

SEA 7

Post Public Consultation Report

NOVEMBER 2007

OIL AND GAS LICENSING STRATEGIC ENVIRONMENTAL ASSESSMENT

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1 INTRODUCTION

1.1 Background

The Environmental Assessment of Plans and Programmes Regulations 2004 implement Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (the SEA Directive).

The UK Department of Trade and Industry (DTI) (now the Department for Business, Enterprise and Regulatory Reform (BERR)) has taken a proactive stance towards the concept of Strategic Environmental Assessments (SEA). Since 1999 the Department has used SEA as a planning tool to inform decisions on proposed offshore licensing rounds for hydrocarbon exploration and production on the UK Continental Shelf (UKCS).

To date seven SEAs have been undertaken covering the east, north and west of the UK Continental Shelf as well as parts of the Irish Sea. During 2003, the DTI also conducted a SEA covering three strategic regions off the coasts of England and Wales in preparation for a second round of offshore wind leasing.

A key element of SEA is consultation with the public and other stakeholders and an overview of the steps taken to promote this for SEA 7 is given below.

1.2 Overview of the consultation process

Key elements of the SEA 7 public and other stakeholder consultation are:

- A dedicated SEA website (www.offshore-sea.org.uk) where the SEA Environmental Report and supporting reports are made available (to view and download) for public consultation
- Scoping consultation in early 2005 with a range of academics and conservation organisations, focussed on ascertaining seabed survey and other study needs
- Wider stakeholder scoping consultation during September 2006
- Inclusion of a number of key stakeholders in the expert assessment workshop held in October 2006
- Stakeholder dialogue meeting at the draft assessment document (Environmental Report) stage in March 2007
- A 3 month public consultation period following publication of the SEA 7 Environmental Report and supporting documents on the website at the beginning of April 2007 (with extensive advertising in local and national newspapers of the start of consultation)
- Preparation of a post consultation report (this report)

In keeping with the Government's move towards "less paper" where feasible, scoping and subsequent consultation was conducted electronically using e-mail and the SEA website. In addition, the SEA 7 documentation could be requested in hard copy or on CD via the

website or directly. Responses to the formal public consultation period for SEA 7 were received via the website, e-mail and letter.

1.3 Purpose of this document

This report is intended to provide factual and technical clarifications to the comments received and issues raised during the public consultation period on the SEA 7 Environmental Report including BERR's draft plan to offer UKCS Blocks for oil and gas exploration and production licensing. It also includes responses regarding policy, regulatory and other controls, and future plans where appropriate.

The consultation responses are one of the considerations which will be used by BERR in making decisions regarding offering for licensing Blocks for oil and gas exploration and production in the SEA 7 area and in the areas previously assessed through the SEA process. Consultee responses are summarised in this report and for reference full copies of these responses are available on the SEA website.

2 CONSULTATION ISSUES

2.1 Consultation input received

Responses were received via the SEA website and as e-mailed or hard copy correspondence to BERR. Feedback relevant to the SEA 7 public consultation was received from:

- Comhairle nan Eilean Siar (CnES)
- Royal Society for the Protection of Birds (RSPB)
- World Wide Fund for Nature (WWF-UK)
- Royal Yachting Association (RYA)
- Joint Nature Conservation Committee (JNCC)
- Historic Scotland (HS)
- Scottish Environment Protection Agency (SEPA)
- Environment Agency (EA)
- Scottish Natural Heritage (SNH)
- Whale and Dolphin Conservation Society (WDCS)

For ease of reader access, consultee comments have been summarised and grouped in Section 2.2 (by SEA 7 Environment Report section), together with clarifications and BERR responses which are given in italicised text following each comment. Where consultee comments cover the same issue they have been combined to avoid duplication. Where author approval was given, full texts of consultee comments are available on the SEA website.

In the course of this consultation the name of the Department was changed from DTI to BERR, and both are used as appropriate throughout this report.

2.2 Consultation issues with BERR responses and clarifications

2.2.1 General comments

a. RSPB Presentation of information within the report has improved compared to previous SEAs. However, information crucial to the SEA (such as the detailed Assessment Chapter) should be retained within the ER proper, otherwise the ER becomes little more than an expanded executive summary.

The views of the consultee are noted and the body of the Environmental Report of next SEA will include such information, as guided by scoping input and the SEA Steering Group.

b. CnES/ In developing offshore resources it will be essential that there is SEPA appropriate collaboration and synergies between hydrocarbon and renewable technologies. DTI and the Scottish Executive should seek to be strategic in regard to development activity in order to maximise not only energy generation potential, but also by steering development and employment opportunities to the peripheral island communities on the west coast of Scotland.

> The overall BERR SEA programme covers offshore energy (oil and gas, and renewables), but in the SEA 7 area renewable energy is a devolved matter. The SE have recently completed an SEA examining the potential environmental effects of the development of wave and tidal devices off the west and north coast of Scotland (out to 12 BERR and the SE have collaborated in the nautical miles). production of both SEAs and it is planned that this will continue. Section 6.1 of the ER recommended "In areas with renewable energy generation potential the DTI should ensure decisions on licensing for oil and gas are coordinated with renewable energy leasing to minimise potential sterilisation of areas for either industry." The technical report "The potential socio-economic implications of licensing the SEA 7 area" describes what the licensing round could mean to the SEA 7 area in terms of development and employment opportunities.

> The next offshore energy SEA in the BERR sequence will include integrated assessment of draft plans to hold further rounds of oil & gas licensing and wind leasing.

c. CnES Developers should be required to discuss and keep the Local Authority informed of proposed development and their development schedules.

BERR recommend that relevant local authorities are kept informed of

potential developments through early informal discussion and formally through the scoping/consultation phases of the EIA process.

d. CnES Recommends that there should be a localised consents procedure, under an extended planning system, for energy generation projects on the coast and within inshore waters. An ICZM approach seems ideally suited to large-scale coastal development where national strategic objectives, commercial opportunities and community aspirations have to be reconciled.

The Scottish Executive intends to introduce a Scottish Marine Bill aimed at delivering:

- A simpler regulatory system for the marine environment
- More action on marine nature conservation
- A strategic national approach
- Greater local control over marine and coastal areas

(http://www.scotland.gov.uk/News/Releases/2007/06/19112631)

This follows the release of the UK Marine Bill White Paper which covered 5 key issues: planning in the marine area; licensing activities in the marine area; marine nature conservation; modernising marine fisheries management; and a new marine management organisation (http://www.defra.gov.uk/corporate/consult/marinebillwhitepaper07/index.htm).

e. WWF-UK Requests that the survey analyses recently obtained as part of this SEA and JNCC work will result in designated protection for those habitats and species previously or newly identified as most vulnerable across this area.

> Survey data collected as part of SEA 7 have been made available to the JNCC and will undoubtedly form an important part of the JNCC assessment of potential offshore protected areas.

f. WWF-UK Welcome the Governments considerations of marine spatial planning UK (MSP), and we encourage the DTI to take a positive role in its implementation. In this respect, disappointed that the DTI were given dispensation from the licensing reform suggested in the recent Marine Bill White Paper (sections 5.90/5.91), with licensing decisions being made out-with the proposed MMO.

> The views of the consultee are noted. Section 5.91 of the Marine Bill White Paper states "The exploration for and exploitation of oil and gas is closely regulated under the Petroleum Act 1998. It is a system, operated by the Department for Trade and Industry (DTI) [now BERR] which provides the kind of tailored, targeted and proportionate control of the industry that both regulators and the industry require and that we intend through the Marine Bill to introduce for other sectors. The oil and gas sector will of course feature in and take account of marine plans (as described in 4.85 –

4.88) when making licensing and consenting decisions. But in the absence of any compelling evidence that the current system is failing, on balance we believe that the resources we have available are best directed at introducing other reforms that will bring greater benefits."

g. HS SEA process has benefited from the commissioning of the two archaeology-related technical reports which in themselves have advanced knowledge. Welcome the fact that the marine historic environment sector is working with offshore oil and gas to help advance knowledge about offshore sites, and to ensure that where significant sites are identified, developments take these into consideration in line with the JNAPC Code of Practice for Seabed Development.

The comments of the consultee are noted. See response to 2.2.2b.

h. SEPA The ER has taken account of the points made in the SEPA response to the scoping consultation. In many respects, this is not a "traditional" SEA that assesses the potential environmental effects of actions within a plan, but is rather a large scale environmental baseline exercise that provides a clear indication of the environmental constraints upon particular parts of the marine environment relevant to the licensing round. This level of assessment for what is a strategic level programme covering a wide geographic area is welcomed as is the review and update of previous SEA rounds.

The views of SEPA are welcomed.

 SNH As with the previous offshore energy SEAs this appears to us to be both comprehensive and clearly presented. That said, only a small proportion of the seabed covered by SEA 7 lies within 12nm (the extent of our remit) and, as indicated within the report, this inshore area has very limited potential for hydrocarbon production. Accordingly, we have chosen not to draft an extensive response but would, instead, endorse and refer you to the comments provided separately by our colleagues at JNCC, whose remit extends beyond 12nm. Noted.

2.2.2 Issues raised on Non-Technical Summary

 a. RSPB/ WWF-UK
b. WWF-The context set in the first paragraph of the non-technical summary seems to omit the required protection of the marine environment. Might expect a more balanced context to provide a little mention of the wealth, value and diversity of the marine environment in addition to justifications on economic contribution from activities.

The views of the consultees are noted. Page v of the NTS provides a balanced overview of the SEA 7 environment.

b. HS NTS provides a clear overview of the environmental assessment

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process (p xii). Content with this assessment with regard the historic environment provided the following assumptions are made clear:

- The majority of licensing will take place in deep water, in areas significantly beyond the zones of high archaeological potential for submerged prehistory.
- Positive interactions arising from discoveries will depend on appropriate reporting protocols being in place and development being in line with a code of conduct such as the JNAPC Code of Practice for Seabed Development.

It is likely on the basis of prospectivity that the majority of licensing will take place in Area 1 (Section 2.1 of ER) which stretches south from the Benbecula discovery to the Irish Dooish well along a 260 by 30km corridor. This area coincides with water depths beginning at about 700m and extending westwards to water depths of over 2,000m. This area would appear to be beyond the zones of high archaeological potential for submerged prehistory. At present a specific code of conduct for the offshore oil and gas industry has not been produced although many of the areas covered by the JNAPC code of practice fall within the EIA process. The recommended measures to prevent damage to prehistoric and archaeological remains from oil and gas activities listed in Section 8 of the Wickham-Jones & Dawson SEA 7 technical report will inform the EIA process and could form the basis of a future code of conduct.

2.2.3 Issues raised on Section 1 Introduction

- a. WWF-UK In relation to the bay enclosure areas (e.g. inside the Minches), when do the DTI anticipate they be subject to oil and gas licensing? In addition, which Government body would have responsibility for this? BERR is the responsible authority for such licensing. There are no plans at present for further licensing within the bay closure lines. However, it is noted that several blocks have previously been licensed (including some with no marine activity constraints attached).
- b. RSPB Table 1.1 Helpful if this table was expanded to 'signpost' where text meeting each of these requirements could be found within the report, and as such bringing together the information in Table 1.1 and Table 1.3 might be beneficial.

The constructive comments are welcomed.

2.2.4 Issues raised on Section 2 Overview of the Draft Plan

a. RSPB Welcome the use of the 'hierarchy of alternatives' diagram from the

DCLG SEA Practical Guide. Also note that the implications have been addressed for the draft plan in Table 2.2. *Noted.*

b. CnES It is strategically essential for UK energy supply, energy security and energy mix that the marine resources west of the Hebrides are explored fully and developed appropriately and sustainably.

> As described in Section 2.2 Plan objectives, "the main objectives of the current draft plan are to enhance the UK economy and security of energy supply through the comprehensive exploration and appraisal of UK oil and gas resources and the economic development of discovered reserves without compromising the biodiversity, ecosystem functioning and the interests of nature and heritage conservation, and human health, material assets and users."

- c. CnES Fully supports the development of the Atlantic Frontier and the DTI draft plan. Support the acceleration of the plan where appropriate. *The views of the consultee are noted.*
- d. WWF-UK The ER states the main objectives of the current draft plan are to UK enhance the UK economy and security of energy supply through the comprehensive exploration and appraisal of UK oil and gas resources and the economic development of discovered reserves without compromising the biodiversity, ecosystem functioning and the interests of nature and heritage conservation, and human health, material assets and users.

Now we have a slightly better awareness of climate change and ocean acidification, the comprehensive exploration (and subsequent use) of oil and gas resources is likely to cost the UK in terms of impacts from climate change and also have irreversible impacts on the marine environment. Thus the objective is internally unreconcilable.

Disagree. As described in Section 2.2, the BERR draft plan must be seen in the context of the UK government's overall energy strategy which has 4 long term goals:

- To cut the UK's CO₂ emissions by some 60% by about 2050, with real progress by 2020
- To maintain the reliability of energy supplies
- To promote competitive markets in the UK and beyond, helping to raise the rate of sustainable economic growth and improve productivity
- To ensure that every home is adequately and affordably heated.

The Environmental Report (Section 5.7) emphasises that, in the near term, UK energy demand not met from indigenous sources (whether fossil or renewable) will be supplied by imported fossil fuels, with little

distinction in terms of resultant emissions to atmosphere.

e. WWF- Again WWF calls for a fundamental change in the approach used in UK identifying alternatives, including obviating development.

Section 2.4 of the ER considered alternatives to the plan. The SEA Steering Group has been regularly asked to consider and suggest other valid alternatives to the BERR draft plan; to date none have been proposed that have met with consensus agreement. Any consideration of obviation would form part of overall UK government energy policy as described in the responses to 2.2.7c and 2.2.14d.

f. WDCS The report indicates that there has been very little oil and gas exploration activity in the SEA 7 area to date, and that the bulk of the area is devoid of data to appropriately evaluate the real potential for hydrocarbons. The report then mentions that the DTI have developed a regional overview of the likelihood of hydrocarbons being present in commercial quantities in the SEA 7 area. WDCS seeks clarification on the information involved in developing this regional overview and questions whether the SEA 7 area is currently suitable for licensing.

The regional overview of the SEA 7 area is based on a broadscale understanding of the geology of the region informed by seismic survey data and the few exploration wells and boreholes that have been drilled in the area. However, detailed knowledge is limited and the bulk of the area is devoid of data to appropriately evaluate the real potential for hydrocarbons. Licensing the area would encourage greater information to be collected on many aspects of the region not just hydrocarbon potential.

2.2.5 Issues raised on Section 3 SEA Approach

a. RSPB Welcome and support the inclusion of SEA objectives. Acknowledge that these are reasonable SEA objectives and that they have been used for the assessment. Note that for the biodiversity objective to be met, mitigation measures would have to be in place, but there is no guarantee of mitigation at this level i.e. a serious commitment to implement particular mitigation measures for all licences issued. Welcome this approach, as it is one that the steering group has been suggesting and has led to a more assessment-focused SEA.

The views of the consultee are noted. In addition to the extensive control and mitigation measures available to BERR at the project specific stage, the ER recommendations (e.g. Recommendations 2, 3 & 5) if followed, would provide significant mitigation with respect to meeting the biodiversity objective.

b. CnES Although we clearly understand and support the strategic value of the SEA, for it to have local credibility there has to be an appropriate balance between the human and the environmental considerations.

The present document unfortunately does not have that balance and some may argue that it potentially gives a distorted balance between human and environmental considerations.

Disagree. The SEA process aims to help inform BERR licensing decisions through consideration of the environmental implications of the proposed plan and the potential exploration, development and production activities which could result from its implementation. Human-related issues are a key part of this consideration (e.g. population and human health, material assets and cultural heritage). As part of the SEA process, detailed technical reports were also produced describing the SEA 7 economic baseline, the potential socio-economic implications of licensing the SEA 7 area, other users of the area, and archaeology. The scope of the SEA is in large part defined by the SEA Directive and UK implementing regulations.

c. WWF-UK Consultation should be seen as an opportunity to gain valuable input from those not directly involved in the SEA process, not just as a "required part of SEA". The public consultation exercise was initially considered worthy of only an electronic exercise, and this causes concern.

> Throughout the series of offshore SEAs, BERR have been committed fully to open and transparent consultation with as many relevant stakeholders as possible. Section 3.1 highlights a range of process improvements which BERR have brought in, many of which are related to maintaining or increasing public interest and input. The SEA 7 scoping consultation is described in Section 3.2.

WWF- Format and length of the one day Expert Assessment workshop was inadequate to properly discuss the findings, concerns, implications and further data requirements of the technical experts.

This comment echoes that of various Assessment Workshop participants and for the next SEA the workshop will revert to the two day format as used in previous years.

e. WWF- Objectives could emphasise a more positive approach. To state "No UK loss" is inadequate when we know so little about the marine environment – positive outcome and constructive contribution should be the minimum objective.

A number of consultees made suggestions regarding suitable SEA objectives (see Appendix 1). These were noted and the SEA objectives were chosen or modified to reflect the various inputs from scoping.

The SEA objectives are high level objectives which will be used to judge the success of the SEA process. As described in Section 6, a series of indicators (Table 3.1) will be monitored by BERR and the SEA team to track SEA performance over time. Information from project

specific activities (e.g. rig site surveys etc) collected as part of the normal consenting regime will provide valuable data for this monitoring process.

f. WWF-UK Regarding the Biodiversity indicator for "conserves the wildlife and wildlife habitats" objective, measuring the % of relevant biogeographic population will be difficult if not impossible. Also, it is unclear how impacts attributable to oil and gas activities could be differentiated from stresses caused from other impacts.

The Department will work closely with its environmental advisers (e.g. JNCC) to select and define "valued ecosystem components" to be used as biodiversity indicators. Whilst BERR recognise the difficulty of differentiating between different stresses within the marine environment, potential impacts resulting from oil and gas activities have been extensively studied and are relatively well known. Monitoring programmes already undertaken or proposed for the SEA (Section 6.2) will ensure that no significant damage/disturbance occurs.

- g. WWF- Welcomes the objective to minimise greenhouse gas emissions, and UK hope that some of our ongoing suggestions into the SEA process will be able to contribute to the attainment of this objective. *Noted.*
- h. WWF- The SEA Directive includes secondary, cumulative impacts, and this UK should apply to emissions from fossil fuel products made available via ongoing licensing for oil and gas.

This issue has been explored with the SEA Steering Group and in the Environmental Report (Sections 5 & A11.c.10). The views of the consultee are noted and will be discussed with the SEA Steering Group.

 WWF-UK
Consider the scope of the DTI's SEA as too narrowly focussed on oil and gas licensing, and advocate a shift to expand consideration of environmental assessment in a truly strategic way. From this perspective, WWF intend to request a meeting with DEFRA, DTI and DCLG to be able to discuss a more appropriate level at which to conduct SEA's.

> Disagree. The SEAs have been addressing the various plans for licensing and leasing rounds as they have come forward. The next offshore energy SEA in the BERR sequence will include integrated assessment of draft plans to hold further rounds of oil & gas licensing and wind leasing.

j. WWF- WWF recommends that the Energy White Paper and subsequent UK policy should have an SEA. In the absence of this, and before this may happen, it is critical that the SEA 7 process takes on board the full range of secondary and cumulative climate change impacts. The views of the consultee are noted and will be discussed with the SEA Steering Group.

k. HS Pleased to note that the SEA objective for the historic environment has been amended as suggested in our response to the scoping consultation.

Noted.

2.2.6 Issues raised on Section 4 Environmental information

a.

CnES

Does not support the development of additional SPAs (or other potentially detrimental designations) in the SEA area. It is the view of many in the islands that the land mass of the Outer Hebrides has been virtually sterilised for development by the misapplication and indiscriminate utilisation of environmental designations. The Comhairle would be resistant to the seas around and to the west of the Hebrides becoming equally sterilised by the introduction of unnecessary SPAs or other such designations. The Comhairle is confident that, given a coherent national strategy and significant local control, the marine resources which surround the Outer Hebrides can be developed in a safe and sustainable manner which will help provide security of energy supply for the nation whilst helping to sustain the increasingly fragile communities of the Outer Hebrides.

The views of the consultee are noted. The Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 (amended 2007) and the Offshore Marine Offshore Marine Conservation (Natural Habitats, &c) Regulations 2007 regulate UKCS offshore oil and gas activities with respect to the Habitats and Birds directives. The designation of SAC and SPA does not necessarily preclude activities in an area – rather it requires that the effects of such activities be thoroughly considered through an Appropriate Assessment. In doing so, the Secretary of State will apply the test set out by the ECJ in the Waddenzee case, namely that a competent authority can authorise a plan or project "only if [it has] made certain that it will not adversely affect the integrity of that site. That is the case where no reasonable scientific doubt remains as to the absence of such effects".

"Review potential blocks to be offered and ensure licensee

b. WWF- A useful addition to the ER is Table 4.1 summarising environmental UK problems as required under the SEA Directive, although the articulated implications of the problems are not directly followed through and incorporated into the Recommendations. Many of the recommendations listed in Section 6 cover implications identified in Table 4.1. For example, Recommendations 2 and 5 are of direct relevance to the identified implications from the problem of damage to important benthic habitats such as cold water corals – awareness so that potential activities do not exacerbate problem." These direct links could have been more clearly identified in the ER.

c. WWF-UK The text around Table 4.2 (ER p.38) indicates it is meant to provide UK the likely evolution of the baseline in the absence of licensing, as required by the SEA Directive. The table does not relate specifically to how this baseline situation would be different without the plan/programme.

> Section 4.4 indicated that "Given the extent of the SEA 7 area, the lack of detailed information about the region's environment and the difficulty in defining quantitative indicators of the likely evolution of the environmental baseline, a qualitative approach was adopted." This is described in Table 4.2 which draws together the main issues (excluding potential oil and gas licensing) affecting the different environmental characteristics of the SEA 7 area. BERR is confident that given the qualitative nature of the information, the table provides a sound assessment of the likely evolution of the baseline without oil and gas licensing.

d. HS Content with the summary set out on p34 of the ER and with the information included in Appendix 3i. The two technical summaries (Wessex Archaeology 2006, Wickham-Jones & Dawson 2006) are sound documents.

Noted.

e. HS Not aware of any environmental issues (Section 4.3) relating to the historic environment of the offshore SEA 7 area. This illustrates the principal issue of the lack of data, particularly given that much of the prospecting zone is likely to be in very deep waters.

As described in the ER and the underpinning archaeological technical reports, a likely positive effect of activities in licensed areas is wreck discovery and potential identification of cultural heritage during oil industry rig site or pipeline route surveys.

f. HS Agree with information provided in Section 4.4 on the likely evolution of the historic environment baseline in the absence of the plan. *Noted.*

2.2.7 Issues raised on Section 5 Summary of Assessment

a. RSPB Section on cumulative effects (pg:53-54) does not adequately cover the cumulative impacts of oil and gas activities with non-oil and gas activities. For example, we believe that potential cumulative impacts on marine benthos and benthic habitats exist as a result of oil and gas activities and its associated infrastructure and fisheries trawling activities. Will want to see this analysis improved in the next SEA. Section 5.11 provides a high level summary of the assessment of cumulative effects described in Appendix 11.c.10 (p89). This more detailed assessment covers the cumulative impacts of oil and gas

activities with non-oil and gas activities.

b. RSPB Interrelationships with wider policy objectives – we note that there could be potential conflicts between the oil and gas licensing applications and the as yet incomplete N2000 network and the forthcoming MCZ network (including OSPAR MPA network obligations). *Given the level of regulatory control of activities which could follow*

licensing and the enactment of the Recommendations listed in Section 6.1, potential conflicts with other policy objectives are anticipated to be minimal.

C.

WWF-

UK

Believes that DTI's presumption that domestic hydrocarbon is carbon neutral (or even carbon positive when importing is considered) is a gross misrepresentation of the factors influencing energy sourcing, and we would suggest the DTI, specifically ERDU, reconsider this position.

Disagree. The ER recognised that "Atmospheric emissions from the potential activities following implementation of the BERR draft plan will contribute to local, regional and global concentrations of CO₂ and other greenhouse gases." In response to climate change concerns, the UK government and EU have and are introducing a variety of policy initiatives intended to stabilise and reduce greenhouse gas emissions. All recognise the long term nature of the venture and that there is no one solution. Contributory steps include reduction in energy demand through increased energy efficiency, promotion of renewable fuels and electricity generation, fuel switching to lower carbon alternatives, carbon capture and sequestration etc. However, as the Energy White Paper 2007 recognised "We will continue to need fossil fuels as part of a diverse energy mix for some time to come." In the near term, UK energy demand not met from indigenous sources (whether fossil or renewable) will be supplied by imported fossil fuels - with little distinction in terms of resultant atmospheric If the UK seeks to maximise hydrocarbons from emissions. indigenous sources, it will allow much greater control over associated greenhouse gas emissions given that associated gas is put to beneficial use rather than mostly flared as in some other sources of potential supply. See also response to 2.2.14d below. Importation of oil or gas also has an additional climate change penalty through emissions generated through transportation.

d. WWF- Believe emissions from well test flaring events need to be taken into UK account when assessing atmospheric emission impacts in this environmental assessment. Well test emissions were not assessed in detail based on the

conclusions of discussions at the Assessment Workshop (in addition such emissions are controlled through the BERR administered permitting process). e. HS Largely content with the assessment summary provided in Section 5.10, provided that reference is included to using the *JNAPC Code of Practice for Seabed Development* to guide exploration, and that appropriate reporting controls are in place. May be useful to include this information in the SEA Statement.

Noted. See response to 2.2.2b.

f. HS Should any applications for blocks near St Kilda be received, consider that further environmental assessment will be required. This will need to consider effects on St Kilda's cultural heritage, as well as any Appropriate Assessment that maybe undertaken. Would welcome involvement in this process.

The geology near St Kilda is not considered prospective for hydrocarbons and on this basis interactions with St Kilda's cultural and natural heritage are not anticipated. Should any blocks near St Kilda be applied for, an Appropriate Assessment would determine whether proposed activities would affect the site and its conservation features. BERR would also review any applications in light of the SEA conclusions and recommendations, and determine whether any further environmental assessment was required. BERR are fully aware of the international importance of St. Kilda both in terms of its cultural and natural heritage.

g. WDCS Encouraged that the majority of exploration drilling and all field developments would be subject to statutory EIA. As a result of this, significant effects on the marine environment as a result of routine operations can, at least in theory, be identified and mitigated to acceptable levels. We are also pleased by the suggestion that pre-activity studies would include documentation of the key components of the local environment, such as filling data gaps. WDCS hopes the DTI deems an understanding of marine mammal distribution and abundance as necessary in all applications for licenses in the SEA 7 area.

The comments of the consultee are noted. Section 5.2 states that pre-activity studies could include "filling (as necessary) gaps in understanding of seabird and marine mammal distribution and abundance." See also Recommendation 8 of the ER.

- h. WDCS Encouraged by the suggestion that in areas of vulnerable habitats and species, physically damaging activities should be subject to detailed assessment prior to activity consenting so that appropriate mitigation can be identified and agreed. *Noted.*
- WDCS Pleased by the conclusion that blocks west of 14 degrees west will be withheld from licensing at present, due to the paucity of information on many potentially vulnerable components of the marine environment. However, feel that information held for the blocks east of 14 degrees west is still insufficient to allow for informed decisions.

The ER indicates that there is relatively more data available for the area east of 14 degrees west including that generated during past seismic and drilling activities. Section 5.2 also highlights that BERR "should draw to the attention of applicants that for some activities in certain areas of SEA 7, baseline data on selected components of the marine environment will require to be collected in advance of operations to underpin risk and other assessments." This is likely to include marine mammals (see Recommendation 8 of the ER). See also response to 2.2.8m.

j. WDCS Relevant SEA objectives mentioned in the report are: to avoid damage to conservation sites and protected species; and to conserve the wildlife and wildlife habitats of the UK. The indicators for these objectives are: that site condition monitoring reveals no decline in conservation status; and that there is no loss of diversity or decline in populations attributable to E&P activities. The environmental report highlights that, in general, existing populations of large whales have not recovered from the effects of past commercial whaling and are, therefore, particularly vulnerable to disturbance. This must be considered during the assessment.

Agreed. BERR is supportive of efforts to improve the knowledge basis for cetaceans, including that of larger whales in deeper water areas. Recommendation 7 indicates that "In addition to the DTI funding of the forthcoming CODA survey of cetacean distribution beyond the continental shelf, consideration should be given to continuing the monitoring of large whales to the west of Britain through analysis of SOSUS hydrophone data."

k. WDCS Section 5.14 concludes that alternative 3 is the preferred option – the area to be licensed will be restricted spatially through the exclusion of certain blocks. WDCS is concerned that there are currently insufficient data to reach this conclusion and, seeks clarification on which blocks are to be excluded and the information used to reach this conclusion. WDCS feels that, where data are lacking, the precautionary principle must be applied and spatio-temporal restrictions must be imposed.

The recommendations of the SEA are strongly in favour of applying the precautionary principle. For example, by withholding blocks west of 14 degrees west due to the paucity of information on vulnerable components of the environment (Recommendation 3). See also response to 2.2.71 below.

I. WDCS Concerned that there is currently insufficient data on which to base an Appropriate Assessment, and seeks commitment from the DTI to fill some of these data gaps. WDCS hopes the recent guidance document on the "Strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC" will be taken into account. This document highlights the need to resolve problems associated with the implementation of Article 12 and provides guidance on the provisions for species protection. As protected species of Community interest, the prevention of disturbance to cetaceans must be paramount.

A number of the SEA recommendations were targeted directly at data collection to improve knowledge of marine mammal distribution, abundance and behaviour (e.g. Recommendations 7 & 8). Similarly recommendation 5 indicates that "For blocks which contain good examples of habitats /species on the Habitats Directive Annexes, operators should be made aware that a precautionary approach will be taken and blocks or part-blocks with relevant interests may either not be licensed until offshore designations are completed or subject to strict controls on potential activities in the field." Any AA would be coordinated with JNCC and fully compatible with the recently published guidance.

2.2.8 Issues raised on Section 6 Recommendations and monitoring

 a. WWF-UK
better between the Scottish Executive and DTI decision-makers when undertaking oil and gas and renewables licensing. Have grave reservations over any alleged alignment between hydrocarbon and renewables licensing, when there seems to be no intention to strategically consider the environmental impacts from licensing of hydrocarbons and renewables as one process.

> Noted. The basis of the BERR offshore SEA programme was broadened to include renewable energy in 2003. Since then there have been no plans or programmes advanced which would allow a renewables SEA to be conducted. The Scottish Executive's recent marine renewable SEA did not assess an actual plan to offer areas for licensing for renewables within the SEA 7 region rather it was intended to inform the preparation and delivery of the SE's strategy for the development of marine energy. Close communication between BERR and the SE will aim to ensure that relevant decisions are not taken in isolation and that an integrated approach is followed towards the development of offshore energy in the SEA 7 area.

- b. RSPB The review of environmental problems is good. However, the following additional recommendations would improve the environmental credentials of this plan:
 - The area around St Kilda be excluded from this round and future rounds of oil and gas licensing.
 - Plus exclude the area around the Hebrides as a gesture, especially as there is no likelihood of oil or gas reserves.
 - We would also recommend a buffer zone around these areas

to ensure that feeding seabirds are adequately protected.

- In addition, important seamounts that have been mapped within 14 degrees west should also be excluded, e.g. Anton Dohrn and Hebrides Terrace Seamounts.
- The three proposed SACs the Darwin Mounds, the Wyville Thomson Ridge and the Stanton Bank should be excluded from this and future oil and gas licensing rounds.

Given the perspectives on prospectivity, the available control and mitigation measures outlined in the ER, the SEA recommendations proposed in Section 6.1 and further efforts underway to identify SPAs and their extensions, BERR do not believe that the above additional recommendations are warranted.

c. CnES Perceived lack of detailed environmental information in the SEA area cannot be allowed to be used as a pretext by some non-departmental lobbying bodies to argue that a blanket "precautionary principle" approach should dominate and prevent legitimate development. The national interest in regard to developing appropriate energy supplies has to be the driving principle.

The view of the consultee is noted. Section 6.1 of the ER recommended that "For blocks which contain good examples of habitats/species on the Habitats Directive Annexes, operators should be made aware that a precautionary approach will be taken and blocks or part-blocks with relevant interests may either not be licensed until offshore designations are completed or subject to strict controls on potential activities in the field." In considering whether to grant consent to oil and gas licensing and development, BERR will have regard to the precautionary principle. Section 6.1 also recommended that "blocks west of 14 degrees west should be withheld from licensing for the present. This is in view of the paucity of information on many potentially vulnerable components of the marine environment, and other considerations". These other considerations include the fact that the western boundary of the region is not yet internationally agreed and blocks within this area are beyond normal search and rescue helicopter range.

d. CnES If the Atlantic Frontier Environmental Network is reinvigorated, or a similar group is established, it should ensure strong representation from industry, Local Authorities and other development agencies. If any Network of this type concentrates solely on proscriptive environmental activity it will be a hindrance and constraint on achieving overall plan objectives.

Section 6.1 of the ER recommended that "If there is appreciable interest in licences in the SEA 7 area, the DTI should consider encouraging the reinvigoration of the Atlantic Frontier Environmental Network or establishment of a similar group to promote collaborative studies and data collection." Whether there is sufficient interest for this to happen is as yet unknown. With reference to the consultee comments, the Atlantic Frontier Environmental Forum (AFEF) was set up in 1995 to ensure that the results of the AFEN studies reached a broad audience and also, equally, that AFEN addressed matters of importance to local communities near the Atlantic Margin. AFEF had an independent chairman and representatives from local authorities, wildlife and other conservation bodies, central government and government agencies, academia and the offshore oil and gas industry via AFEN.

e. WWF- Requests a pre-cautionary approach is taken to opening up these UK diverse but poorly understood areas to development and not open up all areas to licensing in the presumption that all impacts can be managed.

A precautionary approach is endorsed by Recommendation 3 which recommends that "blocks west of 14 degrees should be withheld from licensing for the present....in view of the paucity of information on many potentially vulnerable components of the marine environment." Recommendation 5 also indicates that for "blocks which contain good examples of habitats/species on the Habitats Directive Annexes, operators should be made aware that a precautionary approach will be taken and blocks or part-blocks with relevant interests may either not be licensed until offshore designations are completed or subject to strict controls on potential activities in the field."

f. WWF- Again ask for Recommendations made in previous SEA's to be given UK priority attention and recommend there is systematic tracking of information gaps and research opportunities identified during current and previous SEAs.

> The recommendations from each SEA have been considered by BERR and many have been implemented, with progress reported to the SEA Steering Group. A comprehensive list of all recommendations from SEAs 1-7 and their current status has been circulated to the SEA Steering Group; it has also been placed on the SEA website.

g. WWF- Call for zero discharge of cuttings, zero discharge of oil in produced UK water, zero routine flaring, and zero venting (unless human life directly threatened) in all developments.

Recommendation 2 indicates that in areas of cold water coral reefs and other vulnerable habitats and species appropriate mitigation may include zero discharge of drilling wastes. Recommendation 11 indicates that "Potential applicants ...should be reminded that the expectation for facilities design will be for zero discharge of oil in produced water." Zero routine flaring is now considered a realistic design target for most planned developments. The Department believes that thorough site assessment prior to any development activities, and the consenting mechanisms already in place will ensure that these expectations are met.

h. WWF- Requests that the Recommendations reflect the advice provided in UK the ER text, stating the need for further consideration of synergistic effects between seismic survey and military sonar.

Section 5.11 indicated that the effects of multiple noise sources, including the interaction of seismic survey and military sonars were areas requiring better understanding. As highlighted in Appendix 11.c.2 Noise, given that anthropogenic ambient noise involves many industrial sectors, this issue may be best addressed through a cross-sectoral initiative.

i. WWF- Recommend a precautionary approach on any development that UK introduces negative impacts from anthropogenic noise into the environment.

> In considering whether to grant consent to oil and gas licensing and development, BERR will have regard to the precautionary principle (Recommendation 5). The withholding of blocks to the west of 14 degrees west (Recommendation 3) in view of the paucity of information also demonstrates the Department's exercise of a precautionary approach. See also response to 2.2.8j below for information on improving knowledge base.

j. WWF-UK Recommend additional resources be made available for research & coordination to fill data and knowledge gaps, and especially further financial contribution to provide a more complete picture of cetaceans in our waters.

> The Department has been proactive in this area. Recommendation 7 indicates that "In addition to the DTI funding of the forthcoming CODA survey of cetacean distribution beyond the continental shelf, consideration should be given to continuing the monitoring of large whales to the west of Britain through analysis of SOSUS hydrophone data." Further research is envisaged by Recommendation 8 which indicates that "observations and research should be undertaken if necessary by block operators and others on cetacean distribution and ecology, including of beaked whales in deeper water areas, to increase the confidence with which predictions of behavioural responses and mitigation proposals can be made." BERR would also be involved in any collaborative AFEN-style group

WWF- Recommend licensing for seismic survey be withheld across the UK
WWF- UK
Whole SEA 7 area until imminent surveys and research projects have provided a better understanding of cetacean distributions & preferences, and development activity effects & impacts – and thus we have a better understanding of what constitutes 'no impact'.

The withholding of blocks west of 14 degrees west from licensing (as described by Recommendation 3) will reduce markedly the area open to seismic survey (although sound will likely propagate into the area from surveys to the east). The ER identified a number of specific concerns in relation to noise disturbance and marine mammals including "the coincidence of the predicted area of maximum seismic effort, with the shelf edge habitat particularly utilised by beaked and pilot whales, also by common dolphins." However, it indicated that "the potential significance of the prospective parts of the SEA 7 area to migrating species (principally humpback whales) and species characteristic of the shelf edge (principally beaked and pilot whales) should be recognised in the management of seismic surveys through the PON14 process." Recommendation 5 indicates that BERR will take a precautionary approach and blocks or part blocks with relevant Habitats Directive habitats/species may either not be licensed until offshore designations are completed or subject to strict controls on potential activities in the field (which may include seismic survey). Also the Department will continue to conduct Appropriate Assessments/screenings to consider the potential of proposed licensing and subsequent activities to affect Natura 2000 site integrity (this may include the potential effects of noise on protected seal populations).

I. WWF-UK Encourage DTI to assess their sanctioning of potentially damaging practices associated with oil and gas licensing, especially to acknowledge the need for adherence to strict wildlife licensing criteria (re OMCR), aimed at increasing the protection of habitats and species.

> BERR are fully aware of the implications of the Offshore Marine Conservation Regulations for potential offshore oil and gas activities. However, the industry is familiar with working within the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 (and their 2007 amendment) and JNCC are involved in the consenting process for potential activities. Therefore, whilst BERR acknowledge the requirements for wildlife licensing criteria associated with the OMCR, it is confident that the industry is already working within these criteria. See also response to 2.2.7I.

m. WWF-UK Concur with ER Recommendation (3) that blocks to the west of latitude 14degW be withheld from licensing. Plus the eastern side of the Rockall Bank which is outwith this geographical boundary.

The views of the consultee are noted. The offer of licences east of 14 degrees west is supported since there is relatively more data available including that generated during past seismic and drilling activities in the area. For some activities in certain areas, baseline data on selected components of the marine environment will require

to be collected in advance of operations to underpin risk and other assessments. Appendix 3b notes that "Should hydrocarbon activity take place in this area (eastern margin of Rockall Bank), detailed environmental, oceanographic, and geotechnical studies will be required."

WWF-Recommend drilling be excluded in potential seaward SPA UK extensions to minimise disturbance, and similarly in offshore SPA feeding grounds when identified.

> The designation or extension of an SPA (or SAC) does not necessarily preclude development within that site. Further, in relation to bird populations and important feeding/moulting and over-wintering areas there may be strong seasonality in their sensitivity which may allow specifically-timed activities to be carried out with minimal An Appropriate Assessment screening or full disturbance. assessment of the plan will be undertaken by BERR after the block applications have been received. The AA process will allow consideration of the potential of likely resultant activities in the blocks to adversely affect the integrity of Natura 2000 sites. The AA provides a further opportunity for the Department to draw operator attention to block or local environmental sensitivities. Where necessary, BERR will withhold consent or place specific temporal, spatial or other conditions on block licences.

WWF-Consider Recommendation 6 should be strengthened to call for a Ο. UK programme of systematic surveying of offshore areas over a full season before licensing is underway.

> Recommendation 6 indicates that "Operators should be made aware of the need to have access to adequate data on seabird distribution and abundance as a prerequisite to effective oil spill contingency planning." If there is sufficient operator interest in the SEA 7 area, collaborative studies and data collection (which may include bird surveys) could be co-ordinated through an AFEN-like group (as Recommendation 9).

WWF-Recommend pinniped moulting and pupping sites (and up current of р. UK these) should not be used for seismic exploration, exploitation or shipping.

> The majority of pinniped moulting and pupping sites in the SEA 7 area are protected through SAC designation (Annex II of the Habitats Recommendation 5 indicates that "For blocks which Directive). contain good examples of habitats/species on the Habitats Directive Annexes, operators should be made aware that a precautionary approach will be taken and blocks or part-blocks with relevant interests may either not be licensed until offshore designations are completed or subject to strict controls on potential activities in the field."

n.

q. WWF- Recommends that important benthic sites identified in the ER should be excluded from drilling or anchoring, and also be protected from trawling.

Recommendation 2 indicates that "In areas of cold water coral reefs and other vulnerable habitats and species, physically damaging activities such as rig anchoring and discharges of drilling wastes should be subject to detailed assessment prior to activity consenting so that appropriate mitigation can be identified and agreed which may include no anchoring and zero discharge." Many of the deep water areas surveyed as part of the SEA are to the west of 14 degrees west and therefore as Recommendation 3 states "should be withheld from licensing for the present." JNCC are currently identifying offshore SACs which may be protected from trawling if deemed necessary.

r. WWF-UK Request that in licensing areas from this or previous SEA rounds, any blocks containing or bounding SACs, pSACs, SPAs, pSPAs, extension and potential offshore sites be subject to Appropriate Assessment (AA) with a presumption they are excluded from licensing.

Recommendation 5 indicates that "operators should note that the DTI will continue to conduct Appropriate Assessments/screenings to consider the potential of proposed licensing and subsequent activities to affect site integrity." In doing so, the Secretary of State will apply the test set out by the ECJ in the Waddenzee case, namely that a competent authority can authorise a plan or project "only if [it has] made certain that it will not adversely affect the integrity of that site. That is the case where no reasonable scientific doubt remains as to the absence of such effects".

s. WWF-UK Concur with ER Recommendation (4) that blocks in or overlapping with the boundaries of the Cardigan Bay and Moray Firth SAC's be withheld from licensing, and further ask for the misleading statements & maps be corrected in the ER.

The inference taken from ER Recommendation 4 is incorrect. The actual wording is "For the previous SEA areas, the blocks in or overlapping with the boundaries of the Moray Firth and Cardigan Bay SACs should be withheld from licensing for the present whilst the further assessments initiated following the 24th Licensing Round applications are concluded.". The further assessments are the Appropriate Assessments.

t. WWF- Recommend DTI not allow drilling near St Kilda, in recognition of its UK WHS characteristics and its importance for seabirds.

Section 5.2 indicates that the "geology near St. Kilda is not considered prospective for hydrocarbons and on this basis applications for licences in the vicinity of the islands are not expected." For this reason, interactions with the World Heritage Site

are not anticipated.

u. WWF- WWF request that a process be designed to apply SEA objectives UK and indicators to SEA1-6.

Since recent SEAs have included the reoffer of open blocks in previous SEA areas, these have already been included in the SEA objectives and indicators.

v. WWF- Recommend assessment of SEA effectiveness should occur UK immediately before any further licensing.

> BERR regard its past SEAs as having been effective. The nature and scope of any further assessment would need to be discussed with the SEA Steering Group.

w. JNCC/ Fully support the recommendations of the SEA Report. Welcome SNH clarification from DTI on how some of the recommendations will be taken forward in future SEA steering group meetings.

Noted.

x. JNCC/ SNH JNCC provides advice to DTI regularly on the implementation of environmental regulations. Commitments are often made to monitoring or mitigation measures as part of an EIA process such as PON 14s, 15s or Environmental Statements for exploration, development or production activities. It is essential that effective Environmental Management Systems (EMS), or other methods, are used by operators to monitor the implementation of the commitments made. As the EMS should also identify, and act upon, instances when such commitments are not satisfied, such a system will ensure that any potential impacts to the marine environment from oil and gas activities are minimised.

The consultee comment is welcomed and accords with the Department's guidance on EMS (OSPAR 2003/5 DTI Guidance: Final Issue 1: 9th June 2006). That guidance is currently being updated to include more detailed requirements in relation to environmental performance and improvement, and will include reference to the implementation of commitments.

y. JNCC/ JNCC and the country nature conservation agencies would support a SNH precautionary approach when considering the licensing of areas in or close to designated sites such as SACs or SPAs. We look forward to reviewing the AA when available

In considering whether to grant consent to oil and gas licensing and development, BERR will have regard to the precautionary principle. JNCC review will form an integral part of the AA process.

z. JNCC Many of the recommendations highlight the need for further collection of data in the SEA 7 area on distribution of habitats and species. JNCC endorses Recommendation 9 'If there is appreciable interest in licences in the SEA 7 area, the DTI should consider encouraging the reinvigoration of the Atlantic Frontier Environmental Network or establishment of a similar group to promote collaborative studies and data collection'. There already exists a Southern North Sea developer group which we would encourage to develop further in the scope of work they are undertaking. The willingness of operators to participate and resource such groups should be considered by DTI as part of the Licensing process.

The support and comments of the consultee are welcomed.

a1. JNCC Recommendation 11 - In support of this recommendation we highlight the need to ensure that, as stated in the DTI Guidance to The Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2005, '...the point of departure for consideration of a new tie-back or drilling centre (which has commenced production after the commencement of this scheme) is that there shall be no discharges of dispersed oil in produced water from the host installation attributable to the new tie-back or and drilling centre.' (Page 6 of 9 Appendix 10 – Regulation). This guidance applies to all SEA areas and 25th Licensing Round applicants should consider the implication of this when planning exploration and development activities.

The JNCC clarification is welcomed.

b1. JNCC Recommendation 5,6,7,8 - The need to collect adequate baseline data for environmental impact assessment (EIA) purposes including information on the benthic environment, fisheries, marine mammal and seabird distribution not only on a site specific level but also in a wider context, should be highlighted to applicants in the 25th Licensing Round. In relation to the above recommendation we would like to highlight that during previous SEAs, a gap analysis was undertaken in relation to data on seabird distribution and abundance. JNCC is very keen that this gap analysis is used when assessing whether adequate baseline data is available for seabirds, and if not, that a programme of data collection is instigated to fill relevant data gaps.

Information from the gap analysis (Pollock & Barton 2006) was used to describe the quality of seabird survey data in the SEA 7 area (Appendix 3, p25). Similarly, survey coverage information of previous SEA areas was provided in Appendices 4 to 9. This information will inform future data collection efforts.

c1. JNCC Recommendation 5 – It should be highlighted to applicants in the 25th Licensing Round that for many exploration wells it is not until the stage of baseline data collection for environmental impact assessment that interpreted data is available to assess whether 'block contain good examples of habitats/species on the Habitats Directive Annexes' and that early collection of baseline data is crucial to supporting a well informed EIA.

The JNCC clarification is welcomed.

d1. HS No specific recommendations included for the historic environment. Consider the following should be added:

Offshore oil and gas developments in SEA 7 have the potential to identify previously undiscovered but important historic environment assets. DTI should give consideration to the development of appropriate guidance for industry on the identification and reporting of discoveries, and the mitigation of development in line with the *JNAPC Code of Practice for Seabed Development*. An example of this approach is Cowrie's recently published *Historic environment guidance for the offshore renewables sector*.

The suggested recommendation will be considered by the SEA Steering Group. See also response to 2.2.2b.

- e1. HS Section 6.2 sets out the types of monitoring that will be undertaken for this SEA. For the historic environment the suggested indicator is "no impact on designated sites and features (including impact on their setting)". Consider that this would be appropriate for sites within territorial waters, if the following proviso is added "within territorial waters". Suggest that the following is an appropriate indicator for monitoring the effects of this plan outwith territorial waters:
 - Activities arising from oil and gas licensing are in accordance with best practice identified in the JNAPC Code of Practice for Seabed Development.

See response to 2.2.2b.

f1. SEPA SEPA considers that mitigation measures in particular are a crucial part of SEA. Generally, there is a good range of mitigation measures identified in the environmental report (section 6) in response to potential adverse effects and these are welcomed, however, it is not clear how these mitigation measures will be given effect during the decision making process.

The considerations and documentation in relation to decisions about the draft plan are outlined in response to 2.2.9a below. Relevant mitigation measures would be implemented at the project approval and activity consenting stages, the majority of which involve either full public consultation or consultation with BERR's advisers such as Fisheries Research Services and the JNCC.

g1. SEPA Where mitigation options have been identified it is important that they are clearly highlighted – in particular where these may need to be implemented by others. If the summary of recommendations in section 6 is to be used for this purpose then it is important that these mitigation measures are communicated to the relevant parties. A clear process for doing this should be put into place. It would be

extremely helpful to set out all mitigation measures in a way that clearly identified: (1) the measures required, (2) when they would be required and (3) who will be required to implement them. A summary table along these lines could be included as part of the preparation of the SEA Statement.

The constructive comments of the consultee are noted. BERR will look at ways to include such information in the SEA Statement.

- h1. SEPA Commend the following recommendations made within the ER and strongly support their implementation in due course.
 - Rec. 2: That in areas of cold water coral reefs and other vulnerable habitats and species, physically damaging activities such as rig anchoring and discharges of drilling wastes should be subject to detailed assessment prior to activity consenting so that appropriate mitigation can be identified and agreed.
 - Rec. 4: (with reference to previous SEA areas) That the blocks in or overlapping with the boundaries of the Moray Firth SAC should be withheld from licensing for the present whilst the further assessments initiated following the 24th licensing round applications are concluded.
 - Rec. 5(ii): That the DTI will continue to conduct Appropriate Assessments/Screenings to consider the potential of proposed licensing and subsequent activities to affect site integrity.
 - Rec. 6: That operators should be made aware of the need to have access to adequate data on seabird distribution and abundance as a prerequisite to effective oil spill contingency planning.
 - Rec. 7: That continued monitoring of large whales to the west of Britain through analysis of hydrophone data be considered, in addition to DTI funding of the CODA survey of cetacean distribution beyond the continental shelf.

We would welcome confirmation, either in writing or via JNCC through future SEA Steering Group meetings, that these recommendations will indeed be implemented.

The support of the consultee is noted and updates will be provided through the SEA Steering Group.

- i1 WDCS/ SEPA Pleased by recommendation that, for blocks which contain good examples of habitats and/or species on the Habitats Directive Annexes, operators should be made aware that a precautionary approach will be taken and blocks, or part blocks, with relevant interests may either not be licensed until offshore designations are completed, or be subject to strict controls on potential activities. *Noted.*
- j1. WDCS/ Urge the DTI to take on board the recommendation that ongoing

- SEPA observations and research should be routinely undertaken by block operators on cetacean distribution and ecology, including of beaked whales in deeper water areas, to increase the confidence with which appropriate management decisions about spatio-temporal restrictions and other mitigation measures can be made.
- k1. WDCS Encouraged by the suggestion that, if there is appreciable interest in licences in the SEA 7 area, the DTI should consider encouraging the reformation of the Atlantic Frontier Environmental Network, or the establishment of a similar group, to promote collaborative studies and data collection. In order to succeed, this group must have adequate funding and independence.

The views of the WDCS are welcomed.

I1. WDCS To fill extensive data gaps in the SEA 7 area, long-term monitoring of the status and distributions of populations is required. For this to be most useful, it should be in place before new activities are allowed to develop. This places a responsibility on licensees to be more proactive in establishing monitoring. WDCS feels this initiative is long overdue and urges the DTI to follow this through. To allow for proper consideration of the environmental issues involved, WDCS feels it is timely to prompt the DTI to consider data collection and surveying in preparation for SEA 8.

> BERR are funding the CODA survey of cetacean distribution beyond the continental shelf and will consider funding a continuation of the SOSUS monitoring of large whales to the west of Britain (Recommendation 7). Recommendation 8 also calls for observation and research to be undertaken on cetacean distribution and ecology by block operators and others. The SEA process has always recognised the value of early identification of data and survey needs and has commissioned these in a timely manner. Further data collection and surveying initiatives for SEA 8 are in the process of being scoped and framed.

2.2.9 Issues raised on Section 7 Next steps

- a. WWF-UK Not sufficient transparency of licensing decision making, and requests more adequate access to information around the basis on which the DTI makes its decisions on protection of species or habitats. Section 7 of the ER highlights the BERR decision making process: "On adoption of the plan a Statement will be published detailing:
 - a) How environmental considerations have been integrated into the plan
 - b) How the Environmental Report has been taken into account
 - c) How opinions expressed by the consultation bodies and public

consultees on the relevant documents have been taken into account

- d) How the results of any consultations entered into with other Member States have been taken into account (if required)
- e) The reasons for choosing the plan as adopted, in the light of the other reasonable alternatives dealt with; and
- f) The measures that are to be taken to monitor for potential significant environmental effects of the implementation of the plan."

Such a statement would be published should the plan for a 25th offshore licensing round be adopted.

2.2.10 Issues raised on Appendix 1 Scoping consultation

 a. WWF- It is important to identify areas of uncertainty at the SEA stage but UK
then make it very clear how they will be resolved. Indeed during the scoping consultation, Historic Scotland had similar concerns, stating it "negates SEA purpose to always 'park' assessment of impacts until the project stage" and encouraged a more balanced approach be taken. We agree this is a valid concern.

> The identification of data gaps and areas of uncertainty are a key part of SEA and many of the recommendations listed in Section 6 are designed to resolve areas of uncertainty (e.g. Recommendations 6 & 7). Relevant data gaps were identified throughout the ER and appendices.

2.2.11 Issues raised on Appendix 2 Other plans and programmes

- a. WWF-UK Separated out into an Appendix. The Table states there are implications from these relationships, but it is not clear how implications from the objectives of these plans/programmes have been integrated into the SEA process of the Draft Plan. The implications identified on the Appendix 2 table underpinned the consideration of effects of licensing in Appendix 11. Better signposting may have facilitated reader understanding.
- WWF-UK
 With regard to the reference to OSPAR in other plans/programmes, the report should recommend not only compliance with national legislation, but also to be cognisant of existing Offshore Industry Committee (OIC) OSPAR targets, especially with regard to oil in produced water and chemical use & discharge. In addition, awareness of and contribution to other elements of OSPAR's work is also relevant e.g. in developing a usable set of Ecosystem Quality Objectives, the work on marine protected areas, species and habitats of concern, noise and marine mammals, climate change and ocean

acidification, carbon capture and storage, etc.

Appendix 10 – Offshore oil and gas environmental controls provides full details of relevant OSPAR targets. Other elements of OSPAR's work are described in relevant parts of the ER and appendices.

c. WWF- In relating SEA 7 to other plans & programmes, useful to identify the UK cumulative impact on the UKCS marine environment from all SEA's undertaken so far, in conjunction with all other licensing rounds since 1964.

Noted. In respect of long term effects and cumulative effects, the results of the studies commissioned by the BERR chaired offshore environmental monitoring committee are instructive; these will form part of the UK contribution to OSPAR JAMP for use in the next Quality Status Report.

2.2.12 Issues raised on Appendix 3 Environmental baseline – SEA 7 area

Biodiversity, habitats, flora and fauna

 a. WWF-UK
be important for a number of medium sized and large whale species. Unfortunately, information on the comparative richness of this area over other SEA areas is lacking, in both the backing papers and the ER. This was pointed out at the expert assessment workshop in 2006, allowing the opportunity to reword or clarify.

> The national and international importance of the SEA 7 area for marine mammals is recognised by the ER. However, given current information it is difficult to provide information on the comparative richness of the area over other SEA areas. The recent SCANS II and CODA surveys will provide useful information in this regard.

WWF- Consider that stating "only a few tens of porpoises are likely to become bycatch per year" in the Hebrides is inappropriate (App3 p.42). The SMRU research this relates to is comparing the region to other areas of the UK. WWF, however, considers any bycatch of an Annex II/IV species as unacceptable and would suggest rephrasing

The text was intended as a statement rather than a value judgement.

c. WDCS Concerned that a great deal of information provided in the technical summary on marine mammals appears to have been disregarded in the assessment process.

The technical summary on marine mammals provided in A3a.1.7 and the underpinning technical report (Hammond et al. 2006) provided information which was used a basis for the consideration of effects described in A11.c.2 (Noise) and summarised in Section 5. A11.c.2 identified a number of specific concerns in relation to noise disturbance and marine mammals in the SEA 7 area. These fed into the assessment process and resulted in a series of recommendations being proposed in Section 6 of specific relevance to marine mammals. For example, Recommendation 5 indicates that "For blocks which contain good examples of habitats/species on the Habitats Directive Annexes, operators should be made aware that a precautionary approach will be taken and blocks or part-blocks with relevant interests may either not be licensed until offshore designations are completed or subject to strict controls on potential activities in the field." Similarly, recommendations 7 and 8 are proposed to increase the knowledge base and increase the confidence with which predictions of cetacean behavioural responses and mitigation proposals can be made.

d. WDCS There is relatively little information on the ecology of cetaceans throughout British waters. Quantitative abundance data are limited and there are no recent abundance estimates available for these waters. Relative abundance data are available (such as Reid *et al.*, 2003), however, WDCS would like, again, to caution the use of such data as a comprehensive picture of cetacean occurrence in the area. *Noted. See response to 2.2.8/1 above.*

Landscape/Seascape

e. WWF-UK Request the coastal strip be devoid of oil and gas drilling and production installations, comprising a minimum width of 8 kilometres, but extending to 13 kilometres in areas of particular sensitivity. This coastal restriction is appropriate not only for hydrocarbon developments in the SEA7 area but also for the offer of blocks in all previous SEA areas.

> The SEA for the 2nd round of offshore wind leasing proposed the exclusion of a coastal strip from the three strategic areas assessed. This strip had a minimum width of 8km but extended to 13km in areas of particular sensitivity. This exclusion was based on the potential impact of windfarms of the scale envisaged in the SEA scenarios on the seascape, birds, inshore fishing and recreational activities. The conclusions of the offshore wind SEA do not apply to SEA 7 since the nature and scale of activity scenarios are different and in particular since coastal blocks can potentially be explored/developed from land. In addition, the BERR can attach restrictions to marine area licences which can include no marine activities in a block. The SEA 7 Environmental Report recognised the potential sensitivity of much of the coastal area to oil and gas activities, but did not find for blanket exclusion of areas since individual project consenting is regarded as able to deliver adequate mitigation through spatial, temporal and operational controls. The areal extent of windfarms is, in general, much greater than for offshore oil and gas installations. Appropriate

Assessment following licence application will consider the potential of proposed licensing and subsequent activities to affect the integrity of protected sites.

Climatic factors

f. WWF-UK Appendix 3 to the ER provides an environmental baseline of the SEA7 area. The section on climatic factors (section 'f') provides no description of how climate change is having an impact on biota, climate and ocean acidity in the SEA 7 area (as other sections contain). The baseline section on climatic factors is completely unrelated to SEA 7 area, with no relevance to SEA 7 baseline.

> Appendix 3f provides information on the current climate of the SEA 7 area and includes details of the recent IPCC (2007) Working Group I report describing the physical science basis of climate change – the most recent global assessment of the problem. Since the ER was published further reports examining impacts, adaptation and vulnerability (WG II) and the mitigation of climate change (WG III) have been produced. These reports provide the most comprehensive assessment of climate change to date and highlight the global nature of the problem. It is therefore difficult to provide an accurate assessment of how climate change is or may affect the SEA 7 area.

Cultural heritage

g. HS Worth adding on p100 the proviso that only 10-15% of the c.14,000 RCAHMS records have an accurate seabed location. Most of the records are of documented losses and therefore the RCAHMS database does not necessarily represent a record of extant seabed archaeology.

The consultee clarification is welcomed.

2.2.13 Issues raised on Appendices 4 to 9 Changes to environmental baselne since SEA – SEAs 1 to 6

 a. WWF- Request that data on climate change and ocean acidification impacts UK and effects in the marine environment be included (pertinent to each SEA area) as part of the assessment and that data on the impact of fossil fuels on our climate be included.

> The BERR are aware of a number of major reviews of climate change and ocean acidification impacts and effects including the OSPAR 2006 report on 'Effects on the marine environment of ocean acidification resulting from elevated levels of CO_2 in the atmosphere' as well as the Royal Society 2005 report on 'Ocean acidification due to increasing atmospheric carbon dioxide'. As hydrographic and

atmospheric systems are regional and wider in scale, it is unclear what insights would be gained by a consideration constrained by the individual SEA areas. It is proposed that this is discussed by the SEA Steering Group.

2.2.14 Issues raised on Appendix 11 Consideration of the Effects of Licensing

a. WWF-UK The SEA is based on predicted activity levels and programme bids. If the reality proves that there is more interest than originally predicted, at what level of interest would a further SEA assessment be completed?

> As noted in Section 5.14, "The location (and the scale) of activities that could follow adoption of the draft plan is uncertain." However, the consideration of the effects of licensing was based on the activity predictions given in Section 2.3 of the ER which represent the predicted most likely level of activity. If these are likely to be substantially exceeded it is accepted that the conclusions of the SEA would be re-examined.

b. WWF-UK Within the ER, there is an attempt at quantitative impact assessment of the Alternatives in App 11 Section c.12. Unfortunately, this is very basic attempt at presenting a quantified analysis, and is insufficient. There is a minor negative effect shown from not offering any blocks for licensing. This is not fully explained. Please could DTI expand on this and advice what it means.

The view of the consultee is noted. Comments which improve the quality of the SEA process will be taken forward for future SEAs. The minor negative effect shown is described in the footnote to the table, "Assumes the need to meet the UK hydrocarbon demand through imports from other producer nations." See also response to 2.2.7c.

c. WWF-UK Recommends the DTI undertake a much more systematic uK assessment of impacts and effects, and offer up the Scottish Marine Renewables SEA as a good example of a transparent assessment methodology. Encourage the DTI to pay particular attention to the use of primary and secondary filtering of sensitive or economically important areas.

> The offshore SEA assessment process has evolved considerably since it commenced in 1999 and will continue to do so based on consultee comments and advances in SEA assessment methodology. The Scottish Executive's marine renewables SEA is one example of an assessment method and once completed, the BERR will study its findings, consultee comments and consider its overall effectiveness. Any features which may improve the effectiveness of the BERR offshore SEA process will be discussed with the SEA Steering Group.

d. WWF- Believe it is inappropriate for the DTI to rely so heavily on security of UK supply as the reason to continue the UK's oil and gas dependency.

The draft plan must be seen in the context of overall UK government energy policy:

- to put ourselves on a path to cutting the UK's carbon dioxide emissions - the main contributor to global warming - by some 60% by about 2050, with real progress by 2020;
- to maintain the reliability of energy supplies;
- to promote competitive markets in the UK and beyond, helping to raise the rate of sustainable economic growth and to improve our productivity; and
- to ensure that every home is adequately and affordably heated.

It is a fact that the UK and global economy is at present heavily dependent on hydrocarbons. As described in the Energy White Paper 2007, the UK's reliance on fossil fuels and higher levels of import dependence will bring new associated risks, as the UK will face greater exposure to developments in the global energy system.

As set out in the White Paper, the UK strategy to manage these risks includes reducing overall energy use through greater energy efficiency, supporting the development and deployment within the UK of non fossil fuel energy to reduce our dependence on fossil fuels and to diversify the range of energy sources available. However, as we will continue to rely on fossil fuels for the foreseeable future, we need to encourage the adoption of low-carbon technologies, such as carbon capture and storage, to mitigate the impact on the climate of the continued use of fossil fuels. Given our own hydrocarbon reserves, the UK can also to some extent reduce its dependence on imported fossil fuels by ensuring that that we maximise economic recovery of the oil and gas from the UKCS.

e. WWF- Recommend all development should be designed and constructed in UK a manner appropriate with regard to future carbon capture, transport and storage needs.

The Department is keen to facilitate CO_2 emission reduction proposals as indicated in Recommendation 12 which states that "the DTI should seek and give consideration at both the licensing and project consenting stages to CO_2 emission reduction proposals e.g. capture and storage (rather than venting) of CO_2 from gas treatment offshore." Recommendation 1 also indicates that the BERR should maintain "options for potential geological storage of captured carbon dioxide."

f. WWF- Believe that an initial site selection assessment be performed for

UK each potential development (prior to field development sanction), as newly required under the OSPAR carbon storage decision 2007, to ensure the maximum storage potential is realised at the earliest appropriate stage.

> At the OSPAR Commission meeting in Ostend (June 2007), OSPAR adopted a Decision to ensure environmentally safe storage of carbon dioxide streams in geological formations and OSPAR Guidelines for Risk Assessment and Management of that activity. The UK government has been actively involved in seeking this decision and will work towards the best way in which it can be delivered. The input of relevant consultees will be welcomed in this process. The OSPAR Decision has no such requirement on the selection of sites for oil and gas production. Such selection is of course determined by the presence of oil and gas.

WWF-Little information and assessment of any potential onshore g. UK infrastructure required as and when exploration finds commercial volumes of hydrocarbons. As the SEA process covers both hydrocarbon and renewables, this could have also included the infrastructure required in landing energy from a renewables context.

> As described in the ER and supporting documents, any oil fields developed in the SEA 7 area are likely to be developed via FPSO and without an offshore pipeline and onshore terminal. However, a gas field discovery would likely require an offshore pipeline and onshore facilities. The location of the landfall terminal would depend on the location of the gas discovery. Recommendation 10 indicates that "The onshore implications of offshore activities in areas where there are not established supply bases and routes (e.g. for materials transport and waste disposal) should be considered in the EIA process." At present there are no plans for renewables leasing in the SEA 7 area and therefore the value of including the infrastructure required in landing renewable energy is unclear.

WWFh. Misleading use of data to skew the argument in the ER is not to be UK encouraged. A volume of 4,972 tonnes of oil was discharged in produced water in 2005 (A11 p.84) - this 4,972 tonnes figure is not reported in the section on marine discharges, but is provided in order to offer comparison to the volume of oil spilled (ranging from under 100 up to 800 tonnes per year). This figure is absent in the section on produced water impacts from marine discharges (A11 p.61). However, when presenting consequences from the volume of oil spilled, this is argued as tiny relative to the volumes discharged through produced water. Every spill indicates the loss of containment and/or loss of control over the process - of course volumes need to be reduced, but an increase in the numbers of spills is a point of concern.

No attempt was made to skew the argument or mislead the reader. The reported number of oils spills from oil and gas installations has increased over the last decade due to more rigorous reporting of very minor incidents. The total amount of oil spilled (excluding large spills) has remained at about 100 tonnes per year. Recommendation 11 highlights BERR's commitment to reduce marine discharge of oil with an expectation for zero discharge of oil in produced water wherever this is feasible.

i. WWF-UK In addition to Figs A11b8 and A11b9 (A11 p.38), it would be useful to represent equivalent bar charts depicting km's of seismic survey performed per year, with different colours indicating each separate SEA area.

Noted.

j. WWF-UK Some of the statements in the Assessment section make assumptions about certain restrictions or mitigation actions, or even assume that predicted activity in an area would be such that the effect may be negligible. An effective environmental assessment ascertains the risks and impacts prior to consideration of restrictions or mitigation actions, thereby allowing more effective assessment of potential outcomes. Only then are restrictions and mitigation actions identified and applied, and residual effects targeted and managed.

> The assessment process has evolved over time since the offshore SEAs began in 1999 and is a product inter alia of stakeholder input, consultation during expert assessment workshops, and advances in assessment methodology. As identified in Appendix 10, offshore oil and gas activities are controlled by a wide range of regulations and consenting regimes. BERR do not see the value of removing all these layers of control and consent prior to assessing risks and impacts as management of the activity through the implementation of mitigation measures will often negate the risks/impacts.

 WWF-UK
WWF-UK
There is no real distinction made in the assessment of short, medium and long term effects, or whether these are permanent or temporary, or even acceptable. Secondary, incremental, cumulative and synergistic effects are considered together as part of cumulative effects in section A11.c.10 (A11 p.89).

The relative duration of effects is typically indicated in the assessment. The merits and drawbacks of a codified temporal duration notification, and similarly the fluid concept of acceptability of effects will be discussed with the SEA Steering Group.

I. WWF-UK effect) emissions from end use of all hydrocarbons produced as a result of all licensing rounds since 1964. From this perspective, we disagree there is "no evidence for significant cumulative effects from current activities" (p.xii) and "besides an indistinguishable contribution to climate change and ocean acidification, no secondary or synergistic effects were identified" (p.xiii), and encourage the DTI to further consider their responsibilities when assessing impacts from licensing oil and gas activities on climate change and ocean acidification e.g. separating out climate change/ocean acidification effects as secondary, then cumulative, then look at the transboundary effect – it is important to look at these effects accumulating. A synergistic cumulative assessment of all impacts over time is required, accounting for all the varying stressors on receptors i.e. climate change plus fishing plus noise plus....etc

The value of such an exercise is unclear. It is proposed that this comment be discussed further with the SEA Steering Group

m. WWF- Recommend that seismic surveys are timed to ensure minimal disturbance to species susceptible to additional noise in the marine environment, and that no two surveys occur concurrently. Transboundary effects should also be considered.

The Department understands the potential effect that seismic noise may have on certain sensitive receptors (and in a transboundary context) and have been actively involved in extending research in this area. The PON14 consenting process allows suitable temporal and spatial control of seismic surveys, and the imposition of conditions to prevent any significant adverse effect (including disturbance). Appendix 11.c.2 Noise highlighted that "the potential significance of the prospective parts of the SEA 7 area to migrating species (principally humpback whales) and species characteristic of the shelf edge (principally beaked and pilot whales) should be recognised in the management of seismic surveys through the PON14 process."

n. WWF- Requests the increase in risk from fixed oil and gas infrastructure to UK existing shipping be acknowledged.

The risk of collision between shipping and fixed installations is fully recognised and addressed for individual wells and developments through a consent to locate application. This is supported with a shipping traffic study and a collision risk assessment, which help to define necessary mitigation measures. These include provision of a high specification radar system and dedicated operator on the standby vessel to monitor vessel traffic in the vicinity and to intervene to reduce collision risk as necessary. In the SEA 7 area the risk is in part mitigated by the provision of an Emergency Towing Vessel in the Minches.

WWF- The ER states the "balance of evidence suggests that effects of Seismic activities are limited, in species present in significant numbers with the SEA 7 areas, to behavioural disturbance which is likely to be of short duration, limited spatial extent and of minor ecological significance" (App11 p.53). WWF disagree, as:

- We don't have enough evidence on the effects of seismic on marine mammal health and behaviour;
- We don't know enough about the size of populations, or spatial or temporal preferences of resident or migratory species through the area;
- We know that seismic produces behavioural disturbance, the consequences of which we do not understand.

The ER acknowledged data gaps in our understanding of the interactions between seismic and marine mammals (Appendix 11, p53) and made a number of recommendations to improve this situation. For example, Recommendation 8 indicated that "Observations and research should be undertaken if necessary by block operators and others on cetacean distribution and ecology, including of beaked whales in deeper water areas, to increase the confidence with which predictions of behavioural responses and mitigation proposals can be made." See also response to 2.2.14m.

p. WWF- Encourage the DTI to progress the sound budget idea, as suggestedUK by Ed Harland at the Expert Assessment workshop.

As mentioned in the ER, the relative merits of a limited acoustic dose approach are unknown and need to be explored further before being considered for adoption. Research initiatives such as CODA and the E&P Sound and Marine Life Programme are likely to provide more information on this subject. Recent discussions at the UK Underwater Sound Forum have suggested that there may be practical problems in implementation of this approach. This flags up the need for careful consideration before adoption of proposals.

- q.WWF-Recommends the DTI pay particular attention to the conclusions and
data gaps highlighted on marine mammals and noise disturbance.
Noted.
- r. WWF-UK Recommend spill risk management plans in the area be re-evaluated with the provision of additional spill equipment and expertise, at a level suitable not only for currently planned operations but also for the anticipated effects from a changing climate.

Existing Regulations require operators to develop effective oil spill plans and mitigation measures, covering the organisation of response and the provision of physical and human resources. These measures are documented in Oil Spill Contingency Plans which are reviewed by BERR and its advisers as part of the consenting process. In addition, Coastal Protection Plans covering the areas to the west of the Hebrides and Shetland were commissioned by AFEN which remain of relevance and may be subject to updating in the future.

s. WWF- Stakeholder feedback during consultations for SEA 7 has a marked UK preference for excluding protected areas from licensing (App11 pp.7-

14). WWF supports these views and ask they be reflected in future licensing considerations.

Whilst some comments indicate a preference for excluding protected areas, others indicate that the "Consenting system should be sufficient to prevent unacceptable impacts upon designated sites", or "Mitigation strategies should be in place for developments and seismic exploration on shelf edge should be stringently controlled." Comhairle nan Eilean Siar express trenchant views on the implications of environmental designations for development on and around the Hebrides. BERR will examine all consultee and stakeholder comments as well as the control and mitigation available before deciding on licensing any blocks within the SEA 7 area.

WWF-Consider our comments on previous SEAs still valid, as they continue UK to reflect our concerns for licensing in those areas. This especially applies to our requests to withhold licensing blocks in:

- SEA 2: the shallow gas pockmarks in Blocks 15/20c and 15/25d, previously withheld during SEA, now available for licensing:
- SEA 5: the bottlenose dolphin SAC in Cardigan Bay (Blocks) 106/30, 107/21 and 107/22) currently undergoing Appropriate Assessment (AA);
- SEA 6: the bottlenose dolphin SAC in Moray Firth (Block 17/3) also currently undergoing AA.

BERR funded research on the nature and sources of the gas supplying the shallow pockmarks in the Blocks 15/20c and 15/20d has improved our understanding of these particular features which was discussed with the SEA Steering Group and has allowed these blocks to be offered for licensing (subject to strict spatial and other controls). Regarding the Cardigan Bay and Moray Firth blocks, it is premature to prejudge the content of those assessments or the outcome of the subsequent public consultation.

- HS u. A11.a.2 Assessment workshop. Offer the following comments on the issues identified in the archaeology section:
 - Bullet point 2, suggest adding "and the existence of • appropriate burial conditions favouring long-term preservation" if appropriate.

Noted.

Bullet point 4, the reference to "the Storaa judgements" . requires some explanation. Presumably relates to the potential scope of the Protection of Military Remains Act 1986 with respect to merchant vessels lost in war service.

BERR would not like to assume meaning but in this case the

t.

consultee clarification would seem appropriate.

 Bullet point 5, "Wreck sites = point of pollution", perhaps comment relates to issues with post-industrial period sites where engines, boilers and associated machinery contain fuel, oil and other lubricants. However, pre-industrial sites present less of an environmental hazard.

BERR has interpreted the ER text in this way but accepts the consultee comment regarding pre-industrial sites.

v. HS Largely agree with the results of the assessment of marine historic environment issues (A11.c.3). Agree that each of the three plan alternatives is likely to have a neutral effect on the historic environment (A11.c.12).

Noted.

w. HS Content with the mitigation measures set out in A11.c.3 (p59) and that detailed site surveys for projects should be scrutinised for archaeological sensitivities. Content that additional mechanisms exist for the environmental assessment of the exploitation of offshore resources and the installation of onshore pipelines.

Noted.

- x. WDCS A number of comments and recommendations are made in the technical summary, and these appear to have been overlooked in the environmental report. Would like to reiterate a number of these, and urge the DTI to afford them proper consideration.
 - Current understanding of the effects of noise on marine mammals and the risks that this may cause is basic. Increases in anthropogenic noise in the underwater acoustic environment may have profound implications for marine mammals. While the physical process of detecting or being damaged by a sound can be predicted, this is not the case for behavioural reactions to sound. However, there are legitimate grounds for concern, and for this reason, appropriate application of the precautionary principle must be required.

See responses to 2.2.8i and k above.

Circumstantial evidence suggests that large whales may have good low frequency hearing and may avoid areas of concentrated vessel or drilling activity. Current mitigation methods are likely to be effective in preventing physical damage. However, it is likely that seismic survey work will affect foraging behaviour of large whales in the SEA 7 area.

See response to 2.2.14m.

 The use of explosives in decommissioning is still common practice and poses serious risks, including permanent threshold shift, tissue damage or death, and is probably the greatest potential cause of acute mortality for marine mammals related to oil and gas exploration and production activities. Difficulties in observing and monitoring behaviour, and the apparent attractiveness of submerged structures, mean that some marine mammals are likely to be damaged in blasts. Current mitigation methods are unsatisfactory, and WDCS welcomes the current consultation on Decommissioning of Offshore Energy Installations.

BERR has encouraged interested parties to respond to the consultation on the decommissioning of offshore energy installations which ended on 13 September 2007.

With the exception of explosives, airgun arrays are the most intense man-made sound sources in the sea. A review of the "Guidelines for minimising acoustic disturbance to marine mammals from seismic surveys" is required. WDCS feels that the current guidelines rely too heavily on visual observations, and we are concerned that Marine Mammal Observers (MMOs) currently do not have enough power to halt operations if cetaceans are sighted. The review panel should include experienced MMOs, conservation organisations and government agencies. Given the increasing evidence of the impacts of noise on cetaceans and other marine life, a greater emphasis on spatio-temporal restrictions is required.

BERR will consult with JNCC and other relevant stakeholders as to whether a comprehensive review of the JNCC guidelines is required. See also response to 2.2.8k.

Construction activities associated with establishing new platforms and pipelines will also generate noise, often for prolonged periods. The loudest sounds are likely to be those associated with pile driving and pipe installation. Such impulsive sounds have similar frequency components to those generated by airguns and are likely to have adverse effects on marine mammals. There are currently no available data on the effects of pile driving noise on marine mammals. WDCS feels it is imperative that steps are taken to resolve this and calls on the DTI to address this as a priority.

The BERR agree that noise associated with pile driving and other construction activities is a research priority and has been actively involved in encouraging and commissioning research in this area through the Research Advisory Group on marine renewable energy and COWRIE. COWRIE (in which BERR participates at the board and technical level) has recently funded research on the effects of offshore wind farm noise on marine mammals and fish see http://www.offshorewindfarms.co.uk/Downloads/BIOLAReport06072006FINAL.pdf

y. WDCS Concerned by the suggestion in the technical summary that controlled exposure experiments (CEEs) are needed to address key uncertainties about marine mammal acoustics, sensitivities to, and the effects of, sound. The use of CEEs for all cetacean species has serious practical and ethical considerations that must be properly evaluated before their costs and benefits can be properly assessed. We are surprised to see this controversial issue raised here and believe that contentious issues, which evoke ethical concerns, should not be raised during this process.

BERR believe that the SEA represents an appropriate forum to raise the issue as the implications of such experiments could have consequences for oil and gas activities and mitigation. BERR supports the position stated in A11.c.2, "Previous SEAs also noted the widespread consensus in the academic community that controlled exposure experiments represent the most objective approach to reducing uncertainties in assessing acoustic effects on cetaceans; despite considerable practical and ethical difficulties (Tyack et al. 2004, Hammond et al. 2004). Within appropriate international collaborative frameworks, such as OGP Sound and Marine Life programme, it is recommended that UK Government and industry support and participate in this approach, in order to maximise the relevance of resulting information to UK habitats and species (cf. MMC 2007)." A similar recommendation, "to authorise the careful and well planned use of Controlled Exposure Experiments, which have the potential to yield much needed quantifiable information on effects of different sound sources on marine mammals", was made by IACMST (2005)."

2.2.15 Issues raised on Technical Reports

Technical Report on the Other Users of the SEA 7 area

a. RYA Whilst we appreciate that this report covers a number of different interest groups we are concerned that the importance of recreational boating to the west coast of Scotland has not been fully appreciated.

The technical report indicated that "The Scottish west coast lochs and islands are popular yachting and sailing areas and local fishing ports and sheltered sea lochs are regularly used by visiting leisure craft." Figure 11.1 identified RYA clubs, training areas and cruising routes as well as marinas in the area. The information updates provided by the RYA (e.g. on employment, services, sailing clubs etc) are much appreciated.