

APPENDIX 2: ASSESSMENT WORKSHOP

An assessment workshop was held in Manchester over two days in April 2005. The participants were comprised of the SEA Steering Group, the SEA Team and the authors of the underpinning technical reports with the aim of bringing this expertise together to consider the key issues to be addressed in the assessment for SEA 6. The workshop was chaired by Professor Bill Ritchie of Aberdeen Institute of Coastal Science and Management.

The objectives of the assessment workshop were to:

- To agree the key objectives for SEA 6
- To identify the main environmental issues that should be considered further in the SEA 6 Environmental Report
- Review areas, sites and features of the SEA 6 region to identify any requiring additional protection over and above that available through existing mechanisms
- Identify any gaps in information and understanding, and assess their influence on the confidence with which the SEA 6 assessment of likely effects and necessary mitigation can be made
- To consider the re-offer of blocks for oil and gas licensing within areas previously subject SEA

Following agreement of ground rules and processes for the workshop, participants received an update on issues arising from scoping, and a series of presentations by the topic experts covering:

- Hydrography
- Geological context and seabed sediments and sedimentary processes
- Sediment transport
- Methane- derived authigenic carbonates in the SEA 6 Area
- Benthos
- *Modiolus* beds in the SEA 6 area
- Fish and fisheries
- Cephalopods
- Nearshore birds
- Marine mammals
- Conservation sites
- Prehistoric archaeology
- Maritime archaeology
- Users of the SEA 6 area
- SEA 6 area Oil & Gas prospectivity and activity scenarios
- Socio-Economics

Report authors/presenters were asked to comment on the key issues of relevance for SEA 6 in relation to their topic areas and these were captured and circulated to the workshop for further discussion and clarification.

The final list is summarised overleaf.

SEA 6 Assessment Workshop Presentations - Key Issues

Hydrography

- No showstoppers
- Modelling on appropriate space scales
- Year long measurements (cf Liverpool Bay Coastal Observatory)
- Value of measurements made by oil companies, wind farms
- Importance of wind effects
- Strength and variability of stratification / frontal areas

Geological Context

- Surficial sediment distribution mirrors hydrography
- Scour effects of wrecks causing localised sediment changes
- Suggested features as basis for embargos – pingos, reefs, pockmarks, banner banks, estuarine tidal banks, sarns, leaking reefs, “punch through” areas – maybe as offshore equivalent of GCR

Sediment Transport

- Revised classification scheme for transport features
- New geophysical methods supersede much of the older data
- Linkage between offshore – coastal sediment transport processes
- Value for habitat mapping

Methane-Derived Authigenic Carbonates

- Cemented hard grounds in Texel 11 (108/19) and Holden’s Reef (107/10) are composed of MDAC. No comparable sites are known on the UK continental shelf.
- Other indicators of seepage (seep plumes, pockmarks etc.) are present in several other areas.
- Acoustic turbidity indicating potential shallow gas is widespread.
- MDAC is likely to occur in numerous locations from offshore Pembrokeshire to Firth of Clyde; but it is likely to be limited in extent and associated with faults or outcrops of coarse sediment that permit gas migration from sub-cropping source rocks.
- Confirmed and possible MDAC occurrences require further, detailed investigation.
- Irish Sea mud unusually fluid

Plankton

- Most effects of oil & gas exploration/production on planktonic communities would be short-lived and local in nature – meroplanktonic spp may be more at risk
- Apparently significant long-term trends in both phyto- and zooplankton
- Data gap identified in relation to resuspension of cysts
- Large degree of inter-annual variability; difficulty separating natural and anthropogenic effects

Benthos

- Importance of shellfisheries – Solway, Morecambe Bay

- Importance of SW-facing coastal fringes in relation to oil spill
- Scenic and biodiversity values of Welsh coast
- Biodiversity hotspots, e.g. west Wales coast, Strangford Lough
- Data gaps include deep water areas; ecological associations / functioning; natural variability, sensitivity & resilience; sub-lethal & behavioural pollution effects

Modiolus

- Ecological importance – biodiversity hotspot
- Different biotopes (4 forms recognised in Irish Sea)
- Major threat is physical disturbance by fisheries – existing areas of O&G activity in the Irish Sea not coincident with *Modiolus* beds, but potential issue for new pipelines
- Wind developments mostly not coincident, but potential areas for wet renewables (Anglesey) may coincide
- Requirement for distribution mapping

Fish & Fisheries

- No issues related to impact of oil and gas E&P on rare or threatened fish / shellfish species in SEA 6. Few issues for other fish fauna.
- Restrictions on seismic activity in spring are already imposed as a precautionary measure to limit potential adverse effects on commercial fish spawning aggregations.
- Localised effects of drilling have already been limited by the introduction of water-based and organic-phase drilling fluids.
- Surveys of herring spawning grounds are still expected in some areas to avoid impact of drilling, which may cause smothering.
- Ongoing mitigation is still required to minimise obstruction to trawling activity caused by pipelines, wellheads and surface installations.

Cephalopods

- Landings in SEA 6 area small, mainly bycatch of *Loligo*
- Re-suspension of metals and radionuclides could result in accumulation in cephalopods and transfer to higher trophic levels
- Concern over possible disruption of spawning areas
- Data gap identified in relation to spawning areas

Birds

- SEA 6 extremely important for inshore seabirds both during the winter & for breeding seabirds
- Winter: Common scoter are internationally important; Red throated divers (Annex I species) are nationally important
- Breeding: Gannet & Manx shearwater are internationally important
- Vulnerability to surface pollution depends on species and time of year
- Regular monitoring is necessary
- Existing AVS maps do not include recent data for inshore areas
- ESAS gaps in central Irish Sea

Marine Mammals

- Seals and cetaceans are important components of the ecosystem
- The SEA 6 area is important for some marine mammal species – grey seal, harbour porpoise and bottle nose dolphin
- UK has a range of conservation responsibilities
- Noise is a potentially serious problem and should continue to be managed. Decommissioning needs further consideration

Conservation Sites

- Broad range of existing international and national designations
- Possible future extensions and designation of offshore sites. Designated and relevant sites (JNCC report #326) need to be considered. Note: other potential Annex 1 habitats continue to be identified

Prehistoric Archaeology

- Submarine prehistory is a scientific and cultural heritage research priority in the Irish Sea. There are important research questions to be resolved
- On the present evidence there is no site or region which should be banned or embargoed for offshore hydrocarbons or windfarms. The greatest damage is currently caused by bottom trawls and scallop dredges
- All operators should be advised to be vigilant for possible occurrence of prehistoric artefacts, submerged forests, peat, pingos, periglacial polygonal features and other terrestrial relict landscape features. Observations should be reported to Heritage Agencies
- Commercial acoustics should be utilised for prehistoric archaeological research and it is the responsibility of the research community to drive the research forward

Maritime Archaeology

- Difficult to overstate the significance of maritime history of the Irish Sea
- Substantial part of SEA 6 area is within territorial waters in which clear regimes exist
- Existing legal and policy framework is not designation based (but is achieved through development planning and control)
- Spatial distribution – extensive records of known sites (with biases and complexities); gauging distribution of as yet unknown sites is difficult
- Managing archaeology in the course of development is not new – there is an established framework and language, and decades of experience to draw upon. Avoidance is preferred mitigation option
- No areas within SEA 6 area need to be excluded

Users of the SEA 6 area

- Consider visual impact of offshore structures in relation to tourism
- Link between conservation and tourism

Ambient noise

- Little information on the levels and relative contributions of noise sources

- Many of the sound sources are undocumented
- No long term data, so no information on trends
- Need to agree what parameters of ambient noise are ecologically important
- Need to agree a measurement methodology to be used by data gatherers that provides relevant and transferable data

Socio-economics

- Incremental rather than absolute impacts
- SEA 6 would slow down declines in production, expenditure, employment and tax revenues
- Help to maintain employment in areas such as Barrow and Heysham and retain skills
- Extend lives of existing terminals and other facilities
- Existing fields account for 15% of UKCS gas production and 2.5% of UKCS oil production, plus 2% of oil-related employment

Objectives and indicators for SEA

Following the Seas of Change consultation, the following goals were adopted for the marine environment:

- to conserve and enhance the overall quality of our seas, their natural processes and their biodiversity;
- to use marine resources in a sustainable and environmentally sensitive manner in order to conserve ecosystems and achieve optimum environmental, social and economic benefit from the marine environment;
- to promote and encourage economically and environmentally sustainable use of natural resources to ensure long term economic benefits and sustainable employment;
- to increase our understanding of the marine environment, its natural processes and our cultural marine heritage and the impact that human activities have upon them; and
- to promote public awareness, understanding and appreciation of the value of the marine environment and seek active public participation in the development of new policies.

To facilitate discussion Appendix 3 of the ODPM SEA Guidance was provided as it gives guidance on devising SEA indicators and targets.

Delegates participated in group sessions to consider and suggest workable objectives and associated indicators for SEA 6. The output from this is given in Sections 2.2 and 9.15.

Reoffer of Blocks

Delegates were asked to consider the following questions:

1. Process followed for SEA 5 – any proposals for change?
2. In the last year have there been significant:
 - (a) Changes in environmental regulations?

- (b) New information on the environment of the areas?
- (c) Changes in understanding of environmental effects from potential activities?
- (d) New pollution control techniques and technology?

The output from this session was used in the preparation of Section 10.