A Sea Change
A Marine Bill White Paper – March 2007
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Why do we need a Marine Bill?

Sustainable management of our seas is one of the biggest environmental challenges we face.

Marine legislation has been built piecemeal over centuries. Countries all over the world are reviewing how they manage their marine sectors. European Commission also has proposals that mirror the Marine Bill.

Existing management systems are complex, confusing and costly. There is a growing demand for use of marine space - expansion of traditional activities and new activities. There is a need for a system to balance conservation needs with the demands placed on the marine area to meet social and economic requirements.

David Miliband MP and Ben Bradshaw MP proposed the bill and Defra (Department for Environment and Rural Affairs) have presented the bill.

The UK government is committed to introducing a new framework for the seas through the marine bill. It will establish a strategic system of marine planning and will balance conservation energy and resource needs.

Consultation period ends 8 June 2007. Responses will help refine the proposals ensuring the Bill is fit for purpose.

The main themes of the bill

5 key areas with significant links and overlap

1. **Marine Management Organisation**
   A new Marine Management Organisation to help effectively deliver many marine policies.
2. **Marine planning**
   Marine planning will provide a strategic approach to the use of marine space encompassing all activities and deliver sustainable development
3. **Licensing marine activities**
   Introduction of a more efficient and transparent licensing system leading to less risk, delay and cost to business.
4. **Marine nature conservation**
   New mechanisms that supplement existing tools for the conservation of marine ecosystems and biodiversity including a new approach to protected areas for important species and habitats.
5. **Managing marine fisheries**
   The bill will modernises inshore fisheries management arrangements and enable a more active approach to managing recreational sea angling.

The Vision

(UK Government and devolved administrations shared vision and strategic goals for the marine environment)

Clean, healthy, safe, productive and biologically diverse oceans and seas.

The strategic goals:

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

Shared UK principles of sustainable development

A shared set of principles sets out the overarching approach to achieving the UK's sustainable development goal:

- living within environmental limits;
- ensuring a strong, healthy and just society;
- achieving a sustainable economy;
- promoting good governance; and
- using sound science responsibly

Why does this matter?

Our oceans, seas and coasts have a huge impact on our lives, much of which goes unnoticed or is taken for granted. The UK marine area is a vast and important resource that is of vital importance to our well-being. Not only does it provide us with valuable economic, environmental and cultural benefits, it plays a major role in shaping our climate and in sustaining life. Without our oceans and seas there would be no life on this planet.

Shallow seas, such as those that surround much of the UK, constitute less than ten percent of the world's total marine area yet contain the vast majority of its marine life. Our seas are no exception, containing up to half of the UK's biodiversity. As part of the North-East Atlantic, they are one of the most biologically productive marine areas in the world. As well as its own innate importance, it is that diversity which contributes to the range of resources that we can utilise, the ability of marine ecosystems to adapt to changing conditions, and the influence these systems have in controlling our global climate.

Activities in the marine area contribute substantially to the UK economy and quality of life. It is estimated that the economic contribution of these activities is in the order of 67 billion pounds Sterling annually in the UK. Important contributors are oil and gas (22.3 billion), tourism and recreation (16 billion), naval defence (6.5 billion), and ship and boat building and repairs (3 billion), with significant contributions being made by ports (1.6 billion), fisheries (0.5 billion) and a range of other activities.
What do we need to change?

In many places the marine area is becoming increasingly crowded with demands on space for development, to exploit resources, for recreation and nature conservation. Space is particularly in demand near to the coast, in shallow waters and in our estuaries. Technological developments and the demand for resources for an increasing variety of activities have led to further exploitation of the marine area, which has moved into deeper waters and more remote areas.

We are facing significant environmental modification brought about by climate change with rising sea levels and a changing coastline, increasing sea temperatures and changes in seawater chemistry. Biodiversity will respond to these changes and human activities will need to adapt to them too.

In the busy parts of our seas, it is difficult to balance shipping, fishing, industrial, leisure and environmental objectives. We need substantial reform to make our systems fit for the future and the expected future increases in the intensity of marine activities.

Planning in the marine area

The United Kingdom is surrounded by seas of vital environmental, cultural and economic importance, which face ever-increasing pressures, such as from the impacts of climate change and competing marine industries. We do not plan ahead to cope with these pressures in the way that we do on land.

It is now essential that we look more strategically at the whole of the marine environment, the way that we use and protect our resources and the interactions between different activities that affect them. This will require a shift in practice to a much more integrated approach to managing ecosystems, but the case for doing so is now compelling.

Stage 1 – Marine policy statement
Short and long term objectives to help deliver European, International and domestic commitments and priorities.

The objectives will clarify limits within which sustainable development needs to operate and create measurable targets for ecosystem health and biodiversity.

Consideration will be given to terrestrial planning developments and key issues in coastal areas such as tourism, ports, economic development and coastal erosion and flooding.

Stage 2 – Marine plans
Applying to specific geographic areas and providing a spatial context. Plans will be created gradually in a phased approach.

Plans will consider all of the relevant activities in an area and the impact they have on each other. They will address the current situation and also emerging and future marine uses and technologies such as carbon capture and storage in the sub-seabed, tidal and wave energy initiatives and new Marine Conservation Zones.

Whilst legislation will provide a framework for the planning process the system needs to be flexible and evolutionary. Guidance will be produced for the Marine Management Organisation that it should use to develop marine plans.

Broadly the sort of issues that might feature in the plans are:

Human activities and associated infrastructure
Aquaculture
Artificial reefs
Bio-prospecting
Carbon capture and storage
Coastal land use
Desalination
Diffuse & point source contamination & discharges from marine, land & riverine inputs
Diving – recreational and otherwise
Dredging – different techniques, and for different purposes
Drilling
Dumping (e.g. disposal of dredged materials), sewerage and waste disposal
Excavation and recovery of wrecks
Fisheries
Flood and coastal erosion risk management
Marine historic assets, such as wrecks
Military and defence activities, including aviation
Mineral extraction
Offshore housing, factories, airports and hubs for trans-shipping
Oil & gas exploration, storage & production, including associated pipelines & cables
Ports and navigation
Recreational activities – e.g. fisheries, boating, bathing, watersports and swimming
Renewable energy (and associated interconnectors)
Salvage operations, e.g. following an emergency, or for dismantling structures
(Sailing and use of hovercraft)
Shipping activity including shipping channels
Submarine cables
Tidal barrages
Tourism
Undersea mining

Natural resources, features and processes
Biodiversity – including genetic, species, community and habitat diversity
Climate change – adapting to and mitigating impact
'Circulation systems' and food chains
Geological / geomorphological features
Ecological and physico-chemical processes
Designated sites for ecological or heritage purposes
Habitats, breeding grounds, nurseries and migration routes

Marine Conservation Zones
Meteorological changes – wind, wave and tide
Nationally important and/or protected species
Sea surface, water column sea bed and beneath the sea bed
Seascapes
Sites of archaeological importance

Licensing Activities

The proposed marine licensing system is the mechanism which will translate the objectives of marine plans into decisions to allow individual activities or bar them. It also provides the vital hook on which to hang monitoring and enforcement.

Current regulations are complex, overlap and are difficult to understand. For as many sectors as possible we would like there to be one application per project submitted to one authority i.e. one project: one licence. This approach will facilitate the achievement of sustainable development. Currently more than one licence is needed for one project and there aims may conflict and neither may consider the environmental impact of the project.

The Marine management organisation (MMO) will administer licensing and provide integration and consistency between licensing regimes.

Activities currently licensable will generally remain so. Developers will be required to apply for a licence to carry out activities involving construction, alteration or improvement of works, the deposit or disposal of substances on or under the seabed, or removal of objects and material from the seabed. This licensing regime will also incorporate all forms of dredging, including those licensed by Defra and Communities and Local Government (CLG), and those currently unregulated.

Incorporation of dredging

Dredging is carried out in many locations and at vastly differing scales. Each year the aggregate dredging industry extracts millions of tonnes of sand and gravel, from the seabed around the UK, for use in construction and beach replenishment. The building of new ports, or the upgrading of existing ones, often requires considerable deepening of shipping channels to allow large cargo vessels to use new facilities. There are also many small ports and marinas around the coast where regular, small-scale dredging is needed to remove silt deposited by rivers and the sea. This may be carried out by traditional methods such as cutter suction dredging, but may also involve currently non-licensable forms. These include hydrodynamic dredging, such as water injection and agitation dredging,*(f)* and plough dredging.*(g)* The impact of these operations on the environment, navigation and other uses of the seas varies considerably. But clearly all aspects of dredging, both excavation and disturbance of the seabed and the deposit of dredged material can have an impact on the environment. Major projects can destroy plants and animals and make major changes to the character of the seabed, and even minor works are not without an impact.

The effect of licensable forms of dredging as part of a large project is always carefully assessed alongside the other parts of the project licensing process. Environmental impacts are taken into account (including, where appropriate, in fulfilment of European obligations), as are the impacts on, for example, shellfisheries, other

fisheries and recreational uses. The effects of developments can also be considered in the context of other works in the same area, to ensure that the combined impact of projects is kept within acceptable limits.

Ongoing, small scale dredging often has a marginal or negligible impact on the environment. Nevertheless, even small scale dredging can have a significant adverse impact where, for example, it disturbs sediments contaminated with tributyl tin (TBT) antifouling or historic industrial or other pollution that may drift onto shellfish beds or particularly sensitive ecosystems.

Whilst large construction projects are currently regulated under FEPA and the CPA, and aggregate dredging under the Government View procedure (GV)h and the CPA, various dredging techniques, such as hydrodynamic and plough dredging, fall outside of the scope of current rules.

We intend to establish a comprehensive system to regulate all forms of dredging. We will regulate the excavation of material from the seabed or its disturbance or movement across the seabed. The new system will be flexible and will not apply controls where there is no good reason for doing so.

f Hydrodynamic dredging involves relocation of sediment as a result of ambient water movements and/or gravity. The sediment is not physically removed and deposited elsewhere. Although often small in scale, this is not always the case. Such techniques include water injection and agitation dredging Water injection dredging involves injection of water into the seabed to suspend the sediment in the water column; agitation dredging uses physical contact to disturb the sediment.

g In plough dredging, a plough is dragged through the sediment on the seabed, which is therefore pushed out of a shipping channel, in much the same way a snowplough clears a road.

Making fair and well-informed decisions

Some licensing decisions will attract a high level of interest. There may be cases where consideration and the decision be made in public. It may also be appropriate for a public hearing to take place.

To ensure transparency licensing bodies will be required to publicise applications and make details available to anyone that wants to see them.

Enforcing licensing

The licensing system must be backed up by an enforcement regime that is in proportion. Sanctions may include:-
Issuing of a formal notice giving clear and specific requirements or actions to address failure so to ensure compliance with licensing conditions,

An improvement notice may be issued

Where a serious environmental or other relevant harm has or could arise from marine activities then we propose that regulators should be able to serve a stop or prevention notice.

Where unacceptable environmental harm has arisen from breach of regulatory requirements, regulators should issue a notice to require remedial action to be taken or to take it themselves.

Scope of the marine licensing

- Carbon Capture and Storage (CCS)
- Off shore renewable projects
- Harbours legislation
- Activities carried out under the Transport and Works Act 1992
- Minor change for some cable laying operations

Carbon Capture and Storage

Emissions of carbon dioxide (CO2) from human activities are the major contributor to climate change and ocean acidification, the greatest long term environmental challenges facing the world today. The UK Government is committed to reducing UK CO2 emissions by 20% by 2010 and by 60% by 2050, compared with 1990 levels. These are challenging goals, and CCS is an important component in a portfolio of mitigation measures to help achieve them.

CCS comprises the capture of CO2 generated on land by industrial processes, its transport and injection into geological formations. In the UK, most storage sites will be offshore, in formations typically 1000m below the seabed. These include saline aquifers and depleted oil and gas fields. After injection, stored CO2 is prevented from escaping into the marine environment by sealing the injection sites, and by the overlying cap rock and pore trapping. Over time the CO2 will also dissolve into water trapped within the formation and may later solidify through mineralisation as secondary and tertiary trapping mechanisms.

The Intergovernmental Panel on Climate Change (IPCC) suggests that globally CCS could provide 15 to 55% of the emissions reductions needed to stabilise CO2 in the atmosphere. Others have estimated that potential storage sites in the UK sector of the North Sea are large, about 20,000 million to 260,000 million tonnes of CO2. This would represent approximately 40 to 500 times the total UK emissions in 2005.

Recently, the Stern review reported that extensive use of CCS worldwide would allow continued use of fossil fuels without damage to the atmosphere. It could also help guard against the danger of strong climate change policies being undermined by any falls in fossil fuel prices. By enabling and investing in CCS now, the UK can also show leadership to rapidly growing economies, such as China and India: CCS offers the only realistic prospect of mitigating the effect of CO2 emissions from the increasing use of fossil fuels that supports the economic growth of these countries.

A number of CCS projects in the North Sea are now being developed by industry. These projects require both national and international regulatory certainty to go forward. The UK Government therefore supports measures to create an appropriate international regime and will ensure that a domestic regulatory framework is put in place to enable such projects to take place.

There is uncertainty about the whether CCS in the sub-seabed are permitted by international law. However there are significant moves to address international barriers to using CCS and it is expected that by mid 2007 the UK should be able to develop and implement a national regulatory regime and infrastructure to encourage and regulate CCS.

Constructing renewable energy installations in the sea

The Government's programme of action to tackle climate change is wide-ranging. An essential element of finding the right energy mix for the UK's future energy needs is renewable energy, and our aim is that 10% of our electricity is generated by renewable sources by 2010 and 20% by 2020. Through the Marine Bill, we will facilitate achievement of this target by simplifying the licensing process for marine renewable energy installations.

We believe that since building an offshore renewable energy installation and connecting it to the grid is a discrete project, developers ought to be able to apply to do that through a single process, consistent with our *one project:one licence* principle.

We intend to create a single licensing system for the construction of offshore renewable energy installations, where responsibility for both existing licences currently lies within the same administration. When the licensing authority issues consent for a project under Section 36 of the Electricity Act 1989, it will also be able to grant concurrently the appropriate environmental permission. One way to do this would be by empowering the Section 36 consenting authority to direct that a licence has been given under the reformed marine licensing regime as well.

Harbours Legislation

The current approach to authorising marine works in or near port or harbour areas is complicated and often archaic – some of the legislation dates back two centuries or more. We want to ensure wherever possible that a straightforward and consistent system of regulation applies in future. We also want to reduce unnecessary bureaucracy, and provide a clear basis for the implementation of European environmental rules.

The reforms of the CPA that we are making mean that we can make the rules relating to harbours clearer, and focus them in a proportionate way on real world problems. We expect to make use of the ability under the new provisions of the reformed licensing regime to exempt some activities from control and we may modernise others by disapplying local statutory provisions. This does not mean sweeping away local rules that work well. Where local powers to control the environmental or navigational impacts of works in a port or harbour are in place and effective, we will not change them. Indeed, we want to make it clear that our reformed licensing regime will not then apply separately. We will also address problems through guidance and improved practice relating to how different rules fit together.

Marine Nature Conservation

Objectives are to deliver on the vision and strategic goals as well as on international commitments the most relevant of which are:

- halt the decline of biodiversity across the European Union by 2010
- establish and maintain a network of 'Natura 2000' protected areas and conserve species and habitats of European importance;
- establish an ecologically coherent network of well managed Marine Protected Areas (MPA) by 2010 and
- implement an ecosystem approach to management.

Marine biodiversity in UK waters is under increasing pressure from human activities. A wide body of research has identified that significant and important processes of the marine environment are under threat of irreversible damage, including those that assimilate waste, regulate the climate and recycle nutrients. These processes are linked to the biodiversity found in the marine environment.

Climate change

Climate change has been recognised as the greatest environmental challenge facing the world today. Rising global temperatures will bring changes in weather patterns, rising sea levels and increased frequency and intensity of extreme weather events. The impacts climate change will have on biodiversity will be significant but are difficult to predict. Already the variety and distribution of marine species are being altered by climate change. Cold-water species of plankton, fish and intertidal invertebrates are retreating northwards around the UK and the ranges of southern species are expanding. We can expect to see a geographic shift in the distribution of species in UK waters and an overall change in the species living here. We must be able to respond to a changing environment.

Current Conservation Mechanisms

There are a range of bio diversity measures in place already to deliver nature conservation benefits in the marine area which have proved valuable in conservation gains.

However, current measures are unable to fully deliver our biodiversity objectives because:

- they do not provide the means to protect the full range of important biodiversity in UK waters; and

- most conservation tools were designed primarily to address terrestrial needs.

Geographic Scope

Proposals refer to UK offshore area, England and the adjacent UK territorial sea. Delivery of these proposals is under discussion with Welsh assembly and Northern

Ireland assembly. The Scottish Executive is considering the benefits of taking on new responsibilities for nature conservation in the Scottish Fishing Zone.
The new measures will apply to

- Marine waters out to the seaward limit of the UK Territorial Sea adjacent to England, Wales and Northern Ireland
- UK offshore waters from 12 to 200 nautical miles or the median line between countries
- The UK Continental Shelf, including areas beyond 200 nautical miles (beyond off shore waters UK rights extend only to the seabed and subsoil and therefore site and species protection would only be possible to seabed species and habitats in this area)

The landward boundaries will be Mean High Water Springs (MHWS) and the proposals will apply to activities taking place on land where they have and adverse impact on marine biodiversity

Regulating Better

It is intended that regulation is at the least cost but delivers the intended outcomes. Measures will target the key risks and be proportionate to the threat posed by these risks.

The Marine Bill would work with European regulation transposing the European Wild Birds and Habitats Directives.

Marine Conservation Zones

Our vision for Marine Conservation Zones

By 2020, we want a network of effectively managed sites comprising European marine sites and MCZs, including highly protected sites.

We want this network to conserve enough rare, threatened and representative species and habitats to maintain and improve biodiversity and ecosystems whilst covering as small an area as necessary.

We want to:

- by 2008, complete our initial contribution to the network of European Natura 2000 sites, building on the 65 Special Areas of Conservation (SACs) and 78 Special Protection Areas (SPAs) in the UK that already have a marine element;
- by 2012, have made substantial progress to completing our network by designating additional European sites, bringing the total number of fully marine sites in the territorial sea adjacent to England and the UK offshore area to around 30; and
- by 2020, complete a UK site network that effectively conserves marine biodiversity.

Protected sites play an important role in conserving sedentary and sessile species and habitats. They can also protect certain life cycle stages of some mobile species.

Purposes of Marine Conservation Zones

We intend to introduce a new type of marine protected area called a MCZ. We want MCZs to conserve or aid the recovery of:

- rare or threatened habitats such as seagrass beds and deep soft sediment habitats;
- rare or threatened species such as the sunset cup coral (*Leptopsammia pruvoti*), the long-snouted seahorse (*Hippocampus ramulosus*) and the native oyster (*Ostrea edulis*);
- globally or regionally significant areas for geographically restricted habitats or species such as estuary habitats and species such as the spiny lobster (*Panulirus argus*);
- important aggregations or communities of marine species, particularly hotspots, where a large number of species gather in one area;
- areas representing the full range of biodiversity in UK waters, including important habitats such as areas of muddy seabed which contain Norway lobster (Nephrops norvegicus), Northern sea fan (*Swiftia pallida*) and Angular crab (*Goneplax rhomboides*);
- areas important for key life cycle stages of mobile species, including habitats known to be important for reproduction and nursery stages;
- areas contributing to the maintenance of marine biodiversity and ecosystem functioning in UK waters; and
- features of particular geological interest.

Conserving other important marine features

Other features and characteristics of the marine environment will be protected through a range of means:

- Sites of special archaeological and historic interest within 12 nautical miles
- Important seascapes
- Spawning and nursery areas

Site Selection

We are proposing a flexible mechanism that could be used to designate individual sites or groups of sites on their own merits. This would give us the ability to establish sites as information becomes available, or as the need is identified, without having to know in advance where all sites will be located.

We would often seek to include several areas containing a particular species or habitat (a principle known as replication) so that if one site were seriously damaged, the network as a whole would continue to meet its objectives.

There may be cases where it would be beneficial to extend the boundary of a MCZ inland to capture the full extent of a habitat or ecological feature. We want the mechanism to be flexible enough to do this.

Balancing, ecological social and economic considerations

We wish to take a flexible approach with MCZ's one that protects ecosystems and biodiversity without causing inappropriate economic or social impacts where ever possible.

It is likely that there will be a choice between a number of areas identified as potential sites particularly for the protection of representative species and habitats. There are a number of factors that will affect the decision and these will be prioritised in the marine plans.

Site Objectives

Objectives will be set for each site establishing the nature conservation outcomes to be delivered by each site and will clarify the level of constraints on marine activities.

Objectives may include:
- avoiding deterioration of a habitat from its current conservation condition;
- maintaining or enhancing current population levels of a particular species; or
- restoring or enabling the recovery of a habitat to a good condition.

Where it is appropriate to allow sites to fully recover and develop, objectives may be set for MCZs that exclude all damaging or potentially damaging activities. This would create highly protected marine reserves.

Site selection process

Relevant stakeholders would be consulted at the key stages of the site identification process. Appropriate consideration will be given to the socio economic considerations.

Decisions will be published and affected interests informed.

Voluntary measures will be encouraged to limit impacts whilst the site selection process is followed.

Management

We propose to prevent damage to sites through:
- the planning and licensing regimes operated by the MMO and other licensing authorities to control the impacts of development and other industrial activities;
- any other licensing regime that may impact upon the site;
- fisheries controls introduced by fisheries authorities;
- nature conservation by-laws and interim measures introducing specific controls on unregulated damaging activities (see 6.129 – 6.159); and
- the creation of an offence of damage or destruction of any species, habitat or other feature for which a site has been designated (see 6.95 – 6.98).

Licensed Activities

Licenses are issued to authorise specified activities. The licence applicant will be required to complete a environmental impact assessment (EIA) in applying for the licence.

The MMO will be proactively collecting data and information on marine areas which will be provided to developers.

Where an activity could damage a MCZ applicants may be required to take mitigation measures. If the impacts cannot be mitigated then the activity will not be permitted to proceed unless it was in the public interest to do so and it could be demonstrated that there are no alternatives.

If an activity is allowed to proceed on public interest grounds then applicants may be required to put in place compensatory actions including;

- an extension of the site to counter the development impact;
- the selection or creation of an alternative site which could deliver similar conservation objectives; or
- marine conservation work of equivalent value to the damage caused.

Fisheries

The proposed duty on public bodies to take measures to protect sites and deliver their conservation objectives will place a positive obligation on fisheries authorities to regulate fishing activities so they do not cause significant damage to sites. We do not have the competence to take action relating to matters covered by the Common Fisheries Policy (CFP). This means that:

- within 6 nautical miles from the coast, SFCs will need to put by-laws in place to prohibit or constrain fisheries activities in inshore waters, which would otherwise conflict with the conservation objectives of a designated or proposed MCZ; and
- beyond 6 nautical miles, Defra could seek the agreement of the EU Fisheries Council to the introduction of measures through the CFP to protect areas of national importance that are fished by fishermen from other European states. This could involve closure of areas, or gear restrictions to prevent impacts that would prevent the achievement of site objectives.

Unregulated activities

We propose giving the MMO by-law making powers for the regulation of currently unregulated activities that could otherwise cause damage to sites.

Adaptive Management

MCZs would be likely to be designated with a view to achieving nature conservation benefits over long timescales. Sites, once established, would usually remain in place for the long term. In addition to the nature conservation benefits, this is important in providing stable conditions for marine businesses to plan their activities. Occasionally, there may be a need to designate sites for a shorter period.

Species Protection

Our vision for marine species

By 2020, we want viable populations in all UK regional seas of the most important marine species and plants.

We want to ensure sufficient populations of the most important marine species so that they are resilient to human impacts and make a positive contribution to essential ecosystem goods and services.

We want to:

- By 2010, introduce appropriate and proportionate measures to halt the rate of decline in nationally important marine species and plants.
- By 2020, ensure sufficient measures are in place to conserve effectively marine species and plants.

UK waters contain up to half of the UK's biodiversity, estimated at around 44,000 species. Our objective is to maintain viable populations of the most important marine species and plants in UK waters. We will do this by using proportionate and targeted measures that are capable of addressing identified threats to the conservation status of important species.

A report for Defra by the Institute of Estuarine and Coastal Studies at Hull University examined the protection requirements of a representative range of species considered vulnerable to human activities.

It found that species are at risk from only two main pressures: either a loss of, or modification to, habitat; or the removal of the species or its prey. The report concluded that there are two fundamental approaches to the protection of species in the marine environment:

- control of certain damaging activities within the marine environment to protect the functioning of a habitat, physical attributes and food supply;
- restrictions on species being overexploited through direct target catch or continuous bycatch.

The report found that in the majority of cases these species could be adequately protected through protected area measures or sectoral controls such as fisheries measures. The exceptions were where the main impact on the species was collection (for example for the curio trade) and in relation to mobile species.

Site based protection

Habitats provide the fundamental building blocks for marine wildlife. Damage or destruction of the habitats on which species rely can have a significant impact on the capacity of species to maintain viable populations. Maintaining good habitats will help to ensure the long-term survival of marine species.

Our proposals in relation to MCZs will provide a powerful tool for improving the protection available to marine species. We propose to use MCZs as our primary tool for protecting:

- habitats which are important for maintaining viable populations of rare and threatened marine species;
- important aggregations of sedentary and sessile species (e.g. pink sea fans or erect sponges); and
- mobile species, where areas can be identified which are important for key life cycle stages, such as for rearing or breeding.

This will provide substantially more protection for more species than is currently available but it cannot provide protection in all areas at all times. Additional tools are needed, particularly to provide protection for highly mobile species.

We have a wide range of tools that enable us to manage fishing activities that impact on marine wildlife, including using closed areas and gear restrictions. Such measures are suited to reducing undesirable bycatch as they can be used on a flexible and localised basis. They have been used to good effect already as demonstrated by changes to net types over the years and the development of new equipment such as escape hatches in nets and pingers.

We propose improving sectoral controls to improve the sustainability of fishing activities. We will identify how we can make better use of gear restrictions and fisheries no take zones where fishing is having an adverse conservation impact. Beyond this, measures to control bycatch would have to be sought through the Common Fisheries Policy (CFP) by agreement of the EU Fisheries Council.

Where fisheries are managed under the CFP the UK cannot unilaterally use fisheries measures to protect species. We will work within Europe to ensure that fisheries management provides these species with appropriate protection.

Case study: Using existing conservation tools – seahorses

Seahorses are found in seagrass beds and kelp forests around the UK coast. Their numbers are in decline, and they are widely dispersed. The main threat faced by the species is from habitat destruction and collection and sale for the curio and aquarium trade.

The Wildlife and Countryside Act 1981 is capable of providing very effective protection for species such as the seahorse making it an offence to possess or sell listed species. This approach, alongside protection of appropriate areas of habitat in MCZs, will provide an appropriate level of species protection.

Two species of seahorse (short-snouted and spiny) have been proposed for listing for protection by the Wildlife and Countryside Act 1981.

By-law making powers

We wish to ensure that we can control activities that have a significant impact on the achievement of MCZ objectives or on the conservation status of important marine species. Licensing and fisheries controls already address the most significant impacts but there are a number of unregulated activities that have the potential to cause damage.

We propose that by-laws may be applied to control unregulated activities, wherever they occur, when it can be demonstrated that they have a significant impact on achievement of a MCZ's objectives or on the conservation status of an important marine species. They should be used to control specified activities in a specified manner. For example, by excluding activities such as anchoring from specified areas to minimise damage to benthic habitats and by applying speed limits to reduce noise impacts.

Where the need for a by-law is identified for an established MCZ or for the purposes of species conservation, the consultation process outlined for MCZs would be followed.

Enforcement

To rationalise, simplify and strengthen enforcement arrangements in the marine area we propose to give the new MMO responsibility for the enforcement of nature conservation legislation in UK offshore waters, territorial waters adjacent to England, and internal waters in England. This section relates to nature conservation functions in those areas only.

The MMO would develop a clear working relationship with the Police, who would also retain their ability to enforce wildlife crime in the marine area.

The following sanctions could be used in enforcement; Fixed penalties, fines, confiscation of assets, custodial sentences. Offenders may also be required to take remedial action.

Modernising marine fisheries management

The Issues

Fishing is one of the many activities that take place in the marine environment. It provides important socio-economic benefits, especially to coastal communities, as well as a valuable and nutritious food source. However, there is an environmental impact and some fishing activities threaten the integrity of the marine environment, including the long-term sustainability of fish stocks. Delivering environmentally and economically sustainable fisheries is an integral component of achieving the Government's overarching marine vision of "clean, healthy, safe, productive and biologically diverse oceans and seas" and achieving the right balance between socio-economic benefits and environmental costs is essential.

The fisheries sector in the UK is extremely diverse and for the most part is subject to extensive regulation. Through our proposals we are seeking to strengthen, and simplify where possible, existing regulation to improve the environmental and economic sustainability of fishing activities.

Sea Fisheries Committees in England

Introduction

Our coastal waters support varied and productive ecosystems that sustain extensive fishing industries as well as tourism, angling, diving, boating and other activities. We want to conserve these ecosystems to provide rich resources today and for future generations.

Human activities pose the biggest threat to them, most acutely in our inshore waters (generally within six nautical miles of the coastline) where there is greatest interaction between man and the marine environment.

There is a wide range of inshore fishing activities taking place around our coasts. These are often characterised by fishing vessels of less than 10 metres in length making day trips from local fishing ports. These vessels often leave harbour early in the morning and engage in trawling, netting and lining for a variety of fish species including cod, plaice, sole, bass, sprat, herring and mackerel. There are also extensive shellfisheries such as those for crabs, lobsters and scallops using pots, creels and dredges. Fisheries exploited by hand gatherers operating in the inter-tidal zone for species such as mussels and cockles are common in some coastal areas.

Inshore fisheries management in England is the responsibility of SFCs. They were originally established in the 19th century through the Sea Fisheries (Regulation) Act 1888, since consolidated in the Sea Fisheries (Regulation) Act 1966. The Committees can make bylaws for the management and conservation of their districts' fisheries and enforce some national and EC fisheries legislation. Their original purpose has been extended to enable them to regulate fishing activity on wider environmental grounds, such as for the protection of sensitive reefs from fishing activity, as well as for stock conservation. In certain coastal waters and estuaries, the Environment Agency (EA) has the powers of an SFC. Local control and stakeholder involvement in SFCs is a critical factor. This is achieved by appointing to SFCs people knowledgeable about the fishing industry and other relevant interests (e.g. recreational sea angling) as well as through local input to proposed by-laws.

Defra Minister, Ben Bradshaw announced on 20 June 2006 the reform of SFCs in England through the Marine Bill. This was in response to a number of reviews of inshore fisheries and environmental management. Those reviews considered options for strengthening management arrangements, including abolition of SFCs, and suggested that any new delivery structure should have a strong regional/local base with the full involvement of stakeholders. An enhanced role in the protection of the wider marine environment was also suggested, as well as greater involvement of recreational sea anglers in management decisions.

The challenges of inshore fisheries and environmental management often relate to conditions in very local areas such as an individual bay or estuary and require local solutions. Local input to decision-making and local accountability that flows from their status is a key strength of SFCs and means they are able to get to the root of these challenges and to negotiate practical solutions. These factors weighed heavily in the decision to retain and reform SFCs, which is consistent with the broader thrust of Government policy to devolve more responsibility to local people. The SFC model was the option preferred by respondents from across the spectrum of stakeholders who commented on the 2006 Marine Bill consultation.

Retaining a strong regional focus supports the increased emphasis of the reformed common fisheries policy on local management responsibility through Regional Advisory Councils or regional fisheries managers.

We have developed a package of reform measures to ensure that SFCs can deliver their responsibilities effectively and in line with good regulatory practice. We are also making proposals in response to arguments for consolidation of the number of organisations delivering fisheries management.

We intend the core purpose of SFCs to be the sustainable management of fish stocks in the marine environment through an ecosystem-based approach. Their focus will remain firmly on fisheries activities and their impact on the marine ecosystem. In particular, SFCs should:

- sustainably manage fisheries impacts on marine ecosystems, having due regard to a precautionary approach;
- maintain and, where necessary, actively contribute to the rebuilding of living aquatic resources and their supporting ecosystems, thereby enabling sustainable exploitation; and
- ptimise the social and economic benefits derived from living aquatic resources whilst ensuring their long-term sustainability.

We propose duties on SFCs, including those to:

- take timely management action (e.g. to introduce a by-law or other measure) in pursuance of their core purpose;
- undertake appropriate monitoring and enforcement of fisheries and marine environmental legislation; and
- collect data relating to fisheries and the impact of fishing activities on the marine ecosystem consistent with an ecosystem-based approach to fisheries management.

The membership of each SFC is 50% local authority members, one member from the EA the balance appointed by the Secretary of State for Environment, Food and Rural Affairs as able to represent local fisheries interests or having knowledge of local marine environmental matters.

Membership of the SFC's will be improved by

- reducing local authority membership
- membership of Natural England as they have the specialist knowledge
- MMO membership to provide a joined up approach

The committee will comprise no more than 15 members as opposed to the current 30.

SFCs are able to introduce by-laws applicable throughout their districts for the management of fisheries as well as for wider marine environmental purposes, such as the protection of species and habitats from fishing activity. We intend to update and strengthen these powers to address a number of deficiencies that have been identified by SFCs and other stakeholders. Proposals will include;

Marking of fishing gear (e.g. pots, lines, trawls, etc.) is a way of attributing ownership by attaching a marker buoy or a tag(s) usually displaying the name and registration number of the vessel from which they were deployed. Different configurations of marker buoys may also be used to signal the direction in which the gear extends. Marking of fishing gear will enable SFCs to regulate more effectively. It also helps avoid conflict between vessels using different types of gear, which can cause extensive damage, and claims for compensation

We intend to put beyond doubt the use of permit schemes to control fishing effort for conservation and enforcement purposes by enabling SFCs to restrict the number of permits issued.

SFCs are currently able to regulate activities involving the taking of sea fish and shellfish (including crustaceans and molluscs). They are not, however, able to regulate a number of high impact activities such as bait digging for ragworms and lugworms, or seaweed gathering. We believe SFCs should be able to manage such activities and propose therefore to extend SFC competence to cover living aquatic resources.

A Marine Management Organisation (MMO)

Our Aim

The UK Government intends to set up a new Marine Management Organisation (MMO) to deliver many of our objectives for the marine area. A new organisation would be a centre of marine expertise, provide a consistent and unified approach, deliver improved coordination of information and data and reduce administrative burdens. The integration proposed would provide benefits from joined up delivery and economies of scale that could not be realised by placing those functions in separate organisations.

Summary of our proposals

The UK Government has decided to create a new MMO to carry out many of the marine delivery functions for which it has responsibility. Northern Ireland ministers also currently support the delivery of functions for which they have responsibility through a regional office of the MMO.

The MMO will act as a champion for the integrated management of our seas. It will make a unique contribution to sustainable development by bringing together the delivery of many of the marine functions of the UK Government and Northern Ireland administration within a single independent body, including functions relating to strategic planning, streamlined marine licensing, fisheries management and enforcement and nature conservation enforcement.
We envisage that the MMO will have approximately 300-350 staff – including posts currently within the Marine Fisheries Agency (MFA), which will be incorporated within the MMO. It will have a headquarters function located outside of London, and offices around the coast. The current ministerial preference for Northern Ireland envisages a regional office, likely located in Belfast. Taking account of the volume and nature of functions to be delivered, it is envisaged that approximately 35-40 staff would be located there, including a number of posts currently within the Sea Fisheries

Inspectorate (SFI), for which the Department of Agriculture and Rural Development (DARD) in Northern Ireland is responsible.

Introduction

Marine Management Organisation Vision

The vision of the UK Government and Northern Ireland administration for the MMO is of a professional and proactive marine manager, trusted by all stakeholders to contribute to sustainable development of the marine area. The MMO will achieve this by developing forward looking marine plans, which provide a sound framework for:

- decision-making within streamlined licensing regimes;
- expert marine fisheries management;
- proportionate nature conservation; and
- the effective, fair and consistent enforcement of regulation.

The MMO will create a comprehensive system to identify, acquire and access the key data and information sets needed to deliver its functions.