



**Fisheries Management Options Paper:
SCANNER POCKMARK SPECIAL AREA OF CONSERVATION**

JNCC

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(2014)**

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Please note that this Fisheries Options Paper was developed in April 2014 to feed into the management measure proposal development. Prior to publication in April 2023, the document has been checked and links updated.

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1. Management Options Summary

Table 1. Fisheries management options for mobile and static bottom contact fishing gears.

Fishing Activity	Management options
<p>Demersal trawling</p> <p>Boat dredging</p> <p>Beam trawling</p> <p>Demersal seine netting</p>	<p>No additional management: There is a significant risk of not achieving the conservation objectives for the submarine structures caused from leaking gases.</p> <p>Reduce/limit pressures: This option would reduce, but not entirely eliminate, the risk of degradation to the submarine structures caused from leaking gases feature as a result of direct impact from fishing activities. Appropriate management could include closure of the known extent of the feature within the site. However, a risk of impact with patches of feature not identified during survey would remain. As current evidence suggests that the feature is not exposed, the risk of damage to the feature is likely to be highest for heavy gear components thus restrictions may be appropriate for these gears. areas to be covered by management restrictions would include a buffer zone around the known features equal to three times the water depth to reduce any risk of accidental contact with the feature. 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 degradation to any submarine structures caused from leaking gases feature within the site boundary to the lowest possible levels. Due to the potential for re-exposure of feature, restrictions would be required for all bottom contact gears within the full extent of the site boundary. The boundary already includes a buffer zone around the known features equal to three times the water depth to reduce any risk of accidental contact with the feature.</p>

2. Introduction

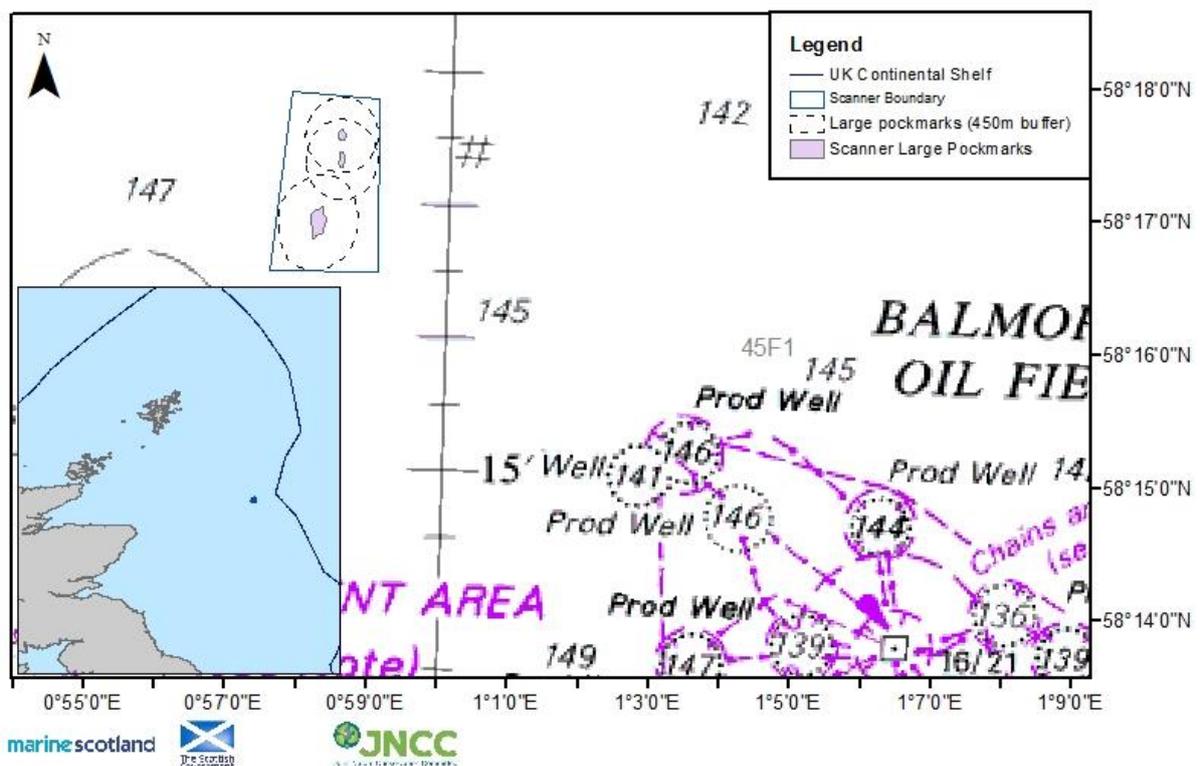
The Scanner Pockmark SAC is located in the Northern North Sea Regional Sea (JNCC, 2004; Defra, 2004), approximately 185km off the north-east coast of Scotland near the centre of the Witch Ground Basin (Figure 1). The pockmark was created by the expulsion of shallow methane gas. This site also contains the Scotia pockmark complex in the north, a composite feature composed of two deeper sections with active methane seeps (Dando, 2001).

The pockmark contains large blocks of the Annex I habitat “Submarine structures made by leaking gases”. These carbonate blocks lie in the base of the pockmark and support fauna more typically associated with rocky reef, as well as highly specific chemosynthetic micro-organisms, which feed on discharged methane and its by-product, hydrogen sulphide.

A number of fishing activities take place within or close to the Scanner Pockmark SAC, including *Nephrops* trawling, demersal trawling (single and pair) targeting whitefish, and Danish vessels assumed to be targeting sand eel and pout. VMS data suggests that fishing by non UK vessels is not occurring within the SAC itself. VMS data also suggests no static is occurring within the site. Exposure to pressures associated with fishing vessels smaller than 15m is currently unknown, but due to the distance offshore it is considered unlikely.

This document has been produced to provide background information on the development of fisheries management for the Scanner Pockmark SAC. It will be used during discussions with fisheries stakeholders to explore current fishing activities and the potential interactions these may have with the protected features. Future fishing activities may also be considered.

This document describes the known location and extent of protected features and the current knowledge of locations used for various fishing activities. It also presents management options for each of those activities that are considered capable of having an effect on the protected features. The document provides stakeholders with an opportunity to participate in the early stages of developing appropriate management options to ensure that the Scanner Pockmark SAC makes a genuine and long-lasting contribution to the network of protected areas.



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. Fishing raster data ©DEFRA 2010. Fishing point data ©MS 2012.

Figure 1. Site map of the Scanner Pockmark SAC and its location in relation to the UK.

3. Protected features and conservation objectives

The Scanner Pockmark SAC contains the Annex I habitat “Submarine structures made by leaking gases”.

Conservation objectives set out the desired quality of the protected features within each MPA. The conservation objective for the Scanner Pockmarks SAC is to restore the Annex I habitat Submarine structures made by leaking gases to ‘Favourable Condition’, such that:

- the natural environmental quality is restored;
- the Natural environmental processes are maintained;
- the extent, physical structure, diversity, community structure and typical species representative of the submarine structures made by leaking gases in the Northern North Sea are restored.

4. Roles

The role of JNCC is to advise the Scottish Government on management options for the Scanner Pockmark SAC. In doing this, JNCC’s aim is to ensure the conservation objectives for the protected features are met.

Marine Scotland will lead 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.

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

5. Overview of activities

Listed below are fishing activities which take place within or close to the Scanner Pockmark SAC considered capable of affecting the protected feature, excluding potential aquaculture proposals:

- Single and pair trawling for whitefish.
- *Nephrops* trawling.

Further discussions with those who use the area will improve our understanding of these activities (distribution and intensity etc). Initial lists do not include less than 15m vessel activity. Information on fishing activity from the less than 15m fleet is not routinely recorded and we are keen to improve our understanding of relevant activity within this SAC through discussions with stakeholders. Those fishing activities which the protected features are sensitive to are explored in greater detail in the next section. Fishing activities which the protected features are not thought to be sensitive to (i.e., any connection between the activity and the features is considered to be minimal) will not be considered further within this document. New or other fishing activities not identified would need to be considered on a case-by-case basis.

6. 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 the feature. The approach to identifying management options for each activity will be risk-based, i.e., we are focusing 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 protected features and relevant activities, and also our understanding of the relationships between the feature and relevant activities. The management options may be informed by discussions with stakeholders. If new information becomes available during discussions, the management options may be revised.

Management options are focused on the activities that cause an effect (a pressure) that the feature is sensitive to. Pressures can be physical (e.g., abrasion of the seabed), chemical or biological. Different activities may cause the same pressure. The protected features of an SAC are considered sensitive to activities that could adversely affect them (because of the associated pressures), especially if they are unable or very slow to recover.

We have identified risks to achieving the conservation objectives where there is an overlap between protected features and activities associated with pressures the features are sensitive to. Our identification of the risk has been refined using guidance on the interaction between the features and activities where such guidance is available. 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/ 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 future should also take account of the intensity and frequency of activities within the SAC.

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

- no additional management required;
- management to reduce pressures;
- management to remove pressures.

We recognise that stakeholders can provide local environmental knowledge and more detailed information on activities, including distribution and intensity of effort, frequency of activity, and fishing methods employed. This additional information will help us to develop more specific management options, focussed on interactions between features and activities. Management options have been considered by fishing activity to include demersal otter trawling.

JNCC has evaluated management options to support achievement of the conservation objective for Scanner Pockmarks SAC. A gradient of management options has been considered to reduce the feature exposure to pressures. These have been described under three potential management option categories:

a) No additional management.

b) Additional management to reduce pressures – where fisheries managers may wish to consider a range of measures that could be used to reduce the risk to features by managing fishing activity. These could include:

- Area restrictions (permanently closing some or all of the feature's area – note this option may be limited by the small size of the Scanner Pockmark site)
- Gear restrictions (e.g., restricting use of the 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 pressures** – where fishing activities known to adversely affect the feature would be excluded. Such exclusion would generally apply only to the part of the site where the feature is present, although it may occasionally be necessary to apply them to a wider area.

The following is a summary of the fishing activity associated with the Scanner Pockmarks site. JNCC have used all available data to evaluate the extent of fishing activities within the site. Where possible, data has been presented in accompanying maps. The majority of the information is derived from VMS data, either aggregated into effort grids (0.05 x 0.05 decimal degrees) over four years (2006-2009), in raw “ping” format, indicating the presence of UK vessels over five years (2007-2011) or non UK vessels over three years (2009-2012). We also present UK landings statistics over the same time period. 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. multiple vessels operating in the same area). VMS data for UK vessels were linked to logbook information in order to determine the fishing gears being employed. For non-UK registered vessels, where logbook information was not available, information on fishing gear was obtained from ‘primary gear’ listed on the EU vessel register. Unprocessed VMS data were filtered using a simple speed rule of between 1 and 6 knots to indicate fishing activity for all gear types.

6.1.1 Fishing activity: Mobile bottom contact gear – otter trawling

The greater Fladen Ground region is an area of major importance to the Scottish demersal fleet and the Scanner Pockmark SCI lies to the southeast of this area. Effort greater than 1000 hours (per grid) over a four year period is typical for much of the Fladen Ground area, however effort in the region overlapping the Scanner Pockmark site is typically lower (effort ranges 349 hrs across the site between 2006 to 2009; Figure 2). Due to the small size of the site, it is hard to determine any clear pattern in the distribution of activity, although there appears to be less activity in the east of the site. The majority of demersal landings from UK vessels fishing in ICES rectangle 45F0 landed into Peterhead and Fraserburgh, although with most of the rest of the landings into other north-east Scottish ports. The *Nephrops* fishery in the area was the highest value over the period 2006-2011 although with significant whitefish landings also recorded. Although there was some evidence of non-UK demersal trawling activity in proximity to the site, there was no evidence of activity overlapping the Scanner Pockmark site (Figure 3)

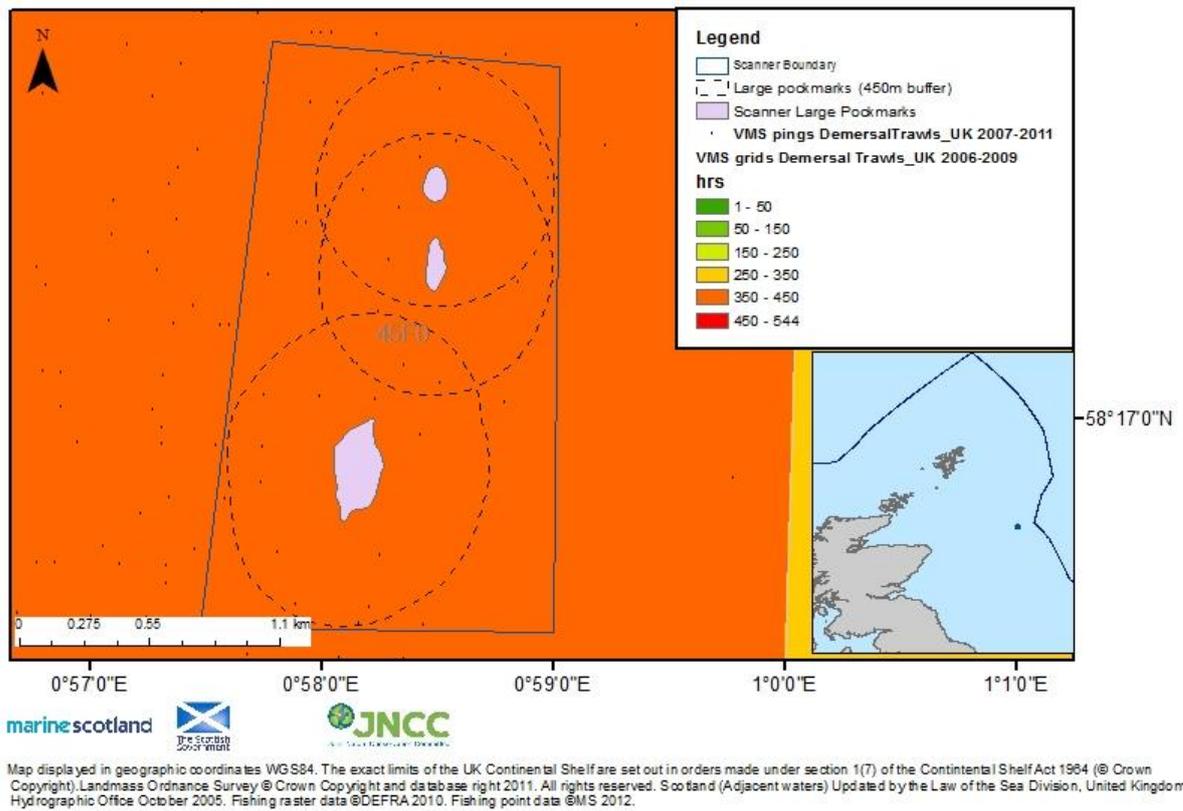


Figure 2. Map of UK demersal trawl activity overlapping the Scanner Pockmark site 2006-2011.

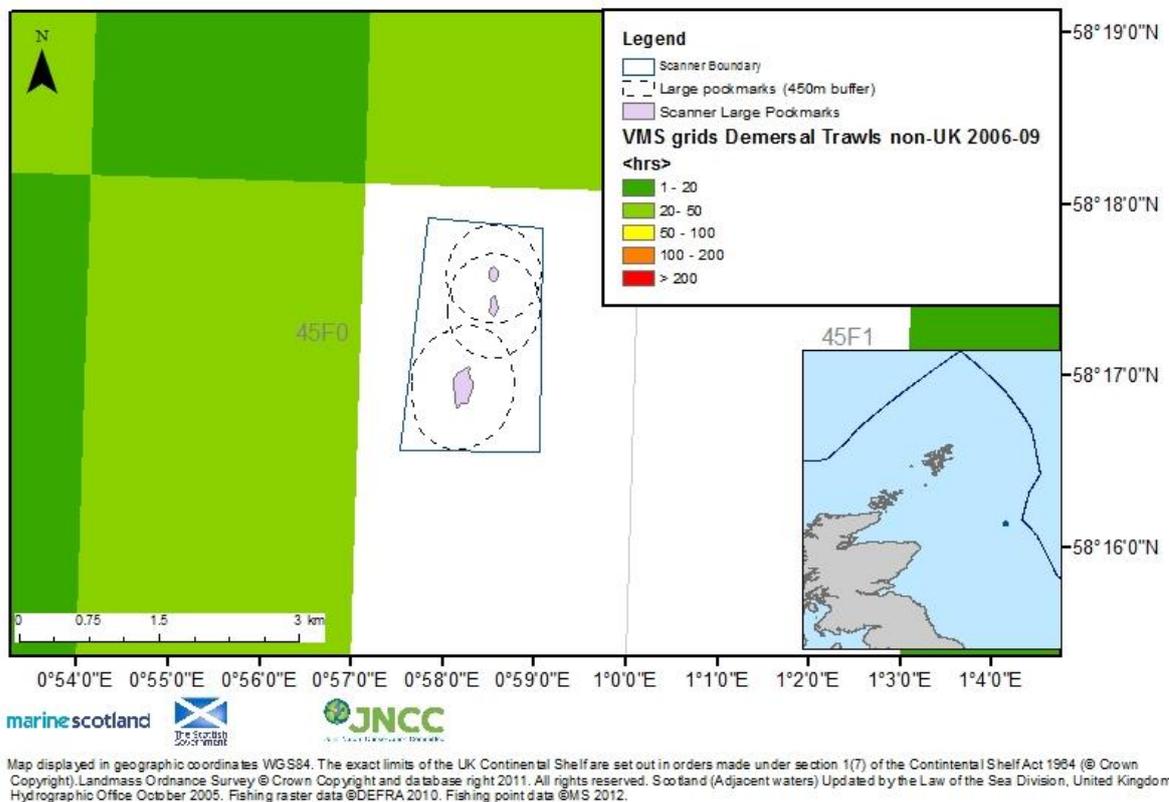


Figure 3. Map of non-UK demersal trawl activity adjacent to the Scanner Pockmark site 2006-2009.

JNCC has evaluated management options to support achievement of the conservation objective for Scanner Pockmarks SAC. A gradient of management options have been considered to reduce the feature exposure to pressures. These have been described under three potential management option categories (Table 1).

7. Conclusions and further recommendations

The development of measures for the Scanner Pockmark site will be done through discussion with stakeholders. Discussions will focus on our understanding of the features and the likely risks to the designated features of interactions with fishing activities. Based on the options presented here, it is hoped that a preferred set of management options will be recommended.

8. Further information

[Scanner Pockmark SAC Selection Assessment Version 5.4 \(March 2018\)](#)

[Scanner Pockmark Conservation Objectives and Advice on Operations Versions 1.0 \(February 2018\)](#)

9. References

Dando, P.R. 2001. A review of pockmarks in the UK part of the North Sea, with particular respect to their biology. *Technical report produced for Strategic Environmental Assessment – SEA2*. UK: Department of Trade and Industry.

DEFRA. 2004. Review of Marine Nature Conservation. *Working Group Report to Government*. London: Defra.

JNCC. 2004. The Irish Sea Pilot Final Report. *Report to Defra by The Joint Nature Conservation Committee* [online]. Peterborough: JNCC. Available from: <http://www.jncc.gov.uk/page-2767#download> [Accessed May 2013].