

**Coastal Management
for Sustainability**

Coastal Futures 2004

Review and Future Trends

January 21st-22nd 2004
University of London, SOAS

Delegate Briefing

Keynote speakers:

Jon Lien, Canada - Ocean Governance
John Goodlad, Buckland Lecturer

Conference Sponsors:

The Countryside Council for Wales
English Nature
EMU Ltd

Coastal Futures 2004 - Review and Future Trends ***January 21st and 22nd 2004***

How do you find out what is going on in the coastal and marine environment? The answer is to attend the 12th Coastal Futures conference – Coastal Futures 2004 – an event which attracts over 200 delegates each year. The aim of this conference is to provide you with the most cost effective briefing on coastal and marine issues of the year.

Coastal Futures 2004 provides:-

- ***Strong perspectives*** - from key stakeholders and industry leaders, who take a *proactive* approach to the sustainability agenda
- ***Reviews*** - from acknowledged experts in many subjects
- ***Future trends*** - pointers to future areas of activity which will directly affect *your* work
- ***Networking*** - an excellent opportunity to meet those at the forefront of these issues.

Coastal Futures 2004 sets out to:-

- Deliberately ***bring together different sectors*** to discuss important developments and concerns
- Describe the ***actual changes*** that are taking place in the environment that are causing concern
- Describe the ***developing programme of legislation and policy*** which is unfolding to meet the concerns

Coastal Futures 2004 reflects YOUR Priorities

Your priorities determined by market research have determined the conference programme. As such it includes ***all the important agenda items of the day***, including:-

- ***The Policy context - Marine Stewardship - Ocean Governance***
- ***Europe: Environmental Liabilities Directive & The Water Framework Directive***
- ***Climate change scenarios - Shoreline Management***
- ***Renewables - wind and non wind - development and environmental impacts - SEA***
- ***ICZM - Spatial planning - Marine landscapes and habitat mapping***
- ***Whole sea / Regional management for nature conservation and fisheries***
- ***Marine protected area networks - No Take Zones - Regional Advisory Committees***
- ***Fisheries – future options – the role and interaction of fish farming***

Developments for Coastal Futures 2004 include:-

- Key note speakers **Jon Lien** Memorial University, Newfoundland, Canada and **John Goodlad**, the Buckland Lecturer
- Fully referenced **Programme Notes** for delegates at the conference. These will include background, key references and electronic sources.
- **A Wine Reception**
- All delegates will receive the proceedings of the conference on the ***Coastal Futures 2004 CD ROM***; this will also include the proceedings of Coastal Futures 2000-2003 conferences.

Who attends?

The audience of 200+ delegates and speakers is comprised of a wide range of professionals working across many agencies and companies including statutory and non-statutory environmental organisations, civil servants, industry (water, energy, resources), and local authorities with direct interests with coastal and marine issues.

Delegate Briefing

WELCOME TO THE CONFERENCE

Welcome to the conference - if you have any queries please go to the reception desk and we will be happy to try and help you. A lot of material on the conference and related subjects is included in this delegate briefing. The delegate briefing contains details of the:-

Seating and Timing - Really Important

A large audience is expected. Could you make sure you take your seats in good time for the sessions. **Please sit as near the front as you can.** You will also get a better view of the audio-visual material. This will leave room for people coming in late at the back.

Conference Proceedings – Coastal Futures 2004

The proceedings of the conference will be published on a CDR ROM and all delegates will receive this. There will be no published (paper) proceedings from this conference. Details of the published proceedings from previous meetings are given at the end of this briefing.

Your Feedback

A feedback form is enclosed in this pack. Your views on the conference, its outputs, any points you could offer are extremely valuable and will be used to develop this process and future events.

Badges Please wear your badges whilst attending the conference, and when you leave please leave them at the registration desk

Reception – Wednesday 21st Evening

For those people who are staying over on the evening of the 21st and wish to meet other delegates there will be a reception after the last presentation of the afternoon. 5.15 – 8.00 in the upstairs Café area.

Early Start Thursday be aware: the conference re-starts on **Thursday at the earlier time of 9.30**

CMS would like to thank the sponsors of the conference

- **CCW**
- **EMU ltd**
- **English Nature**

The organisers would like to thank all the speakers and chairmen for their support and work at the conference:

- **Mike Cowling** Glasgow University and IACMST
- **Bruce Tomlinson** EMU Ltd
- **Mark Duffy** English Nature
- **Maggie Hill** Countryside Council for Wales
- **Rupert Ormond** University Marine Station, Millport
- **Steve Lockwood** Coastal Fisheries Conservation and Management

Coastal Futures 2004 - Review and Future Trends

Programme - Wednesday January 21st 2004

9.15 - 10.00 Registration and refreshments

10.00 Chairman: Professor Mike Cowling, Glasgow University and IACMST

10.00 Developments in Marine Policy and Management

Bob Earll CMS & Robert Canning Defra & others

10.30 The Proposed EC Directive on Environmental Liability and its application to the marine environment
Daniel Owen Barrister, Fenners Chambers, Cambridge

11.00 Seascape assessment: context and the visual impact of offshore wind energy

John Briggs Seascape Officer, Countryside Council for Wales

11.30 The Water Framework Directive: Towards Implementation in Transitional & Coastal Waters
Roger Proudfoot WFD Marine Policy Advisor, Environment Agency

12.00 Sandwiches and refreshments

12.45 Chairman: Bruce Tomlinson EMU Limited

12.45 OST Foresight Report: Climate change and the coastal environment - future scenarios
Ian Townend ABP MER

13.15 Shoreline Management Plans: The next steps
David Collins Flood Management Division, Defra

13.45 SEA for offshore oil and gas and renewables
John Hartley, Hartley Anderson Ltd

2.15 Offshore wind energy – recent developments and future prospects

Carolyn Heeps The Crown Estate

2.45 Sweet course and refreshments

3.30 Chairman: Mark Duffy, Manager, Maritime Team, English Nature

3.30 Environmental impact of offshore wind farms in operation - the Danish experience so far

Anne Grethe Ragbourg Danish Forestry and Nature Agency

4.00 Ocean Energy Developments - Wave and Tidal Stream

Dr Tony Trapp The Engineering Business, Chairman RPA Ocean Energy Group

4.30 Keynote speaker: Jon Lien, Memorial University of Newfoundland, Canada

The Challenges of Ocean Governance – A Canadian Perspective

5.15 – 8.00 Conference Reception

Coastal Futures 2004 - Review and Future Trends
Thursday 22nd, 2004

Chairman: Dr Maggie Hill, Head of Maritime and Earth Science, Countryside Council for Wales

9.30 The Irish Sea Pilot – A marine conservation case study at the regional sea scale.
Steve Atkins and Chris Lumb, Team leader/ Senior officer, Irish Sea Pilot Project Team, JNCC, Kendal

10.00 Marine Landscapes and Habitat Mapping: Integration for decision support
David Connor Head, Marine Habitats Team, JNCC

10.30 The EU ICZM Recommendation: A Stocktake for the UK - the likely outcomes
Jon McCue Principal Scientist Atkins

11.00 Spatial planning in the coastal and marine environment – key elements and future prospects.

David Tyldesley Principal, David Tyldesley Associates

11.30 Sandwiches and refreshments

12.15 Chairman: Professor Rupert Ormond Director, University Marine Station, Millport, Scotland

12.15 No take zones in the South West – developing the programme *with* the community

Philippa Hoskin Marine Development Officer, Cornwall County Council

David Muirhead Chairman Cornwall Sea Fisheries Committee

12.45 The Clyde Inshore Fishery: Developing an economically and biologically viable fishery – a review for other coastal users / managers

Jonathan Bryson The Sea Fish Industry Authority

13.15 Climate and ecosystem change in the North Sea – The case for regime shift

Dr Chris Reid Sir Alistair Hardy Foundation for Ocean Science SAHFOS

13.45 Sweet course and refreshments

14.30 Chairman: Steve Lockwood, Coastal Fisheries Conservation and Management

14.30 Regional Advisory Councils – The North Sea Commission's experience

Ann Bell Aberdeenshire Council & North Sea Commission Fisheries Partnership

15.00 TBA

15.30 The Buckland Lecture John Goodlad Fish Farmer and Fisheries Consultant
Fish catching and fish farming: are they complementary or conflicting industries?

4.15 Conference Ends

IIEP Inshore 'Roundup' Fisheries Project Launch

Coastal Management for Sustainability & Coastal Futures

CMS can help you run Conferences, workshops, focus groups, field visits and training events

- Dr Bob Earll runs CMS and he has over 30 years experience of working on marine and coastal environmental issues.
- CMS works with a wide range of organisations on events and consultancy projects.
- This is the 12th conference in the Coastal Futures January series. This has included some 200+ presentations covering an enormous range of issues affecting the coastal and marine environment.

CMS can help by taking an active part in the meeting by chairing, facilitating, information capture from expert groups, training expert groups, brainstorming and mind-mapping issues, co-ordinating and presenting the conference, prioritising outcomes and giving one-off presentations.

CMS can help organise, plan and budget your events, market to discrete coastal sectors, arrange all the aspects of delegate booking and arrangement, writing-up and publishing the conference proceedings including producing CD ROMs.

How do people know your organisation or services exist?

CMS Emailing Service can get *your information* – job adverts, newsletters, tenders, consultations, news to 2350 coastal and marine practitioners instantly.

Can CMS help you with your requirements?

Contact Bob Earll 01531 890415 or bob.earll@coastms.co.uk or visit the CMS website

www.coastms.co.uk

The EU Marine Thematic Strategy

Robert Canning

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The Commission Communication "Towards a strategy to protect and conserve the marine environment" - COM(02) 539 - was published in October 2002. It marked the start of the process of preparing the EU Marine Thematic Strategy, which was one of seven thematic strategies stipulated as priority actions under the 6th Environment Action Programme. The Communication is available at: www.europa.eu.int.

A major stakeholder conference was held in Køge, Denmark, in December 2002 to discuss the Communication. The conference focused on the policy aspects of the proposed objectives and actions, the ecosystem approach and assessment and monitoring. The conclusions of the conference can be found at: www.eu2002.dk. Council Conclusions were adopted by the Environment Council in March 2003. These set out the framework within which the Strategy should be prepared. The Communication was also debated by the European Parliament.

Key points and next steps:

- Preparation of the Strategy, which is due by May 2005, is being overseen by EU Water Directors. The European Commission is in the process of hosting the first meetings of four expert working groups that have been set up to develop the Strategy. These cover 1) the development and application of the Ecosystem Approach, 2) Hazardous Substances, 3) European Marine Monitoring and Assessment and 4) Strategic Goals and Objectives.
- Overall the UK is pleased with progress made to date although much will depend on the recommendations and proposals that the four working groups will make. These are expected to be put forward by the autumn. A further EU stakeholder conference is envisaged in November 2004 under the Dutch Presidency.
- We will want to ensure that the working groups, particularly the Strategic Goals working group, assesses that costs and practicality of proposed actions alongside the benefits of proposed actions. The UK is undertaking a Regulatory Impact Assessment of the Objectives and Actions in the Commission Communication to aid negotiations.
- We will also press for clarification of the relationship between the EU and other bodies such as OSPAR to ensure the right balance between action that might be best taken at EU level and action best taken at the regional sea level. We also need to clarify where the Strategy might be leading in terms of new Community legislation.

The Marine Stewardship Initiative

The first Marine Stewardship Report, *Safeguarding our Seas*, was published in May 2002. It set out the Government's strategy for the conservation and sustainable development of the marine environment based on a vision of clean, healthy, safe, productive and biologically diverse oceans and seas. It put an ecosystem approach at the heart of our strategy to reconcile conservation objectives with social goals and economic growth.

Much has been achieved since *Safeguarding our Seas* was published. For example, Defra and the devolved administrations have commissioned Atkins Consultants to undertake the stock take of the current framework for managing coastal activities as a step towards implementing the EU Recommendation on Integrated Coastal Zone Management. In addition, Defra launched the UK Small Cetacean Bycatch Response Strategy in March 2003.

Defra has also undertaken consultation exercises to transpose the Habitats and Birds Directives offshore to improve marine protection and to designate the Darwin Mounds as a Special Area of Conservation. In the meantime, a key achievement was working through the revised Common Fisheries Policy to protect the mounds from bottom trawling.

A number of stakeholder workshops have been held to develop ideas and agree the way forward, including workshops on delivering integrated marine mapping, spatial planning, and marine monitoring to pave the way for the *State Of The Seas* assessment in late 2004.

The first half of 2004 will be crucial in determining the next steps of the Marine Stewardship initiative. In particular, the Review of Marine Nature Conservation and the Review of Development in Marine and Coastal Waters will make their recommendation. These will play a key part in determining whether new legislation is needed to deliver the Government's vision for the marine environment. Some of the key ongoing initiatives are summarised below (others are summarised elsewhere in the delegate notes).

The Ecosystem Approach

One of the key issues highlighted in *Safeguarding our Seas* was the need to work towards practical implementation of the ecosystem approach to managing human activities in the marine environment. This means integrated management of all human activities in the marine environment based on knowledge of ecosystem dynamics to achieve sustainable use of ecosystem goods and services, and maintenance of ecosystem integrity. In other words, we need to better integrate marine protection objectives with sustainable social goals and economic growth and address conservation objectives alongside the full range of human activities and demands that are placed on the marine environment.

The ecosystem approach represents a more strategic way of thinking. As outlined in the first Marine Stewardship Report, adopting the ecosystem approach means:

- Providing and working within a set of clear environmental objectives;
- Greater use of environmental and socio-economic assessments;
- More strategic management of our activities in the marine environment;

- Taking policy decisions and management actions that take account of biological diversity and ensure sustainable development;
- Making better use of scientific knowledge in the policy-making process;
- Developing more focused research and monitoring;
- Full stakeholder involvement.

The Ecosystem approach was highlighted by the CoastNET marine biodiversity conference in June 2003 (see www.coastms.co.uk and www.coastnet) as one of the key areas where progress must be made in the next decade.

The Government's Marine Stewardship consultation paper *Seas of Change* invited views on the practical application of the ecosystem approach (see below). The views received are helping to shape a roadmap to practical application. The Government will publish its response to this consultation in early 2004. This will shape our position in the EU working group that is addressing the development and application of the ecosystem approach for the EU Marine Strategy.

Marine Spatial Planning

The first Marine Stewardship Report pledged to explore the role of spatial planning for the marine environment. This builds on commitments made at the 5th North Sea Conference and in OSPAR to look at marine spatial planning. This reflects the fact that multiple use of the sea is the norm, with a wide range of activities frequently taking place in the sea or on the seabed.

Currently there is no holistic, plan-led approach to look at the wider picture. Marine spatial planning offers a means of managing potentially conflicting uses of the sea and cumulative effects of human activities. It provides an opportunity to deliver greater integration, better management and regulation (ie proportionate, accountable, consistent, transparent, targeted) as a fundamental element of the Government's Marine Stewardship initiative.

Defra, together with English Nature, RSPB and WWF sponsored a conference on 1 October: "Spatial Planning in the Coastal and Marine Environment: Next Steps to Action". This was a CoastNET conference organised by Coastal Management for Sustainability (CMS). Over 130 delegates from a wide range of stakeholders were represented.

The conference supported in principle that a plan-led approach to managing the seas was worth pursuing. However, it was noted there was still much detail to be resolved before any scheme could be proposed (which may or may not require a statutory framework for its development and management). For example, it would be necessary to determine which sectors would be included, the scale of the plan, information needs, who would own the plan, how different stakeholders should be involved in its preparation, who would ultimately be responsible for the plan's implementation and how potential conflicting uses of the sea would actually be resolved where they occurred. Linked to this would be issues relating to enforcement and monitoring.

Much work still needs to be done before any proposals for marine spatial planning can be put forward. It is clear that there is a strong relationship between the development, implementation and management of any marine spatial plan and the granting of marine consents. The

recommendations of the Review of Development in Marine and Coastal Waters may play a key part in determining the direction of marine spatial planning.

In the meantime, the Government wants to maintain the momentum that the conference on 1 October has generated and examine the practicalities that need to be addressed. A stakeholder workshop to help develop ideas for the practical implementation of a marine spatial plan focusing on cumulative effects was hosted by CEFAS, English Nature and the Countryside Council for Wales on 4 December. This reiterated the points made at the 1 October conference. It also emphasised the need to undertake a practical pilot project to test out options.

The possibility of a pilot scheme for testing out a marine spatial plan on a voluntary basis - perhaps building on the experiences of the Irish Sea Pilot scheme currently underway as part of the Review of Marine Nature Conservation - is a potentially attractive option that the Government is considering.

In addition, the UK worked with the OSPAR Secretariat and the Netherlands to organise an OSPAR workshop on 8-9 January to exchange information and ideas at the regional level. The workshop looked at current arrangements for sea use planning in different countries (including experiences from countries outside the OSPAR maritime area such as Australia), explored opportunities for the exchange of information, considered cumulative and transboundary effects beyond national boundaries and considered what, if any, common procedures for marine spatial planning at the regional level might be appropriate. Further information is available at: www.ospar.org. The conclusions from this OSPAR workshop will be presented to OSPAR's Biodiversity Committee in February 2004, which will decide on the next steps that OSPAR will take.

Review of Development in Marine and Coastal Waters (The Penny Brooke review)

This key cross-cutting review was announced in May 2002 as a Marine Stewardship initiative. It aims to address concerns about the complexity, duplication and time-scales involved in the consenting processes for developments in coastal and marine waters. The objective is to reduce the complexity and make it easier for business to operate in the sea, while ensuring that the Government's objectives for the protection of the marine environment can be met, and unnecessary interference with other legitimate uses of the sea prevented. All the Government Departments directly concerned with regulating development have contributed to the work of the review. The review covers England and Wales. The lead Minister is Lord Rooker, Minister for Housing, Planning and Regeneration in the Office of the Deputy Prime Minister. The terms of reference and initial work programme of the Review are available at: www.shipping.dft.gov.uk/marine/index.htm

There was a good response from stakeholders who were invited to submit evidence and priorities for change at the start. An in-depth analysis of seven separate development consent regimes has been completed, and core principles to underpin a streamlined system identified. The scope for reform in the short and longer term has been examined in detail. The review has now been completed and its various options are being discussed by Ministers to agree the recommendation for longer-term reform ahead of consultation. The Government's recommendation is expected in early 2004. There are clear implications for the regulation and management of the coastal and marine environment.

Seas of Change consultation

The follow-up consultation paper to the first Marine Stewardship Report, *Seas of Change*, was published in November 2002. It invited views on the Government's thinking on how the concept of integrated marine stewardship can be developed. In particular, it invited views on the practical application of the ecosystem approach and on a proposed set of strategic goals for the marine environment.

In addition, it invited stakeholders' thoughts on whether current arrangements for stakeholder involvement - both keeping stakeholders informed of developments and progress plus engaging them in policy-making - are adequate. It also invited views on the scope, content and timing of future Marine Stewardship Reports.

Some 60 responses were received from a wide range of different organisations. A summary of these responses was made available at: www.defra.gov.uk/environment/consult/seas/index.htm in October 2003. The Government is currently considering its response and will publish a formal response to this consultation exercise shortly.

Marine Legislation

Edited by Bob Earll, CMS, with contributions from Jan Brown WWF-UK, Joan Edwards, The Wildlife Trusts, and Mike Elliott IECS,

Solutions for a successful and effective management of the marine environment are required to be: environmentally sustainable, technologically feasible, economically viable, socially desirable, administratively achievable and, not least, legislatively permissible (Elliott 2003). Although there are developments in all of these, during 2003 there was particular interest and emphasis on marine legislation by a wide range of organisations but in particular the NGOs - why?

- The continuing sectoral approach to marine management and legislation within the UK is constantly highlighted as an impediment to successful and effective management.
- The Review of Marine Nature Conservation is coming to an end in 2004 and may well suggest legislative options; a legislative sub-group of this project was formed in 2002.
- Offshore developments such as windpower and marine protected zones will require a rethink of the existing regulatory boundaries; similarly increasing implementation of EU Directives (especially the Habitats and Water framework Directives plus a possible ICZM Directive) requires a more integrated approach. The Review of Development Regulations - otherwise known as the Penny Brooke review - may, when its findings become evident require a change to legislative arrangements.
- The Haskins review of rural issues has a direct bearing on agencies like English Nature which are involved with marine conservation although all discussion in the press of the review relates to land management and the marine area is attracting little emphasis; again implementation of recommendations is likely to require legislation.

- The inshore fisheries are long overdue review and post the CFP review changes may be imminent; the increasing emphasis on an ecosystem approach will require and integrated legislative, interaction with SACs and management. Defra are leading a review of fisheries enforcement arrangements (see below) which is mainly focussing on the inshore fisheries.
- Marine conservation NGOs have been making the point clearly for a Marine Act which not only tackles the principles about the way our seas should be managed but makes the protection of particular areas a lot easier to achieve.
- The EFRA committee review of the marine environmental may prompt some action
- Government have hinted on various occasions recently that marine legislation might be timely

Current reports on Marine Legislation and related issues

The set of drivers outlined above has lead to a number of major pieces of research which are becoming available and there is a list of these documents below and how they can be accessed.

A Review of Marine Nature Conservation (RMNC) was established in 1999, by Defra, to examine how effectively the UK system for protecting nature conservation in the marine environment is working and make proposals for improvements. A cross sectoral Working Group, to which the JNCC and the country agencies contribute, was convened to undertake the Review.

http://www.jncc.gov.uk/marine/irishsea_pilot/rmncdefault.htm

RMNC review of marine legislation - in connection with the Irish Sea Pilot by IECS at Hull University:

Title: Review of marine nature conservation legislation, enforcement and governance

Accessible on website:

http://www.jncc.gov.uk/marine/irishsea_pilot/reports_comments.htm#review

Marine Biodiversity Conservation - What needs to change? CoastNET conference June 2003 Group report in the final report on marine legislation. www.coastms.co.uk

Wildlife Link

The Wildlife Trusts (Joan Edwards and Richard White) have lead a Link initiative to look at **The Future Management of Inshore Fisheries**. A report of this title will be available by the Spring of 2004.

Orca Campaign Work - WWF-UK Jan Brown

WWF-UK are currently sponsoring two projects:

1. PricewaterhouseCoopers, who are conducting the first phase of a study into the unnecessary costs and efforts because of the current unwieldy planning and consents regime (completed this year 2004), and

2. Lawyers from Fenner's Environmental Law Team, who are currently working on the of an overarching marine framework for the UK in the form of a Marine Act for WWF. This is because WWF wishes to demonstrate how a UK Marine Act might look and to stimulate debate. This initial piece of work will be completed in Spring 2004. It will not be a finished or complete Bill or Act, but will hopefully demonstrate how such an Act might look. It will also demonstrate how a marine Act could enable the many changes in planning and legislation urgently needed by marine stakeholders for efficient and effective management of development and protection for marine biodiversity.

Many UK reviews, consultations and activities are currently underway, some are listed here:

- DfT Regulatory Review of Development in Coastal and Marine Waters
http://www.dft.gov.uk/stellent/groups/dft_shipping/documents/page/dft_shipping_505276.hcsp
- Defra Review of Marine Conservation (reporting March 2004)
http://www.jncc.gov.uk/marine/irishsea_pilot/rmncdefault.htm
- Nature conservation at a regional sea level has been trialled through the Irish Sea Pilot
See http://www.jncc.gov.uk/marine/irishsea_pilot/default.htm
- First stages of the EU recommendation for implementation of ICZM
<http://web.uct.ac.za/depts/pbl/jgibson/iczm/docs/ec/com00545.pdf>
-
- The Scottish Sustainable Marine Environment Project
<http://www.scotland.gov.uk/pages/news/2002/10/SEen197.aspx>
- Co-ordination of and access to environmental data is progressing through commercial and Government partnership see www.SeaZone.org.uk

No 10 Strategy Unit to investigate fishing

<http://www.scotland.gov.uk/pages/news/2003/03/SEEN413.aspx>

The No 10 Strategy Unit is examining the medium to long-term challenges facing the fishing industry. The project aims to develop a long-term strategy for a sustainable sea fishing industry. The strategy will take into account the need for sustainable management of marine resources, the diverse and changing circumstances of the fishing industry, and the social and economic development of communities that depend on fishing. UK Fisheries Minister Elliot Morley will be the Whitehall sponsor minister for the project which is expected to produce a report by February 2004.

The Environment, Food and Rural Affairs Committee (EFRA) is undertaking an inquiry into the marine environment, and Government policy in relation to it. [see above]

http://www.parliament.uk/parliamentary_committees/environment_food_and_rural_affairs/efrapn72_030717.cfm

Review of marine fisheries and environmental enforcement arrangements in England and Wales

Ben Bradshaw, Minister for Fisheries in the UK, announced a Review of Marine Fisheries and Environmental Enforcement on 24 September 2003.

The initial fact-finding stage of the review began on 8th October 2003 and consisted of three parallel questionnaires being sent to enforcement authorities, fishing industry interests and other interested parties. The collation of completed questionnaires will be followed by the development of options for the most effective enforcement to deliver conservation requirements and to meet the long-term needs of the fishing industry.

This review in focussing on the inshore fisheries, is complementing work that is underway with the Strategy Unit review work; the work is being co-ordinated by James Bradley of Defra

See: <http://www.defra.gov.uk/fish/marine-review.htm>

Recent developments in the United States

Pew Commission is independent, funded by a charitable trust and respected for its views. The commission has recommended the development of a new national ocean policy, an integrated ocean policy with, as its keystone a new National Ocean Policy Act. It wants to see a new system of ocean ecosystem councils, that would be a new institution that would look at ocean areas with approximately nine ecosystem councils proposed. These would have the authority to zone and do spatial planning in oceanic areas including the establishment of a national system and a regional system within the United States of marine reserves strictly protected marine areas.

See: <http://www.pewoceans.org/>

The National Commission on Ocean Policy recommendations are close to those of the Pew Commission. This commission is in favour of an ocean stewardship kind of ethic, a new generation of coastal management programmes, again with a lot more emphasis on performance and accountability, the establishment of a very large monitoring programme for coastal and oceanic waters in the United States and a big emphasis on public education about the values of ocean management and ocean stewardship.

See: <http://oceancommission.gov/welcome.html>

Lord Haskins' Review of Rural Delivery

The aim of Lord Haskins' Review of Rural Delivery, commissioned by Defra in November 2002, was to find ways of simplifying the delivery of the Department's rural policies and services in the wake of the foot and mouth crisis. The integrated management of the natural environment for the benefit of everybody could be simplified if the recommendations made in Lord Haskins' report on the Review of rural delivery are taken up by Government.

The aim of the review was to assess the delivery of rural services with a view to streamlining the organisations responsible for this. In particular the way Defra funds are passed to farming and other rural activities was a particular concern. The re-organisation would involve job losses and savings in terms of administration of approximately £30m/ year. The changes would take over 3 years to implement and lead to considerable disruption during this period.

A key recommendation of the report would bring together English Nature with most of Defra's Rural Development Service and some functions of the Countryside Agency to create an organisation to improve the natural environment with biodiversity and wildlife protection at its core. It would also have responsibility for some aspects of natural resource protection, landscape protection and enhancement, and the promotion of access and recreation. The proposals set out in the review involve the creation of a Land Management Agency including the current work of:

- English Nature
- The Countryside Agency
- Rural Development Service
- Plus part of British Waterways, the Forestry Commission, and the Environment Agency.

Implications for the coastal and marine environment: points to consider

It seems that Defra is taking report seriously and will be implementing many of the changes Lord Haskin's has proposed. Defra will be announcing their **considered response in the spring of 2004** and this will be a particularly important document.

The **loss of an independent voice** for nature conservation is seen as one of the biggest potential problems of any change.

The strong focus on rural affairs in the Haskin's Report with **no consideration of coastal or marine** issues begs important questions about how a 'Land' Management Agency will deal with these areas.

Is it a coincidence of timing that **other reviews** [fisheries management] and the EFRA marine protection review are also currently underway?

A Marine Agency is one idea that seems to be being discussed; it might combine a number of functions of various agencies.

For information on the report:

<http://www.defra.gov.uk/rural/pdfs/ruraldelivery/annex9.pdf>

Environment, Food and Rural Affairs (EFRA) Committee

Review of Protection of the Marine Environment

In the August 2003 it was announced that the EFRA committee of the House of Commons would conduct a review of the protection of the marine environment.

Terms of reference: It decided that its terms of reference should be:

“To examine the effectiveness and urgency with which the Government is pursuing policies for the protection of the marine environment, and what institutional or other barriers exist which might hinder the implementation of policies in this area. In particular the Committee will consider

- the likely impact of designating Special Areas of Conservation and Special Protection Areas linked with the Habitats and Birds Directives; and the delay in doing so;
- the likely impact of introducing Strategic Environmental Assessments; and
- the delay in identifying Marine Environment High Risk Areas.”

Website

http://www.parliament.uk/parliamentary_committees/environment_food_and_rural_affairs/efra_pn72_030717.cfm

The committee have taken written evidence and called for oral evidence from a number of groups including Wildlife Link, Ports, JNCC, Defra etc.

Comment

It is not entirely clear why the committee should have chosen this moment to explore this issue. It's conclusions to ministers will add to a growing number of initiatives including the Review of Marine Nature Conservation, and the review of development regulation (the Penny Brooke review), the work of another Parliamentary committee looking at inshore fisheries, bycatch etc, and the Defra response to the Haskins report on Rural affairs all of which are point to the need to change the current arrangements for protecting and managing the marine environment.

The draft EC Environmental Liability Directive

Daniel Owen, Barrister

Fenners Chambers, 3 Madingley Road, Cambridge CB3 0EE

Tel: 01223 368761 Fax: 01223 313007

E-mail: daniel.owen@fennerschambers.co.uk

Introduction

This presentation will discuss the draft EC Environmental Liability Directive, and will focus on the text of the common position adopted by the Council of the European Union on 18 September 2003.

It will address: (a) the meaning of the term “environmental damage”, with a focus on the term “damage to protected species and natural habitats”; (b) the meaning of the terms “operator” and “occupational activity”; (c) the regimes for preventive action and remedial action; (d) the costs that fall to the operator; and (e) the position regarding damage caused by authorised activities. These are all fundamental aspects of the draft Directive and potentially relate to both the terrestrial and marine environments. However, where time permits, reference will be made specifically to the marine environment.

During the course of the presentation, delegates will be referred to a handout (attached) which includes some relevant extracts from the Council’s common position. For further information, the documents referred to in section 1 of the handout can be accessed by visiting:

<http://europa.eu.int/comm/environment/liability/>

HANDOUT TO ACCOMPANY PRESENTATION

[Article numbers below relate to text of Council’s common position]

A. Key official documents under co-decision procedure

European Commission’s proposal (transmitted on 19.02.02, COM (2002) 17)

European Parliament’s opinion (given on 14.05.03)

Council’s common position (adopted on 18.09.03, 10933/5/03 REV 5)

Statement of Council’s reasons (18.09.03, 10933/5/03 REV 5 ADD 1)

Commission’s communication to EP (19.09.03, SEC (2003) 1027)

B. Selected definitions from Art 2 (emphasis added)

“**environmental damage**” means:

(a) **damage to protected species and natural habitats**, which is any damage that has significant adverse effects on reaching or maintaining the favourable conservation status of such habitats or species. The significance of such effects is to be assessed with reference to the baseline condition, taking account of the criteria set out in Annex I; [...]

(b) **water damage**, which is any damage that significantly adversely affects the ecological, chemical and/or quantitative status and/or ecological potential, as defined in Directive 2000/60/EC, of the waters concerned, with the exception of adverse effects where Article 4(7) of that Directive

applies;

(c) **land damage**, which is any land contamination that creates a significant risk of human health being adversely affected as a result of the direct or indirect introduction, in, on or under land, of substances, preparations, organisms or micro-organisms;

“damage” means a measurable adverse change in a natural resource or measurable impairment of a natural resource service which may occur directly or indirectly;

“protected species and natural habitats” means:

(a) the species mentioned in Article 4(2) of Directive 79/409/EEC or listed in Annex I thereto or listed in Annexes II and IV to Directive 92/43/EEC;

(b) the habitats of species mentioned in Article 4(2) of Directive 79/409/EEC or listed in Annex I thereto or listed in Annex II to Directive 92/43/EEC, and the natural habitats listed in Annex I to Directive 92/43/EEC and the breeding sites or resting places of the species listed in Annex IV to Directive 92/43/EEC; and

(c) where a Member State so determines, any habitat or species, not listed in those Annexes which the Member State designates for equivalent purposes as those laid down in these two Directives;

“operator” means any natural or legal, private or public person who operates or controls the occupational activity or, where this is provided for in national legislation, to whom decisive economic power over the technical functioning of such an activity has been delegated, including the holder of a permit or authorisation for such an activity or the person registering or notifying such an activity;

“occupational activity” means any activity carried out in the course of an economic activity, a business or an undertaking, irrespectively of its private or public, profit or non-profit character;

“preventive measures” means any measures taken in response to an event, act or omission that has created an imminent threat of environmental damage, with a view to preventing or minimising that damage”;

“imminent threat of damage” means a sufficient likelihood that environmental damage will occur in the near future”;

“remedial measures” means any action, or combination of actions, including mitigating or interim measures to restore, rehabilitate or replace damaged natural resources and/or impaired services, or to provide an equivalent alternative to those resources or services as foreseen in Annex II;

“costs” means costs which are justified by the need to ensure the proper and effective implementation of this Directive including the costs of assessing environmental damage, an imminent threat of such damage, alternatives for action as well as the administrative, legal, and enforcement costs, the costs of data collection and other general costs, monitoring and supervision costs.

C. Scope (text of Art 3(1))

This Directive shall apply to:

- (a) environmental damage caused by any of the occupational activities listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities;
- (b) damage to protected species and natural habitats caused by any occupational activities other than those listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities, whenever the operator has been at fault or negligent.

D. Prevention and remediation (text of Arts 5(1) & 6(1))

Where environmental damage has not yet occurred but there is an imminent threat of such damage occurring, the operator shall, without delay, take the necessary preventive measures. **[Art 5(1)]**

Where environmental damage has occurred the operator shall, without delay ... take:

- (a) all practicable steps to immediately control, contain, remove or otherwise manage the relevant contaminants and/or any other damage factors in order to limit or to prevent further environmental damage and adverse effects on human health or further impairment of services and
- (b) the necessary remedial measures, in accordance with Article 7. **[Art 6(1)]**

E. Authorised activities (text of Arts 8(4)(a) & 2(1)(a), 2nd para)

The Member States may allow the operator not to bear the cost of remedial actions taken pursuant to this Directive where he demonstrates that he was not at fault or negligent and that the environmental damage was caused by ... an emission or event expressly authorised by, and fully in accordance with the conditions of, an authorisation conferred by or given under applicable national laws and regulations which implement those legislative measures adopted by the Community specified in Annex III, as applied at the date of the emission or event; **[Art 8(4)(a)]**

Damage to protected species and natural habitats does not include previously identified adverse effects which result from an act by an operator which was expressly authorised by the relevant authorities in accordance with provisions implementing Article 6(3) and (4) or Article 16 of Directive 92/43/EEC or Article 9 of Directive 79/409/EEC or, in the case of habitats and species not covered by Community law, in accordance with equivalent provisions of national law on nature conservation. **[Art 2(1)(a), 2nd para]**

Seascape assessment: context and the visual impact of offshore wind energy

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Assessing the visual impacts of development proposals are an integral part of the work of the Countryside Council for Wales, forming one element amongst many others of its wider countryside management and landscape protection work, carried out as the statutory environmental advisor to the Welsh Assembly Government.

Visual impacts are notoriously tricky to deal with in an objective manner as they are about perception and attitude. But they are not issues that can be dismissed since they are often most prominent in public objections to wind farms. Perhaps offshore developments will reduce the problem, but the recent Scarweather Sands offshore wind farm public inquiry suggests the issue has not gone away.

Since we can't usually hide offshore wind farm development from view, how do we deal with this issue? What are the variables? Can people's perception of the development be enhanced by good location and design, and can the public's tolerance threshold be raised if they can balance visual impacts against renewable energy environmental benefits?

CCW does not have all the answers, but seeks to outline the key issues and to suggest ways that may reduce potential conflicts.

The "Guide to best practice in seascape assessment" is one of the tools CCW has developed for considering landscape issues in the coastal zone, and this can be downloaded in full from:

<http://www.ccw.gov.uk/reports/index.cfm?Action=View&RID=22&lang=en>

See material in the information in the delegate notes

The Water Framework Directive is widely recognised to be the key legislation that will effect environmental management practice for many years to come. The Directive entered into force on 22 December 2000 and has to be turned into national legislation (the 'transposition' process) within each Member State by 22 December 2003. The Directive has a series of implementation deadlines which stretch to December 2015 (the date by which environmental objectives must be met). Further information on transposition and consultations can be found on the websites below.

The first stage of implementation is River Basin Characterisation which is set out in Article V and requires member states to report on an initial characterisation of surface and groundwaters. The physical typing of water categories is the first step in characterisation. This report must include the physical typology used to define water categories, a review of the impact of human activity on the status of surface waters and on groundwater, an economic analysis of water use and a register of protected areas.

Typing produces the first iteration of surface water bodies, which are the management units to which the objectives of the directive will be applied. It is on these units that the review of human activities, leading to significant pressures, will be undertaken. The EU has issued further guidance through the Common Implementation Strategy (CIS) on how this process should be conducted (IMPRESS Guidance v5.3). The review of human activities must identify those water bodies at risk of failing the directives objectives through an analysis of pressures and impacts using currently available data.

This initial assessment of surface water status requires an integrated approach to pressures and impacts assessment previously undertaken in the UK on a sectoral basis. The assessment will involve information derived from the activities of key stakeholders who potentially impact upon the ecology of the marine environment.

The significant pressures that have been identified that currently or potentially will affect the achievement of the directives objective of good status by 2015 for England and Wales are:

- nutrients (point sources and diffuse)
- hazardous substances
- organic enrichment
- physical modifications (including dredging, shoreline modifications such as flood defences and canalisation, land reclamation, aggregate extraction, commercial fishing, impoundment and flow alteration (such as barrages)
- catchment abstraction (and affects on freshwater flows to estuaries)
- commercial fishing
- alien species.

Each of these pressures will be assessed with nationally available datasets and applied to individual water bodies. The presentation will briefly describe the Environment Agencies approach to the Directive in transitional and coastal waters so far and outline the pressures and impacts analysis work that is currently being undertaken and opportunities for wider stakeholder involvement.

For more general information on the work of the Agency and other lead organisations please visit the following websites:

Environment Agency:

<http://www.environment-agency.gov.uk/subjects/waterquality/517208/517223/634198/?lang=e>

Scottish Environment Protection Agency:

<http://www.sepa.org.uk/wfd/index.htm>

Department for Environment, Food and Rural Affairs:

<http://www.defra.gov.uk/environment/water/wfd/index.htm>

Royal Haskonings have also produced a very useful site containing links to Water Framework Directive information in particular position statements from a variety of organisations:

<http://www.waterframeworkdirective.com>

OST Foresight Report: Climate change and the coastal environment - future scenarios

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The Office of Science and Technology have promoted a Foresight Project to look at the Future of Flood and Coastal Defence. This has been a major initiative over the last 18 months to take a forward look at the options for dealing with flooding issues in the future. By considering different future world scenarios, the project has assessed how the drivers of change might be affected and what the implications might be for a range of responses. Some of the responses considered were fairly conventional but others were more radical in nature. The project focussed on the many issues related to fluvial and coastal flooding. For the coast, erosion was found to be important and given due prominence in the overall assessment.

The main coastal drivers were concluded to be:

- Sea level rise
- Extreme water levels
- Waves, and
- Morphology

And the cluster of responses considered under the theme of large of large-scale interventions included:

- Physical barriers
- Realignment of flood defence infrastructure
- Energy reduction measures, and
- Morphological protection

This presentation will give a brief overview of the project as a whole and then focus on the specific issues related to the coast.

The outputs of the study are in the process of being documented in some detail and the sections completed so far are publicly available on the dti web site. Further information about the study can be found at: <http://www.foresight.gov.uk/fcd.html>

Shoreline Management Plans: the next steps

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Shoreline Management Plans (SMPs) have been completed for the whole coastline of England and Wales. They are high level documents that provide an important policy background for taking coastal defence decisions.

Whilst the existing SMPs are an important step forward, we recognise the need to update and review them to ensure that they provide the best possible steer for future coastal management decisions. With this in mind, Defra reviewed the SMP process, and has issued guidance on how SMPs should be revised. In addition, procedural guidance will be issued shortly, based on the findings of three pilot SMPs.

The second generation SMPs will need to take account of some important developments that have occurred since the first generation plans were completed. In particular, the Future Coast project has provided valuable additional information on coastal processes for the whole of the coast, and Coastal Habitat Management Plans (CHaMPs) have been prepared for Natura 2000 sites along much of the coast of south and east England. The implications of the Directive on Strategic Environmental Assessment will also need to be considered.

This presentation will outline the new challenges faced by coastal groups in preparing the second generation SMPs, and in particular, it will consider the implications for habitat management and biodiversity.

For further information, refer to the Defra website.

The Key reference is the revised Defra SMP guidance as follows:

Defra 2001 Shoreline Management Plans: a guide for coastal defence authorities

SEA for offshore oil and gas and renewables

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In 1999, the UK Department of Trade and Industry (DTI) began a sequence of sectoral Strategic Environmental Assessments (SEAs) considering the implications of further licensing of the UK Continental Shelf (UKCS) for oil and gas exploration and production. Hartley Anderson, as a joint co-ordinator of the DTI's UKCS Oil & Gas SEA programme has assisted the DTI in the development of their SEA process which is notable both for its extensive survey work in the UKCS and its commitment to stakeholder engagement. This process is not static and continues to evolve, and the DTI and the project management team actively seek opportunities to enhance SEA efficiency and effectiveness. This presentation will describe the SEA programme and the challenges posed by extending its remit to include offshore renewable energy.

The past and current DTI offshore energy SEAs and other relevant information can be accessed at www.offshore-sea.org.uk

Offshore Wind Energy – Recent Developments and Future Prospects

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2003 proved to be a significant year for the UK offshore renewable energy industry. This presentation will focus on the progress that has been made in this new UK energy sector, charting the highs and lows that have shaped the development of the industry. 2003 started with the Government's Energy White Paper and culminated with the Crown Estate announcing the outcome of the Round 2 tender. It was a year when the potential expansion of the offshore windfarm sector caught even the attention of the tabloid press, putting offshore windfarms firmly in the public eye. Despite the sense of urgency amongst the industry progress on Round one sites had not been as rapid as anticipated when first announced back in 2001, so it was with great enthusiasm that the first commercial offshore windfarm was 'switched on' off the coast of North Wales in November. The industry received another boost in confidence at the end of the year with inclusion of the Energy Bill in the Queen's speech and the extension of the Renewable Obligation to 2015-16. The Crown Estate's announcement in December of the award of site options for 15 major new projects as a result of the Round 2 tender process provided for expansion of the industry by between 5 and 7.2GW in order to meet Government's renewable targets for 2010.

But there is still much to be done and this paper will map out the approach to the environmental assessment and consultation task ahead, drawing on the Cowrie and DEFRA research projects established by Round 1 and the requirements for better collaboration and co-ordination through regional environmental assessments and better data management and accessibility. Finally, reference will be made to the demonstration projects being undertaken on non-mainstream wet renewables such as wave and tidal energy.

www.crownestate.co.uk

www.dti.gov.uk/energy

www.bwea.com

Environmental impact of offshore wind farms in operation: the Danish experience so far

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There has been considerable speculation on the environmental impacts of offshore wind turbines which has led to a wide ranging debate on the scope and coverage for environmental assessment. In Denmark there are now offshore wind energy sites ranging from small groups (6-20 turbines) to much larger installations (80 turbines). Baseline survey work and preliminary monitoring are now beginning to reveal the types of environmental changes that might be expected. This presentation will describe current Danish offshore turbine sites - their scale and construction - the monitoring approaches and technologies being used and preliminary results of work that has been undertaken.

Ocean Energy Developments - Wave and Tidal Stream

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The Government's recent Energy White paper set demanding targets for the renewables sector. The recent announcement extending the renewables target from 10.4% in 2010 to 15.4% in 2015 has further boosted the industry. With the round two offshore wind plans now revealed, many people now recognise that offshore wind will help meet renewables targets in the short term. The non-wind renewables sector is also developing fast with a wide variety of potential devices to tap wave and tidal energy.

This presentation will review the progress that is being made in the offshore wave and tidal stream energy sector, the range of devices and approaches being tested. This will include some current thoughts on the magnitude of the tide and wave resource that might be available, and the possible consequences that may occur when significant energy is extracted. The challenges faced by technology developers will be discussed together with a description of some enabling technology that is being developed by EB for the offshore wind, tide and wave energy industries. These will include the installation and maintenance of ocean energy systems, and the installation and protection of power cables that link individual generators together, and the cables that link generating stations to land.

The Challenges of Ocean Governance – A Canadian Perspective

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Management of oceans in Canada have been in transition since the collapse of the groundfish stocks in the late 1990's. Cod stocks, which historically provided 325,000 tonnes of fish annually, collapsed until in 1992 a fishing moratorium. Closures on other groundfish stocks quickly followed. The resource which had provided the life blood of settlement, commerce and culture in the Atlantic had disappeared. Ocean management is fragmented in Canada with 30 Federal Government agencies that have responsibilities. Provinces, territories and First Nations Governments also have jurisdiction over some activities. The Department of Fisheries and Oceans has primary responsibility for natural resources and has traditionally been rather narrowly focused on fish.

With this turn of events, the Department now begin to seek new ways of insuring rational management that ensures sustainability of resources. This lead to the development of the Oceans Act that finally came into force in 1997. The goal of the Oceans Act is protection of ocean health and sustainable use of its resources. To achieve this, the Act established that principles of an ecosystem, integrated approach, precaution, and cooperation. In the Act, the Department of Fisheries and Oceans was given lead Federal responsibility for coordinating the activities of all responsible agencies.

Great ideas, once conceived, often take time to fully implement. There was resistance to implementation within bureaucracies who preferred the historical compartmentalization of ocean management and struggled with establishment of horizontal relations between agencies. No new resources were devoted to implementation of the Act although this considerably expanded the mandate of Fisheries and Oceans. Without adequate support, it took time to develop a policy framework to establish requisite changes and programmes. The Canada Oceans Strategy was released. New initiatives included integrated management pilot projects, indices to track marine environmental quality, stewardship programmes and establishment of marine protected areas. Advisory councils such as the Fishery Resources Conservation Council, the Ocean Management Research Network and the Minister's Advisory Council on Oceans were established. Not everything worked well, adaptations were frequently required.

At present, an initiative has been established to develop a National Action Plan for fully implementing the Act throughout Government. This effort has bought together interests in Government and the private sector plan priorities during a time of short resources. With a new Government momentum for this initiative is now the responsibility of a Parliamentary Secretary. Planning and National Oceans Action Plan are proceeding. It's implementation will be exciting. There will likely be occasional periods of turbulence and success.

The Irish Sea Pilot case study in regional sea management: outcomes and proposals

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The Irish Sea Pilot was commissioned by Defra on behalf of the Review of Marine Nature Conservation (RMNC) to provide advice which would assist the formulation of marine conservation policy. It is now in its final stages and scheduled to report to RMNC in February 2004.

The Pilot has tested and refined a proposed new framework for nature conservation and constructed a process for setting conservation objectives. It has demonstrated that marine data and survey technology is available, albeit limited offshore, to classify the sea at a landscape scale and to compile an inventory of nationally important marine habitats and species. Various approaches to the identification of important areas for marine nature conservation were tested including the use of an analytical software tool 'MARXAN'. Aspects of the current UK system of legislation, governance and enforcement for marine nature conservation were reviewed.

The recommendations from the Pilot are under discussion. They are likely to include proposals to:

- Promote European and national commitment for a regional seas approach to marine nature conservation, strategic and spatial planning.
- Improve the management of European marine data with common standards and better access.
- Extend the marine landscapes classification to UK and European seas and further investigate their use for marine spatial planning, marine conservation policy and the regulation of human activities for environmental protection.
- Compile and maintain a list of nationally important habitats and species selected according to agreed criteria as likely to require conservation measures.
- Define an ecologically coherent network of marine protected areas with proportionate measures to protect the network from damage from human activities.
- Increase the resources for enforcement of marine nature conservation and review government and agency structures and responsibilities for the sea to maximise efficiency and effectiveness in regulation and decision making.

More details of the pilot, its objectives, specification, work programme, and commissioned research reports can be found at www.jncc.gov.uk/irishseapilot

Marine landscape and habitat mapping: new initiatives to aid marine management

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The concept of 'marine landscapes' was initially developed in Canada to characterize large areas of sea in an ecologically meaningful way, but where there was very limited data available. The concept has now been applied in the UK as part of the Irish Sea Pilot, using a variety of geophysical and hydrographic data sets. We can now see what this concept looks like in practice and also start to use it for various aspects of regional sea management and conservation. Whilst marine landscape mapping is essentially a broad-scale predictive approach, marine habitat mapping provides actual data on the nature of the seabed, usually at a much finer resolution. The need for marine habitat maps is now widely seen as a major priority for UK plc both to meet international requirements (such as OSPAR) and to enable the management of our important natural resources. The number of habitat mapping studies has mushroomed in recent years (ICES 2003), but remains largely uncoordinated, leading to inconsistent presentation of data, poor accessibility and limited use. MESH - a major new international project under the Interreg funding mechanism aims to address these problems. This presentation will describe these initiatives, show how they are linked and highlight the benefits of this type of information resource for decision making.

Irish Sea Pilot: Marine landscapes report:

www.jncc.gov.uk/marine/irishsea_pilot/pdfs/consultation_Sept2003/Marine_landscapes.pdf

Interreg MESH programme:

www.jncc.gov.uk/MESH

ICES (2003) report:

www.ices.dk/reports/MHC/2003/WGMHM03.pdf

The EU ICZM Recommendation: A Stocktake for the UK – the likely outcomes

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In 2002, the EU ICZM recommendation was ratified and UK launched its work programme to implement the recommendation. The process requires that a stock taking exercise is conducted and the UK Government commissioned a team of consultants from Atkins to undertake this project.

- ◆ Most coastal stakeholders in the UK are aware, or have been involved in the ICZM in the UK Stocktake exercise since April 2003 in one way or another. This input has been invaluable. The final report will be completed in the spring of 2004. The report will describe the different environmental, social and economic characteristics and natural resources of the coastal zone in England, Wales, Scotland and Northern Ireland including pressures and trends. It will also identify the key laws, institutions and stakeholders (their interests, roles and concerns) that influence management of the UK's coastal zone at different scales (e.g. local to international). From this, an analysis of the existing policy and administrative frameworks (from local level to international obligations) will be presented, clearly identifying deficits, duplications and synergies within those frameworks.
- ◆ The project has raised many ideas as to how ICZM could be taken forward. An assessment of ICZM theory against practice around the UK has been carried out to analyse how existing laws, stakeholders and institutions interact and integrate with each other (geographically, over time and across sectors).
- ◆ This presentation will describe some draft findings of the project to date.

The EU Recommendation for ICZM can be downloaded from :

<http://europa.eu.int/comm/environment/iczm/proprec.htm> **seafish s**

Atkins Reports and newsletters produced for the project to date can be downloaded from:

<http://www.defra.gov.uk/environment/marine/iczm>.

Spatial Planning in the Coastal and Marine Environment – key elements and future prospects

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Spatial planning in the coastal and marine environment has become a key aspect of the current policy agenda driven by a variety of national and international policy initiatives but also because of an increasing awareness that many aspects of the current sectoral approach to planning and management are unlikely to deliver key sustainability objectives in the long-term. In moving the agenda forward on marine spatial planning issues there is a need for a wider understanding of the key concepts that could be embodied. Over the last four months, three projects have been undertaken, by David Tyldesley and Associates, which have been commissioned to inform the debate and advance the agenda. Whilst prima-facie they may look as though they cover the same or similar ground, in practice each has taken a different emphasis and each has made a distinct and separate contribution, albeit there is material common to all. Each was undertaken over a very short timescale, not only to ensure effectiveness and influence, but also to maintain the momentum of the marine spatial planning debate. Overlaps in the project timetables meant that all three outputs benefited from an iterative process, with client feedback informing the evolution of all three reports. We are also very grateful to the many stakeholders who responded to our non-attributable, fax-back questionnaire about the initial findings and how a marine spatial planning system might take shape. The responses of these informed and interested people were very influential in the emerging conclusions. The three projects are summarised in the table below

Client	Project title / Emphasis	Timescale
Royal Town Planning Institute Scotland and Royal Society for the Protection of Birds	Making the case for marine spatial planning in Scotland, how sea is planned and managed now, why we need a marine spatial planning system, raising and exploring issues, what the system should achieve, considering the main options	Sept 2003 – Jan 2004
English Nature	Review of how the land use planning system could influence the development of a marine spatial planning system for England, history of evolution of land planning, how contributed to nature conservation, key mechanisms in planners toolkit, what system might need, moving towards a system	Oct 2003 – Dec 2003
Joint Nature Conservation Committee	Irish Sea Pilot Project coastal and marine spatial planning framework, advancing options, meshing with ICZM, how a system might be delivered, trials of a new system in the Irish sea region, integration with Ireland	Nov 2003 – Jan 2004

The presentation will not dwell on the process described here but will summarise the key issues that will influence the shape of any marine spatial planning system. It will also advance some personal recommendations as to how those issues may be resolved with the intention of provoking a further and wider debate.

No Take Zones in the south west – developing the programme with the community

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David Muirhead, Chairman, Cornwall Sea Fisheries Committee

Despite the designation of a series of sites in the maritime environment (the *Natura 2000* network) progress towards an ecologically coherent network of marine protected areas has been slow. The concept of no-take zones (NTZ) or sanctuary zones (areas permanently set aside from fishing activity and extraction) has attracted particular interest as they can provide dual benefits to fisheries and nature conservation. In the south-west, a few NTZ have been established in the inshore waters through close liaison with the coastal communities and particular involvement of the fishing sector. This presentation will reflect upon how this programme has developed and the importance of working with the coastal communities, describing the findings of the Cornwall NTZ Roadshow. More details will be provided on a new Strategic NTZ project which aims to gather the best available information on Cornwall's inshore waters, including importantly, local knowledge, in order to make recommendations for a potential network of Sanctuary Zones, following international best practise. The presentation will also consider the implications for nature conservation, how the success of these initiatives can be assessed, and links to the implementation of the global target for a representative network of MPAs by 2012.

www.cornwall.gov.uk

The Clyde Inshore Fishery: developing an economically and biologically viable fishery

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Summary of presentation:

The Clyde Inshore fishery has around 125 vessels, with 300 – 400 fishermen and 350 – 425 others employed locally in onshore businesses (processors, merchants, fish farmers). Landings are worth around £15 million, with over 90% shellfish (mainly Nephrops). Vessel profitability has reduced in recent years, with onshore businesses also operating on tight margins. Vessel / business owners have labour resourcing issues, with more amenable local employment available.

Some Clyde fishermen believe that their catch levels are sustainable, but recognise the need to control exploitation in order to maintain sustainability. There is support for controls such as limits on days at sea, creel numbers and mesh sizes, and the current weekend ban.

Fishermen are sensitive to the importance of the wider marine environment and are keen to co-operate with other stakeholders to build a sustainable future. Maintaining fishermen's economic viability is not sufficiently recognised as key to the development of successful strategies to maintain and enhance the marine environment. Some non-fishing stakeholders see fishing as environmentally destructive – part of the problem – but fishermen are part of the solution. The environment and other stakeholders are important, but not in precedence to fishermen's livelihoods.

Co-operation can find a balance between economic and environmental objectives. A Clyde management pilot is being established to develop a long-term sustainable, economically viable, fishery, with key fishing industry stakeholders involved.

A summary of the key finding of the study is enclosed in the conference notes but can also be found at

http://www.seafish.org/pdf.pl?file=seafish/Documents/Clyde_inshore_summary.pdf

An outline of the work of the economics department can be found at:

<http://www.seafish.org/about/wdetail.asp?p=bb&did=249>

and descriptions of other Seafish economics publications can be found at

<http://www.seafish.org/resources/publications.asp?c=Economics%20and%20Business>

Climate and ecosystem change in the North Sea – The case for regime shift

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Evidence is accumulating from physico-chemical, biological and meteorological data that demonstrates the occurrence of a regime shift after the mid 1980s in North Sea ecosystems. Chlorophyll measurements from the Continuous Plankton Recorder (CPR) programme provided the first indication of this change. Zooplankton composition, biomass and size has also changed as well as showing strong biogeographical movements to the north. Time series of benthic organisms show step-wise change in biomass or diversity and substantial changes have occurred in fish stocks. Changes in nutrients and oxygen that were formerly attributed to eutrophication coincide with the regime shift. Forcing is partly linked to a positive North Atlantic Oscillation and resulting warmer temperatures in the North Sea. North Sea sea surface temperatures are also highly correlated with Northern Hemisphere temperatures (NHT). The rapid rise in NHT seen in recent years has been attributed to global warming by the International Panel on Climate Change and the regime shift may be evidence for a rapid response of a regional sea to global warming.

It is now clear that ecosystems at the scale of regional seas can change rapidly to a new state that is likely to have major implications for their biogeochemistry, carrying capacity and biodiversity. We only have a rudimentary understanding of the processes behind these changes and their implications, especially in a time of rapid climate change. Our results clearly demonstrate the need to maintain long-term monitoring programmes like the CPR to assess natural variability and provide indicators of natural change that can be used as part of an ecosystem approach to management.

For further information see:

www.sahfos.org

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A Regional Advisory Council for the North Sea

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As part of its proposals for reform of the Common Fisheries Policy, the European Commission has proposed the establishment of Regional Advisory Councils (RACs). These RACs are intended to ensure greater stakeholder involvement in fisheries management at a regional and local level. They are to be set up by stakeholders themselves, within a framework laid down by the Commission. Initially, the Commission has proposed that a limited number of RACs be established.

There has been strong interest by fishers' organisations in RACs. The North Sea Commission Fisheries Partnership is currently preparing detailed plans for a North Sea RAC. The Partnership itself brings scientists and fishers together from around the North Sea to consider the state of the fish stocks and to discuss effective management control measures within the overall objectives of the Common Fisheries Policy. Established in 2000, the Partnership has already made progress in involving fishers in the process of stock assessment and in proposing more effective measures for the management of fisheries. Currently, the Partnership is discussing its plans for a North Sea RAC with the Commission and Member States with the aim of establishing a working RAC during 2004.

The challenges and constraints to setting up a RAC for the North Sea will be discussed during the presentation.

The objectives of the North Sea Commission Fisheries Partnership, and reports of its activities, including the meetings of its RAC Development Working Group, are available at www.northsea.org/fisheriespartnership/

Fish Catching and Fish Farming – Conflicting or Complementary Industries?

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The interface between the seafood producing industries of fishing and fish farming is sometimes fraught with conflict. At other times and in other areas both industries complement each other. The interface between both industries is therefore as variable as it is fascinating.

The growth of the global aquaculture industry over the past 30 years is reviewed. Particular attention is focused on the phenomenal expansion of salmon farming. In contrast, several examples of poorly managed fisheries with declining catches are considered. The prospects for the farming of new species (cod, halibut and haddock) are assessed and quantified.

The actual and potential conflicts between fishing and fish farming are considered under the following headings

- Locational conflict
- Competition for market share and price
- Is there enough fishmeal and oil to sustain future aquaculture expansion?
- Political differences

The potential for cooperation is reviewed in terms of marketing and utilising aquaculture to help rebuild wild fish stocks.

It is concluded that, despite the undeniable and real conflicts that do exist between both industries, there is much scope for cooperation and joint ventures. Conflict will ultimately be to the detriment of both industries whereas cooperation will enhance and improve the prospects of the seafood industry as a whole.

This paper will be published later this year as the 2003 Buckland Lecture. Further details from The Buckland Foundation, 3 Woodside Avenue, Bridge of Weir PA11 3PQ (Tel: 01505 615 402; e-mail jramster@linone.net)

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