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## **APPENDIX 1**

### **IRISH SEA PILOT STEERING GROUP**

#### **Organisation represented:**

Associated British Ports/British Ports Association  
Centre for Environment, Fisheries and Aquaculture Science (CEFAS)  
Countryside Council for Wales/JNCC  
Crown Estates  
Department of Agriculture, Fisheries and Forestry, Isle of Man  
Defra (Chair)  
Duchas, Government of Ireland  
Environment Agency  
Environment and Heritage Service/Department of Environment, Northern Ireland  
Local Government Association  
Marine Conservation Society/Joint Links  
National Federation of Fishermen's Organisations  
North Western and North Wales Sea Fisheries Committee/Association of Sea Fisheries Committees  
Scottish Executive  
Scottish Fishermen's Federation  
Wales Coastal and Maritime Partnership  
Welsh Assembly Government

#### **In attendance:**

Defra Secretariat  
JNCC Project Director  
JNCC Pilot Team

**APPENDIX 2 IRISH SEA PILOT - JNCC STAFF CONTRIBUTING TO THE PROJECT**

Dr Malcolm Vincent	Project Director	Part time
Dr Steve Atkins	Pilot Team Leader	Full time
Mr Chris Lumb	Pilot Team Senior Officer	Full time
Ms Karen Birleson	Pilot Team administration	Part time
Mr Mike Webster	GIS support	Part time
Mr Matthew Davies	GIS support	Part time
Mr Neil Golding	Marine Landscapes	Part time
Ms Louise Lieberknecht	Nationally-important features and areas	Part time
Mr Andy Webb	Seabirds and cetaceans data	Part time
Dr Ian Mitchell	Seabird Colony data	Part time
Mrs Carol Soar	Report preparation	Part time

JNCC Data Services staff acquired and installed the computer hardware and software for the Pilot Team.

JNCC Financial Services staff carried out services in relation to the letting of contracts and financial management.

JNCC Personnel Services managed the Pilot Team recruitment and provision of staff support.

JNCC Geological Conservation Review staff managed the earth science contract.

JNCC Communications staff managed the website and the report publication.

English Nature provided accommodation and related support to the Pilot Team at its Kendal office.

### APPENDIX 3 IRISH SEA PILOT - COMMISSIONED WORK

<b>Contact</b>	<b>Contract</b>	<b>Cost to nearest £100</b>
Anatec UK Ltd	Collation of shipping and related data	1,800
BMT Cordah Ltd	Collation of coastal information	4,100
British Geological Survey	Seabed data licence	200
Josie Carwardine	Application of Marxan to biological data.	4,200
CEFAS	Inventory of relevant CEFAS datasets	3,400
David Tyldesley Associates/ W S Atkins	Applying spatial planning to the marine environment	11,400
Department of Agriculture and Rural Development/Queen's University, Belfast	Marine survey to validate marine landscapes	13,150
Frances Dipper	Preliminary study into available datasets	2,700
Global Charting Services	Data on submarine cables	1,100
Marine Biological Association	Information search on selected habitats and species	10,700
Marine Biological Association	Marine landscape sensitivity analysis	9,600 <sup>1</sup>
Marine Biological Association	Application of nationally-important features criteria	5,000 <sup>3</sup>
Nature Bureau	Conservation objectives	5,800
Posford Haskoning Ltd	Collation of socio-economic statistics	7,000
Sea-Scope: Marine Environmental Consultants	Collation and conversion of datasets	9,600
Sir Alastair Hardy Foundation for Ocean Science	Analysis of plankton data for marine landscapes	3,000
University of Hull - Institute of Estuarine and Coastal Studies	Summary of maritime legislation and regulation	11,000
University of Liverpool - Centre for Marine and Coastal Studies, Port Erin Marine Laboratory	Summary of Isle of Man Legislation	11,500 <sup>2</sup>
University of Wales, Bangor	Identification of biological samples	2,450
University of Wales, Bangor - Centre for Applied Marine Science	Conservation of marine geoscience sites (rationale and methods)	19,600 <sup>3</sup>
University of Wales, Bangor - Centre for Applied Marine Science	Identification of important Irish Sea geoscience sites	13,400 <sup>4</sup>
University of York - Environment Department	Marine conservation measures	9,900
VT Ocean Sciences	Marine survey to validate marine landscapes	18,800

<sup>1</sup> 50% paid by JNCC

<sup>2</sup> 50% paid by IoM Government

<sup>3</sup> 100% paid by JNCC

<sup>4</sup> 25% paid by Countryside Council for Wales, 25% by Environment and Heritage Service, 12½% by Isle of Man Government

## APPENDIX 4      REFINED CRITERIA FOR IDENTIFICATION OF NATIONALLY-IMPORTANT MARINE FEATURES

### Criteria

#### Proportional importance

A high proportion of the marine landscape, habitat, or population of a species (at any time of its life cycle) occurs within the UK. This may be related to either the global or regional extent of the feature.

Features may be categorised as follows:

*Globally important:* a high proportion of the global extent of a marine landscape or habitat, or a high proportion of the global population of a species (at some stage in its life cycle), occurs within the UK. 'High proportion' is considered to be more than 20%, when known.

*Regionally important:* a high proportion of the regional extent of a marine landscape or habitat, or a high proportion of the regional population of a species (at some stage in its life cycle), occurs within the UK. 'Regional' refers to the north-east Atlantic (OSPAR) area, 'High proportion' is considered to be more than 30%, when known.

#### Rarity

Marine landscapes, habitats and species that are sessile or of restricted mobility (at any time in their life cycle) are considered nationally rare if their distribution is restricted to a limited number of locations. Rarity can be assessed as a feature which occurs in fewer than 0.5% of the total number of 10km x 10km squares in UK waters.

A mobile species qualifies as nationally rare if the total population size is known, inferred or suspected to be fewer than 250 mature individuals. Vagrant species should not be considered under this criterion.

## Decline

An observed, estimated, inferred or suspected significant decline (exceeding expected or known natural fluctuations) in numbers, extent or quality of a marine landscape, habitat or a species in the UK (for species, quality refers to life history parameters). The decline at a global or regional level, where there is cause for concern that the proportional importance criterion will be met within the foreseeable future.

Decline in extent and quality of features at different scales should be assessed as shown in the following table:

	Extent	Quality
Marine landscapes and habitats	A marine landscape or habitat that has declined in extent to 90% or less of its former natural extent in the UK, or its distribution within the UK has become significantly reduced (e.g. lost from several sub-regions).	A marine landscape or habitat for which quality, based on change from natural conditions caused by human activities, is negatively affected by: <ol style="list-style-type: none"> <li>i. a change of its typical or natural components over a significant part of its UK distribution, or</li> <li>ii. the loss of its typical or natural components in several sub-regions. Such judgement is likely to include aspects of biodiversity, species composition, age composition, productivity, biomass per area, reproductive ability, non-native species and the abiotic character of the habitat.</li> </ol>
Species	Within the UK population of the species: <ol style="list-style-type: none"> <li>i. there has been a recent significant decline in number of individuals/geographical range; or</li> <li>ii. numbers of individuals/geographical range are presently in marked decline; or</li> <li>iii. the present population is at significantly lower levels than in the past as a result of human activity (evidence for past significant decline).</li> </ol>	The species has suffered a significant decline in one or more of the following: <ul style="list-style-type: none"> <li>• loss of genetic diversity</li> <li>• loss of fecundity</li> <li>• reduction in the number of mature individuals</li> <li>• fragmentation of the population</li> </ul>

### Threat of significant decline

It is estimated, inferred or suspected that the feature may suffer significant decline (as defined under the 'decline' criterion) in the foreseeable future as a result of human activity. This assessment will need to take into account sensitivity, vulnerability and probable exposure to the effects of human activity.

A feature may also qualify under this criterion if there is real cause for concern that it would fulfil the proportional importance criterion in the near future due to the threat of severe global or regional decline.

### Generic guidance on the application of the criteria for nationally-important marine features

'Feature' refers to species, habitats and marine landscapes. Species are relatively well defined units for carrying out the assessment. Habitats and marine landscapes are broader units which are not as tightly defined, and therefore may give rise to confusion about how to define and delimit the units for assessment.

Habitats, in the context of nationally-important marine features, do not refer to one, fixed, level of scale (such as a defined level in the marine habitat classification). It is recommended that the assessment should initially be carried out at the (relatively broad) biotope complex level. If the biotope complex level does not meet any of the criteria, but more narrowly defined biotopes within the complex do, then those biotopes should be listed as nationally-important. This may be the case, for example, with the 'sublittoral mussel beds' biotope complex (SMus), which includes widespread types dominated by *Mytilus edulis* as well as *Modiolus modiolus* beds. SMus may not qualify as nationally-important, but *M. modiolus* beds would qualify under the threat and decline criteria and should therefore be listed.

Marine landscapes are considered to be broad units which should not be too tightly defined in terms of their biology. For example, sealochs in Scotland differ in their biota from sealochs in other parts of Northern Europe, because of biogeographical factors. Too tightly defined marine landscapes would, therefore, always qualify under the proportional importance criterion. However, marine landscapes should only qualify under this criterion if similar functional types are rare outside the UK - this could be the case for fjardic sealochs. Biologically-defined features should not be assessed at this scale.

‘National’ refers to the boundary of UK jurisdiction, e.g. the assessment of whether a feature meets any of the criteria is carried out using a political boundary, and features which qualify are deemed ‘nationally-important’ at the UK level. However, existing datasets will usually cover a range of different local, regional or biogeographical areas, and judgements will often have to be carried out using datasets that cover only part of the UK seas, or which also include areas of adjacent waters outside UK jurisdiction.

Further guidance is provided in Lieberknecht *et al.* (2004a) and online at [www.jncc.gov.uk/irishseapilot](http://www.jncc.gov.uk/irishseapilot).

**APPENDIX 5: CRITERIA FOR THE IDENTIFICATION OF NATIONALLY IMPORTANT MARINE AREAS**

1. **Typicalness:** the area contains examples of marine landscapes, habitats and ecological processes or other natural characteristics that are typical of their type in their natural state.
2. **Naturalness:** the area has a high degree of naturalness, resulting from the lack of human-induced disturbance or degradation; marine landscapes, habitats and populations of species are in a near-natural state. This is reflected in the structure and function of the features being in a near-natural state to help maintain full ecosystem functioning.
3. **Size:** the area holds large examples of particular marine landscapes and habitats or extensive populations of highly mobile species. The greater the extent the more the integrity of the feature can be maintained and the higher the biodiversity it is likely to support.
4. **Biological diversity:** the area has a naturally high variety of habitats or species (compared to other similar areas).
5. **Critical area:** the area is critical for part of the life cycle (such as breeding, nursery grounds/ juveniles, feeding, migration, resting) of a mobile species. The assessment needs to evaluate the relative importance of the area for the species. An area for which a species has no alternative should receive a greater weighting than an area where a species has a range of alternatives for the aspect of its life cycle (e.g. is a given gravel bank the only one for a herring population to spawn on?). This will vary according to species and the part of the life cycle in question.
6. **Area important for a nationally-important marine feature:** features that qualify as special features or which are declined or threatened should contribute to the identification of these areas. The assessment should consider whether such features are present in sufficient numbers (species), extent (habitat) or quality (habitats, marine landscapes) to contribute to the conservation of the feature.

Further guidance is provided in Lieberknecht *et al.* (2004b) and online at [www.jncc.gov.uk/irishseapilot](http://www.jncc.gov.uk/irishseapilot).











The Joint Nature Conservation Committee (JNCC) is the forum through which the three country nature conservation agencies - English Nature, Scottish Natural Heritage (SNH), and the Countryside Council for Wales (CCW) deliver their statutory responsibilities for Great Britain as a whole - and internationally. The Committee consists of representatives of these agencies, as well as the Countryside Agency, independent members, and non-voting members appointed by the Department of the Environment, Northern Ireland.

The JNCC was established under statute by the Environmental Protection Act 1990 and commenced its work in April 1991.

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