From:
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16 December 2002

SEA4 – Strategic Environmental Assessment Area North & West of Orkney & Shetland

To the SEA Co-ordinator (DTI)

Please find enclosed a copy of the RSPB's comments on the SEA process and in particular SEA4, the Strategic Environmental Assessment Area North and West of Orkney and Shetland consultation. The RSPB welcomes the opportunity to comment on this SEA.

The RSPB strongly supports production of this SEA covering the implications of further oil and gas exploration in the North Sea. SEA is a key tool for integrating environmental considerations into strategic decision-making, thereby enabling the impacts of development on wildlife and habitats to be avoided or at least, minimised. However, we believe that the DTI should take a stronger precautionary approach to the present lack of conservation designations in the SEA4, and other marine, areas and that blocks containing Natura 2000 qualifying habitats and species should be excluded from the 22nd Licensing Round until the exact sites and boundaries have been designated. We therefore want to see the DTI chose Alternative 3 – '[*t*]*o restrict the area licensed temporally or spatially*'.

We hope that the comments made here will be taken into account in the decision-making process for the 22nd Offshore Oil and Gas Licensing Round and reflected in the decision made. In addition, that they are used to help strengthen the future offshore oil and gas SEAs. If you have any queries about any of our comments please contact the RSPB for further information.

Yours sincerely

Dr Sharon Thompson
Marine Policy Officer

SEA4 North & West of Orkney & Shetland Consultation

RSPB Comments, 16 December 2003

The RSPB welcomes this opportunity to comment on this SEA and the DTI's acknowledgement that further improvements will continue to feedback into the SEA process. We have included our comments on both SEA4 and the SEA process in general below.

The RSPB strongly supports production of this SEA covering the implications of oil and gas exploration north and west of Orkney and Shetland. SEA is a key tool for integrating environmental considerations into strategic decision-making, thereby enabling the impacts of development on wildlife and habitats to be avoided or at least, minimised. However, we believe that the DTI should be taking a stronger precautionary approach to the present lack of conservation designations in the SEA4 area and that blocks containing qualifying habitats and species, particularly those under the EU Birds and Habitats Directives, should be excluded from the 22nd Licensing Round until the exact sites and boundaries have been designated – *ie* Alternative 3.

SEA PROCESS

1. Stakeholder Interactions – We welcome the consultations and interactions made with stakeholders and the public regarding various aspects of the SEA process, in particular the scoping process and the production of a Scoping Pamphlet, the Experts Assessment Workshop and the Stakeholder Dialogue Meeting. S2.5 refers to the issues raised in the stakeholder meeting and we welcome inclusion of this list in Appendix 3. It would be helpful if the list could also indicate or cross reference where each of these issues has been addressed in the SEA report, will be taken forward in subsequent SEAs, or are felt to be outside the scope of the DTI SEA series. This would help demonstrate to stakeholders that their suggestions are being actioned.

2. S4.2.3 Estimates of Potential Activity – It would be helpful if the basis of the activity predictions provided was made clearer *eg* whether these are "most likely estimates" of activity or "maximum" estimates based on current geological knowledge and/or technology. The Overall Conclusion (S11.4, pg:193) that the final "*recommendation is predicated on the projections of the likely scale and location of activities that could follow licensing*" is welcomed. However, this caveat should be supported with a commitment to reconsider the environmental results if activities are likely to be different in scale and/or location. This issue appears to be partly, though not entirely, addressed by the recognition (in the subsequent and final paragraph of S11.4) that environmental aspects will need to be reconsidered if geological interpretations change dramatically and consequently, activity increases above predicted levels. It would also be helpful to

those looking at the assessment to know what level of confidence there is in the activity predictions.

3. However, in S10.6 (Potential Socio-Economic Implications), the socio-economic, employment, etc, impacts are assessed on optimistic and pessimistic predicted levels of activity. It would have been useful to have this lower and upper level of predicated activity used throughout the whole of SEA4's assessment or even a predicted level assessment and an assessment of what would happen should that threshold be passed.

4. S10 Consideration of the Effects of Licensing – The presentation of the assessment results in S10 is made on an impact type basis. We appreciate that this approach can be helpful to highlight impact types for which mitigation will be needed for individual project EIAs. However, we do not believe that alone it is sufficient to provide the reader with a clear view of the likely significant effects on different receptors/components of the environment, which is an essential part of an SEA. Indeed, it is a requirement of the EU SEA Directive (Annex I(f)) to have this information presented in the SEA report. To overcome this weakness we suggest that the impacts are also presented in tabular form (see table below for suggested ideas). This approach would also enable the judgements of significance and the basis on which they were made to be presented more clearly. Inclusion of an overall impacts summary table in the Recommendations (S11.3) would also be helpful, acting as a readily digestible summary of all the information in the text and emphasising the key issues.

Effect	**Receptor**	**Impact**	**Impact significance**	**Mitigation**
Underwater noise	Marine mammals	All marine mammal populations in the area are likely to be exposed to biologically significant sound levels	"Acceptably low risk" [though basis on which this conclusion made not clear]	• No possibility of seasonal timing/exclusion areas • "Mitigation measures already implemented, together which proposed modifications …" [Could do with more explanation] • Recommendations on …
Physical damage	Vulnerable benthic species & communities	Theoretical risk of serious damage	**?**	Further investigation and/or alternations to planned activities
	Natura 2000 sites	Theoretical risk of serious damage	**?**	Requirement for appropriate assessment before individual consents
Physical presence				
Marine discharges				
Sub-surface discharges				
etc				

5. S 10.4 Cumulative & Synergistic Effects – We welcome the increased emphasis on cumulative effects in SEA4 although it would have also been helpful to include a summary table (as in SEA3). However, we do strongly believe that, an adequate assessment of cumulative effects cannot be produced unless this element of the assessment takes a receptor-based focus *ie* cumulative effects are different types of effects from the same activity as well as effects from different activities **on particular receptors**. In this respect, we think the approach taken, presenting cumulative effects on particular receptors (*eg* birds, conservation designations, etc), in the recent Offshore Wind SEA (although with a greater level of detail and data where available) is preferable, to the impact-based approach in the offshore oil and gas SEAs to date. Presentation of, or at least summarising, the individual impact types by receptor (as suggested above) would greatly facilitate this. As a minimum, the grey summary boxes for each impact type must emphasise the key receptors for each particular impact type, and receptors that may be affected by more than one type of cumulative impact should be considered in more detail. The extent to which the cumulative effects assessment considers the cumulative impacts from licensing in other adjacent SEA areas *eg* SEA1 and SEA2, is not clear.

6. S10.4 Cumulative & Synergistic Effects – While recognising that currently there is no widely accepted single typology of cumulative effects, we are not entirely convinced that the definitions used for incremental, cumulative and synergistic effects are helpful. As many people would view both incremental and synergistic effects as particular types of cumulative effects rather than as separate categories of impact types.

7. Conservation sites (including S7 Coastal & Offshore Conservation, *eg* S7.4; & S10 Consideration of the Effects of Licensing, *eg* S10.3.4.7 Conservation Sites) – The RSPB believe that once again the lack of actual nature conservation designations (EU N2000, OSPAR MPAs, national sites) in the marine environment and the problems that arise from this are being glossed over in the SEA. For example, no explanation is being given of how those blocks in the SEA4 area which have been identified by the JNCC as Annex I reef habitat (Johnston *et al*, 2003) will be dealt with. Those blocks should be excluded from the 22nd Licensing Round, particularly those on the Wyville Thomson Ridge which have more data and are classified as Group 1 (S7.4.1 – Qualifying Habitats & Species in the SEA4 Area). The SEA needs to identify what precautions are going to be taken to ensure that potential conservation sites will not be damaged. This aspect of the SEA process has been weak in the previous SEAs and is still being dealt with inadequately in SEA4, at a time when more information is available about the location and extent of qualifying habitats and species. If blocks which contain qualifying habitats and species are not excluded from the 22nd Licensing Round until the decisions on designations and boundaries have been made, we would ask for a full and detailed explanation of the reasons behind that decision for each area and of not fully adopting the precautionary approach.

8. Transparency of the decision-making process – further to §7 above we would draw your attention to S2.2 of the Scoping Pamphlet which highlighted the SEA4 scoping commitment of "*Improved transparency on the decision-making process on which blocks to*

offer for licensing". Therefore, we will expect a statement summarising how environmental considerations have been integrated into the 22nd Licensing Round and the reasons for the alternative chosen (see Article 9 (1)(b) of the EU SEA Directive). This is in addition to the statements we have called for above (see §7), regarding qualifying species and habitats.

9. S11.3 Recommendations:
   - We welcome clarification that the recommendations and conclusions are based on the assumption that near-shore blocks are unlikely to be applied for. We would therefore expect the DTI to make a statement to this effect when announcing the 22nd Licensing Round. We would also like confirmation that should near-shore blocks be applied for that the SEA4 assessment would be revisited.
   - R1 – We welcome the exclusion of the blocks containing the Pilot Whale diapirs but wish to see the blocks containing qualifying habitats and species also being excluded, at least until the actual designations have been made. Should these blocks not be excluded from those offered for license by the DTI in the 22nd Licensing Round, then the DTI should supply a full and detailed explanation.
   - R7-9 – We welcome these recommendations and would expect the DTI to respond to them when the 22nd Licensing Round is announced.

10. S11.4 Overall Conclusion – We welcome the conditions on the conclusion and would recommend that the DTI chose Alternative 3 as the overall conclusion, based on the exclusion of the blocks containing the Pilot Whale diapirs and the assessment being predicated on no near-shore licensing. However, we want the DTI to go further than the recommendations and to exclude the areas within SEA4 that may qualify as conservation sites in the future until definite decisions have been made on their exact location and boundaries – *ie* take the precautionary approach. If the DTI does not exclude these areas, we would expect the DTI's reasoning to be made public when the 22nd Licensing Round is announced.

SPECIFIC COMMENTS

11. Non-Technical Summary & S2.7 Further Consultation Process – It would be helpful to have the actual closing date for comments rather than an approximate timeframe (*ie* 90 days from publication). Obviously it makes the final production of the SEA easier if only referring to 90 days from an approximate date but in a covering letter and at least on the website the actual deadline date should be confirmed to avoid any confusion.

12. S1.1 Introduction ~ Pink Box – The definition of SEA uses the term "appraisal", we would suggest replacing it with the word "assessment". Current practice is to use the word appraisal to describe less rigorous/detailed analysis than that envisaged by the requirements of the EU SEA Directive.

13. S1.5 Scope & Purpose of the SEA – This section positions the SEA in relation to the "*appraisal of wider policy issues*" of continued oil and gas production and sustainable

development. It would be informative to clarify what the "different appraisal forum" is and how stakeholders can contribute to this appraisal process.

14. S4.2.3 Estimates of Potential Activity – We welcome the explanation of possible activities by area rather than by activity type (*eg* seismic, exploration wells and developments as in SEA3), as the area basis is clearer for the reader.

15. S4.2.3 Estimates of Potential Activity – We welcome the audit of SEA1 giving a comparison of the predicted *vs*. actual activities resulting from the 19th Licensing Round, *ie* strategic auditing/ monitoring of the SEA. However, it is a very basic and technical audit making it difficult for the layperson to understand. We hope that future audits (see S11.3 Recommendation No.2) will be more user-friendly and we welcome this recommendation from SEA4. Strategic auditing/ monitoring would provide information about how the SEA assessment predictions compared with reality at the time of actual licensing implementation and over time, through the lifecycle of the development. We assume the conclusion to be drawn from this (S4.2.3) is that overall activity is in line with predictions, but it would be helpful if this conclusion came through more clearly. For example, in Table 4.1 it would be helpful to know if the 'actual' values are present values (may increase in the future) or final (maximum) values. In addition, if they are present values, when are the final/maximum values likely to be reached?

16. S6.7.6 Sensitivities & Vulnerability ~ Seabirds – For additional information on the impact of longline fishing on northern fulmars see Dunn, E & Steel, C (2001) *The impact of longline fishing on seabirds in the north-east Atlantic: recommendations for reducing mortality*. RSPB, Sandy. NOF Rapportserie Report no. 5-2001. http://www.rspb.org.uk/Images/longlining_tcm5-44682.pdf

17. S7.4 Potential for Coastal & Offshore Sites within the SEA 4 Area – The OSPAR MPA information needs to be updated following the OSPAR Ministerial Meeting in Germany, June 2003 (the Bremen Statement), where many of these issues were finalised. For example, Ministers endorsed the Recommendation on a Network of Marine Protected Areas. Contracting Parties will identify the first set of MPAs by 2006, establish what gaps remain and complete an ecologically coherent network of well-managed marine protected areas by 2010 (together with the Natura 2000 network). Moreover, immediate measures are to be taken to protect cold-water coral reefs from further damage from fishing gear, additional threats are to be identified and measures taken to protect them by 2005.

18. S10 Consideration of the Effects of Licensing (S10.1 Introduction) – we welcome the addition of the final sentence of this paragraph clarifying for the reader that the assessment is based on Alternative 2 (*ie* maximum predicted licensing).

19. 10.2 Approach (S10 Consideration of the Effects of Licensing):
    - It would be helpful if the first paragraph could identify who carried out the initial stage of identification of interactions between the potential activities and receptors. Presumably the consultants?

- The indicative criteria were revised at the assessment workshop, however, the version in Appendix 2 does not appear to have the revisions that the RPSB noted for Scores 4-6. The phrase "internationally or nationally protected populations …" should be "internationally or nationally protected or listed populations …" as some species and habitats may be listed for protection but not yet formally protected.
- We suggest a brief summary of the criteria and the receptors identified as needing further assessment through the SEA process using these criteria is included in the main body of the text.
- It would be helpful to make clear whether/how the discussion at the stakeholder dialogue meeting changed the issues considered or assessment process. This is an important part of the process and stakeholders like to see how their time and input influenced (or not) the process. It aids transparency of the process.
- It needs to make clear who carried out the final stage of "detailed consideration of the interactions" – *eg* the consultants?

20. S10.3.8.4 Oil Spill Trajectory – The shortest time to beach (TTB) using modelling techniques, was 25 hours from the Clair Field to Shetland (worst-case scenario). This is the minimum acceptable limit for the RSPB, particularly in relation to the importance of the sea and coastal bird interests on Shetland and Orkney.

21. S10.3.8.5 Ecological & Economic Effects of Oil Spills – We welcome the commitment to further post-*Braer* sampling. We understand that the oil from the Braer was a light crude which is more toxic than the heavier fractions. We also understand that the sediments in the Fair Isle channel have accumulated large concentrations of oil and associated toxins from the *Braer*.

22. S11.2 Information Gaps – This section sets out a range of significant information gaps (most of which fall into the category of ecological data gaps) and notes that some of these were also identified in earlier SEAs. Given their earlier identification, it would be helpful to include an explanation of why plans to fill these gaps were not in place prior to and/or as part of SEA4 and to detail plans to address these issues. SEA4 (SEA report, the Stakeholder Dialogue and the Scoping phase) highlights again the temporal and spatial gaps in the **seabird at sea data sets** as well the age of much of the data. These gaps in bird data has been highlighted by the RSPB in each of the Oil & Gas SEAs to date and will continue to be a problem for future SEAs, particularly now that there is a joint SEA process with offshore wind/renewables (seabird data gaps were also identified during the first offshore wind SEA). We would therefore like assurances that arrangements are being made to fill this gap. We do not believe that there is a need to wait until the scoping phase of future SEAs before further seabird surveys are undertaken – this is an urgent data gap we can identify now for all the SEAs of the UKCS. (See also: S2.3 Scoping the SEA; S6.7 Birds; Appendix 3 Stakeholder Workshop; and RSPB responses to previous Oil & Gas and Offshore Wind SEAs).

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18th December 2003

Dear SEA Coordinator

SEA 4 – Area North and West of Orkney and Shetland

Thank you for consulting us on the content and conclusions of the 4th DTI Strategic Environmental Assessment (SEA4). As you are aware, JNCC is a member of the steering group for the SEA4 and as such have fed our opinions into the planning and undertaking of this and past SEAs. We continue to support this iterative and open process and look forward to our involvement in SEA5.

Overall, we would agree with the conclusion that, given the current licensing and regulatory framework, DTI should proceed with the licensing as alternative 3: To restrict the area licensed temporarily or spatially. We would also agree with the suggestion that the blocks within Quadrant 217 which include the poorly explored Pilot Whale Diapers should be excluded until such a time that the ecological importance of these features are better understood and a full assessment of the potential for impacts from oil and gas activities can be undertaken.

We note that for coastal areas of mainland Scotland and the Orkney and Shetland Isles it is estimated that, due to the limited hydrocarbon potential, no oil or gas activity is expected. We would agree with the SEA conclusion that 'If geological interpretations change dramatically, for example through a major discovery in an area previously evaluated as of low prospective, then future licensing decisions will need to review changes in environmental aspects and understanding, including human uses of the area.' If, in the future, new information shows coastal waters to be of greater prospectivity we would expect the DTI to undertake a further SEA of this area using revised estimates for potential activity.

We do have some concerns that, at a local level, operations could potentially have an effect upon the integrity of habitats which may, in the future, be designated as Special Areas of Conservation (SAC) or Special Protection Areas (SPA) under the terms of the EU Habitats and Birds Directives however we realise that any issues will be resolved at the site specific EIA stage.

Specific Comments

1. Seabird vulnerability - SEA 4 states that there are data gaps of two or more consecutive months in parts of Quadrants – 205, 208, 217, 218, 219, 220 and 222. Prior to the commencement of oil and gas activities in these areas during the months for which there is no seabird vulnerability

JNCC would expect operators to undertake the necessary seabird surveys to provide seabird vulnerability data.

2. Noise (particularly Seismic Surveys and Beaked Whales) – Within the SEA 4 document it is stated that (page 90) 'For other species such as beaked whales, the area could be an important part of their habitat. However, for species that are rarely seen and are thought to exist in small numbers such as these, the significance of the area is difficult to determine.' Then (page 142) 'Virtually no data is available concerning the effects of seismic noise on beaked whales species.' Then (page 148) 'The range of behavioural effects, and the consequently large potential for cumulative effects, indicate all marine mammal populations in the area are likely to be exposed to biologically significant sound levels.' Considering these statements we feel that the SEA 4 document has not demonstrated how the conclusion has been reached that 'there is an acceptably low risk of potential effects of underwater noise resulting from SEA 4 activities.'

   We suggest that in order to ensure minimal disturbance to marine mammals the recommendations in Section 10.3.1.7 and 11.3 are adopted by DTI (or the oil and gas industry as appropriate). In particular we would like to highlight the following:

   - As with all impacts, prevention is better than cure so, as per section 11.3, recommendation 4 we would encourage the oil and gas industry to minimise noise production through engineering solutions.
   - We believe that the management of cumulative effects of noise from both mobile and fixed oil and gas exploration and production activities is a crucial to the minimisation of potential impacts to marine mammals. We would therefore encourage the DTI to 'establish criteria for determining limits of acceptable cumulative impact; and for regulation (through permitting procedures) of cumulative impacts.'
   - We are supportive of the recommendation that there should be 'A presumption in favour of the use of acoustic detection methods during seismic surveys' in the SEA 4 area.'

3. Produced Water - We note that the impact assessment carried out in the SEA 4 document is based on re-injection of produced water. If this is not an available option (for instance, due to the reservoir characteristics) consideration should be given with the site specific EIA to reviewing the potential environmental impacts of produced water discharge.

If you would like to discuss any of these further please feel free to contact me.

Yours sincerely

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Senior Offshore Advisor

Marine Conservation Society's response to DTI's 4th Strategic Environmental Assessment – North and West of Orkney and Shetland December 2003

HABITATS AND SPECIES OF NATIONAL AND INTERNATIONAL CONSERVATION IMPORTANCE

As detailed in SEA 4, the UK has yet to fully identify and designate offshore marine sites for habitats and species of national and international conservation importance, whether under the Habitats Directive, OSPAR or national conservation plans. Without these designations in place the DTI will need to take extra care not to license oil & gas activities that could have an adverse affect, either individually or in combination with other activities on nationally and internationally important marine habitats and species. This includes those sites being identified by the JNCC under the Habitats Directive, but will also need to include other species and habitats being identified as important through OSPAR and DEFRA's Review of Marine Nature Conservation.

MCS therefore believes that the DTI must restrict the area licensed for oil & gas exploration and development and seismic testing spatially. Not to do so would be to ignore national and international measures to conserve habitats and species and the objectives of the SEA Directive.

1. Habitats Directive

1.1 Offshore Habitats

Areas with features of interest should be treated as designated, (even before their details are registered with the European Commission) to ensure that their conservation status is not compromised by activities such as oil and gas. The DTI as the Competent Authority under the Habitats Regulations for oil & gas must ensure that an Appropriate Assessment is undertaken for all oil & gas activities that may have a significant effect on areas that support Annex I features under the Habitats Directive. If it is found that an oil and gas development is likely to have an adverse affect on site or species the development may not be permitted to proceed.

Reefs

Cobbles & boulders and Iceberg ploughmarks are all considered to be Annex I 'reef' habitats by the nature conservation agencies under the Habitats Directive. SEA 4 area contains both of these reef habitats.

It is probable that cobbles and boulders are found throughout much of the SEA 4 area. Certainly they were found throughout the Clair oilfield – which because of the oil field has been surveyed in more detail than other areas. The SEA states that the epifaunal cover of the latter is typically extensive and spectacular and that a range of erect sessile species were observed, including what are believed to be small hard corals (up to 2cm high). BGS do not differentiate between gravel and cobbles and boulders in their surveys, so cobble and

boulder reefs could be present anywhere that BGS have mapped as gravel around the UKCS.

MCS is concerned that cobbles & boulders were not being considered as potential Annex I reef habitats in SEA 4, with Iceberg ploughmarks only being mentioned as possible Annex I reefs. MCS believe that at present, while there is insufficient data on the location of reef habitats such as cobbles & boulders, any areas found to have extensive gravel, must be considered to also contain cobbles & boulders. During EIA's the surveys for cobbles & boulders must be undertaken and if biologically important reefs are found, then platforms and pipelines should avoid these areas. Site boundaries should be drawn and the potential impact of oil & gas activities including pollutants on these habitats must also be assessed through an appropriate assessment as not having an adverse affect on the habitats prior to licensing.

Iceberg ploughmarks are found along the West Shetland Slope and Wyville Thomson Ridge; the Judd Deeps; Solan Bank; Turbot and Otter Banks, and areas around the Shetland Islands. MCS believe all of these areas should be protected under the Habitats Directive and not just the Wyville Thomson Ridge as indicated in SEA 4. MCS believe that no blocks should be licensed that would result in oil & gas activities on or adjacent to these ploughmarks.

Submarine structures made by leaking gases
Pockmarks with carbonate structures formed by leaking gases are considered to meet the criteria for Annex I habitat 'Submarine structures made by leaking gases'. It is quite possible that the SEA 4 area contains these habitats too, though to date such pockmarks have only been identified to the east of the SEA 4 area, not within it. Additional surveys are needed to be certain that there are no pockmarks in the SEA 4 area.

Biogenic reefs
Finally it is possible that SEA 4 could contain the coldwater corals Lophelia pertusa, though no large reefs or colonies have been found to date. Additional surveys are needed to be certain that there are no cold water corals in the SEA 4 area.

Future SEAs
MCS is concerned that SEA 4 does not have maps detailing the location of Annex I habitats in the SEA 4 area. MCS feel that future SEA's should detail this information and are sure the JNCC would allow their maps to be reproduced.

1.2 Coastal Habitats

The SEA 4 area includes some of the most interesting coastal habitats in the UK. This is reflected in the fact that there are SACs cover a range of Annex I habitats from bedrock and boulder reefs and coastal lagoons to sand banks and dunes. There are also a number of SACs covering the habitats of Annex II species including otters, Grey and Commons seals.

MCS is concerned that the SEA does not assess what the direct and cumulative effects of additional oil & gas licensing will have on these coastal SACs. In particular, the additional activity at Flotta terminal, Orkney and Sullom Voe terminal, Shetland. The latter is a cSAC for its large shallow inlets & bays. MCS believe that further assessment needs to be undertaken before licensing proceeds. Given the disastrous effects that oil spills can have on the region, (witnessed by the Braer tanker spilling 83,000 tonnes off crude oil off Shetland in 1993) special consideration needs to be given to the impacts that oil activities can have on the region.

Future SEAs

In future SEAs it would be helpful if the exact area of the SAC's were mapped rather than just providing points on the map. Also detailing all the terrestrial SACS (e.g. Table 7.3 primarily details terrestrial SACs) is probably not necessary.

1.3 Cetaceans

SEA 4 states that the area is of undoubted importance internationally for cetaceans and lists the following as regularly occurring in the area "harbour porpoise, white-beaked dolphin, Atlantic whitesided dolphin, Risso's dolphin, long-finned pilot whale, killer whale, minke whale, fin whale and sperm whale. In addition to these, other, rarer species such as Sowerby's beaked whale, humpback whale, Sei whale and common dolphin are also known to regularly occur in the area." (SEA 4 p.99). The area is hence probably one of most important and diverse areas for cetaceans in the European Union.

Bottlenose dolphin and harbour porpoise are listed as Annex II species under the Habitats Directive. JNCC must therefore designate sites for these species or establish management measures to protect them.

All dolphins, porpoises and whales are listed on Annex IV of the Habitats Regulations. Regulation 10 of *The Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001* makes it an offence to deliberately disturb these animals or cause deterioration or destruction of breeding sites or resting places of any such creature. Under the Habitats Regulations, the competent authority, the DTI, must not grant a licence unless they are satisfied that the action authorised will not be detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range.

MCS is concerned that the level and scale of seismic testing that it is proposed will need to be undertaken in the SEA 4 area, will disturb and damage these animals. It is even possible that it may be detrimental to the maintenance of the populations of some species of cetaceans at a favourable conservation status in their natural range.

The SEA 4 conclusions on the effects of licensing (ch 10, see box below) states that all marine mammals will suffer biologically significant sound levels, that the effects remain an area of uncertainty and that mitigation is limited, but then conclude that there is an unacceptably low risk. MCS are surprised by this conclusion and disagree. Partly it seems the conclusion is based upon the fact that recent years have seen similar levels of seismic testing, but this should not justify licensing more, rather it adds to the cumulative impacts that cetaceans in the SEA 4 area will be likely to suffer from additional licensing over the next few years. MCS believe that the DTI must work with the oil & gas industry to establish greater co-operation and sharing of seismic data – in fact this should be a condition of licence. While research is still needed on the distribution of cetaceans and the cumulative and synergistic effects of all activities in UK waters on these creatures, the precautionary approach must be adhered to. Special conservation measures are required to ensure the conservation of the species. These special conservation measures must include reducing activities that have an impact on the species either directly or indirectly. The EU can take action against the UK if wider conservation measures don't protect habitats and species.

10.3.1.7 Conclusions and data requirements

The potential effects of seismic noise remain a significant area of uncertainty, and important issue for offshore exploration activities. The range of potential behavioural effects, and the consequently large potential for cumulative effects, indicate that all marine mammal populations in the area are likely to be exposed to biologically significant sound levels. There is no obvious possibility of mitigation through seasonal timing of seismic operations, and no localised areas which would justify exclusion from licensing.

Monitoring of marine mammal distribution and behaviour is still largely based on visual sighting
methodologies, which are known to have low reliability in poor observational conditions. The
proposed level of activity does not represent a significant change to recent seismic survey effort;
which do not appear to have resulted in significant changes in sightings frequency or behavioural responses. Mitigation measures already implemented, together with proposed modifications, appear to provide some degree of protection from acute effects and are generally followed by the industry.

It is therefore concluded that there is an acceptably low risk of potential effects of underwater noise resulting from SEA 4 activity.

Source: SEA 4 chapter 10.3.1.7

The potential cumulative and synergistic effects on cetaceans that MCS is concerned about are as follows:

Disturbance:

- from noise from seismic surveys, causing disturbance, barriers to migration, exclusion and long term behavioural effects
- additional vessel movements, drilling and decommissioning explosions all of which could effect feeding patterns and reproduction.
- oil and gas activities in the 22nd licensing round in combination with existing activities such as shipping

Damage

- Noise-induced hearing loss, shifts in hearing thresholds, auditory damage

Contamination:

- from toxic discharges arising out of existing and proposed oil and gas activities including chemicals discharged in produced waters
- other industrial landbased sources which could have an effect on the reproductive and immune systems of the dolphins e.g. chemical and radioactive discharges
- Possible oil spills

Potential for direct mortality:

- from internal bleeding and strandings
- as a fishery bycatch in the case of harbour porpoise.
- from decommissioning explosives

Recommendations
MCS supports the recommendations made in SEA 4 with regard to cetaceans namely:

- Updating JNCC Guidelines
- Further acoustic research on cetacean distribution
- Establishing criteria for determining levels of unacceptable cumulative impact and regulating accordingly
- Developing objective criteria for establishment of measures (as opposed to sites) for the protection of cetacean species and reviewing the SEA 4 area against such criteria.
- A systematic approach to assessing sensitivity to acoustic disturbance in fish and mammals is also welcome

MCS also recommend that only a limited amount of additional seismic testing is licensed and data sharing between companies is made a condition as detailed above. The DTI must not consent the level of seismic testing proposed, as to do so is likely to be in contravention of the Habitats Directive.

1. 4 Birds

The DTI will need to ensure that licensing of the 22nd round will not have a direct or cumulative adverse affect on the integrity of existing SPA's in the SEA 4 area or on the offshore areas that may be designated as SPA due to their importance for feeding, breeding or overwintering seabirds and wildfowl.

2 OSPAR's MPA programme

To meet commitments under OSPAR's Sintra Statement Britain will need to identify, select and manage MPA's to protect important habitats and species not already protected under the Habitats Directive. This is in order that Britain can meet the OSPAR commitment of having identified MPA sites by 2006 and having a well managed ecologically coherent network of MPA's established by 2010. Work on identifying habitats and species under OSPAR is ongoing. The DTI should hence avoid licensing activities and development that may have a significant effect on habitats or species identified under OSPAR.

MCS is concerned that SEA 4 did not fully assess the significance of impacts from the 22nd round against each of the habitats and species listed by OSPAR and agreed at the recent OSPAR MASH meeting.

3 Species and communities of conservation interest

Nationally important marine habitats and species need to be conserved in addition to internationally important habitats and species. Without action at this level too, such habitats and species can become endangered.

Rationale and criteria for the identification of nationally important marine nature conservation features have been developed by the Review of Marine Nature Conservation (RMNC).

JNCC have taken the lead on this working through a sub-group of the RMNC and have developed rationale and a criteria paper for the identification of such features with the following aims for a national series are:

a. Sites which best represent the range of sea landscapes, habitats and species present in the UK – nationally important sites
b. Protection for those sea landscapes, habitats and species for which we have a special (national/regional/global) responsibility – nationally important seascapes, habitats and species
c. Additional protection measures for those sea landscapes, habitats and species that have poor status.

To date MCS understand that n*ationally important marine seascapes habitats and species* have been identified and mapped in the Irish Sea as part of the Pilot Scheme, but not elsewhere in the UK.

MCS is concerned that the SEA did not include any comprehensive assessment of marine features and species in the SEA 4 area that may be of national importance to the UK and receive protection accordingly. From the biologicaly important hydrography resulting from the Wyville Thomson Ridge and the Pilot whale diapers to the importance of the region for cetaceans it is certainly a unique part of the UK's marine heritage that should be conserved.

SUSTAINABLE DEVELOPMENT

The exploitation of reserves on the UKCS has been unsustainable to date, in that few reserves are now remaining for this generation let alone future generations and our over consumption has been a key contributor to climate change. MCS recommend that the government should be considering holding back in licensing some blocks so that productive reserves are maintained as reserves for future lean times and possible energy crisis ahead.

MARINE SPATIAL PLANNING

MCS welcome the DTI's production of SEA 4, but believe that for cumulative and synergistic effects of developments and activities in each regional sea to properly be assessed at the ecosystem level, Marine Spatial Planning is needed which would be informed by an SEA and vice verse. MCS with other partners in Wildlife and Countryside Link have developed a couple of discussion papers on Marine Spatial Planning to help inform discussions by the UK and devolved administrations on how we might meet international commitments on MSP under the North Sea Conference and OSPAR. See www.wcl.org.uk

CONCLUSION

The Marine Conservation Society believes that SEA 4 does not provide sufficient justification to 'proceed as proposed'. Instead the DTI should 'restrict the area spatially' of both seismic testing, exploration and development in order that nationally and internationally important habitats and species are fully protected.

Marine Conservation Society December 2003
Melissa Moore melissa@mcsuk.org

To: SEA Coordinator,
DTI Oil & Gas Directorate

18th December 2003

WDCS comments on the 4th Strategic Environmental Assessment Area North and West of Orkney and Shetland

WDCS welcomes this opportunity to comment on the 4th SEA and we hope that our comments will prove useful and can be taken into account.

We acknowledge the efforts made to advance our understanding of some outstanding issues relating to the Strategic Environmental Assessment (SEA) process through the commission of numerous environmental studies. We were interested in a number of these studies but of direct relevance and of particular interest to WDCS are Hammond *et al.* (2003). Therefore, our comments are restricted this and to the Dti SEA4 document itself.

Response Summary

Both the full report and Hammond *et al.* (2003) have demonstrated the importance of the offshore and shelf areas of SEA4 for cetaceans.

The Strategic Environmental Assessment (SEA) process cannot ensure effective environmental protection, as we do not currently have the necessary information on distribution and abundance of cetaceans to make confident and informed decisions about their protection, or about their status.

Due to the potential impacts that may arise from oil and gas activity, we do not believe that licensing of the 22nd round should proceed without due consideration to protect this valuable area and the cetaceans that inhabit it. Protection of species and habitats may be best provided for through thorough investigation and statutory designation of protected sites. The full report notes that '*offshore areas of SEA 4 containing important habitats and species have been identified*' (p.viii) and it is vital that this information should be available and considered in decision making for SEA4. However, we are not aware of any proposals to further protect the area's important cetacean fauna.

Measures to protect cetaceans in the wider marine environment, including effective management prescriptions, will also be important, and particularly given the specific threats posed by oil and gas development. We hope full consideration will be given to how to limit any effects through additional protection, effective mitigation, the use of new technology and even limitations on the scale of development allowed to proceed in the area.

Every effort should be made to initiate the substantial research programs that both Hammond *et al.* (2003) and the full report detail as necessary. We particularly note the need to put in place long-term monitoring projects before new activities develop if we are to properly assess the medium to long-term consequences, as highlighted by Hammond *et al.* (2003).

Comments on report by Hammond *et al*. (2003)

Research recommendations & data gaps

Hammond *et al.* (2003) make some important research recommendations in regard to noise and these require the establishment of a substantial research program, particularly regarding medium or long term consequences requiring monitoring of status and distribution of populations. Development of effective mitigation is a vital additional component of this for the oil and gas industry. However, we believe that active acoustic monitoring should only go ahead if a strong case can be made that active acoustic study can produce valid results that cannot be achieved by less intrusive means. This approach only allows short-term and well known behaviours to be monitored (Gordon *et al*., 2003) and may have long term implications for those animals involved. The link between possible behavioural responses and the onset of physical damage cannot currently be determined. Further to this, no obvious or measurable response does not mean there is no impact.

Introducing further noise into the marine environment obviously has the potential to negatively affect those individuals that are being targeted, and may also have implications for others. Also, we are not aware of any studies that prove the effectiveness of this type of monitoring, although we are aware that trials are underway for other applications (primarily military). We understand that Dti are currently conducting a desk-based study into this.

The contaminants section also identifies gaps in knowledge stating that further studies are needed to determine current and background exposure levels in a variety of species and their prey, particularly prior to oil exploration and production activities within marine mammal foraging areas. SEA4 has clearly been identified as such a region in this report.

Comments on the Dti SEA 4 document

We offer comments to this document under the relevant section headings.

6.8.2 Cetacean distribution and abundance

This section states that the SEA 4 area is an important area for cetaceans in a '*regional context*'. We believe this statement underplays the importance of this area for cetaceans and does not reflect the conclusions given in Hammond *et al*. 2003. High species diversity is found in the area including a number of species classified as endangered or vulnerable such

as fin (*Balaenoptera physalus*), blue (*Balaenoptera musculus*) and sei whales (*Balaenoptera borealis*). Additionally, the area is potentially very important for a number of beaked whale species as sighting rates are high for species seen so rarely. For these reasons we believe the area is important for cetaceans in a national and international context. The Ecology Regional Overview (Section 6.1) acknowledges that the deep water cetacean populations in this region are of national and international significance.

Minke whale (*Balaenoptera acutorostrata*) – This section states that the areas to the west and east of Scotland appear to be of greater importance to the minke whale than the SEA 4 area. Whilst this may prove to be the case, it is important to note that less survey work has been done in the SEA 4 area for this species (Reid *et al*., 2003). The conclusion from Hammond *et al*. (2003) for this species is that '*summarising all available information, it is clear that the SEA 4 block is an important area for minke whales in summer*'. This is an important statement that has not been included and a point that is not obvious from the current text. It should also be noted, however, that due to less survey work being done in winter and the difficulties of sighting this species in unfavourable weather conditions means that we are unsure of the importance of the area for minke whales in winter.

Harbour porpoise (*Phocoena phocoena*) – The SEA 4 area is undoubtedly important for harbour porpoises and this is reflected in the section and summed up in the final sentence. However, it states that the area is important 'particularly in summer' whereas Hammond *et al.* (2003) state it is important '*at least in summer*'. This latter wording is perhaps better as it allows for the fact that our knowledge of harbour porpoise abundance and distribution is significantly less for the winter months. Less survey work has been undertaken at this time of year and unfavourable weather conditions make surveying for these small animals notoriously difficult.

Killer whales (*Orcinus orca*) – It should also be noted that calves and juveniles have been sighted in the summer months (Pollack *et al*., 2001), indicating that the area may be used for breeding and calving as well as feeding. Hammond *et al.* (2003) note that killer whales have been reported to associate with oil platforms and this point should be noted in the final SEA document.

Fin whales (*Balaenoptera physalus*) – The section on acoustic monitoring notes that '*fin whales are present in the area throughout the year, with numbers in the region of 6 to 20 vocalising individuals*'. Simply stating this figure is perhaps not very helpful as it does not tell us how many fin whales are in the area, just how many are vocalising at the time. No reference is currently given but we assume this is taken from Clark & Charif (1998), in which case the area referred to is experimental area 'A2' which is not the same as SEA 4. It is therefore quite confusing to include this with no further clarification.

Risso's dolphin (*Grampus griseus*) – Although the Risso's dolphin may be less abundant than other dolphin species in the SEA 4 area, it may not necessarily be a less important area for them. This species does not appear to be common anywhere (except possibly in Californian waters) (Reid *et al*., 2003) and this point should be noted.

Blue whale (*Balaenoptera musculus*) – The final part of this section states that '*available information suggests that blue whales are present in waters between Shetland and the Faroe Islands (east of SEA 4, in the waters of SEA 1)*'. Firstly, it is presumed that this should read west rather than east as this is where the Faroe Islands and the waters of SEA 1 are? SEA 1 is a relatively small, thin strip of sea directly to the west of SEA 4 – even if visual sightings were pinpointed so exactly (and there is nothing included in the text to indicate that this is the case), how were the acoustic results? It seems highly unlikely that blue whales do not exist in the deeper, western waters of the SEA 4 area.

Sei whales (*Balaenoptera borealis*) – Although it is thought that sei whales generally leave the area during August and September, Evans (1992) (reported in Pollack *et al.*, 2000) suggests that small groups of animals may remain at high latitudes over the winter.

Beaked whales – We believe this section needs to further stress the potential importance of this area for beaked whales. Atlantic Frontier waters are thought to be of particular significance to these poorly understood animals. Sightings of *Mesoplodon* spp. are rare and they are thought to be uncommon throughout much of their range (Weir *et al.*, 2001). Therefore, the sighting of 62 beaked whales in the area north and west of Scotland since 1995 (Pollack *et al.*, 2000) by SAST/ESAS (Seabirds At Sea Team/ European Seabirds At Sea) surveys alone indicates that these deep waters may be an important habitat for them. Pollack *et al.*, (2000) also note that sightings of juveniles have occurred during August and this may mean the waters are used for breeding and calving as well as feeding.

Northern bottlenose whale (*Hyperoodon ampullatus*) – Wording needs to be added to clarify that the seven sightings were made by SAST survey and that this is not the total of all sightings made.

6.8.5 Bycatch and other non-oil related management issues

An additional section is required here, or under the individual species sections, detailing the impacts of the annual Faroese drive hunts which kill large numbers of pilot whales and other small cetacean species. This needs to be considered as part of this document as the animals taken in the hunts are likely to be part of wider populations that also inhabit the waters of SEA 4 (Bloch *et al.*, 2003).

There has been a sustained catch of pilot whales off the Faroes for nearly 300 years, during which time over 240,000 whales have been taken. Even in recent year's catches have remained high with the annual average catch between 1990 and 1999 numbering 956 whales (Faroes Department of Foreign Affairs).

Other species taken in the hunt include Atlantic white-sided dolphins, bottlenose dolphins and northern bottlenose whales (Bloch *et al.*, 1993; Bloch *et al.*, 1996). Catch numbers are less well documented for these species but in the period 1995-97, 1097 Atlantic white-sided dolphins were taken (Hammond *et al.*, 2003). Reported catch figures for 2002 show that 18 bottlenose dolphins, 6 bottlenose whales and 774 Atlantic white-sided dolphins were killed by the Faroese. Catches of the northern bottlenose whale are particularly concerning as they were classified as a 'protected stock' by the IWC Scientific Committee in 1977.

The hunts take whole groups of animals indiscriminately so a large proportion of those killed will be immature animals and pregnant and lactating females (Bloch *et al*., 1993). This, combined with the facts that such large numbers are taken and cetaceans are slowly reproducing mammals, makes the hunts of great conservation concern.

Climate Change

Whilst the consequences of climate change may be largely unknown, some consideration of this issue should be given as impacts on marine wildlife are highly probable. Hansen, Turrel and Østerhus (2001) estimated that the flow of cold, dense water across the Faroe Bank Channel has fallen by 20% in the last 50 years. The effects that this could have on the heat pump provided by the south-flowing cold current are potentially very significant and could have a major knock-on effect for some cetacean species.

8.8 Military Activity

The report does not cover 'Management Issues and Initiatives' in the military section although several species of beaked whale are likely to occur in the region and are known to be particularly vulnerable to the potential impacts of acoustic pollution. In September 2002, a mass stranding of three species of beaked whales totalling 15 animals occurred during European naval exercises off the Canary Islands. The heads of the 6 animals (including *Ziphius cavirostris*, *Mesoplodon europaeus* and *M. densirostris*) stranded in Fuerteventura were transferred to the Veterinary Department of the University of Las Palmas de Gran Canaria for analysis.

The majority of mass strandings in the vicinity of human activities in the marine environment have been associated with military activities. However these concerns are associated with the use of all intense noise and they should be borne in mind in relation to seismic (for example, there was a Gulf of California stranding event involving two beaked whales during offshore seismic work in 2002) and explosive activities (Todd *et al*. 1996) also.

10.3.1.3 Noise Effects on Marine Mammals

Detailed below are some important pieces of additional information that should be included in this section.

Stone (2003) reported that the median distance of all baleen whales combined and all small Odontocetes was significantly greater during seismic, with the exception of pilot whale *Globicephala melas* and sperm whale *Physeter macrocephalus*. Stone (2003) also reported 12% of encounters resulting in a positive reaction of odontocete cetaceans to a seismic vessel when not shooting compared to only 5% when the airguns were firing (n=135). It is therefore clear that small cetaceans can be impacted by seismic activities, although this is not apparent in the conclusion of Hammond *et al.* (2003).

The Dti report states that that there may be at least some level of localised avoidance of seismic activity by baleen whales. Yet it fails to consider studies from outside UK waters when Richardson (1999) found that foraging bowhead whales in an Arctic feeding area avoided an operating seismic source by 20km, with reduced numbers of whales 20-30 km from the source. He also reported that received noise levels at 20km were between 116 and 135 dB re 1μPa rms, which is considerably less than the levels which were previously thought to result in avoidance behaviour. Hughes and White (2002) stated that Blue whale *Balaenoptera musculus* sightings occurred on days when the source was either operating at a considerable distance (60 km+) or had ceased operating altogether. Such distances are clearly beyond the observation zone of the survey vessel itself.

A new and critically important publication by Jepson *et al.* (2003) identified unusual lesions and a possible mechanism for noise-related injury in some of the animals stranded around the UK in the last 13 years as well as from the Canary Islands. The species considered included common dolphins (*Delphinus delphis*) and a harbour porpoise (*Phocoena phocoena*), as well as other deep diving animals, including Risso's dolphins (*Grampus griseus*) and various beaked whales.

Internal damage – holes in tissues - that can lead to death in cetaceans was reported and appears to be caused by a condition similar to that known in humans as decompression sickness or 'the bends'. It is currently unclear whether this happens as a result of fright response as an individual attempts to swim away from the sound and exceeds its physiological tolerances as it comes to the surface, or as a direct result of the physical impact of the sound. Whatever the mechanism of injury, the authors of the article show that the damage is caused to vital internal organs, in particular the liver of the animal, and this leads, at least in some cases, to death.

Noise effects in fish

Fish have most recently been shown to be significantly impacted by seismic activities (McCauley *et al.* 2003). The report states that the damage was regionally severe, to the ears, with no evidence of repair or replacement of damaged sensory cells up to 58 days after air-gun exposure. McCauley *et al*. (2003) goes on to suggest caution in the application of very intense sounds in environments inhabited by fish. Further, given that hair cells form the ultimate end organs of the hearing system of all vertebrates, the results presented here may have important implications for other marine vertebrates.

10.3.1.7 Conclusions and data requirements

We concur with the recommendations made in the conclusions and data requirements section 10.3.1.7, regarding the consideration of the effects of underwater noise from seismic activity.

Our primary concern lies in the concluding and unsubstantiated statement in this section, that "*there is an acceptably low risk of potential effects of underwater noise resulting from SEA4 activity*".

Indeed, the report itself states that the likely areas of seismic activity, and range of noise propagation, indicate that all marine mammal populations in the area are likely to be exposed to sound levels which are "*biologically significant*". It also states that "*the potential effects of seismic noise remain a significant area of uncertainty*".

Yet, other examples in the report include that it "*does not appear to have resulted in significant changes in sightings frequency or behavioural response*" and that "*available evidence indicates that broad scale marine mammal distribution patterns have not been influenced by seismic activity to date*". This is contradictory with the JNCC report number 323 (Stone 2003), where it states in the concluding paragraph:

"*The responses observed indicate that there is some level of disturbance of cetaceans from seismic activity, although to what extent this poses a serious threat to the health of marine mammals is not known. … Other potential effects of seismic activity remain largely unknown, for example long-term effects, effects on vocalisations, social behaviour and physiology, consequences of auditory masking and the potential to damage hearing*."

Therefore, it is clear that it cannot be assumed that there is an acceptably low risk of potential effects from SEA4 activity. We are not aware of studies that have been conducted that have monitored changes in sightings frequency, and we do not believe that this can be achieved effectively from working seismic vessels alone.

10.4 Cumulative Impacts

Providing a full assessment of cumulative impacts is vital to this SEA and we do not feel that Section 10.4 does this adequately. Whilst the section makes mention of other sources of particular impacts (e.g. shipping and military for underwater noise), there is no analysis of how significant the cumulative impacts may be or whether particular areas or receptors will be more greatly affected.

There is also no assessment of the cumulative effect of multiple impacts, for example, the effect of bycatch, oil and gas exploration, shipping, direct take and military activity on cetaceans.

Final comments

As detailed in the report, the Habitats and Species Directive lists harbour porpoises and bottlenose dolphins as the cetacean species for which SACs should be designated for. At present, there are no such sites designated in the area but it has been recognised that some places in the Shetland Islands (Mousa Sound and Noss Sound) are particularly important for harbour porpoises and in the future may be designated SACs.

It should also be noted that the current lack of offshore conservation sites present in the SEA 4 area for cetaceans does not indicate there is no need or justification for them – just that there are currently no mechanisms to do so. The Habitats and Species Directive is our only mechanism through Europe and is highly underdeveloped in the offshore area. We

currently have no satisfactory system in place for designating nationally important sites, inshore or offshore.

We believe that this region is very important for cetaceans, probably more so than we know at present, and if the mechanisms were in place it would be eligible for greater protection than it currently receives. For this reason, we believe efforts now should include immediate investigation of what is required to provide cetaceans with a higher level of protection. This should include effective management prescriptions and potentially designation of marine protected areas. Population or abundance data may be lacking but it should be possible to assess which areas are likely to be key habitats and site specific surveys can then be conducted in these areas so appropriate mitigation options can then be employed.

We believe that such an approach would be consistent with the recommendations made in section 11.3, and particularly under the section "Environmental Understanding". Every effort should be made to initiate the substantial research programmes detailed in Hammond *et al*. (2003), and the full report. We particularly note the need to put in place long-term monitoring projects before new activities develop if we are to assess the medium to long-term consequences, as highlighted by Hammond *et al.* (2003).

Due to the importance of the area for cetaceans and the likely negative effects of oil and gas development, particularly underwater noise, we hope full consideration will be given to how to limit these effects – through additional protection, mitigation measures, the use of new technology, and even limitation on the scale of developments allowed to proceed in the area.

We look forward to continuing and more detailed input into the further development of this important issue. If you would like clarification of any of the points raised here, please feel free to contact me.

Yours sincerely

Jo Clark
UK Policy Officer

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HEILSUFRØÐILIGA STARVSSTOVAN

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Tórshavn, 18. December 2003
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Subject: SEA4

Dear Kevin,

The Faroese Food-, Vetirinary- and Environmental Agency (FVEA) thanks for the opportunity to comment on the Strategic Environmental Assessment for the Area North and West of Orkney and Shetland (SEA4).

The actual area is adjacent to the Faroese waters, and therefore any environmental impact in the area is also relevant to The Faroes.

The Faroe Islands are very dependent on fishery and fish farming and a clean marine environment is vital for our economy. It is therefore of major importance that all discharges to the marine environment are limited as mush as possible. The FVEA values the fact that the chemical use and discharge described in the SEA4 is according to the OSPAR measeures, which also the Faroe Islands have implemented.

In general we agree with the conclusion of the assessment, that further development of the area will not have any crucial impact on the environment in the area.

As said above we appreciate to have the opportunity to comment on the SEA, and we hope that we also will be informed about future development in the area.

Sincerely

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