

**Scottish MPA Project
Management Options Paper**

**EAST OF GANNET AND MONTROSE FIELDS NATURE
CONSERVATION MARINE PROTECTED AREA (MPA)**

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 considered 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

These documents are available at www.jncc.defra.gov.uk/page-6478

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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 JNCC website

DEVELOPMENT OF MANAGEMENT OPTIONS FOR EAST OF GANNET AND MONTROSE FIELDS MPA

1 Management Options Summary

This section summarises JNCC’s management options for the East of Gannet and Montrose Fields 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
<p>Fishing activity: Bottom contacting mobile gear (e.g. otter trawling and demersal seine netting)</p>	<p>No additional management: There is a risk of not achieving the conservation objectives for ocean quahog aggregations and offshore deep sea muds.</p> <p>Reduce/limit pressures: This option would reduce, but not entirely eliminate, the risk of not achieving the conservation objectives for offshore deep sea muds and ocean quahog aggregations. Appropriate management for ocean quahog could include restrictions on gears known to impact the species, such as scallop and hydraulic dredging. Appropriate management for offshore deep sea muds could include closure of a proportion of the area where the feature occurs to damaging gears. Restrictions could be permanent in some cases or temporary/adaptive in others. The location of areas to be covered by management restrictions would be decided in consultation with fishers.</p> <p>Remove/avoid pressures: This option would reduce the risk of not achieving the conservation objectives for offshore deep sea muds and ocean quahog aggregations to the lowest possible levels.</p>
<p>Oil and gas activity:</p>	<p>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.</p>

2 Introduction

The East of Gannet and Montrose Fields Marine Protected Area (MPA) lies within a shallow sediment plain to the east of Scotland (see Map 1). The sandy seabed provides an ideal home for ocean quahog, a very long-lived type of large clam that lives buried in the sand. The southern part of the MPA includes one of very few examples of offshore deep-sea mud on the shelf in the North Sea outside of the Fladen Grounds. The area of the East of Gannet and Montrose Fields MPA is approximately 1,839 km².

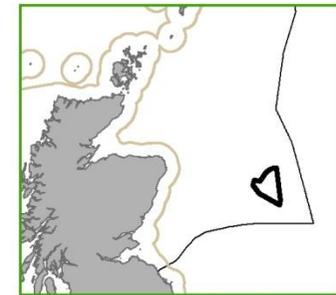
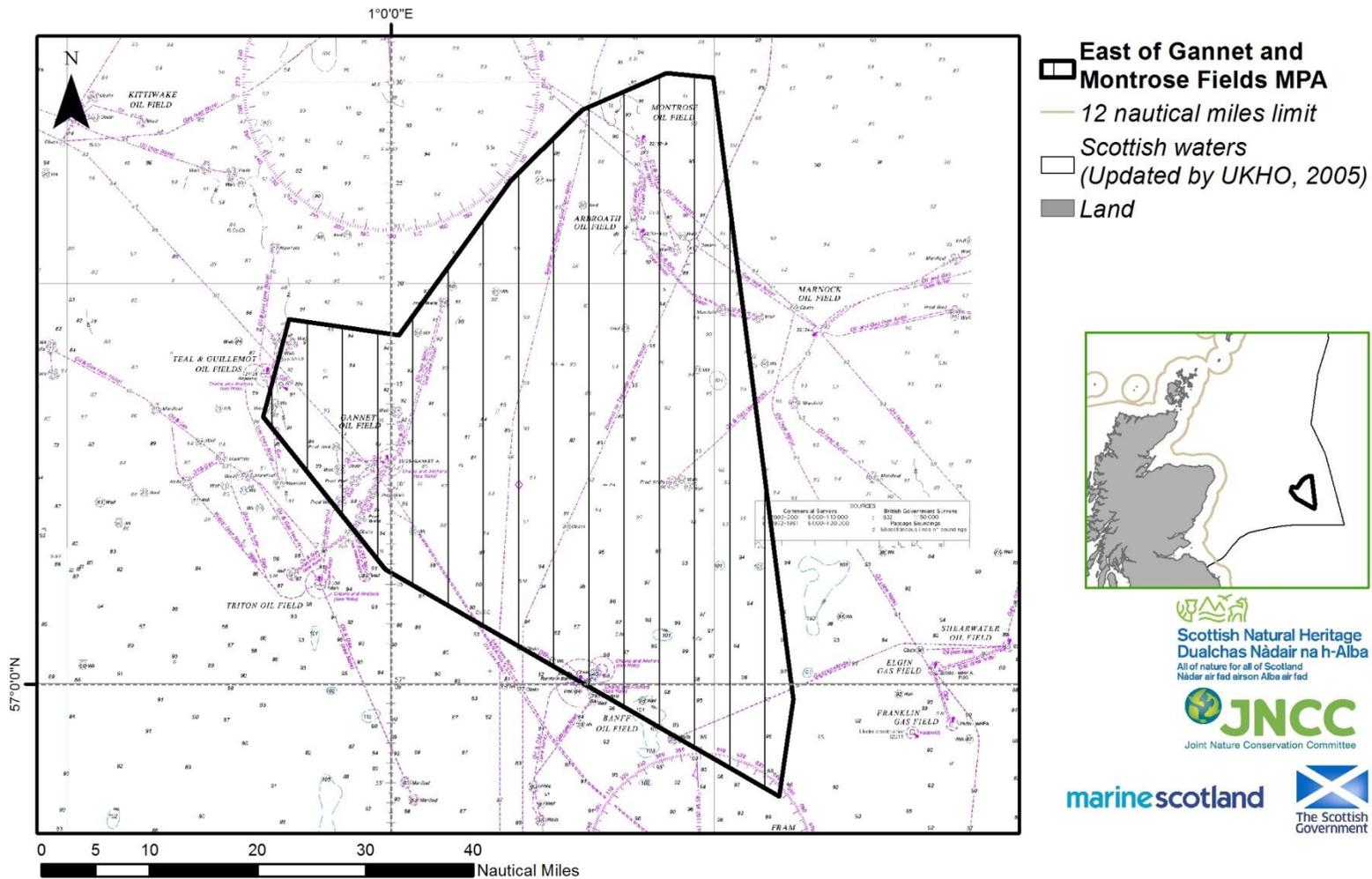
Further details on the MPA can be found in the East of Gannet and Montrose Fields MPA Site Summary Document available at www.jncc.defra.gov.uk/page-6478

The main fishing activity overlapping the East of Gannet and Montrose Fields MPA is a mixed whitefish demersal trawl fishery (targeting haddock, cod, whiting, monkfish, lemon sole), of which haddock is the species of greatest landing value. Limited seine netting is thought to take place within the MPA. There is also evidence of a targeted *Nephrops* demersal trawl fishery overlapping the offshore deep-sea mud along the southern border of the MPA. The MPA overlaps with existing oil and gas platforms, wells, associated infrastructure and pipelines. The south of the MPA overlaps with license blocks identified by the Department of Energy and Climate Change (DECC) and may be subject to further development for oil and gas activity in the future.

JNCC produced the present document to provide background information on the development of management options for the East of Gannet and Montrose Fields 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 are considered capable of delivering the conservation objectives for the protected features. The document supports those stakeholders with an interest in the area to input to the development of appropriate management measures that will ensure the East of Gannet and Montrose Fields MPA makes a genuine and long-lasting contribution to the protection of Scotland's marine environment.

Map 1: Location of the East of Gannet and Montrose Fields MPA



Scottish Natural Heritage
 Duilchas Nàdair na h-Alba
 All of nature for all of Scotland
 Nàdar air fad airson Alba air fad

JNCC
 Joint Nature Conservation Committee

marinescotland The Scottish Government

3 Roles

JNCC provides conservation advice to Scottish Government on how it might be possible to achieve the conservation objectives for the protected features. JNCC's advice includes possible options for management human activities in the East of Gannet and Montrose Fields 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. It is expected 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, the expectation is that the Common Fisheries Policy process 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.

4 Protected features and conservation objectives

The East of Gannet and Montrose Fields MPA has been designated as part of a network of Nature Conservation MPAs which are being established to help conserve a range of Scotland's important marine habitats, wildlife, geology and landforms. The East of Gannet and Montrose Fields Channel MPA has been designated for the following protected features, as shown in Map 2:

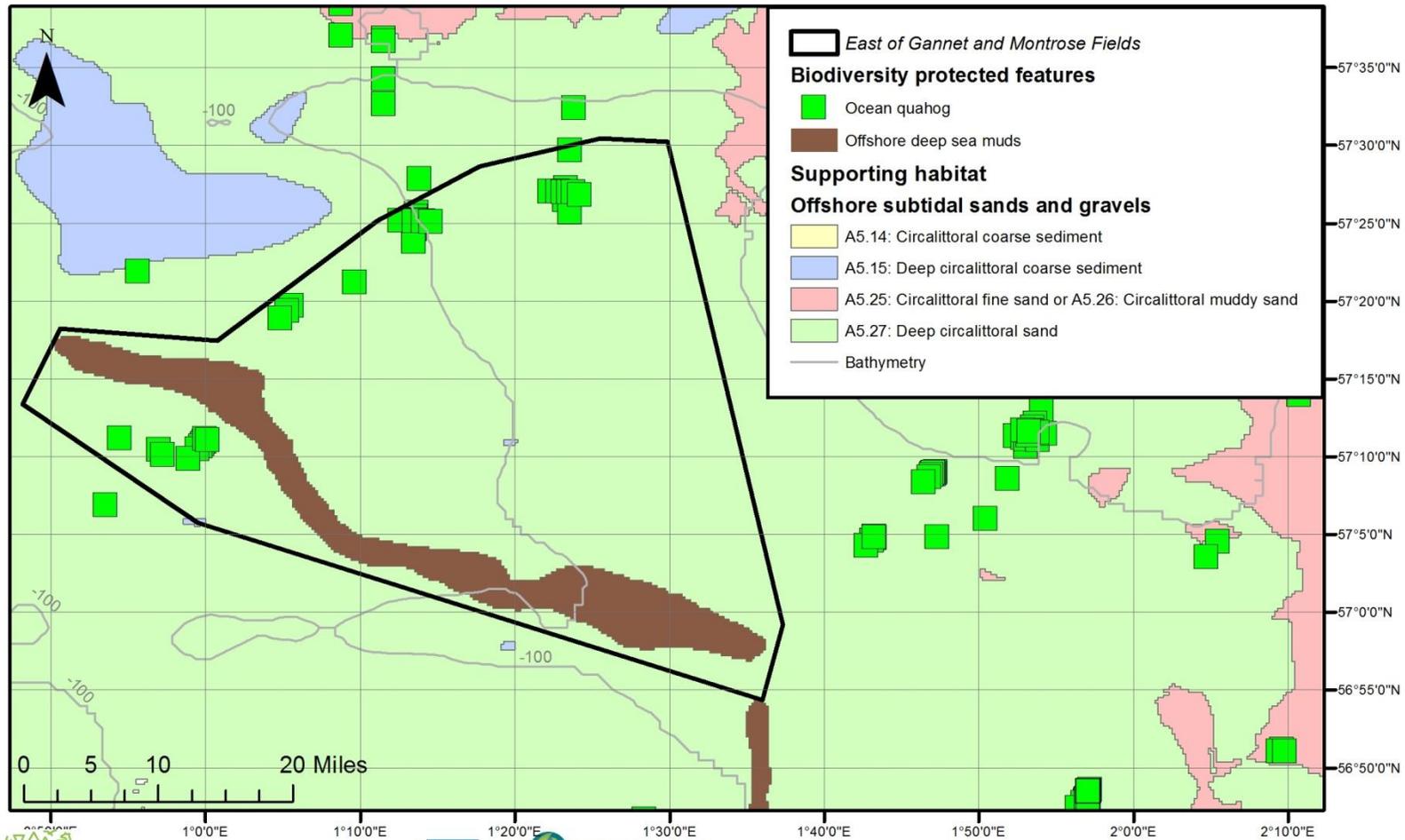
- Offshore deep sea muds
- Ocean quahog aggregations, including sediment areas suitable for their colonisation (sand and gravel habitat).*

*The protection of ocean quahog requires the protection of its supporting habitat; certain types of offshore subtidal sands and gravels. Protection of this habitat will be focused on that required to sustain the ocean quahog (e.g. minimising the alteration of local habitat type in the region) rather than on conserving the range of species associated with offshore subtidal sand and gravel habitats *per se*.

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 East of Gannet and Montrose Fields MPA are '*conserve*' for all features. The condition of the features has not been verified by direct evidence of ecological condition so the uncertainty of the feature condition is noted alongside the objective (feature condition uncertain).

Improved evidence on the condition of these features 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.

Map 2: The known distribution of protected features within the East of Gannet and Montrose Fields MPA



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 human activities that take place within or close to the East of Gannet and Montrose Fields 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 East of Gannet and Montrose Fields 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"> - Otter trawling - Demersal seine netting Licensed activities: <ul style="list-style-type: none"> - Oil and gas industry developments, including drilling of wells, installation of platforms, pipelines and other subsea infrastructure, and their ongoing use and maintenance. 	Shipping: <ul style="list-style-type: none"> - Commercial shipping Fishing activities*: <ul style="list-style-type: none"> - Pelagic trawling and purse seining

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

6 Development of management options

Management options have been developed for each MPA where JNCC consider that some form of active management intervention may be necessary to achieve the conservation objective for each protected feature. A risk-based approach used to identify appropriate management options i.e. the advice was focused where it was believed there is a risk to not achieving the conservation objective for the protected features. To do this, 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.

Management options have focused 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 that 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 identify 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

- Otter trawling
- Demersal seine netting

Licensed activities

- Oil and gas activity and pipelines

7.1 Fishing activity

JNCC has evaluated management options to manage the risk of not achieving the conservation objectives for the protected features of the East of Gannet and Montrose Fields MPA. A gradient of management options have been considered to reduce exposure to pressures, these have been described under three potential management option categories 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 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 scale. This method has the advantage of enabling the quantification of effort at a discrete spatial scale (hours per grid 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 are 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

Otter trawling

The VMS data suggests that over 15m otter trawling by UK registered vessels takes place across the majority of the MPA, with a concentration of effort (maximum effort of 805 hours in a single grid between 2006 and 2009) along the south-eastern boundary, as shown in Map 3. This area of higher effort overlaps with the offshore deep-sea mud and sediment types suitable for ocean quahog colonisation (sand and gravel habitat). Based on VMS data from 2006-2011, there is no evidence of otter trawling activity by non-UK vessels within the MPA.

Demersal seine netting

Although there is significant demersal seine netting effort to the north-west of the MPA, effort within the boundary is negligible (i.e. less than 12 hours effort in any grid during 2006 to

2009), as shown in Map 4. However, there is the potential for overlap of the activity with both of the protected features. Available records indicate that the activity is likely to be Scottish seine netting (flyshooting) which uses a floating marker buoy rather than an anchor to secure the leading rope.

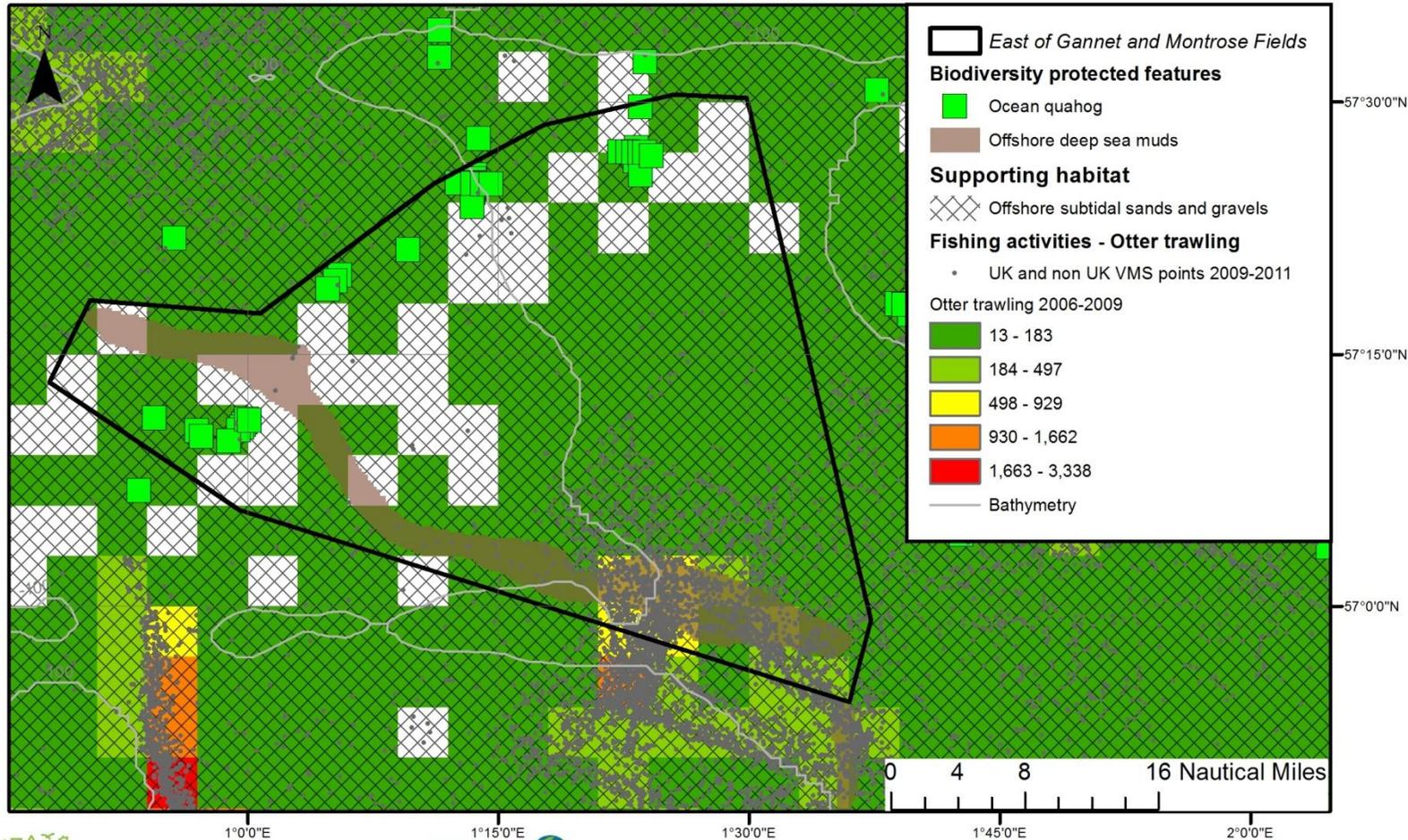
Management options
(e.g. otter trawling and demersal seine netting)

No additional management: There is a risk of not achieving the conservation objectives for **ocean quahog aggregations** and **offshore deep sea muds**.

Reduce/limit pressures: This option would reduce, but not entirely eliminate, the risk of not achieving the conservation objectives for **offshore deep sea muds** and **ocean quahog aggregations**. Appropriate management for ocean quahog could include restrictions on gears known to impact the species, such as scallop and hydraulic dredging. Appropriate management for offshore deep sea muds could include closure of a proportion of the area where the feature occurs to damaging gears. Restrictions could be permanent in some cases or temporary/adaptive in others. The location of areas to be covered by management restrictions would be decided in consultation with fishers.

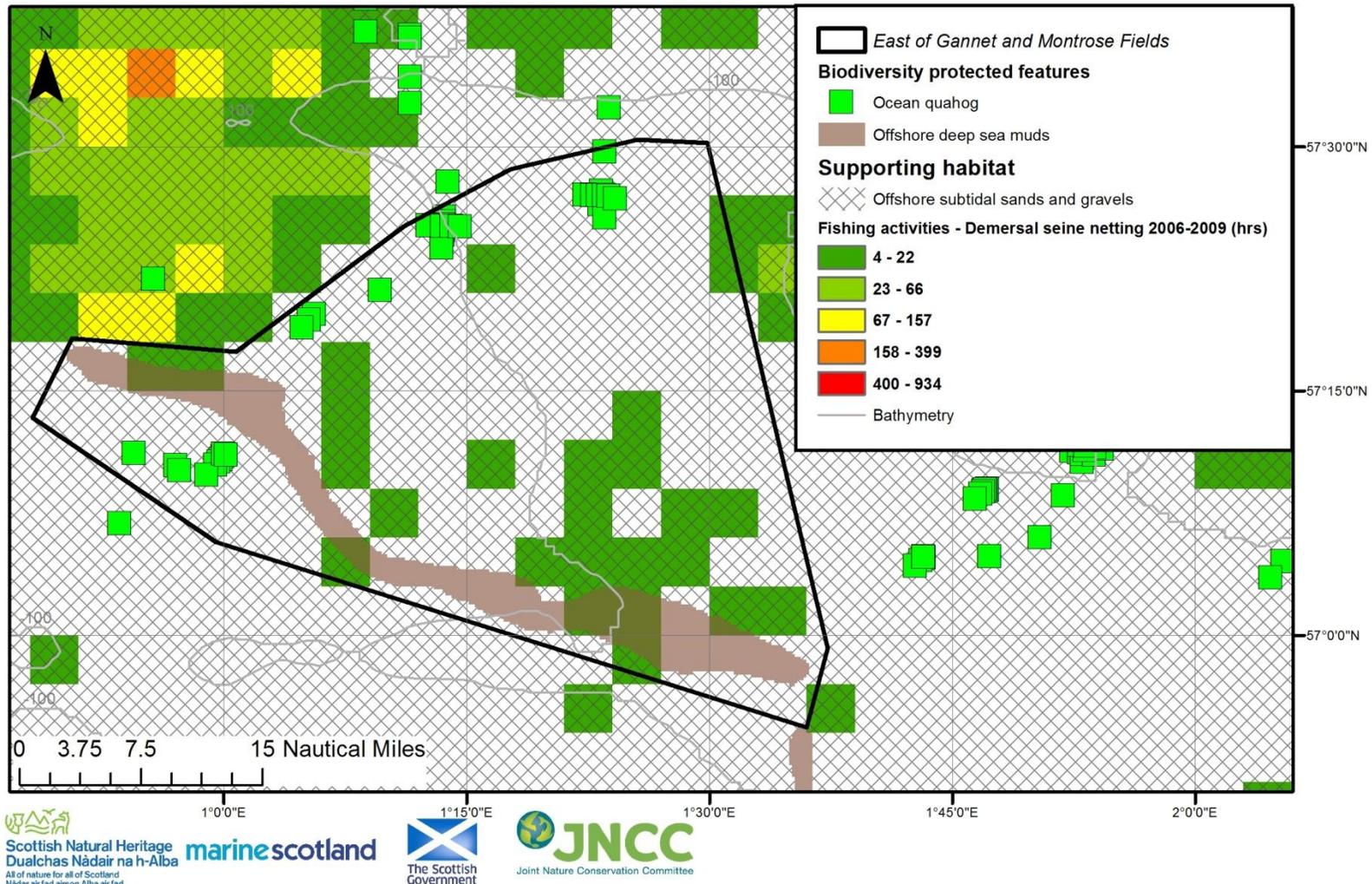
Remove/avoid pressures: This option would reduce the risk of not achieving the conservation objectives for **offshore deep sea muds** and **ocean quahog aggregations** to the lowest possible levels.

Map 3: Location of otter trawling 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. MPA and geodiversity features © JNCC and SNH 2014. All rights reserved. Fishing raster data © DEFRA 2010. Fishing point data © MS 2012.

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



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7.2 Oil and gas activity

Oil and gas activity is present across the MPA, including platforms, wells, associated infrastructure and a number of pipelines, as shown in Map 5. The southern part of the MPA overlaps with license blocks identified by the Department of Energy and Climate Change (DECC) and may be subject to further oil and gas 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 as to whether a proposed activity and/or development is capable of affecting (other than insignificantly)¹ 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).

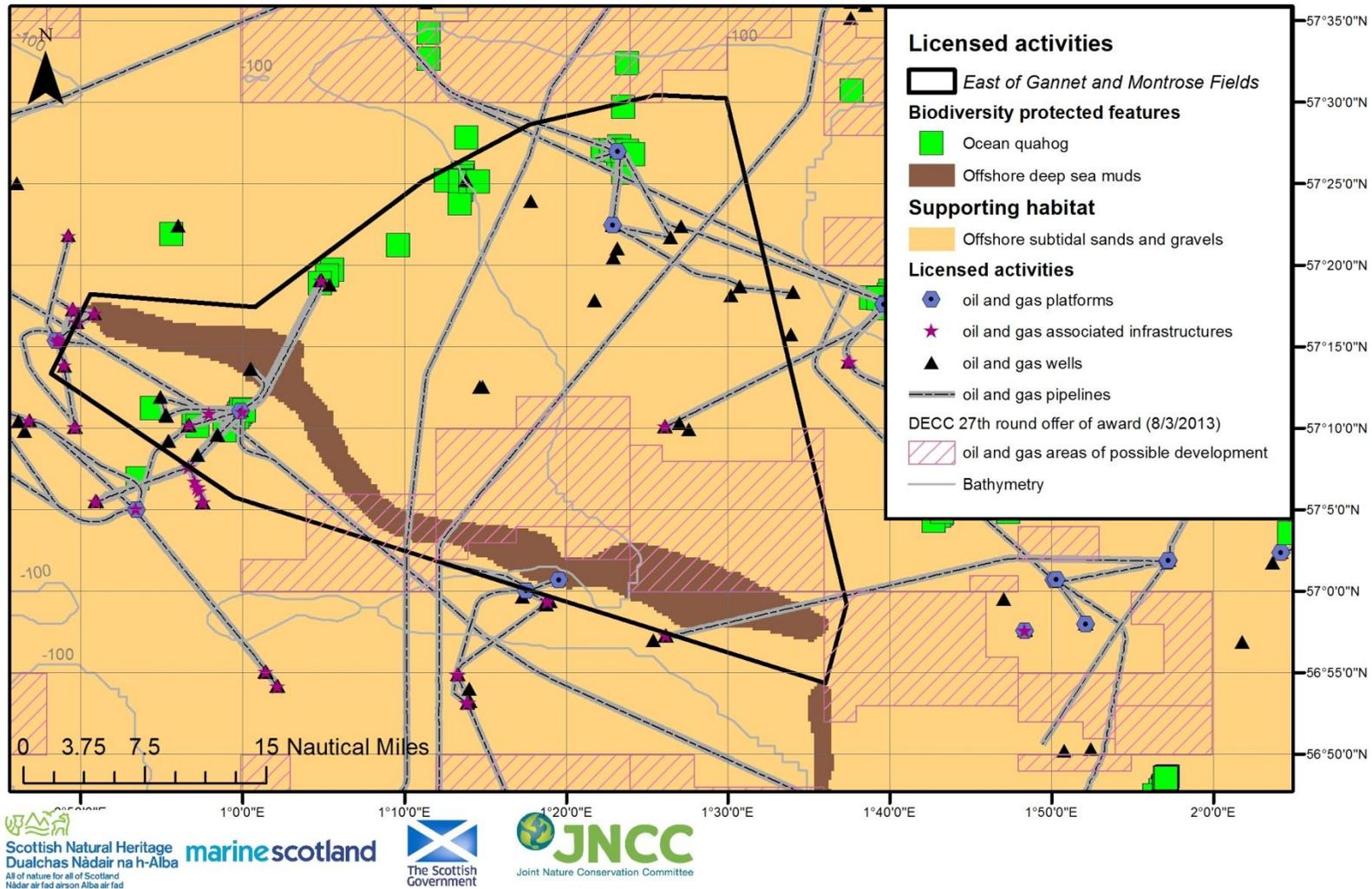
JNCC will consider the nature, scale, timing and duration of activities in providing advice. Early engagement will facilitate discussions on the information required to advise on any possible implications to the protected features achieving their conservation objectives. If JNCC identify a potentially 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](#).

Management Options Oil and gas activity:	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.
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¹ 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 4: Location of oil and gas infrastructure and pipelines 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. Licensed activities © UKDEAL 2011-2012, DECC 2013

8 Conclusions and further recommendations

Marine Scotland will be responsible for making recommendations to Scottish Ministers on any management measures that may be required. These measures will be developed through discussion with stakeholders following MPA designation. 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, then the intention is that an application will be made for measures using the mechanisms of 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
- The MPA Management Handbook - www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork/engagement/ManagementHandbook
- FEatures Activities Sensitivity Tool (FeAST) - www.marine.scotland.gov.uk/FEAST/Index.aspx
- JNCC and SNH Fisheries Management Guidance – www.jncc.defra.gov.uk/page-6498

The following documents about the East of Gannet and Montrose Fields MPA are also available at www.jncc.defra.gov.uk/page-6478:

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