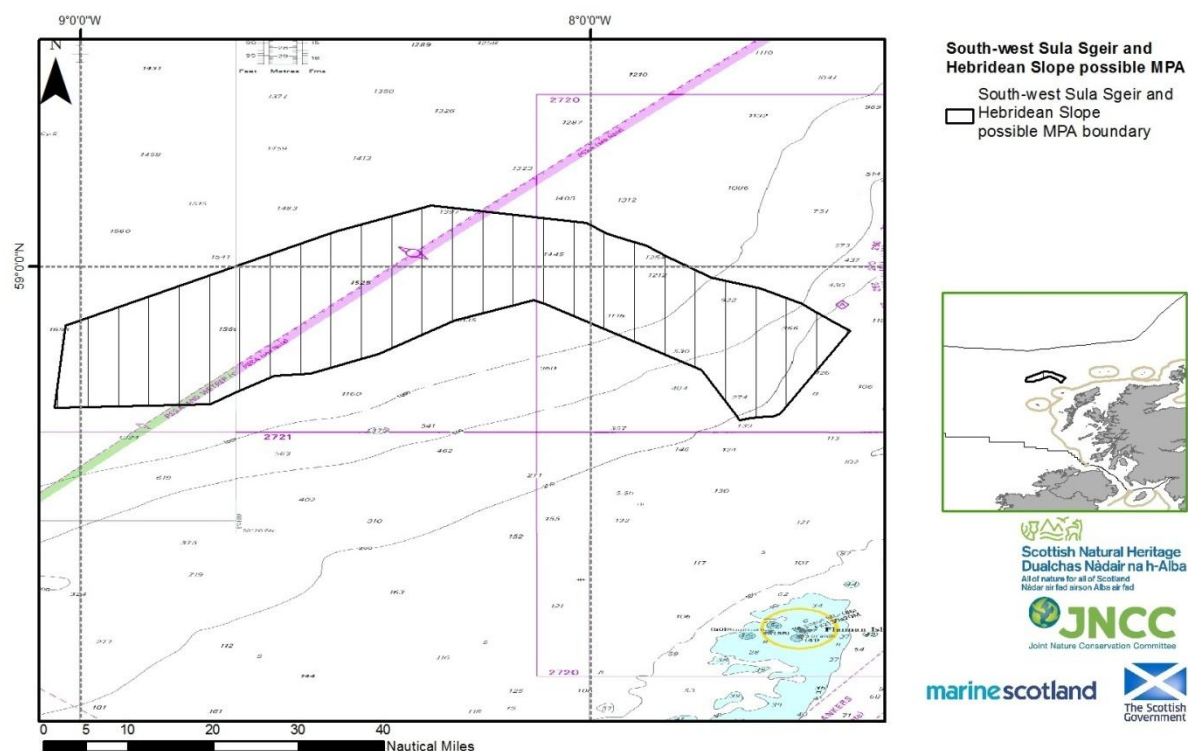
This document has been produced to provide background information on the development of management for the South-west Sula Sgeir and Hebridean Slope possible MPA. It will be used during discussions as part of the formal consultation. The aim of these discussions is to explore current activities and the potential interactions these may have with the proposed protected features. Future activities may also be considered.

The document describes the known location and extent of protected features and the current knowledge of where various activities take place. It also presents the management options for each of those activities that are considered capable of having an effect on the proposed protected features. The document provides those with an interest in the area a chance to input into the early stages of working out appropriate management of activities to ensure that the South-west Sula Sgeir possible MPA makes a genuine and long-lasting contribution to the protection of Scotland's marine environment.

Options in the network

The South-west Sula Sgeir and Hebridean Slope possible MPA makes an equivalent contribution to the network for the representation of features to the Geikie Slide and Hebridean Slope possible MPA. Both possible MPAs have been included as it was not possible for JNCC to recommend one area over another on the basis of the evidence available. Only one of the options will be designated to fulfil the network requirements. This provides the opportunity to consider socio-economic information when determining which of the possible MPAs will represent the features in the MPA network.

Map 1 Location of the South-west Sula Sgeir and Hebridean Slope possible MPA



Map displayed in geographic coordinates WGS84. The exact limits of the UK Continental Shelf are set out in orders made under section 1(7) of the Continental Shelf Act 1964 (© Crown Copyright).
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Bathymetry © GEBCO, 2011. Possible MPA © JNCC and SNH. All rights reserved. Admiralty chart © Crown Copyright 2013. All rights reserved. License No. EK001-20120405.
Map not to be used for navigation.

Roles

The role of JNCC is to advise Scottish Government on management options for the South-west Sula Sgeir and Hebridean Slope possible MPA. In doing this, our aim is to ensure the conservation objectives for the proposed protected features are met.

Marine Scotland will lead the discussions on management with stakeholders. They will consider JNCC's advice and will lead on the development of specific management measures. They will be responsible for making recommendations to Scottish Ministers on these measures. Scottish Ministers will decide whether to implement these measures.

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

Protected features and conservation objectives

The South-west Sula Sgeir and Hebridean Slope possible MPA is being considered as part of a network of new Nature Conservation MPAs. These are being established to help conserve a range of Scotland's important marine habitats, wildlife, geology and landforms. The South-west Sula Sgeir and Hebridean Slope possible MPA is being considered for the following proposed protected features, as shown in map 2:

- Burrowed mud
- Offshore deep sea mud
- Offshore subtidal sands and gravels
- Continental slope*

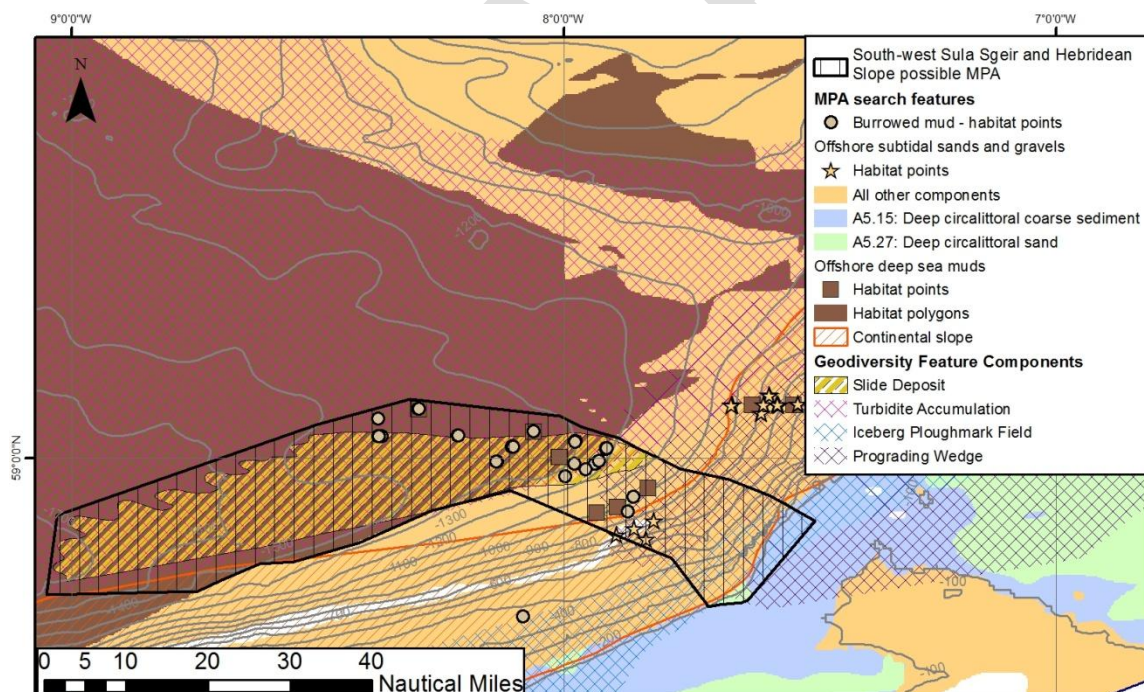
- Geodiversity features – prograding wedges*, slide deposits*, iceberg ploughmark fields

*The continental slope, prograding wedge and slide deposit geodiversity features are considered to have a low sensitivity to the pressures associated with marine activities taking place within the possible MPA¹. As such, there is not considered to be a significant risk to the features achieving their conservation objectives and so the features have not been considered further in the context of the management options presented below.

The iceberg ploughmark fields overlap with the distribution of offshore subtidal sands and gravels in the possible MPA. It is considered that the management options presented for offshore subtidal sands and gravels will also apply to this geodiversity feature, and will carry a similar perceived risk in terms of achieving the features conservation objectives.

Conservation objectives set out the desired quality of the proposed protected features within each possible MPA. They will form part of the designation order for Nature Conservation MPAs and will therefore be in place at the time that a site is formally designated. We have recommended that the conservation objectives for the proposed protected features within the Geikie Slide and Hebridean Slope possible MPA are 'conserve' for all features. The condition of the features has not been verified so the conservation objectives are uncertain.

Map 2 The distribution of protected features within the South-West Sula Sgeir and Hebridean Slope possible MPA



Scottish Natural Heritage
Dualchas 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 orders made under section 1(7) of the Continental Shelf Act 1964 (© Crown Copyright).
Landmass Ordnance Survey © Crown Copyright and database right 2011. All rights reserved. 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 (GeMS_v2_110) © Crown Copyright, MPA proposal and geodiversity data © JNCC and SNH.

¹ 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*.

Overview of activities

Table 1 below lists the activities² which take place within or close to the South-west Sula Sgeir and Hebridean Slope possible MPA. Further discussions with those who use the area are required to improve our understanding of these activities (e.g. distribution and intensity etc.).

Those activities which the proposed protected features are sensitive to are explored in detail in the next section. Activities which the proposed protected features are not thought to be sensitive to (i.e. any interaction between the activity and the features is considered to be minimal) will not be considered further within this document. Future or other activities not identified within the table would need to be considered on a case-by-case basis.

Table 1: Overview of existing activities believed to take place within or close to the South-west Sula Sgeir and Hebridean Slope possible MPA

Activities considered capable of affecting the protected features	Activities <i>not</i> considered capable of affecting the protected features*
Fishing activities: ³ <ul style="list-style-type: none">• Line fishing• Otter trawling• Set netting	Commercial shipping Fishing activities <ul style="list-style-type: none">• Pelagic trawling and purse seining

*Only the specific examples of activities listed in this column have been excluded, rather than the broad activity types.

Development of management options

Management options are being developed where we consider that some form of management may be necessary to achieve the conservation objectives for each proposed protected feature. The approach to identifying management options for each activity will be risk-based i.e. we are focussing on providing advice where we believe there is a risk to achieving the conservation objectives. To do this, we are using existing data and information on proposed protected features and relevant activities, and also our understanding of the relationships between the proposed protected features and activities. The management options may be informed by discussion with stakeholders. If new information becomes available during the consultation, the management options may be revised.

Management options are focussed on the activities that cause a pressure that a proposed protected feature is sensitive to. 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 abrasion which can damage the surface of the seabed. The proposed protected features of a possible MPA are considered sensitive to activities that could adversely affect them (because of the associated pressures) especially if they are unable to or are very slow to recover.

The online sensitivity tool ([insert weblink](#)) 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 in the possible MPAs. The tool highlights that activities

² 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

³ Vessels >15m, based on Vessel Monitoring System (VMS) data from 2006 – 2009.³

can give rise to a range of pressures, which the proposed protected features of the possible MPA may be sensitive to. Please use the online tool on the Marine Scotland web site for more detailed information including the evidence we have used in developing our recommendations.

We have identified risks to achieving the conservation objectives where there is an overlap between proposed protected features and activities associated with pressures the features are sensitive to. 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. Overlap between different activities/planned developments and the proposed 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 activities within the possible MPA.

JNCC has identified a range of management options that may be applied, including:

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

All of the management options provided are based on knowledge of the existing activities taking place within the possible MPA. The options do not preclude introducing management for any activities, or an increased intensity of activities beyond levels currently taking place, in the future.

We recognise that stakeholders can provide local environmental knowledge and more detailed information on activities, including in relation to intensity, frequency, and methods. This additional information will help us to develop more specific management options, focussed on interactions between features and activities.

Management options

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

1. Fishing activity

[Mobile bottom contacting gear](#)

- [Beam trawling](#)
- [Otter trawling](#)

[Static bottom contact gear](#)

- [Line fishing](#)
- [Set netting](#)

Fishing activity

JNCC has evaluated management options to support achievement of the conservation objectives for the proposed protected feature of the possible MPA. A gradient of management options have been considered to reduce exposure to pressures, these have been described under three potential management option categories. Proposed protected features may require a combination of these options to ensure they achieve their conservation objectives.

a) No additional management

b) Additional management to reduce/limit pressures – where fisheries managers may wish to consider a range 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 (permanently closing some or the entire extent of the feature)
- Temporal restrictions (closing parts of the extent of the feature on a rotational basis)
- Seasonal restrictions
- Gear restrictions (eg. 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 some 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 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.

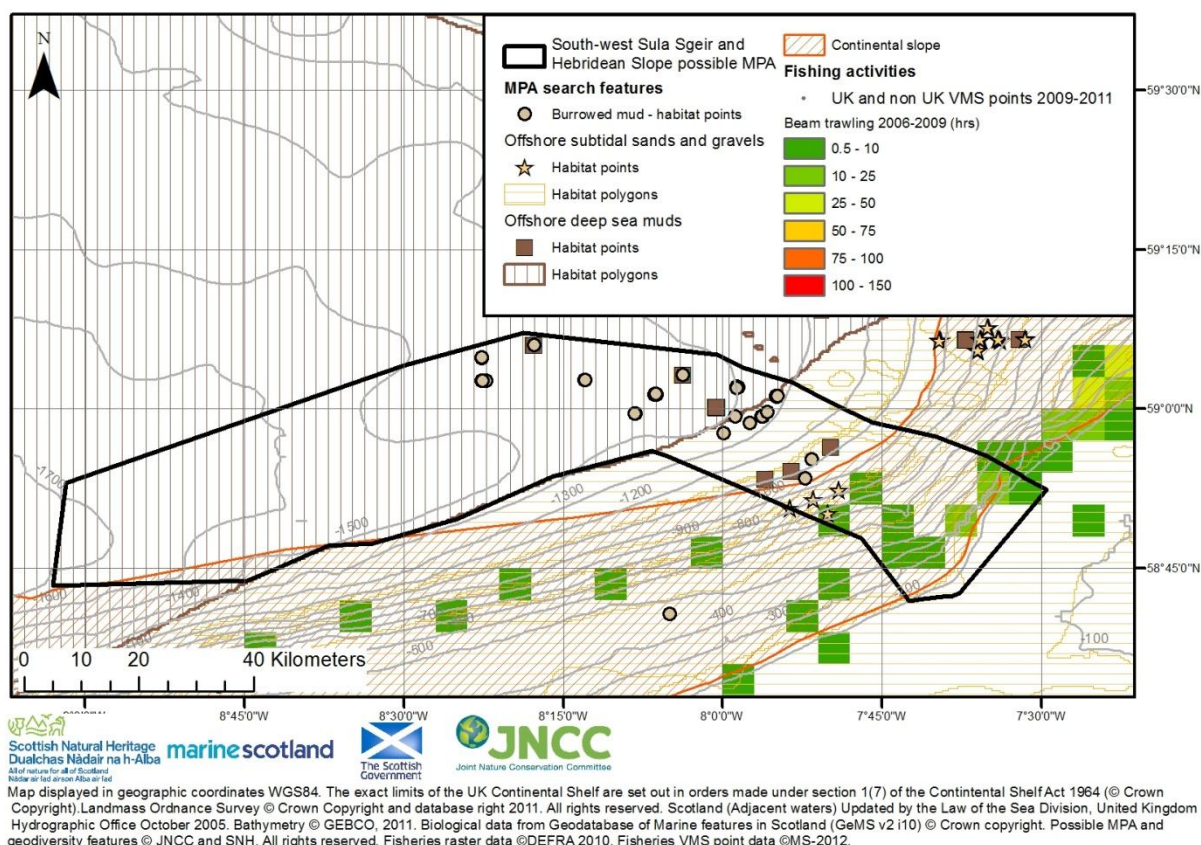
JNCC have used all available data to evaluate the extent of fishing activities within all offshore possible MPAs. Where possible this data has been presented in accompanying maps. However, to ensure anonymity of the data source, discrete VMS ping data is only presented in instances where it is not considered disclosive to do so (i.e. there are multiple vessels operating in the same area).

Mobile bottom contact gear

Beam trawling

There was evidence of UK beam trawling effort occurring in the South-West Sula Sgeir and Hebridean Slope possible MPA, as shown in see map 3. The extent of effort was considered very low (i.e. fewer than 20 hours effort estimated between 2006 and 2009 in any overlapping VMS grid) and there is a risk that this may reflect an error in gear coding rather than true beam trawl effort.

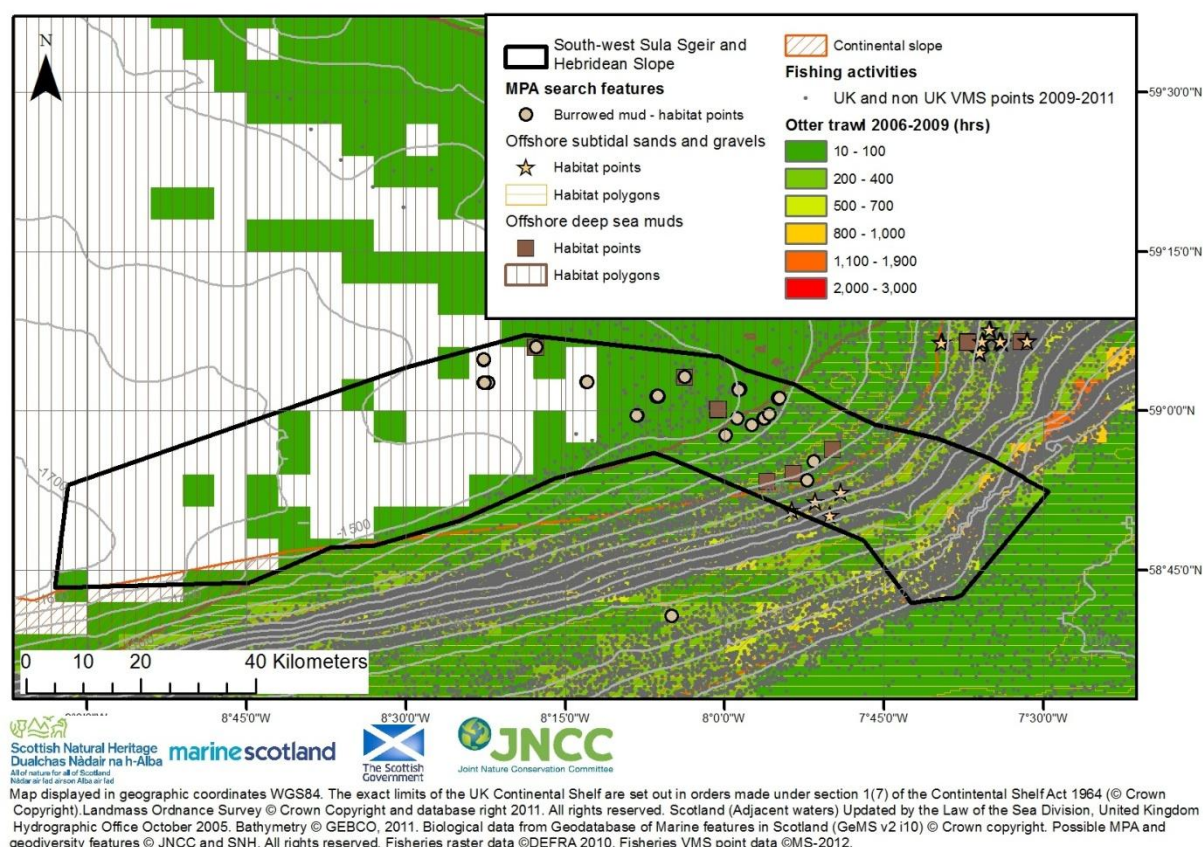
Map 3: Location of beam trawling activity in relation to proposed protected features



Otter trawling

Otter trawling in the possible MPA is concentrated in the east along the shelf edge and slope from 200m down to 1400m, as shown in map 4. The trawl fishery in the area is conducted by a number of EU member states including the UK, France and Spain. The majority of UK otter trawling activity is concentrated on the upper slope portion of the possible MPA (maximum effort in any fishing grid <824 hours between 2006 and 2009) with lower intensity effort (maximum effort in any fishing grid <74 hours between 2006 and 2009) overlapping the deeper section of the slope down to 800m. Spanish demersal otter trawl activity (maximum effort in any fishing grid <105 hours between 2006 and 2009) is almost exclusively concentrated on the upper slope (<600m depth). By contrast, the evidence suggests that French demersal otter trawl activity occurs across the slope down to 1400m with the majority of effort (maximum effort in any fishing grid <276 hours between 2006 and 2009) occurring between 400m and 900m. There is also some evidence of Norwegian effort (maximum effort in any fishing grid <328 hours between 2006 and 2009) in the possible MPA, concentrated along the 200-800m depth contour. However, based on the VMS data available it has not been possible to distinguish between Norwegian demersal otter trawl and long-line vessels. There is also some limited recent evidence of low level activity from Irish otter trawl vessel(s) on the upper shelf portion of the possible MPA although currently there is insufficient data available to assess the significance of the fishery.

Map 4: Location of otter trawling activity in relation to proposed protected features



Management options (e.g. beam trawling, otter trawling)

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

Reduce/limit pressure: This option would reduce, but not entirely eliminate, the risk of not achieving the conservation objectives for **burrowed mud, offshore deep sea mud and offshore subtidal sands and gravels**. Likely management measures could include restrictions on fishing with damaging gears over a proportion of each feature's area. The location of areas to be covered by management restrictions would be decided in consultation with fishers.

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

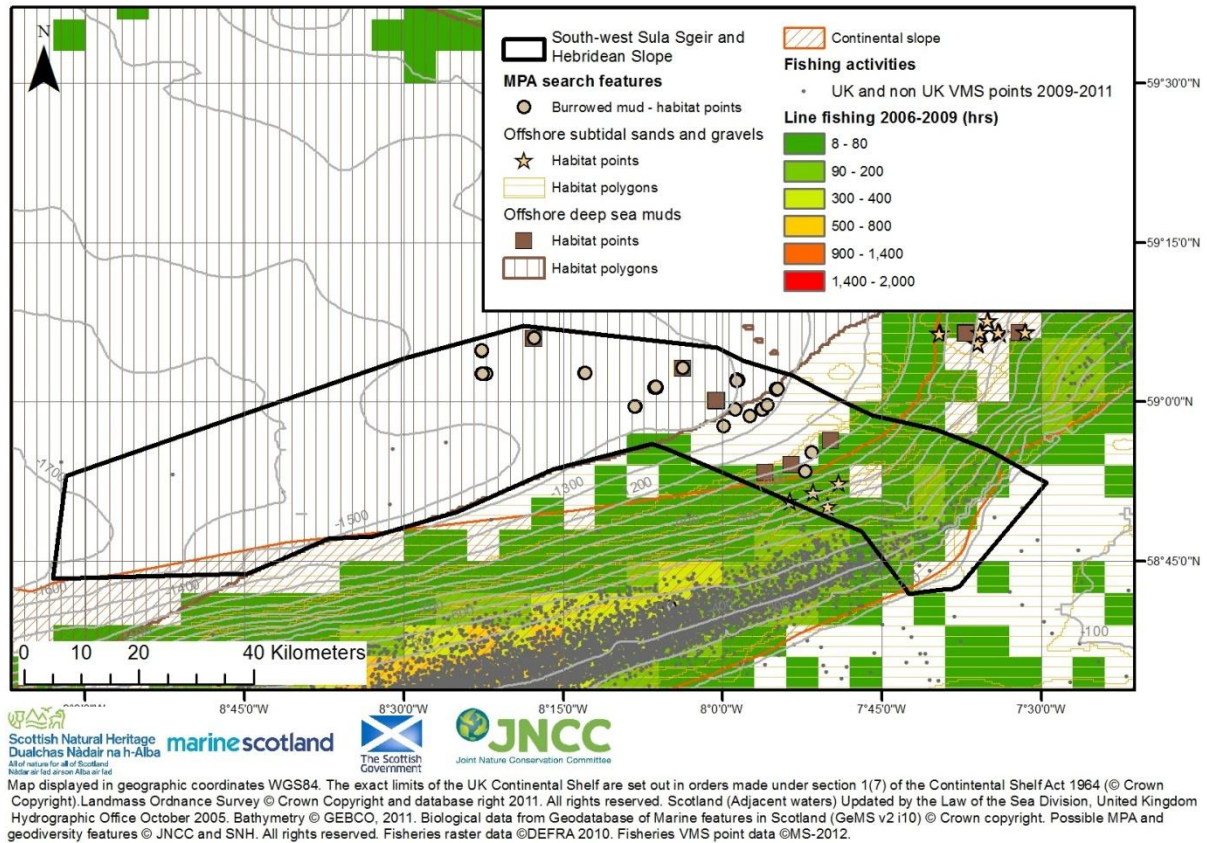
Static bottom contact gear

Line fishing

Long-lining in the possible MPA is concentrated on the shelf edge predominantly between 200 and 1000m depth contours (see map 5). Relative to areas outside the possible MPA, levels of effort are very low from the UK (maximum effort in any overlapping fishing grid <68 hours 2006-2009), Spanish (maximum effort in any overlapping fishing grid < 36 hours 2006-

2009) and French (maximum effort in any overlapping fishing grid <6 hours 2006-2009) fleets. There is also potential Norwegian long-lining effort along the shelf portion of the possible MPA, although based on the VMS data available it has not been possible to distinguish between Norwegian demersal otter trawl and long-line vessels.

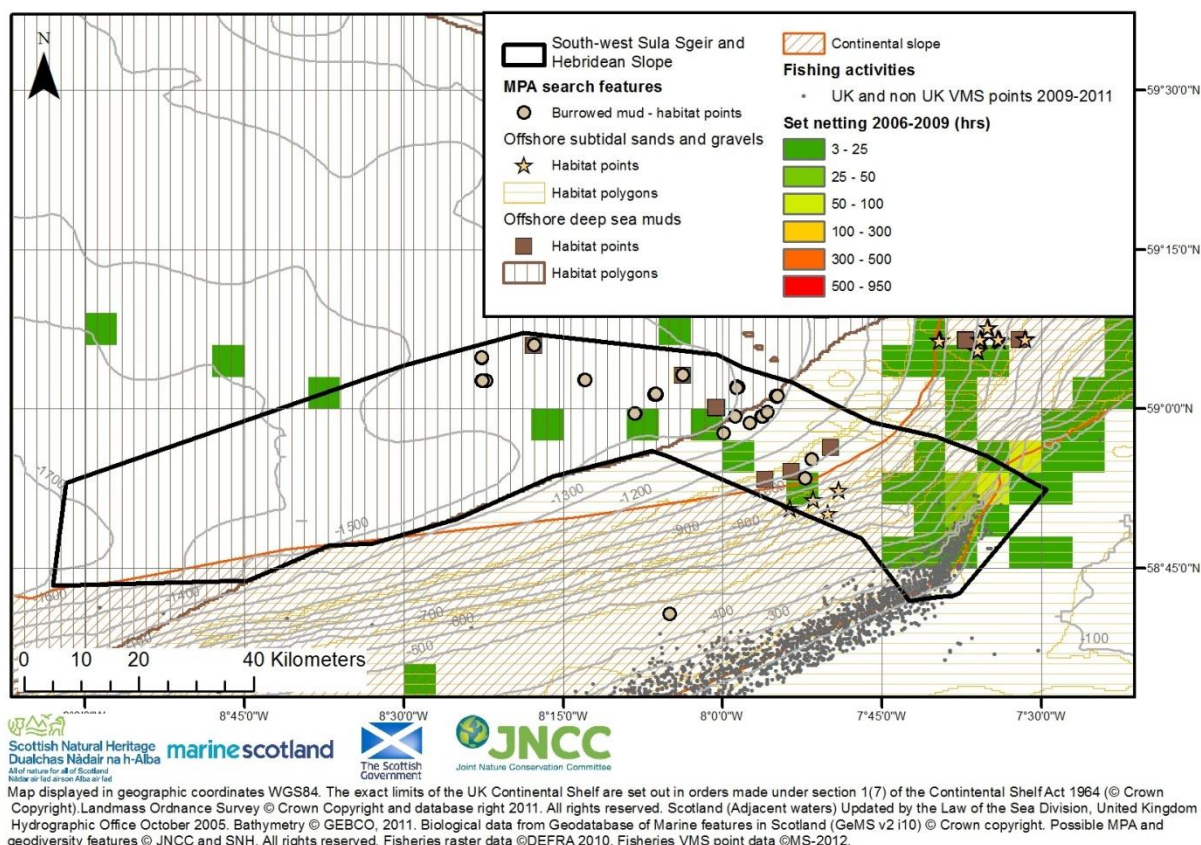
Map 5: Location of line fishing activity in relation to proposed protected features



Set netting

There is some limited evidence of French gill netting vessels operating in the eastern upper slope section of the possible MPA (see map 6), although it is likely that the extent of the activity is very limited (maximum effort in any overlapping fishing grid <40 hours 2006-2009).

Map 6: Location of set netting activity in relation to proposed protected features



Management options
(e.g. set netting, line fishing)

No additional management: This option is considered to be sufficient to achieve the conservation objectives for **burrowed mud, offshore deep sea muds and offshore subtidal sands and gravels.**

Conclusions and further recommendations

Before any firm recommendations are made, discussions should be held with stakeholders to ensure that there is a good understanding of the features and the likely interactions with activities. Marine Scotland will lead the discussions on management with stakeholders. These discussions will start during the formal consultation and, if necessary, may continue after the consultation. The discussions should lead to an improved understanding of the risk to the proposed protected features. The options presented here will then be reviewed by JNCC and a preferred way forward may be recommended. This will form the basis of advice from JNCC to Marine Scotland on management requirements for this possible MPA should it be designated as a Nature Conservation MPA.

Marine Scotland will be responsible for making recommendations to Scottish Ministers on any management measures that may be required. The development of these measures will be done through discussion with stakeholders after the formal consultation on the possible MPA. Should any management measures require statutory underpinning, Marine Scotland will undertake further consultation.

Further information

The following documents are available for background information:

- [SNH and JNCC MPA network advice \(December 2012\)](#)

- [Marine Scotland Report to Parliament on progress in establishing an MPA network](#)
- [The draft MPA Management Handbook](#)
- The online sensitivity matrix tool
- Draft fisheries guidance

The following documents about the possible Geikie Slide and Hebridean Slope possible MPA are also available:

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

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