

<b>Scottish MPA Project Management Options Paper</b>
<b>WEST SHETLAND SHELF NATURE CONSERVATION MARINE PROTECTED AREA</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-6491](http://www.jncc.defra.gov.uk/page-6491)

<b>Document Distribution List and Version Control</b>				
<b>Format</b>	<b>Version</b>	<b>Issue date</b>	<b>Version development and review</b>	<b>Issued to</b>
Electronic	1.0	16/04/2013	Internal drafting and review of pre-version 1.0 drafts by JNCC SMPA team, Offshore Industry Advisors, Fisheries Advisors and Marine Scotland prior to release to MPA Sub Group	MPA Sub Group
Electronic	1.9	18/06/2013	Review of documents to take account of MPA Sub Group comments and release to Marine Scotland	Marine Scotland
Electronic	2.0	08/07/2013	Review of document to take account of Marine Scotland Science and Marine Scotland comments.	Marine Scotland
Electronic	3.0	24/07/2013	Revision to take account of editorial review and Grade 7 review prior to release of document for public consultation.	Uploaded to JNCC website
Electronic	4.0	07/07/2014	Document update to align with designation status and revise text in response to consultation responses	Delivery to Marine Scotland to support MPA designation and upload to website

## DEVELOPMENT OF MANAGEMENT OPTIONS FOR THE WEST SHETLAND SHELF MPA

### 1 Management Options Summary

This section summarises JNCC's management options for the West Shetland Shelf 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. Full details on these options are provided in the subsequent sections of the Management Options Paper below. Discussions between sea users, scientists and managers will be needed to develop any subsequent management measures.

Activity	Management options
<b>Fishing activity: Bottom contacting mobile gear</b>	<b>No additional management:</b> No mobile gear fisheries currently take place within the MPA due to the overlap with an area (known as the "Windsock") currently closed to mobile gears under Common Fisheries Policy regulations for cod recovery. If this measure changes in the future, specific management actions would need to be considered to ensure the <b>offshore subtidal sands and gravels</b> achieve their conservation objective.
<b>Fishing activity: Bottom contact static gear</b> (e.g. creeling and potting)	<b>No additional management:</b> JNCC consider this option sufficient for bottom contacting static gear to achieve the conservation objective for <b>offshore subtidal sands and gravels</b> . However, if monitoring showed evidence of detrimental effects as a result of static gear activity in the future it may be necessary to seek a reduction in effort.
<b>Oil and gas activity:</b>	The potential impacts of oil and gas activity and/or developments 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.
<b>Telecommunication cables</b>	JNCC welcomes early discussions with the operator for all plans relating to cables within the MPA, including installation, maintenance and removal. JNCC recommend that a voluntary Environmental Impact Assessment is undertaken to support plans for any new cable installation to assess the impacts of the associated activities on the protected features present.

## 2 Introduction

The West Shetland Shelf Marine Protected Area (MPA) is located in offshore waters to the north of Scotland (see map 1). The MPA overlaps with an area (known as the Windssock) closed to bottom contacting mobile gears under Common Fisheries Policy regulations for cod recovery. A diverse range of sand and gravel habitats are present within the MPA, providing important examples of the feature within the northern extent of their range on the continental shelf. The area of the West Shetland Shelf MPA is approximately 4,083 km<sup>2</sup>.

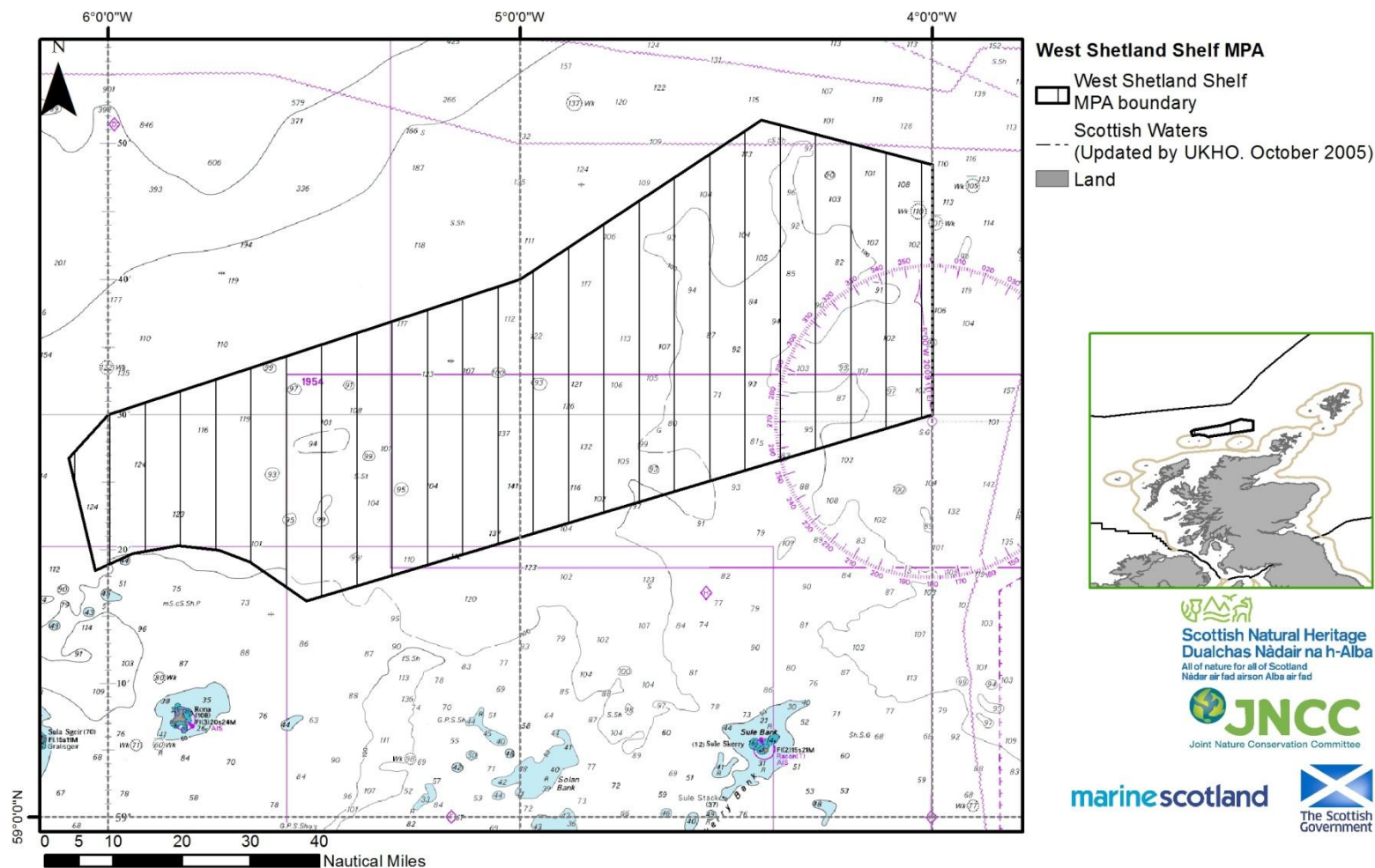
Further details on the MPA can be found in the West Shetland Shelf Site Summary Document available at <http://jncc.defra.gov.uk/page-6491>.

The main activity that overlaps with the MPA is a creel fishery for edible crab. VMS data suggests a multi-national fleet operates within the MPA, including vessels from a number of EU countries, as well as Norway and the Faroe Islands. Due to the ban on mobile bottom contact gear put in force in 2001, and subsequently following the EU [Cod Recovery Plan](#), mobile bottom contact gear, including trawling and seine netting, are not operational within the MPA. However, based on the evidence pre-closure and on prevailing fishing patterns close to the boundary of the MPA, a demersal trawl fishery for whitefish (cod, saithe, hake, haddock, monk, whiting) could occur across the MPA if the current closure were to be lifted. A very small part of the north-east of the MPA overlaps with license blocks identified by the Department of Energy and Climate Change (DECC), and could be subject to oil and gas development in the future. A telecommunications cable also skims the north-east of the MPA.

JNCC produced the present document to provide background information on the development of management options for the West Shetland Shelf 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 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 West Shetland Shelf MPA makes a genuine and long-lasting contribution to the protection of Scotland's marine environment.

Map 1 Location of the West Shetland Shelf MPA



### **3 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 West Shetland Shelf 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 expects 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 that 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 will contribute to the development of well-designed and effective management measures.

### **4 Protected features and conservation objectives**

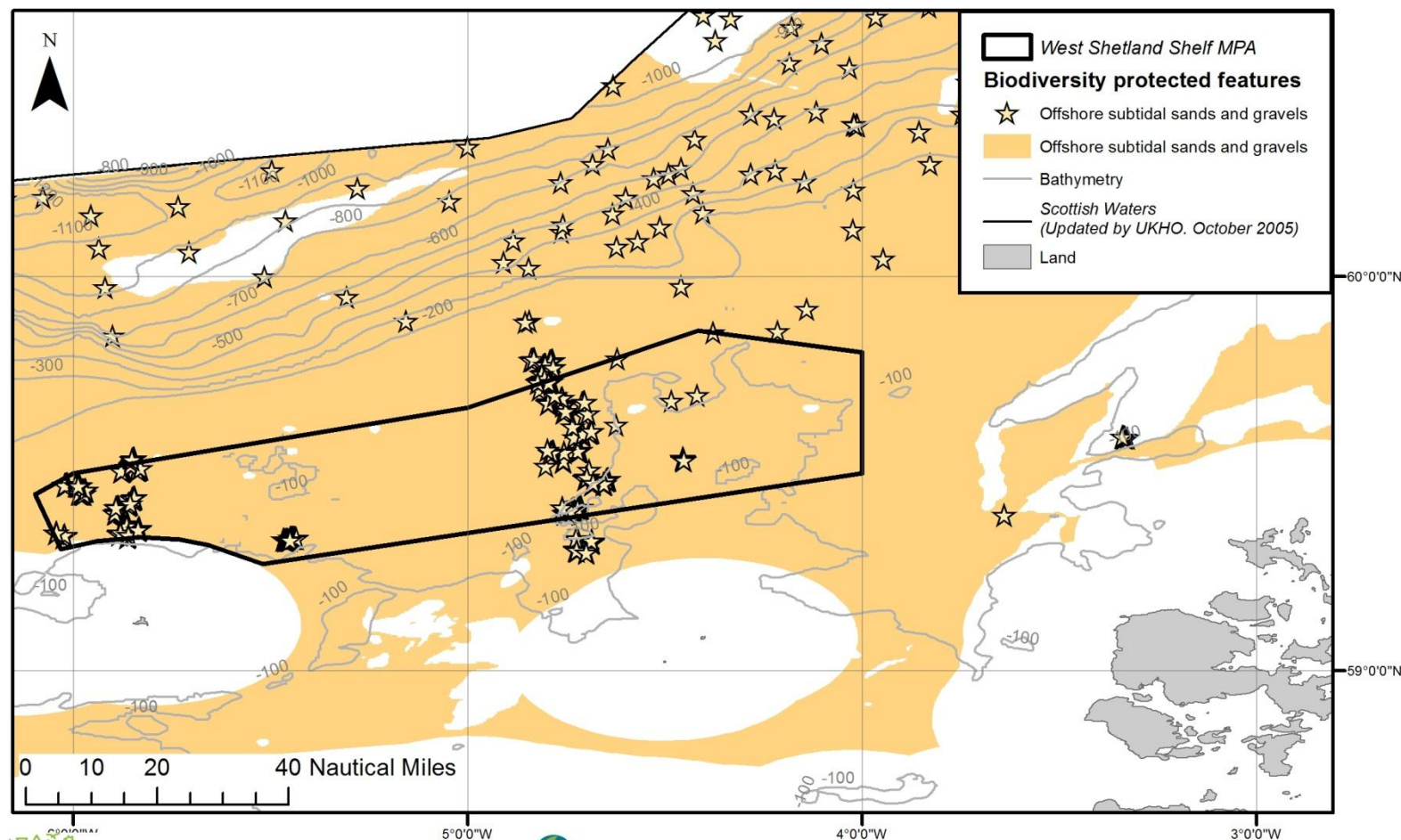
The West Shetland Shelf MPA has been designated as part of a network of Nature Conservation MPAs which is being established to help conserve a range of Scotland's important marine habitats, wildlife, geology and landforms. The West Shetland Shelf MPA has been designated for the following protected feature, as shown in map 2:

- Offshore subtidal sands and gravels

Conservation objectives set out the desired ecological quality of the protected biodiversity feature within each Nature Conservation MPA. JNCC recommend the conservation objective for the protected feature within the West Shetland Shelf MPA is '*conserve*'. The ecological condition of the protected feature 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 the feature 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 feature conservation objective.

Map 2 The known distribution of protected features within the West Shetland Shelf MPA



marinescotland



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). 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 v4) © Crown copyright. MPA and geodiversity features © JNCC and SNH 2014. All rights reserved.



## 5 Overview of activities

Table 1 below lists the activities believed to take place within or close to the West Shetland Shelf MPA. Further discussions with those who use the area will continue to improve our understanding of these activities (e.g. distribution and intensity etc.).

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 features is considered to be minimal) will not be considered further within this document. Other activities not identified within the table would need to be considered on a case-by-case basis should they occur, or be proposed at some future time.

**Table 1:** Overview of existing activities believed to take place within or close to the West Shetland Shelf MPA

Activities considered capable of affecting the protected features	Activities <i>not</i> considered capable of affecting the protected features
Fishing activities: <ul style="list-style-type: none"> <li>• Creeling and potting</li> </ul> Oil and gas activity  Telecommunications cables	Shipping <ul style="list-style-type: none"> <li>• Commercial shipping</li> </ul>

## 6 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. the advice was focused where we believed there is a risk the protected features will not achieve their conservation objective. 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 to assess this risk. 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.

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 an overlap between 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 the MPA.

JNCC have 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.

## **7 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

Static bottom contact gear

- Creeling and potting

### **Licensed activities**

### **Telecommunication cables**

#### **7.1 Fishing activity**

JNCC has evaluated management options to manage the risk of the protected feature not achieving its conservation objective for the West Shetland Shelf MPA. A gradient of management options have been considered to reduce exposure to pressures, these have been described under three potential management option 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 those 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 it to a wider area or even 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](#).

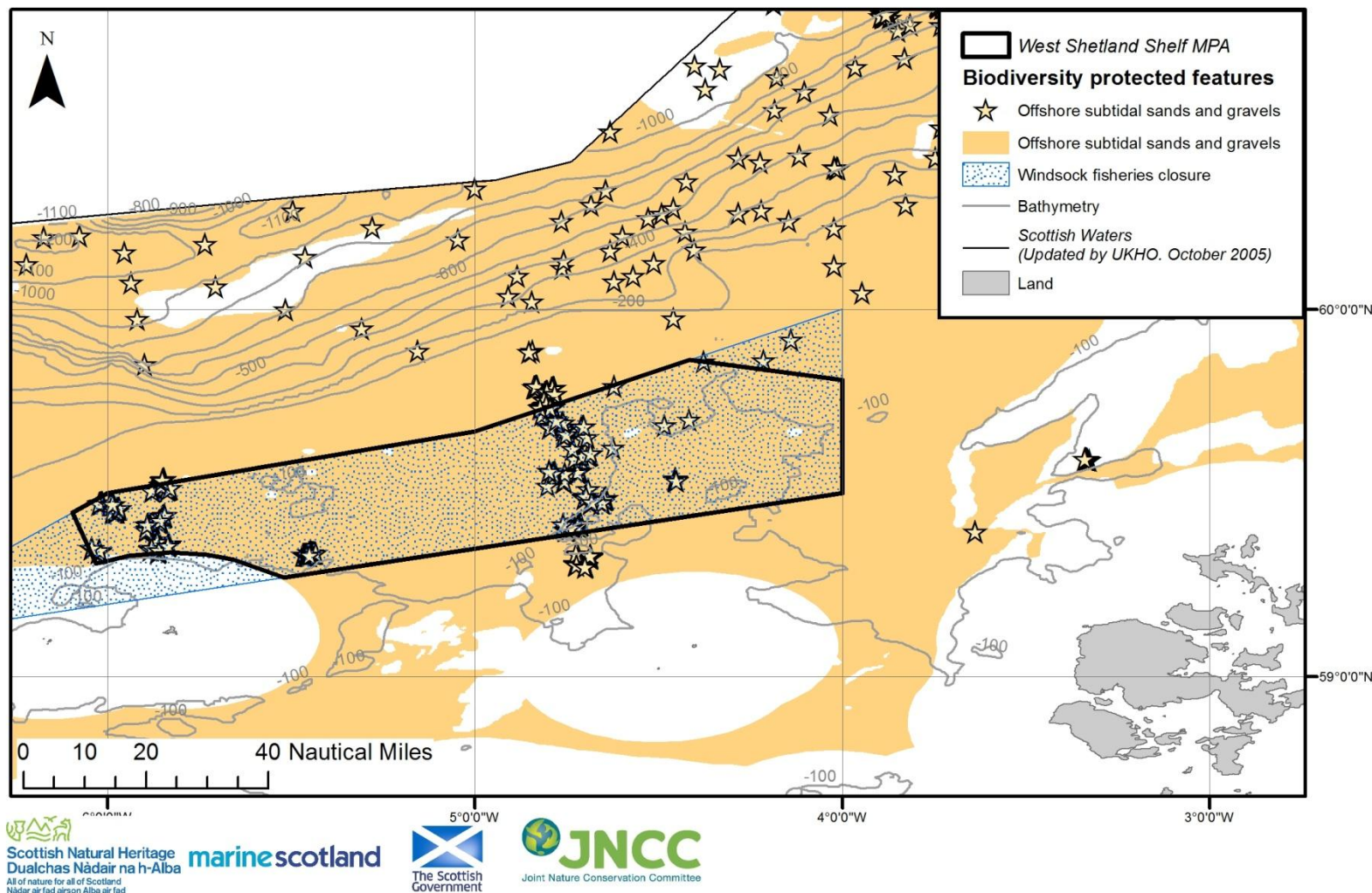
An estimation of >15m fishing activity taking place within the region of the MPA was derived from Vessel Monitoring System (VMS) data, with an average 2 hourly ping rate. VMS data for UK vessels were linked to skipper logbook information, which was used to determine the fishing gear being employed for 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).

#### 7.1.1 Fishing activity: Mobile bottom contact gear

The MPA overlaps with an area known as the Windsock Fisheries Closure, as shown in map 3. A ban on mobile bottom contact gear was introduced within the closure area in 2001, and then following the EU [Cod Recovery Plan](#), mobile bottom contact gear, including trawling and seine netting, are not operational within this area.

<b>Management options</b> <b>Mobile bottom contact gear</b>	<b>No additional management:</b> No mobile gear fisheries currently take place within the MPA due to the overlap with an area (known as the "Windsock") currently closed to mobile gears under Common Fisheries Policy regulations for cod recovery. If this measure were changed in the future, management would need to be considered to ensure the <b>offshore subtidal sands and gravels</b> achieve the conservation objective.
--	--

Map 3: Location of the Windsock Fisheries Closure 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). 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 v4) © Crown copyright. MPA and geodiversity features © JNCC and SNH 2014. All rights reserved.

### 7.1.2 Fishing activity: Static bottom contact gear

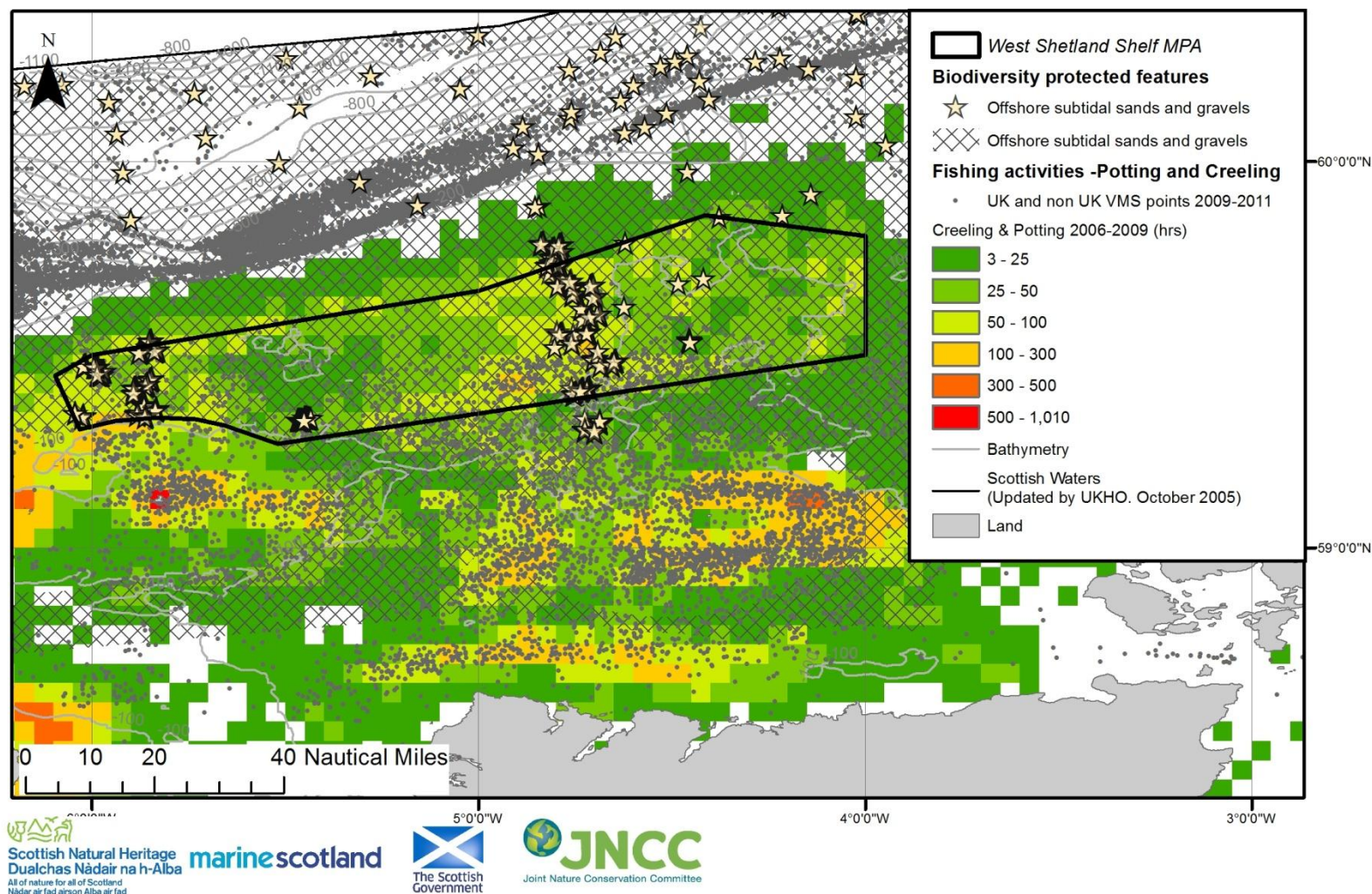
#### Creeling and potting

UK potting vessels operate widely across the West Shetland MPA (maximum effort in any overlapping fishing grid square less than 120 hours over 2006-2009), although effort appeared to be mostly concentrated towards the centre and south western parts of the MPA, see map 4. There was also evidence of potting effort (maximum effort 38 hours over 2006-2009) from Irish vessels, all concentrated in the south-west of the MPA.

<b>Management options</b> <b>Static bottom contact gear</b> (e.g. creeling and potting)	<b>No additional management:</b> JNCC considers this option sufficient for bottom contacting static gear to achieve the conservation objective for <b>offshore subtidal sands and gravels</b> . However, if monitoring showed evidence of detrimental effects as a result of static gear activity in the future it may be necessary to seek a reduction in effort.
---	--



Map 4: Location of creeling and potting activity 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). 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 v4) © Crown copyright. Marine geodiversity features © JNCC and SNH 2014. All rights reserved. Fishing raster data © DEFRA 2010. Fishing VMS point data ©MS 2012

## 7.2 Oil and gas activity

A very small part of the north-east of the MPA overlaps with license blocks identified by the Department of Energy and Climate Change (DECC), as shown in Map 5. Although no oil and gas activity takes place within the region at the current time, the license blocks may be subject to development in the future.

The Department of Energy and Climate Change (DECC), as the regulator for oil and gas activity in the UK, would be responsible for making the decision on whether a proposed activity and/or development is capable of affecting (other than insignificantly)<sup>1</sup> the protected features of a Nature Conservation MPA. For those activities and/or developments that DECC considers require an EIA, JNCC is willing to engage at an early stage with DECC and the operator 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 advice. Early engagement will facilitate discussions on the information required to advise on any possible implications to the protected features achieving their conservation objectives. 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 site and operation 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 oil and gas activity within Nature Conservation MPAs is included in the [MPA Management Handbook](#).

<b>Management options:</b> <b>Oil and gas activity</b>	The potential impacts of oil and gas activity and/or developments 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.
---	---

## 7.3 Telecommunication cables

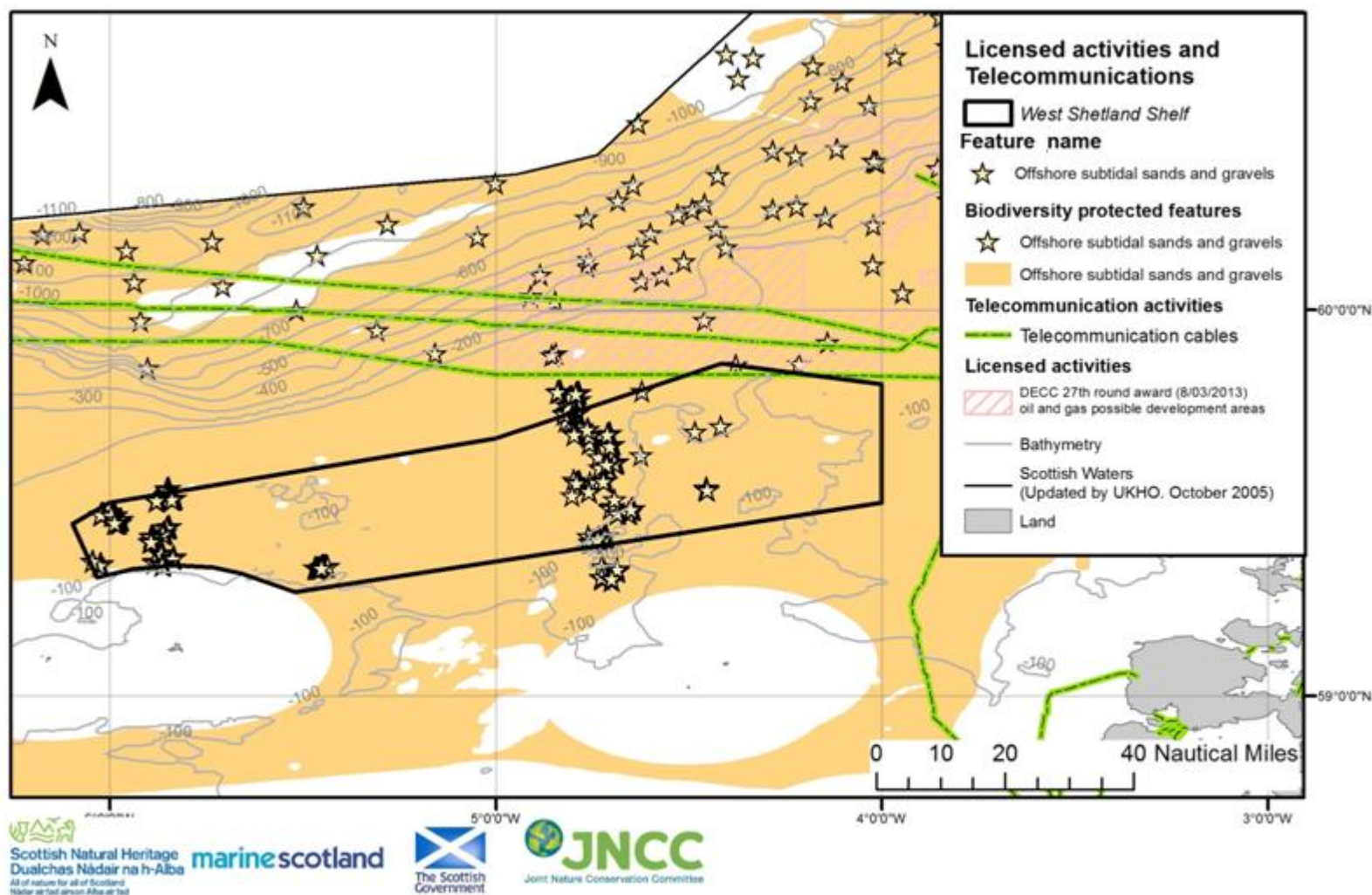
Currently one telecommunication cable skims the north-eastern boundary of the MPA (see map 5). Telecommunications cables are not subject to assessment under the EIA regulations (2009) and therefore do not, in general, go through the marine licensing process. Consequently, it is not possible to develop specific management options for unlicensed activities such as cables. Instead, discussions with operators would be welcomed at the earliest opportunity regarding plans for new cable installations, or for the maintenance or removal of existing cables.

<b>Management options:</b> <b>Telecommunications cables</b>	JNCC welcomes early discussions with the operator for all plans relating to cables within the MPA, including installation, maintenance and removal. JNCC recommend that a voluntary Environmental Impact Assessment is undertaken to support plans for any new cable installation to assess the impacts of the associated activities on the protected features present.
--	---

<sup>1</sup> Reference to 'affecting the status of (other than insignificantly)' relates to the requirements on public authorities set out in the UK and Scottish Marine Acts (Sections 125 and 82 respectively) in relation to licensed activities taking place within MPAs.



Map 5: Location of oil and gas activity and telecommunication cables in relation to protected features





## **8 Conclusions and further recommendations**

Marine Scotland will be responsible for making recommendations to Scottish Ministers on any management actions that may be required to deliver the conservation objectives for the protected feature in West Shetland Shelf MPA. These actions will be developed through discussion 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 in any area beyond Scottish Government's exclusive competence, an application will be made to the European Commission for appropriate fisheries management measures using the mechanisms under the Common Fisheries Policy. This process will include consultation on the measures at the EU level.

## **9 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 West Shetland Shelf MPA are also available at: [www.jncc.defra.gov.uk/page-6491](http://www.jncc.defra.gov.uk/page-6491):

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