



Our coasts and seas

Making space for people, industry **and** wildlife



working today
for nature tomorrow



Prawle Point, Devon, part of our rich and varied coastline.
Chris Gibson/English Nature

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East Cliff, West Bay, part of Dorset and East Devon Coast
World Heritage Site. Chris Gibson/English Nature

Preface



CLARENCE HOUSE

English Nature is the catalyst for a whole suite of actions that are necessary if we are to halt, and then reverse, the seemingly inexorable decline of the marine environment around our coasts. Those actions need to be taken by a wide variety of organizations and interest groups, with careful co-ordination between them. So it is appropriate that the publication of this new *Maritime Strategy* is the culmination of an extensive participatory process with all those stakeholders. It is also the first step on an important journey, since it sets out the principal actions required to meet our international commitments – to halt biodiversity decline and thereby instigate recovery in our seas and along our coasts.

Fishing has possibly the single biggest direct impact on the marine environment. But we need to remind ourselves that it is also an industry wholly dependent on that same environment and therefore cannot, indeed must not, be considered in isolation. Somehow we have to achieve the transition to sustainable fisheries that safeguard not only fishermen's livelihoods (and their dependent communities), but also reduce their impact on non-target species and damage to the marine habitats that support them. Possibly the most effective way both to instigate appropriate prudence and enable a substantial degree of recovery of existing stocks is to have a large scale network of marine reserves where fishing is precluded, as part of a wider marine management framework. This is not a popular proposal, but I believe it is an idea which must be given urgent consideration in the long-term interests of both fish and fishermen. After all, we have successfully established Environmentally Sensitive Areas on land for the same fundamental reasons...

The marine environment is also being affected by climate change. In the South and East of England, valuable habitats such as saltmarsh and mudflat, and their associated species, are being squeezed between rising sea-levels and man-made defences. It will be a major challenge to find ways of managing our coasts sustainably, with appropriate flood defence measures that work in harmony with natural coastal processes.

This *Maritime Strategy* makes it clear that there is now an onus on all those who have responsibility for our maritime environment to think and act with real regard for sustainability. In doing so they will not only safeguard the future of their own activities, but also the foundation upon which all those activities depend – the marine ecosystem. As our technological capacity increases, we look to the marine environment for an ever-wider range of resources. In addition to fisheries, transport and recreation, the list now also includes aggregates, oil and gas, and renewable energy. This increased use of the sea presents a clear challenge to our current mode of regulating and managing marine activities. It is clear we need a more strategic and planned approach to find room both for different activities and for wildlife. An obvious priority to help achieve this would be marine spatial planning, something that several European states are now actively looking at promoting.

I believe this *Maritime Strategy* makes a strong case for us **all** to adopt a sense of stewardship for our marine and coastal environments, in which we recognize their intrinsic contribution to our own wellbeing. A continued "out of sight, out of mind" approach will be at our own peril.

A handwritten signature in black ink, appearing to read 'Charles', with a long horizontal flourish underneath.

HRH Prince of Wales



The kittiwake breeds in colonies on rocky, steep cliffs in England. It spends the winter out at sea.
Chris Gibson/English Nature

Foreword

In this year, 2005, we celebrate the rich tradition of seafaring and exploration enjoyed by this island nation. Our history is strongly focused upon the sea and the role it has played in making us what we are today. Many communities are coastal and have developed out of seafaring. The coastal and marine environments are changing, however, with climate change heading the agenda for action. The implications are profound, and coastal communities lie at the forefront of changes that are affecting all aspects of daily life. For these reasons, better management of the marine environment is of particular interest to Government. It is therefore timely that English Nature has explored the issues pertinent to nature conservation.

English Nature's strategy arises from detailed evaluation of the key issues facing our maritime environment published in their *Maritime State of Nature Report for England: getting onto an even keel* in 2002. Since then, English Nature has engaged in dialogue with a broad spectrum of stakeholders, including the use of web-based interaction with the wider public. A consultation document, *Our coasts and seas – A 21st Century agenda for their recovery, conservation and sustainable use*, was central to the process.

*Our coasts and seas – making space for people, industry **and** wildlife*, represents the synthesis of the consultation process. It highlights the need for action across a variety of issues, ranging from the stresses imposed on marine ecosystems by current fisheries management to the loss of coastal habitats that act as a buffer between land and sea. A central theme of this strategy is adaptation to change, and the need for new conservation and protection mechanisms, including new reserves, to counter over-exploitation and ongoing deterioration of the marine environment. In the face of sea-level rise, increasing storminess and limited resources to maintain the coastal landscape as we know it today, some hard choices will be needed, on land and at sea.

This strategy forms the basis for English Nature's ongoing advocacy on possible policy for conserving and restoring the coastal and marine environments. It is a welcome contribution to the debate on ways in which our coasts and seas should be managed. Its messages are demanding and will be taken into account in the development and implementation of Government strategy for the marine and coastal environments.

Delivery of more sustainable coastal and marine environments depends upon partnership between Government, its agencies and the broad spectrum of stakeholders. This strategy sets out the agenda for English Nature's work and will form an important contribution to the work of its successor body. We look forward to a continuing partnership and the further development of the close working relationships that have been established through the consultation process.

Implementation of this vision cannot work without contributions by all stakeholders who manage, use and enjoy our coasts and seas. We hope that everyone will help to deliver this vision.



Sir Martin Doughty
Chair, English Nature



Mr Ben Bradshaw MP
Minister for Nature Conservation and Fisheries

Our strategy – at a glance

This strategy has been developed with a wide range of stakeholders. It complements and supports other initiatives such as the Government's Marine Stewardship process; the Department for Environment, Food and Rural Affairs' developing Flood and Coastal Erosion Risk Management Strategy; the England Biodiversity Strategy; and the Review of Marine Nature Conservation. English Nature is committed to offering high-quality advice, underpinned by clear evidence and robust science. We fulfil our responsibilities for wildlife, geodiversity and the environment through strong partnerships with those who manage, use and enjoy our coasts and seas.



Sea-kale grows on mobile areas of coastal shingle.
Chris Gibson/English Nature

“The time has come to take the protection of the UK marine environment seriously, make tough decisions and above all move from talk to action.”

Marine Conservation Society,
March 2004

Through strong and focused action, we will increase our contribution to the sustainable use of our coasts and seas at local, regional, national and international scales. Our focus is on recovery by applying the Ecosystem Approach. We aim to improve water quality and fisheries management, to protect at least 20-30% of each habitat type from extractive use and to develop a fully representative network of Marine and Coastal Protected Areas. Other key areas are developing better integrated marine and coastal information systems, and undertaking research, developing tools and promoting best management practice. Increasing awareness and understanding of these environments by developing marine and coastal partnerships is vital.

Our core ambitions are to:

- shift completely from ‘defence’ to ‘management’ at the coast;
- move from ‘exploitation’ to ‘sustainable use’ of our seas;
- focus on ecosystems rather than individual habitats and species;
- see the introduction of a statutory marine spatial planning system;
- establish a coherent network of Marine Protected Areas;
- strongly protect marine ecosystems to stimulate their recovery;
- see policy advisors and decision-makers making better use of science;
- focus more on, and better understand, the benefits the seas provide;
- improve ways of involving stakeholders in decisions and advice; and
- make stronger links between what happens on land and at sea.



Sea defences at the Naze, Essex. There needs to be a complete shift from coastal defence to coastal management. Chris Gibson/English Nature



Sanderlings need healthy estuaries for food and shelter.
Chris Gibson/English Nature

At the coast, the benefits of achieving our ambitions will include:

- coastal habitats that are better able to adapt to long-term change;
- more natural transitions between freshwater, brackish and saline habitats;
- coastal communities that are better able to adapt to coastal change;
- better information so that new developments are sited in more suitable locations, taking into account likely long-term changes on the coast; and
- more and better opportunities for sustainable tourism.

At sea, the benefits of achieving our ambitions will include:

- better water quality;
- healthier, more robust food chains;
- recovery of fish stocks with consequent benefits for fishing communities;
- healthier and more robust seas that can better cope with some of the major impacts we have little direct control over, such as climate change; and
- a long-term future for marine wildlife.

We can work towards some of our aims alone, but can only be truly effective if we work with others who are responsible for, and care for, the future of our coasts and seas. In this way we can all work towards our vision of coasts and seas where there is space for people, industry *and* wildlife.



Puffins need a healthy marine ecosystem that can sustain good populations of sandeels for them to feed on.
Chris Gibson/English Nature

1 Introduction

Healthy coasts and seas are vital to us all. They bring fundamental benefits to the national economy and are essential to the future of many communities. Coasts and seas enhance the quality of all our lives. If we want to continue enjoying these benefits, society must manage its activities in ways that maintain the underlying ecological processes. In the past society has often failed to do this. As a result, the inherent natural value of our coasts and seas has declined, together with the contribution they make to the economy and to coastal communities. Now is the time to turn the tide and halt such declines, to retain the improvements already made, and realise more of the benefits.

English Nature – our role

English Nature champions the conservation and enhancement of the wildlife and geological features of England. We work for wildlife in partnership with others and promote biodiversity as a key measure of sustainable development. English Nature is committed to offering high-quality advice underpinned by clear evidence and robust science. We fulfil our responsibilities for wildlife and geodiversity through strong partnerships with those who manage, use and enjoy our coasts and seas.

This strategy has been developed over the past two years in close consultation with a range of stakeholders, including Government departments. It is particularly directed towards policy advisors and decision-makers who have a key role in the future of our coasts and seas. We hope it will also be of value to all who care about these environments. This strategy outlines actions that need to be taken; whilst some of them fall to English Nature we cannot do this alone. We have set out some key partners we need to work with to implement this strategy.

The State of Nature Report

In November 2002 we published our *Maritime State of Nature Report for England: getting onto an even keel*. This identified fisheries, water quality, and inappropriate coastal development and management as the priority issues for the nation's coasts and seas. It demonstrated that, although there had been some improvements to the marine environment, such as reductions in 'point source' discharges of sewage and industrial effluents, the overall quality of our coasts and seas was still declining. It also highlighted the need for a more integrated and coherent approach to managing our coasts and seas.

The *State of Nature Report*, together with more recent evidence, shows that the quality of our coasts and seas continues to decline, and that the abundance and diversity of species found in the seas has been significantly altered by our activities. The structure of marine food chains, and their capacity to cope with the demands that we place on them, continues to weaken.



Lyme Regis Harbour. Healthy coasts and seas are the lifeblood of many coastal communities.
Chris Gibson/English Nature

Emerging issues

At the launch of our *Maritime State of Nature Report* we made a commitment to develop a strategy to address the issues we had identified. Since then, the list of priorities has grown as new evidence of the pressures on our coasts and seas has come to light.

“Politicians are beginning to realise that depleting species is not just an “environmental” issue, it also costs money and jobs. Lots of jobs.”

Carl Safina

There is now greater recognition of the implications of climate change and it dominates the issues we raise. This is because scientists confirm that, in addition to rising sea levels, it may alter the very character of the seas. The seas act as a buffer, absorbing carbon dioxide from the air. Surface waters are becoming saturated with carbon dioxide from increasingly high levels in the atmosphere. As a result, the seas are becoming more acidic, which threatens the underlying chemical processes that support life. Whilst the full impact may not be evident within this generation, the message is clear – action must be taken now.

The announcement in July 2004 by the Rt Honorable Margaret Beckett MP, Secretary of State for the Environment, on how the Department for the Environment, Food and Rural Affairs (Defra) and its agencies modernise rural services, will impact on our work and the way we carry it out. Over the next few years English Nature’s role will merge with complementary functions from the Countryside Agency and the Rural Development Service. Contributing to the environmental strand of sustainable development will feature highly in the work of this new agency. It will retain responsibility for marine and coastal conservation and our maritime strategy will help to direct its work.

A contribution towards achieving sustainable development

Sustainable development is a cornerstone of Government policy. The Government's current definition of sustainable development (2004) is derived from the 1987 Bruntland definition, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". This has four 'pillars':

- social progress which recognises the needs of everyone;
- effective protection of the environment;
- prudent use of natural resources; and
- maintenance of high and stable levels of economic growth and employment.

In *Safeguarding our seas: a strategy for the conservation and sustainable management of our marine environment*, the Government made a commitment to implementing sustainable development using the Ecosystem Approach. Such an approach has been recognised internationally through the implementation plan agreed at the World Summit on Sustainable Development in 2002, and the plan being developed for the European Marine Strategy.

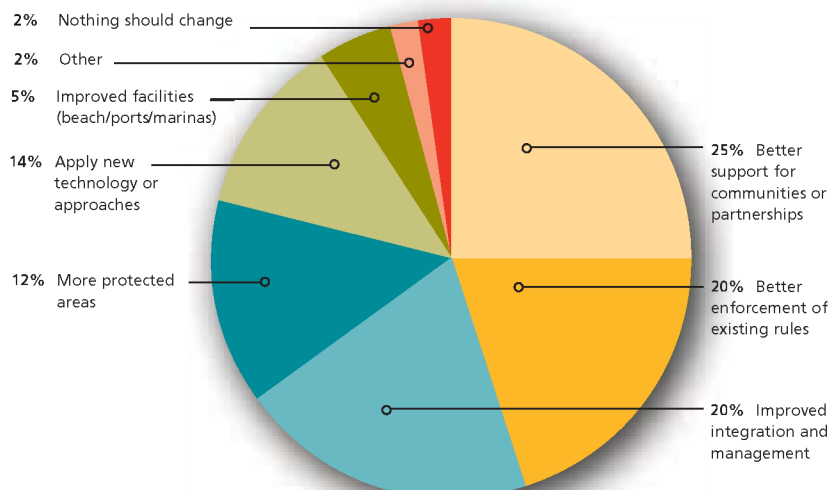
We believe that the Ecosystem Approach is essential to achieving sustainable development. It integrates managing land, water and living resources and promotes conservation. This approach recognises that people depend on healthy ecosystems and that there are limits to how much the environment can sustain in terms of social and economic benefits. If these limits are exceeded, the integrity of the system breaks down and it becomes less stable and less productive. This can severely affect our quality of life (for example, through rising sea levels around the world, loss of fish on the Grand Banks in Canada or diffuse pollution in the Baltic).

The aim of this strategy is to ensure that environmental limits are not exceeded and, where they have been, to promote recovery. So, the Ecosystem Approach to sustainable development means **undertaking development that improves the quality of life now and in the future, in a way that maintains the ecological processes on which life depends.**

Building our perspective

Since 2002 we have involved stakeholders in developing our strategy. We held workshops and meetings and reached beyond our traditional partners. We also sought the public's views on what we should be doing. Between June and September 2003, we carried out a web survey to give people an opportunity to express their views about our coasts and seas. We received over 900 responses, highlighting that people care about the marine and coastal environment. In June 2004 we published a consultation document *Our coasts and seas – a 21st century agenda for their recovery, conservation and sustainable use*. We received feedback from 70 organisations and individuals,

English Nature web survey 2003 What actions do you think should be taken?



covering a wide range of marine and coastal interests. We have carefully considered the views and ideas expressed in the responses, and they have helped us to review our objectives and shape this strategy.

The strategy has developed gradually and our objectives have evolved to reflect comments received and progress made on some actions. The issues we identify affect many organisations and sectors of society, and do not observe geographical or administrative boundaries. Working with so many stakeholders will be challenging. This will be fundamental to our successor body, especially in renewing efforts to ensure development meets Government's sustainability goals.

In the following pages, we set out our revised objectives and identify our priorities for action at local, regional, national and international scales. This structure differs from the consultation draft and is a more integrated approach, which takes account of the way people view the environment. As we take action, and as the new agency forms, other measures may be required. We intend to keep this strategy under review and will update it as and when required.

Progress

Since the launch of the *Maritime State of Nature Report* there has been progress in several areas. On the coast, a policy of focusing on defence is now being replaced by a realisation that working with coastal processes has greater benefits for society, the economy and the environment. Government and others recognise the need for environmental recovery and there is broad acceptance of the benefits of marine spatial planning to improve the governance of our seas. At a European level, the development of the European Marine Strategy is an important initiative that will shape the use of marine resources in the future. However, there is still much to be done. We will need to focus our efforts, particularly at a local and regional scale, if further progress is to be made. Details of three key areas where we have made progress are highlighted below.

Improving our decision-making

Our consultation confirmed that there is widespread acceptance of the need to make better use of, and improve access to, data and information about the status of marine and coastal environments. We contributed to the Defra-led Irish Sea Pilot and we will work with Government to take forward its recommendations. Our work on mapping marine landscapes will be a valuable contribution to marine spatial planning and to identifying Marine and Coastal Protected Areas.

We continue to work closely with the Environment Agency and others on implementing the EU Habitats, Birds and Water Framework Directives. This work is increasing our understanding of a wide range of human impacts on the marine environment. These partnerships will be important in implementing these Directives. In addition, other initiatives are informing our knowledge of ecological structure and functioning.



Cream-spot tiger moth, a striking nocturnal moth most frequently found on the coast.
Chris Gibson/English Nature

Implementing the Ecosystem Approach

Our work to support the implementation of the Ecosystem Approach continued with the publication of our report *The Ecosystem Approach: coherent actions for marine and coastal environments*. This sets the context for our strategy and helps us to take forward this approach at national, international and global levels. The report fulfils a Government commitment made in Defra's *Seas of change* publication. We are working closely with Defra and others to improve our understanding of the priorities needed for achieving truly sustainable development. At a European level, we are working closely with the European Commission to develop the European Marine Strategy and the future Green Paper on maritime affairs in Europe. At a global level, we are working with partners in the World Conservation Union (IUCN) and the Convention on Biological Diversity to better understand how to implement the Ecosystem Approach. This is in the form of a framework to help prioritise what we now need to do to take the Ecosystem Approach forward.

Engaging with people

Several initiatives currently underway are improving dialogue with stakeholders on how to adapt to coastal change. These include the work led by Defra on Shoreline Management Plans, and a partnership led by the Tyndall Centre for Coastal Research. We will continue our involvement in this work. We will also continue our work through European Marine Site Management and Advisory Groups and Coastal and Estuary Partnerships to further examine socio-economic, as well as biological, indicators of site condition. This will help to inform future management of these sites.



Involving stakeholders. Diana Pound



Engaging with the scientific community. The Marine Biological Association of the UK.
Dan Laffoley/English Nature

We have engaged with the science community. Information such as that detailed in the recent report from the Royal Commission on Environmental Pollution, *Turning the tide: addressing the impacts of fisheries on the marine environment*, has broadened the debate on issues such as the need for Marine and Coastal Protected Areas free from extractive use. At the national scale, we have set up a Marine Science Technical Advisory Group. This forum engages those organisations actively involved in marine research or management. The group has the opportunity to openly discuss key scientific issues and identify areas for closer collaboration.

At a more regional scale, we have been involved in setting up the South West Marine Science Forum. This includes representatives from Government agencies, in addition to researchers and industry, to help closer working and sharing of information.

We will continue to work with stakeholders to further develop policies and take action, as detailed later in this document.

Rockpooling. Chris Gibson/English Nature



2 A framework to guide our actions

How we will deliver our strategy is summed up by what we would like to see, what needs to be done, and how all this should be achieved. This framework reflects and complements the Government's approach to managing marine and coastal environments.



Steve Kesson/Status Design & Advertising

“Beyond a certain rate of exploitation, renewable resources become non-renewable resources. If you hit them too hard, you destroy the ecosystem which permits them to regenerate.”

George Monbiot, 5 October 2004

We emphasise the need to ensure that wildlife, habitats, geodiversity, and the ecosystems that support them, have the space and the management that allows them to flourish and function. This is in the face of the increasing demands put upon them and the forces of climate change.

What we would like to see – our vision

This vision supports the Government's commitment to sustainable development, which emphasises the need to integrate people, the economy and the environment. Our strategy will contribute to Defra's overall vision for “clean, healthy, safe, productive and biologically diverse oceans and seas”, as set out in the Marine Stewardship Report, *Safeguarding our seas: a strategy for the conservation and sustainable development of our marine environment*. It also complements Defra's Flood and Coastal Erosion Risk Management Strategy consultation, *Making space for water*.



Our vision for the future is for coasts and seas where there is space for people, industry *and* wildlife and where:

- There is a greater understanding of the risks and impacts of nutrient enrichment in the marine environment. Nutrient inputs (from both point and diffuse sources) are controlled through appropriate management and target-setting. The risks from nutrient enrichment are reduced to acceptable levels and eutrophication has been tackled.
- Inputs of hazardous non-synthetic and synthetic chemicals, which harm the marine environment, are removed altogether, or are reduced so that their concentrations in the sea do not exceed background levels.
- Industry has greater certainty, when planning new developments, that its activities will be compatible with wildlife.
- Sustainable use of resources is recognised as a legitimate use of our coasts and seas.
- Plans and management measures are in place to allow habitats to adapt to long-term coastal evolution.
- Management of freshwater and brackish habitats in the coastal margins is fully integrated and there are natural transitions from saline to brackish and freshwater habitats.
- Sufficient land is managed effectively in locations where it can accommodate those freshwater and brackish habitats near the coast that would otherwise be lost due to rising sea levels and/or erosion.
- Designated site boundaries can accommodate coastal change and are managed within the context of the coastal ecosystem.
- There is better management of coastal habitats, including adjacent farmland, to sustain and enhance biodiversity.
- There is improved access to our coasts and seas so that people can better understand, appreciate and enjoy them.
- Fish, that are a source of food in the marine food chain, especially for higher-level predators, are present in sufficient numbers to allow populations of predators to recover from current low levels.
- Incidental killing and destruction of wildlife and habitats through fishing is minimised through technical measures, and is removed altogether when unacceptable levels of damage occur despite such measures.
- Populations of fish species used for human consumption are present at a level, and of a character, that can sustain our demands in the long term, as well as providing sufficient fish to support marine food chains.
- Improved management across the wider sea, and the use of sanctuary and recovery areas, allow populations of marine species that are slow-growing, or only reach reproductive age after many years, to recover and increase in abundance.

Source: adapted from English Nature (2004).



Common seals need healthy fish stocks and undisturbed haul-out areas. Chris Gibson/English Nature

Addressing the issues raised will have social and economic, as well as environmental benefits, as many of the current socio-economic problems are by-products of poor environmental management. These include:

- the loss of jobs and associated impacts on people's livelihoods as a result of declining fish populations;
- the health problems caused by poor water quality;
- the costs and risks of coastal erosion from inappropriate coastal development; and
- the economic costs, health risks and social upheaval caused by the consequences of climate change.

Just as society is currently negatively affected by the legacy of previous poor management of our coasts and seas, future generations will benefit from the improved management of these environments proposed in this strategy.

Our vision has an emphasis on **making space for wildlife**. Wildlife and geological resources are frequently being squeezed out as economic interests and social demands prevail. Society is beginning to realise that this is a short-term 'own goal', because maintaining social and economic values depends on a healthy and functioning ecosystem. In broad terms, the state of the seas affects us all. At the coast, managers are well aware of the need to work with, rather than against, coastal processes, wherever possible. Fishermen know only too well that poor management of fish stocks and the environment is inherently linked to their wellbeing and prosperity. Society already pays an indirect 'tax' from poor management in the past, for example through increasing fish prices. Further costs can be avoided by improving management. English Nature believes that using natural resources to support economic prosperity can be sustainable, providing it does not compromise the underpinning ecological processes. Our vision is of an environment where social, economic and environmental quality is optimised, rather than one where opportunities for individual benefits are maximised.



Fisher's estuarine moth is a rare species found on sea walls in Essex. We are only beginning to understand its habitat requirements. Chris Gibson/English Nature

What needs to be done – our aims and objectives

This strategy sets out actions that we believe must now happen, under the following four aims:

- 1 Recover and conserve the wildlife, habitats and geodiversity of our coasts and seas, their supporting ecological processes and overall resilience.
- 2 Increase understanding of coastal and marine environments, their natural processes, the impact that human activities have upon them, how to minimise those that have an adverse effect and improve the quality of decision-making.
- 3 Promote and encourage the use of natural resources in a sensitive manner to ensure long-term environmental, social and economic benefits.
- 4 Work with stakeholders to promote awareness, understanding and appreciation of the value of coastal and marine environments and seek wider involvement in adapting to change and in developing new policies.

What needs to be done?	How should this be achieved?
<p>1 Recover and conserve the wildlife, habitats and geodiversity of our coasts and seas, their supporting ecological processes and overall resilience.</p>	<p>By applying the Ecosystem Approach as a practical tool for achieving sustainable development with priorities that include:</p> <ul style="list-style-type: none"> • reducing inputs of nutrients and hazardous chemicals to improve the water quality of estuarine, coastal and marine waters; • reducing the impact of fishing activities on non-target species and habitats by introducing fishing management techniques and technical measures that are more selective and/or are less damaging to the seabed; • achieving UK Biodiversity Action Plan targets for coastal habitats and species that can accommodate and adapt to coastal change and are robust in the face of climate change; and • managing coasts and estuaries so that they can adapt to the pressures of climate change, isostatic change and changes in sediment supply. <p>By developing a fully representative network of Marine and Coastal Protected Areas that:</p> <ul style="list-style-type: none"> • takes account of all marine and coastal habitats and species, not just those that are threatened, declining or rare; • includes areas for sustainable use and areas closed to all extractive uses, so that plants and animals can recover free from the threat of exploitation; and • is ecologically meaningful, with the network delivering overall benefits, as well as through each protected area.
<p>2 Increase understanding of coastal and marine environments, their natural processes, the impact that human activities have upon them, how to minimise those that have an adverse effect and improve the quality of decision-making.</p>	<p>By developing marine and coastal information systems with priorities that include:</p> <ul style="list-style-type: none"> • providing better spatial and temporal information on the distribution of biodiversity and natural features, making best use of existing data and strategic collection of new data; • providing better information on the factors that influence biodiversity and geodiversity, including natural processes and human impacts;

(Continued)

- **making publicly-funded research and information freely available** to maximise the value of Government investment;
- **better integration between scientists and policy-makers** to ensure that scientific information is used fully in planning and decision-making; and
- **making the most of the knowledge** gained by people and organisations who have an interest in the coast and sea.

3 Promote and encourage the use of natural resources in a sensitive manner to ensure long-term environmental, social and economic benefits.

By **undertaking research, developing tools and promoting best practice**, with priorities that include:

- carrying out a **full investigation of all the options for sustainable long-term coastal management** to make best use of resources;
- ensuring that **planning and decision-making take account of the link between land and sea**, as part of an integrated approach;
- ensuring that **decisions are made at appropriate scales**, including regional and landscape scales;
- **managing flood and coastal erosion risk**, taking better account of coastal change, sediment movements and geodiversity when planning for the development and management of the coastal fringe;
- **reducing fishing mortality** to bring it in line with available stocks, ensuring that fisheries are sustained at a level that can both provide for human consumption and support marine food chains;
- **improving environmental assessment and managing impacts** by ensuring that all significant sectors of human use are subject to it on a fair and equitable basis; and
- establishing **an effective marine spatial planning system**.

4 Work with stakeholders to promote awareness, understanding and appreciation of the value of coastal and marine environments and seek wider involvement in adapting to change and in developing new policies.

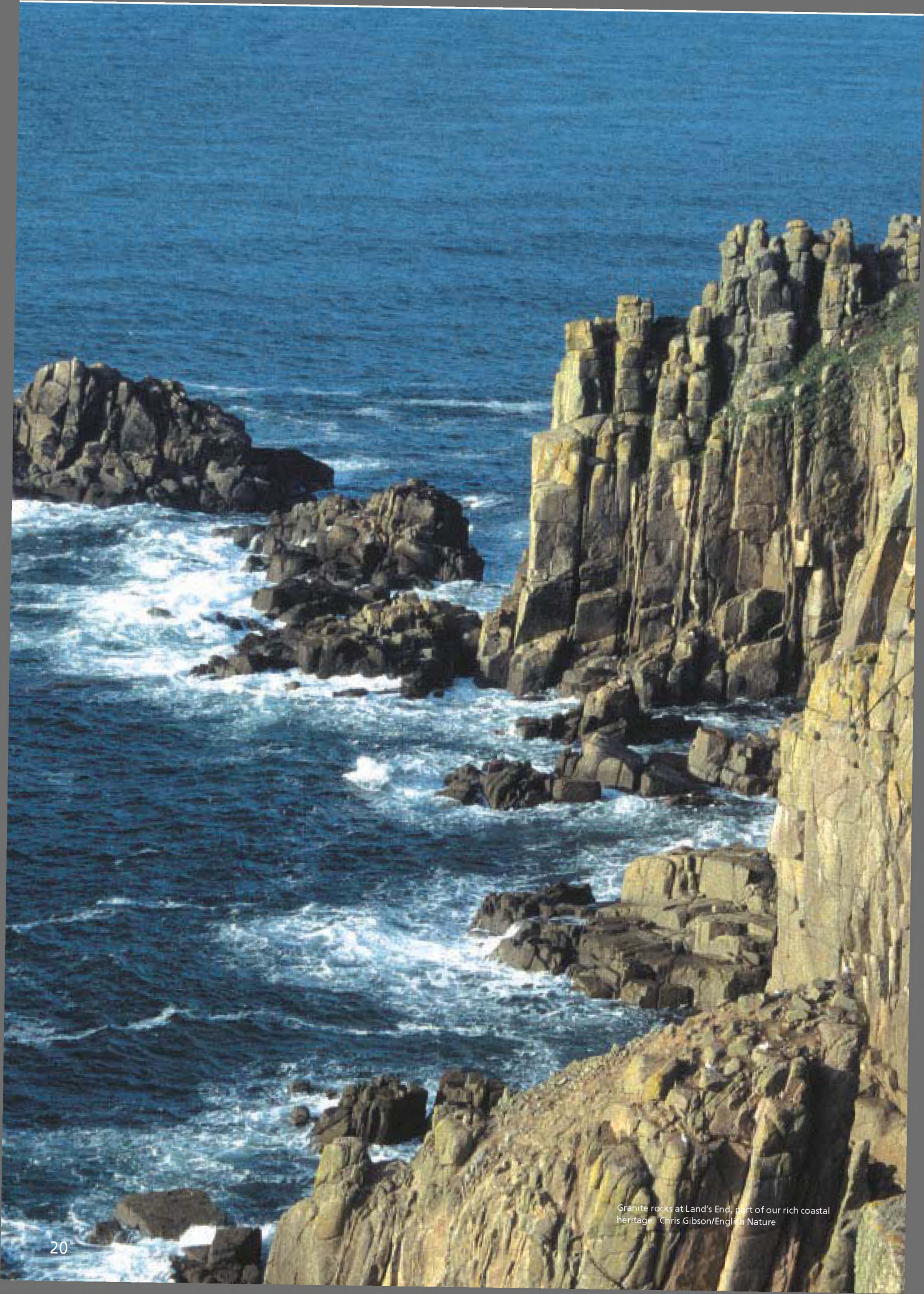
By developing **marine and coastal partnerships**, with priorities that include:

- **working with local communities** at the coast to help us all to understand and adapt to coastal change;
- producing materials to **generate greater understanding of the value of marine and coastal ecosystems** and the benefits they provide;
- **supporting relevant community groups** that provide opportunities for greater involvement in the decision-making process; and
- **encouraging appropriate public access, appreciation and enjoyment** of, our coasts and seas.

In broad terms, introducing a new framework for environmental management of our coasts and seas is required. This will need changes in legislation, policies, the way decisions are made, and associated funding.

At the coast, this will mean genuinely moving from ‘defence’ to ‘management’. Such management must take account of the scale at which physical processes operate and the implications of long-term coastal evolution for both wildlife and people.

In the sea, this means recovering the overall quality of the environment, its habitats and species, regardless of whether they are commercially exploited. This will improve the ability of the sea to sustain existing and future demands placed upon it.



Granite rocks at Land's End, part of our rich coastal heritage. Chris Gibson/English Nature

3 Establishing our priorities: actions at different scales

Deciding on our priorities has been a challenging process and our overall priorities relate to the principal issues we have identified. The actions outlined below relate to the different scales of management we use on a day-to-day basis, ranging from local issues to global solutions.

They cover four main areas of work:

- Marine spatial planning
- Marine and Coastal Protected Areas
- Adapting to coastal change
- Working with the impacts of climate change

Marine spatial planning – improving governance of our coasts and seas

Our consultation confirmed that there is broad agreement on the need for better planning of all marine and coastal activities. In particular, there was a desire to explore the potential of marine spatial planning.

Marine spatial planning is intimately linked to Integrated Coastal Zone Management (ICZM). We will continue to contribute to the Government's initiatives to implement the European Union ICZM recommendation, which called on Member States to develop a national strategy for ICZM by 2006. However, we regard ICZM more as a process than a measure in its own right. It could be delivered largely by an effective marine spatial planning system that is fully integrated with the land-use planning system.

The potential role of marine spatial planning is recognised and we welcome the pilot project set up by Defra to investigate it in practice. We will actively contribute to it and undertake complementary work, emphasising the regional scale.

Continuing dialogue between Government departments and involvement of all relevant sectors will be crucial in taking forward marine spatial planning. In the meantime, we will help to provide and make better use of information to underpin planning and management, including through mapping projects.

Marine and Coastal Protected Areas – a tool for achieving recovery

As part of a wider management framework, an ecologically coherent and fully representative network of Marine and Coastal Protected Areas will contribute significantly to the future recovery, conservation and protection of our coasts and seas. The emphasis of our work on Marine and Coastal Protected Areas will be at a local scale. We will work closely with all those involved in the management of marine and coastal environments.



Aggregate dredging. Marine spatial planning can provide greater certainty for industry.
Paul Gilliland/English Nature

“Today, marine sanctuaries are . . . as elusive as a sea breeze, as tangible as a singing whale. They are beautiful, or priceless, or rare bargains, or long-term assets, or fun, or all of these and more. Above all, sanctuaries are now and with care will continue to be ‘special places.’ Each of us can have the pleasure of defining what that means.”

Sylvia Earle, oceanographer

The benefits of marine spatial planning

- It provides greater confidence for industry when planning new development and reduces conflict between competing users.
- It provides a framework within which to understand and maximise the value of a network of multiple-use sites and Highly Protected Marine Areas.
- It establishes areas of importance or sensitivity, thereby reducing the risk of conflict with development.
- It ensures there is ‘room’ for biodiversity and nature conservation measures.
- It enables biodiversity commitments, such as those made in the England Biodiversity Strategy, to be at the heart of planning and management.
- It provides a proactive and focused way to achieve nature conservation objectives.
- It offers a key tool to pre-empt or address cumulative impacts on the natural environment.
- It promotes efficient use of space and resources, so reducing impacts on the environment.
- It improves awareness and ownership of marine conservation features and issues, particularly amongst users, regulators and decision-makers.

Significant progress in designating and protecting important sites has been made at the coast. English Nature’s immediate priority, therefore, is on protecting further areas at sea. Although current protection has gone some way towards improving the health of some marine areas (for example, Natura 2000 sites), the UK has only designated one site offshore, and has

not yet fully realised the benefits that ‘non-extractive use’ areas can offer. Further protection measures are required if there is to be adequate space for plants and animals to recover from exploitation. Our ambition is to establish a network of Marine and Coastal Protected Areas. We are also aiming for at least 20-30% of each habitat type to have full protection from extractive use and this will require new legislation. This scale of action is needed to meaningfully promote recovery at sea. Clearly, these general targets will need to be refined as both our knowledge and the scale of the network increase over time; some habitats may need far greater protection than this.

Red Crag at The Naze, Essex, part of a coastal SSSI designated for its geological interest.
Chris Gibson/English Nature



Promoting and using the latest technical advice: Marine and Coastal Protected Areas

How we describe special areas at the coast and in the sea, and our advice on how much of each habitat should be strictly protected, is consistent with the latest international best practice and advice. The term 'Marine and Coastal Protected Area' follows the wording used by the Convention on Biological Diversity in their key publication, *Technical advice on the establishment and management of Marine and Coastal Protected Areas* (Secretariat of the Convention on Biological Diversity 2004). The proportion of each habitat to protect comes from the latest global consensus on this issue (the 5th World Park Congress in Durban, South Africa, 8-17 September 2003), and is consistent with the latest scientific reviews and the recommendations of the Royal Commission on Environmental Pollution (RCEP 2004).

The benefits of Highly Protected Marine Areas

- 1 They provide undisturbed spawning conditions, and habitats, allowing the natural population structures (age, size, gender and gene pools) of exploited species to recover. In turn this provides:
 - a reservoir of species and genetic information, and potential positive spill-over effects (for example, increased catches) into the surrounding unprotected areas; and
 - essential fisheries management data, including improved understanding of recovery rates, natural mortality and natural dynamics.
- 2 The recovery and protection of ecosystem structure and function that they bring can lead to:
 - improved resilience to environmental changes;
 - better understanding of recovery rates and natural dynamics;
 - protection of species for potential future use;
 - improved resources for recreation; and
 - increased biogeochemical cycling, for example nutrient cycling; breakdown of waste; gas and climate regulation.
- 3 They help the public to see and understand the effects of human activities and the benefits of improved management.
- 4 They provide areas for long-term monitoring, benchmarks, control areas, and places for research unaffected by human activities.

Source: derived and adapted from Secretariat of the Convention on Biological Diversity (2004).

Over the coming months we will develop our vision for a network of Marine and Coastal Protected Areas, including the aims, objectives and outcomes of such a network; who should be involved in selecting and implementing sites; and the number, location and size of sites. We will continue to support the *Finding sanctuary* project to establish Marine Protected Areas in the south west and with the Esmee Fairbairn Foundation project, *Towards a network of Marine Protected Areas in the British Isles*. This project brings together scientists, stakeholders and information on existing 'closed' areas in the UK. We plan to review existing data sources and (with the Joint Nature Conservation Committee, Countryside Council for Wales and Scottish Natural Heritage) further develop practical actions for implementing an ecologically coherent, fully representative network of Marine and Coastal Protected Areas for the UK.

Scallops are just one of the economically important species which would benefit from Highly Protected Marine Areas. Paul Naylor



Adapting to coastal change – working with dynamic environments

Our coastline represents the UK's most important geological resource. Geological diversity and geomorphological processes are fundamental to shaping the character of the coast and maintaining the richness of wildlife that it supports. Coastal systems need space to evolve and 'migrate' in response to rising sea levels and changes in sediment supply. Striving to maintain or preserve the status quo is often unsustainable. It makes more sense to work in sympathy with the changing coast, to manage coastal landscapes in a way that accommodates their dynamic nature and allows for their long-term evolution.

It is clear that, by using this approach to managing our coasts, there will be inevitable changes in the mosaic of habitats, geodiversity and species. However, it is the underpinning dynamism that makes the coast a special place. We need to better understand how the coast changes and how to work with these changes.

By adopting the Ecosystem Approach we will ensure there is adequate space for people, wildlife and geodiversity. There is still work to do in this area. For example, we have yet to identify where there is a need to relocate freshwater assets further inland or where we need to support the landward 'migration' of habitats such as saline and brackish lagoons. Our work with stakeholders has highlighted the need for further action on these issues. We also need to explain, in more detail, the rationale behind this approach and how it can be translated into effective action for wildlife and geodiversity.

The second generation of Shoreline Management Plans looks set to propose a more sustainable approach to coastal management. However, there is a clear need to link these revised policies to a formal system of erosion-risk planning. Funding for this must be sufficiently flexible to achieve the desired outcomes. At a local and regional scale, this will help coastal communities take better account of erosion risk in their decision-making and avoid inappropriate new development in such areas. Ways of tackling the legacy of existing development in areas at risk of erosion also need to be agreed. This will mean creating formal links between Shoreline Management Plans, Local Authority Development Frameworks and Regional Spatial Strategies. English Nature will take an active role in this process as Shoreline Management Plans are reviewed. We will advise on incorporating opportunities for wildlife gain into Shoreline Management Plans, and on implementing them through coastal strategies.

Other action required to support this approach to coastal management should include the introduction of new legislation in the form of a Shoreline Management Act. There is also a need for all those involved in coastal management to help promote and improve our understanding of current coastal evolution. Working at a local and regional scale, we will advocate the need for a change in the way we manage our coasts, so that those who live and work there can actively participate in adapting to change.



Knotted wrack. Chris Gibson/English Nature



Why do we need to adapt to change?

Our coasts are constantly changing. The sea eats away at the base of cliffs, causing them to erode; this releases sediment that is then transported along the shore to create new beaches. This seemingly endless process is now also changing and we are faced with a new reality: sea levels are rising and there is an increase in storminess. These factors, combined with a decrease in the sediment available on our shores, are forcing new and more rapid changes on our coastal systems.

We also have an inherited legacy of human use of the coast. This includes sea defences that are no longer economically justified, development in inappropriate locations, and freshwater wetlands protected by sea walls that are no longer sustainable.

It is a simple fact that many of our coastal habitats are still in decline. Generally, this is not because of large-scale development but because they are subject to 'coastal squeeze'; either between rising sea levels (which may be caused by sea-level rise or natural movement of land) and sea walls or because there is not the space for the habitats to 'migrate' in response to a changing coastline.

There is a need for innovative management that works with coastal processes to create the space for coastal habitats and geodiversity. English Nature has identified a number of key issues to tackle if we are to achieve better and more sustainable management in the future.

- Coasts and estuaries must be able to adapt to future changes.
- Coastal management that enables long-term adaptation to coastal change must be developed.
- Adapting to coastal change means that, in some cases, it will not be possible to conserve the same mosaic of habitats and species in the same places, but it is possible to sustain diverse coastal ecosystems of equal value.
- Coastal managers must communicate better with the public, to make sure they understand the need to adapt to coastal change, and to take part in coastal management decisions.

English Nature believes that we need an understanding of the 'physical' systems that control and shape our coasts to underpin decisions about the conservation of coastal wildlife and geodiversity. We need to understand how the coast is changing now, how it changed in the past and how it is likely to evolve in the future. Only then will it be possible to find the best options for long-term sustainable management and set out a vision for the future.



Beaumont Quay, Hamford Water. Coastal squeeze, caused by rising sea levels and isostatic change, is a major cause of saltmarsh erosion in Essex.
Chris Gibson/English Nature

Working with the impacts of climate change – using science to improve our decision-making

We use our knowledge and understanding of the impacts of different activities in marine and coastal environments when advising decision-makers. However, we recognise there is still much to learn, and processes such as Strategic Environmental Assessment will make an important contribution to this knowledge base. We will continue to work to bring together scientists and others whose knowledge will help improve the quality of decisions made.

The complex nature of marine and coastal environments, coupled with their physical continuity, means that there is a high degree of ecological interdependency. For example, the over-harvesting of fish species can have significant and widespread impacts on other parts of the food web. This results in the loss and restructuring of biodiversity, and the loss of ecosystem stability that is essential if harvesting is to continue.

Both our marine and coastal environments are suffering from loss of habitat, long-term structural changes and losses in biodiversity, unsustainable use of resources, and poor water quality. The lack of long-term research and monitoring and the lack of a strategic, ecosystem-based planning and management framework have allowed the damage to accumulate. With environmental change accelerating and growing in magnitude, the major concern now facing nature conservation is how species and habitats will respond.

The impacts of climate change will have consequences for the future management of our coasts and seas. At the coast, the most obvious effects are already well established in the form of rising sea levels and increases in storm events. This continues to challenge coastal management, not just from the perspective of safety to humans and property, but also from the environmental perspective, as coastal habitats continue to be lost to such processes.

“Observe always that everything is the result of a change and get used to thinking that there is nothing nature loves so well as to change forms and make new ones like them.”

Marcus Aurelius, Emperor of Rome

In the seas, rising seawater temperatures continue to affect the composition and distribution of marine species. Studies, such as the Sir Alister Hardy Foundation for Ocean Science work on plankton, and MarClim (a project investigating how sensitive seashore species may be used to track climate impacts) have already demonstrated profound changes in the distribution and abundance of species. Those that favour warmer waters are moving significantly northwards, replacing coldwater species from the north. Acidification of seawater is also an increasingly significant concern.

Sabellaria alveolata, a Biodiversity Action Plan species which could be used as an indicator of climate change.
Chris Gibson/English Nature



Over the coming years we will focus our actions on the consequences of climate change at a national scale. Where we have confidence in the underlying science and future impacts, we will work towards building mitigation into management processes at the coast. In the sea, our emphasis will be on working with the science community to apply their work and improve the decisions we take. We will do this directly and collaboratively, particularly through the Marine Climate Change Impacts Partnership for the UK, once this is established.

Future challenges and specific actions

Some of the most challenging aspects of our strategy will be to ensure that we take into account the views of local communities; to address the ways in which marine and coastal ecosystems and their wildlife and habitats function; and to develop conservation policy so that it keeps pace with the human demands placed on the environment.

In the following sections we examine this in detail, setting out the actions that will support **coasts and seas where there is space for people, industry and wildlife**. Maintaining the status quo is not an option, and so our detailed actions are a mixture of investigating ways to achieve sustainable development and implementing best practice and conclusions from previous work. It is inevitable that, in a number of areas, we have insufficient information upon which to act. As a result, a consistent theme within the actions is to improve the information we have and how it can be used to best effect.

We have structured the description of detailed actions around local, regional, national and international (European and global) scales, on the basis that ecosystems and systems of governance work at a range of spatial scales. These scales also relate to how most people view and use the coasts and seas, and their resources.

We set out the actions under the following broad themes:

- applying the Ecosystem Approach;
- developing a fully representative network of Marine and Coastal Protected Areas;
- developing marine and coastal information systems;
- undertaking research, developing tools and promoting best practice; and
- developing marine and coastal partnerships.

In describing our work, we identify the organisations that have a particularly important role to play in these processes. Our list of examples is not exhaustive, and undertaking some of this work will result in fresh ideas and further projects developing. In addition, many others will need to play a part if we are all to share a common vision for the future and to make it a reality.



Viper's bugloss grows on open habitats such as sand dunes and shingle and needs these dynamic environments to survive. Chris Gibson/English Nature



The dunlin is our commonest small wader found along the coast. It feeds in flocks in winter, roosting on saltmarsh and nearby fields at high tide.
Chris Gibson/English Nature

3.1 Local issues: local solutions



Lyme Regis seafront. Tourism is an important source of income for many traditional seaside towns and villages.
Chris Gibson/English Nature

Since prehistory people have lived on the coast, taking benefit from the resources the coasts and seas provide. The underlying geology defines the character of these areas, from the wide, open beaches and sand dunes of north Norfolk to the dramatic cliffs of Dorset and Yorkshire. Over time, as communities, skills, industries and technologies developed, we have dramatically changed and shaped the character of these environments. These changes have had both positive and negative effects. Living by the coast also involves a degree of risk. We can manage this within limits, but the risk, particularly in low-lying areas, always remains.

The future of our coasts and seas lies, in part, with the communities who live by them and use them. Accordingly, English Nature's focus at a local scale is based on the need to:

- work with communities to gain their support for a fully representative Marine and Coastal Protected Areas programme;
- improve communication of the issues and realities of coastal change to people living and working on the coast; and
- involve local communities in finding long-term solutions to issues.

We believe that those with coastal management responsibilities, including ourselves, must listen openly to, and understand the interests of, local communities. Effectively involving them will also help us to access local knowledge. This is particularly important in helping English Nature to better understand, and improve planning for, coastal change.

Some examples of key partners we will work with at a local scale are:

Local community groups
Land owners and managers
Crown Estate
Environment Agency
Regional Development Agencies
Rural Development Service
Government Offices
Countryside Agency
Local Authorities
National Trust
Wildlife Trusts
Royal Society for the Protection of Birds
Marine Conservation Society
Local geology groups
Coastal and Estuary partnerships
European Marine Site Management and Advisory Groups
Sea Fisheries Committees
Marine industries
Visit Britain



Oil on a beach, one of the more visible signs of pollution. Chris Gibson/English Nature

Local actions

1 Recover and conserve the wildlife, habitats and geodiversity of our coasts and seas, their supporting ecological processes and overall resilience.

Work on applying the **Ecosystem Approach** will emphasise improving water quality and improved implementation of Biodiversity Action Plans.

On **water quality** the priorities are to:

- contribute to the implementation of the Water Framework Directive, in particular to developing and implementing River Basin Management Plans;
- advise the Environment Agency on the review of discharge consents that may be affecting areas protected under the Habitats and Birds Directives; and
- work with the Environment Agency and Defra to assess practical ways of reducing diffuse pollution from agriculture.

Work on **Biodiversity Action Plans** will emphasise completing existing actions and developing new and novel approaches to achieving targets, taking into account the dynamic nature of the coast and the consequences of climate change. The priorities are to:

- advise on targeting and implementing the Environmental Stewardship Scheme to encourage landowners to take up coastal and access options. We will work with landowner organisations to address concerns over coastal change;



Support is available through agri-environment schemes for managing coastal grazing marsh, a BAP habitat.
Chris Gibson/English Nature

- give advice about nature conservation and adapting to change in the local development plan process;
- champion maritime targets in Local Biodiversity Action Plans and other local delivery mechanisms, taking into account the BAP Targets Review; and
- ensure that coastal issues are included in Local Geodiversity Action Plans and integrated with Biodiversity Action Plan objectives.

Developing a **fully representative network of Marine and Coastal Protected Areas** is a particular priority at the local scale. This is because we need to work in close partnership with the many organisations that operate at the coast or cover particular marine interests, as well as local communities and others who care for and manage resources. A number of specific actions must be taken if our work on protected areas is to allow species, habitats and geodiversity to flourish. The priorities include a range of actions covering areas that are highly protected (with no development or extractive use), protected from fishing (no-take zones), and those that are used sustainably. We will take opportunities to promote the use of protected areas to recover marine wildlife by:

- taking opportunities around wind farms to establish and monitor Highly Protected Marine Areas, to demonstrate potential benefits;
- strengthening our dialogue with local management bodies, such as Sea Fisheries Committees, to work towards establishing no-take zones;
- implementing the *Finding sanctuary* project to establish Marine Protected Areas in the south west, in conjunction with local communities and maritime businesses; and
- strengthening our knowledge of the effects of closed areas through the Lundy No-Take Zone partnership research programme.

2 Increase understanding of coastal and marine environments, their natural processes, the impact that human activities have upon them, how to minimise those that have an adverse effect and improve the quality of decision-making.

Developing **marine and coastal information** systems at a local scale will focus on improving the quality of the information we provide, making better links between the scientists who generate new knowledge and the policy-makers who use it to make decisions, and increasing the use and dissemination of knowledge at local levels. The priorities are to:

- encourage relevant and competent authorities with responsibilities on European Marine Sites to better integrate and share information and data, in order to inform and improve site management;

Local experts and conservation agency staff surveying cliff habitats on the Dorset and East Devon Coast World Heritage Site. Sue Rees/English Nature



- ensure that lessons learned from monitoring individual developments and ongoing activities are applied to the assessment (for example, Environmental Impact Assessment) of new projects;
- ensure that research and knowledge about human impacts on biodiversity informs assessment and management;
- continue to improve English Nature area staff's understanding of geology, coastal processes, coastal morphology and marine ecology;
- continue to commission, or contribute to, studies characterising the water quality of estuaries designated as Special Areas of Conservation under the Habitats Directive;
- improve communication between European Marine Site Management Groups and Estuary Management Partnership groups, where these exist on the same sites; and
- as part of the South West Marine Science Forum, develop a pilot to examine the data and monitoring needs in estuaries in the south west. This will better link current monitoring and inform changes in management required.

3 Promote and encourage the use of natural resources in a sensitive manner to ensure long-term environmental, social and economic benefits.

The emphasis is on **undertaking research, developing tools and promoting best practice**. Five key priorities are to:

- continue working with local authority planners and engineers to integrate Shoreline Management Plans into the new Local Development Frameworks;
- support and encourage local initiatives to promote sustainable fisheries, where they enhance social and economic benefits from fisheries, and are consistent with protecting and recovering marine ecosystems and biodiversity. (For example, the Solway Sustainable Fisheries initiative);
- work with the marine aggregates industry to trial ways of helping biodiversity to recover in sites formerly used for aggregate extraction;
- advise on Environmental Assessment for all relevant activities on the coast and at sea, including fisheries; and
- work with relevant authorities and other partners on the management of internationally important sites, such as Natura 2000 and World Heritage Sites, to ensure that they make appropriate and sustainable environmental, social and economic contributions, taking account of experience gained and good practice developed.

“Future generations would not forgive us for having deliberately spoiled their last opportunity and the last opportunity is today.”

Jacques Cousteau at a 1992 environmental gathering



Events such as the Essex Seafood Event on the Thames can help to raise awareness of the need for sustainable fisheries. Rebecca Whitfield



Children learn to appreciate marine and coastal environments through the work of coastal partnerships. Jo Carrington

4 Work with stakeholders to promote awareness, understanding and appreciation of the value of coastal and marine environments and seek wider involvement in adapting to change and in developing new policies.

We place great value on developing **marine and coastal partnerships**. Our work here falls into three areas: working with local communities; improving understanding of the values and benefits of healthy coasts and seas; and increasing public access to, appreciation and enjoyment of our coasts and seas.

Work with local communities will emphasise strengthening links and helping us all to understand and adapt to change by:

- finding ways to reduce ‘consultation fatigue’ and encourage the effective involvement of local communities;
- publicising the Thanet Coast stakeholder project as good practice; and
- continuing to support coastal partnerships, to promote local community awareness, understanding, appreciation and participation, and to develop their contribution to spatial planning.

Work to generate a **greater understanding of the value** and benefits of marine and coastal ecosystems will focus on:

- demonstrating the recreational value of the coast – for example, the economic benefits of tourism associated with coastal landscape and geodiversity (such as Dorset and East Devon Coast World Heritage Site and Yorkshire Dinosaur Coast);
- encouraging an emphasis on the special nature of some locations to market local produce (for example, World Heritage Site lobsters); and
- clearly communicating the value of our marine and coastal habitats and species.



Fishing on Skegness Beach, one of the many ways of enjoying access to our coasts and seas. Wash Estuary Steering Group/Lincolnshire County Council

Many people use our coasts and seas for holidays, short visits and regular walks, and value their beautiful scenery and wildlife. Priorities for **encouraging appropriate public access, appreciation and enjoyment** of these environments at a local scale are to:

- promote coastal management partnerships as a way of conserving coastal landscapes, providing space for wildlife and geodiversity, and providing public access to, and information about, the coast;
- provide opportunities for volunteering, guided walks and other activities on coastal National Nature Reserves;

- use geodiversity to raise awareness of the value of England's coastline, its dynamic and changing nature;
- celebrate the global importance of England's coastal geodiversity through opportunities such as the Dorset and East Devon Coast World Heritage Site – the only natural World Heritage Site on the UK mainland;
- enhance ways that coastal National Nature Reserves and Local Nature Reserves improve our quality of life, by providing 'sustainable' public access and opportunities for recreation, and the social and economic benefits that tourism can bring; and
- involve volunteers in marine recording and monitoring to promote awareness, understanding and appreciation and to better understand coastal and marine biodiversity and its dynamic nature.

A fossil ammonite. Geodiversity is an important part of England's coastline. Sue Rees/English Nature



3.2 Working for regional delivery



English Nature's Marine Natural Area Profiles.

Until recently, marine and coastal nature conservation was achieved mainly through relatively small, legally protected sites at the coast. In the last 15 years much has changed, as we have realised that sites can only be adequately safeguarded by actions at significantly greater scales. By the early 1990s scientists had identified discrete sections of the coast and very shallow water within which coarse sediment moved around; coastal cells. Further offshore, there are recognisable broad natural transitions in the sea, resulting from a combination of oceanographic processes, physical factors and biogeography. These areas have been termed 'regional seas'. Our Marine Natural Areas project has already contributed to identifying these around England.

Regional seas and stretches of coastline, rather than individual sites, now require focus and attention. This change in emphasis is mirrored by a shift in political administration. Regional Development Agencies have revised responsibilities for flood defence committees, and regional planning is coming to the fore. This helps to address the variable character of the different regions of England. From the perspective of both how the ecosystem functions and human use, it makes sense to think and act at a regional scale, for example Strategic Environmental Assessment for oil and gas, and the remit of most of the Sea Fisheries Committees.

In an ideal world, regional planning and management should correspond to regional seas. This is a long-term aim. In the interim, however, we need to discuss the relationship between administrative boundaries and regional seas and, where they are not aligned, how we take account of the implications. This will be challenging. We believe regional seas around England represent a fundamental framework within which all activities and management actions should be assessed.

At the coast we need to use the knowledge gained from Shoreline Management Planning to improve our understanding of, and planning for, flooding and erosion risk. We also need to understand the future capacity of coastal systems to support both freshwater and coastal habitats. This includes establishing priorities for relocating freshwater habitats away from the coastal floodplain.

Accordingly, English Nature's focus at a regional scale is on:

- supporting the development of a marine spatial planning system; and
- improving links between Shoreline Management Plans and the regional and local planning systems.

Some examples of key partners at a regional scale are:

Environment Agency
Department for Environment, Food and Rural Affairs
Department for Trade and Industry
Office of the Deputy Prime Minister
Centre for Environment, Fisheries and Aquaculture Science

Joint Nature Conservation Committee
 Regional Planning Bodies
 Sea Fisheries Committees
 Marine industries
 Government Offices
 Regional Development Agencies
 Rural Development Service
 Countryside Agency
 Wildlife voluntary conservation organisations
 National Trust

Regional actions

1 Recover and conserve the wildlife, habitats and geodiversity of our coasts and seas, their supporting ecological processes and overall resilience.

At a regional scale our work on applying the **Ecosystem Approach** will emphasise improving work on **Biodiversity Action Plans**. On the coast we will achieve this through our work on delivering the Government's Public Service Agreement (PSA) target for Sites of Special Scientific Interest (SSSIs) whereby 95% of SSSI land, by area, should be in favourable condition by 2010. We will also seek opportunities to enhance biodiversity and geodiversity in the wider environment through mechanisms such as Shoreline Management Plans and planning guidance.

Our priorities are to:

- promote the identification and uptake of biodiversity opportunities in the short- and long-term by providing advice and input to the Shoreline Management Plan process;
- support the work of the Environment Agency's habitat replacement framework to ensure that Shoreline Management Plans meet the requirements of the Habitats Directive and incorporate Coastal Habitat Management Plans (CHaMPS);
- champion a programme of action with other organisations to put in place the remedies necessary to achieve the PSA target for SSSIs by 2010;
- advocate the use of Planning Policy Statement 9 for biodiversity and geodiversity at the coast; and
- ensure that coastal management and the needs of associated freshwater and terrestrial habitats are considered together, so that flood risk management outcomes are sustainable.



Flood defence activities on shingle banks need to contribute to both biodiversity and PSA targets. Current practices are unsustainable.
 Chris Gibson/English Nature

Developing a **fully representative network of Marine and Coastal Protected Areas** at a regional scale will build on the work we have already begun in the south west and on European Marine Sites elsewhere.



Hunstanton cliffs, Norfolk. Increasing our understanding of the past can help to inform management in the future.
Chris Gibson/English Nature

It will emphasise:

- maintaining links and continuing work on the ‘Invest in Fish’ project, to provide a long-term strategy for fisheries in the south west, including options for closed areas; and
- developing a best practice manual for managing fisheries in European Marine Sites.

2 Increase understanding of coastal and marine environments, their natural processes, the impact that human activities have upon them, how to minimise those that have an adverse effect and improve the quality of decision-making.

Develop **marine and coastal information** systems at a regional scale by building upon our Marine Natural Areas work. We will:

- draw on Marine Natural Areas, the Irish Sea Pilot and sources of data, such as Strategic Environmental Assessment, to establish a more complete picture of the distribution of human activities to assess and make decisions on their interaction with wildlife and geodiversity;
- extend the South West Biodiversity Inventory project to include marine habitats;
- continue to work with coastal authorities to develop shared research, survey and monitoring programmes, to make most efficient use of resources and to develop an improved and shared understanding (for example the Channel Coastal Observatory and other regional coastal group initiatives); and
- encourage Government agencies, universities, and other relevant stakeholders, to work together to assess eutrophication at a regional scale and develop pilot studies investigating solutions.



Groynes such as these at Dovercourt Bay in Essex interrupt the coastal processes and can lead to some areas being starved of sediment.
Chris Gibson/English Nature

3 Promote and encourage the use of natural resources in a sensitive manner to ensure long-term environmental, social and economic benefits.

Our work on **undertaking research, developing tools and promoting best practice** at a regional scale focuses on developing and applying tools to inform planning, management and decision-making. We will examine the links between land-use planning, Shoreline Management Planning, and marine spatial planning. It will include actions on the following:

Taking account of the link between land and sea, by:

- ensuring that Regional Spatial Strategies and Local Development Frameworks link appropriately to marine spatial planning.

Managing flood and coastal erosion risk, by:

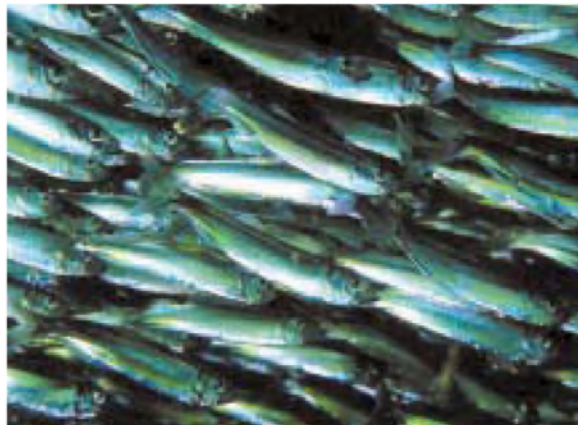
- influencing Shoreline Management Plans, coastal defence strategies, river basin management plans and water level management plans, so that they also benefit wildlife and geodiversity;
- establishing sediment ‘reservoirs’ to provide cost-effective sources of material for beach recharge schemes or to ‘feed’ longshore drift systems;
- advising operating authorities on the best options for wildlife and geodiversity when there is a need to shift policies from ‘hold-the-line’ to other options;
- ensuring that an understanding of geodiversity informs the development of Shoreline Management Plans and, as a resource, is valued appropriately; and
- continuing to work through Shoreline Management Planning groups and regional planners, to integrate Shoreline Management Plans into Regional Spatial Strategies.

Improving environmental assessment and managing impacts, by:

- undertaking a study on the sustainability of inshore fisheries management and using the findings to inform management;
- encouraging and advising on the implementation of Strategic Environmental Assessment to relevant activities on the coast and at sea, including fisheries; and
- collaborating with industry and developers to effectively assess cumulative effects of activities and provide adequate mitigation when required.

Establishing an effective marine spatial planning system, by:

- working with planning and regional bodies, including regional coastal fora, to increase their understanding of, and involvement in, marine spatial planning (including its relationship to Integrated Coastal Zone Management);
- working with industry, including fisheries, and developers to increase their understanding and involvement in marine spatial planning; and
- contributing to the Defra-led marine spatial planning pilot project, applying the experience of Integrated Coastal Zone Management and European Marine Site management schemes, and advising on conservation objectives and relevant actions at a regional scale.



A shoal of sprat. We will encourage the implementation of Strategic Environmental Assessment for fisheries.
Paul Naylor



Better planning for new developments will reduce the need for hard defences such as these at Clacton.
Chris Gibson/English Nature

4 Work with stakeholders to promote awareness, understanding and appreciation of the value of coastal and marine environments and seek wider involvement in adapting to change and in developing new policies.

Developing regional **marine and coastal partnerships** will help us to understand ways we can adapt to changing coastlines and improve access to the coast. Two key actions are to:

- initiate a regional trial to develop semi-natural coastal landscapes for wildlife, geodiversity and people. This will include the managed roll-back of coastal habitats such as sand dunes, coastal heath and saltmarsh; and
- work with regional and local partners to establish regional coastal parks and coastal trails (for example Ribble Estuary Regional Park and the North West Coastal Trail).

Mobile habitats such as sand dunes need space to "roll back" and adapt to change.
Chris Gibson/English Nature



3.3 National leadership



Our coasts and seas are national assets, and they need Government action to ensure their proper recovery, conservation, management and long-term use. In 2002 the Government announced its intentions to improve stewardship of the marine environment through revising relevant national policies and legislation. They published the Marine Stewardship report, *Safeguarding our seas: a strategy for the conservation and sustainable development of our marine environment*, complemented by a consultation called *Seas of change*. This set out and sought views on their objectives for the marine environment and some actions that needed to be taken.

Since then, a wide range of other Government reviews has been undertaken covering, for example, marine nature conservation, fisheries management and environmental enforcement, flood and coastal erosion risk and water management. These reviews will feed into ideas for new legislation that will inform the possible Marine Bill, which is anticipated to come before Parliament over the next few years. We will work with Government and others to help to achieve their vision for the marine and coastal environments and to take forward the recommendations from Defra's Review of Marine Nature Conservation.

In particular, at a national scale we will:

- promote the use of the Ecosystem Approach as a means of achieving sustainable development;
- champion the case for a new Shoreline Management Act to ensure the long-term sustainable management of the coast;
- continue to advocate the case for marine spatial planning;
- identify a network of Marine Protected Areas;
- work closely with the Countryside Agency and the Rural Development Service on proposals for access to coastal land; and
- contribute to the implementation of the Water Framework Directive at a UK level.

We will also help bring together the science demonstrating the need to ensure that the structure, function and processes associated with marine and coastal environments are adequately protected and properly managed to sustain and recover the benefits they provide for society. This will ensure better value for money and will inform management, policy development and decision-making. It will also bring society and industry closer together in working towards a healthy environment, vibrant economy and better quality of life.

Some examples of key partners at a national scale are:

Department for Environment, Food and Rural Affairs
Department for Trade and Industry
Department for Transport
Joint Nature Conservation Committee
Environment Agency
English Heritage
Centre for Environment, Fisheries and Aquaculture Science



New fishing methods need to be developed which will minimise the environmental impacts of fishing.
Dan Laffoley/English Nature

“When you defend your fish, your fishing improves. But when you defend your fishing, your fishing deteriorates.”

Carl Safina

Countryside Agency
Rural Development Service
Crown Estate
National Trust
Wildlife Link
Country nature conservation agencies
Sea Fisheries Committees
National Federation of Fisheries Organisations
National Federation of Sea Anglers
Scientists and Research Institutes
European Commission
Marine industries

National actions

1 Recover and conserve the wildlife, habitats and geodiversity of our coasts and seas, their supporting ecological processes and overall resilience.

We will develop a guide for policy-makers to demonstrate how the **Ecosystem Approach** will achieve sustainable development. It will explain the importance of managing, protecting and working in harmony with the underlying processes in the marine environment in order to sustain the benefits it provides. At a practical level, we will focus on **reducing the impacts of fisheries** on the marine environment and improving **water quality**.

Our *Maritime State of Nature Report* identified the **impact of fisheries** as one of the key issues affecting the marine environment. Work with the fishing industry and others to reduce these impacts includes:

- integrating environmental considerations into inshore fisheries management in England;
- implementing and trialling innovative fishing methods and management techniques to minimise the environmental impacts of fishing;
- ensuring that environmental and fisheries policy and regulation are compatible, at both the national and European levels; and
- supporting the recommendations of the Prime Minister’s Strategy Unit Report *Net benefits* (Cabinet Office 2004) for fisheries departments: to provide incentives to improve environmental performance, to encourage development of less damaging gear types and to establish experimental Marine Protected Areas.

Tackling **water quality** at a national scale to improve the condition of SSSIs and Natura 2000 sites, by:

- continuing to work with the Environment Agency on national groups overseeing the implementation of the Habitats and Water Framework Directives.



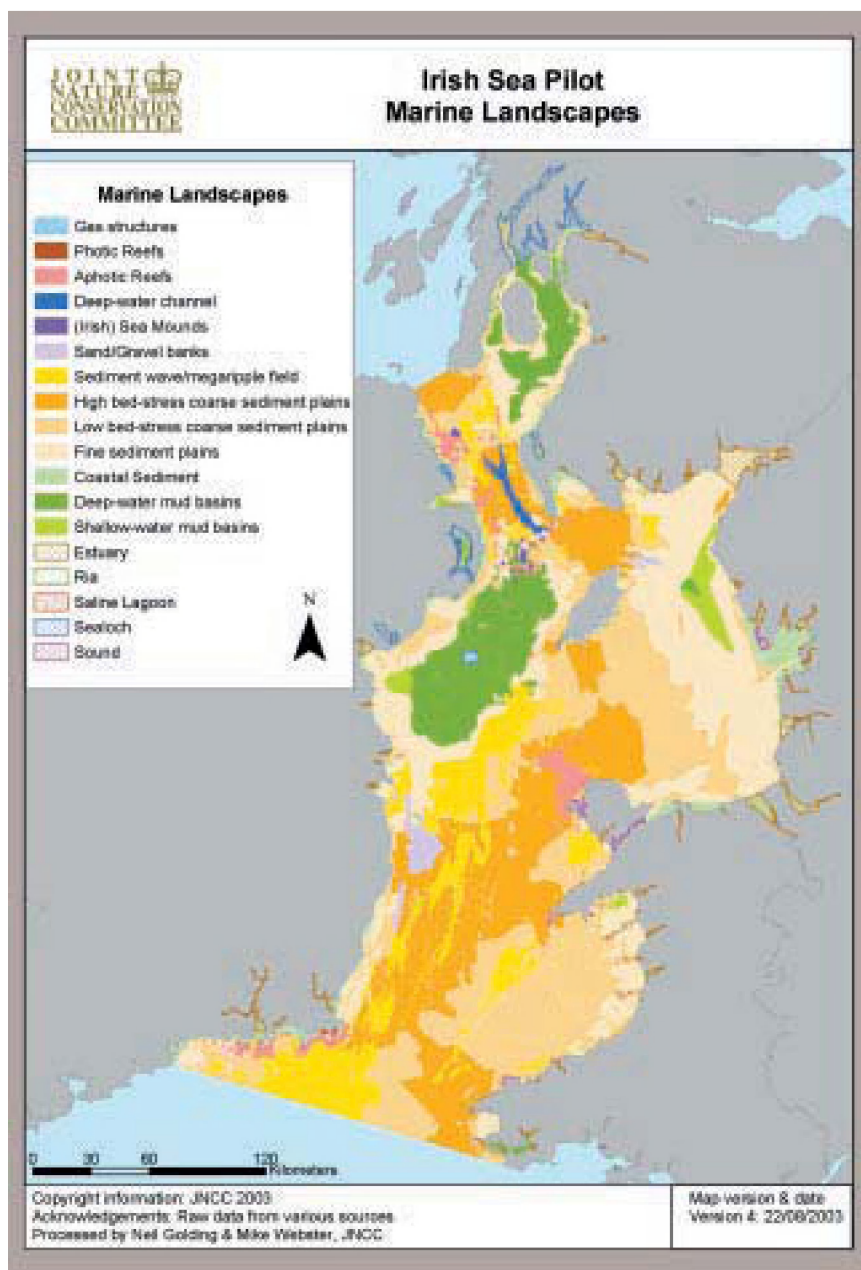
Anemones and sea squirts on subtidal rock, some examples of our rich marine biodiversity. JNCC

Although work at the local scale is key to developing a **fully representative network of Marine and Coastal Protected Areas**, it is important to have a national overview. This will ensure that the network is both fully representative and coherent. For this reason, there are a number of actions at the national scale.

- Develop English Nature's aims and objectives for a network of Marine Protected Areas and the criteria for selecting them.
- Continue to implement the University of York/Esmee Fairbairn Foundation project, to bring together policy-makers, scientists and stakeholders, to share information on existing closed areas in British waters.
- Identify the limits of existing ways of creating Marine Protected Areas and find solutions that address shortfalls, by reviewing the location and role of existing sites (including voluntary agreements, no-take zones and other closures).
- Work with stakeholders to increase awareness of, and build support for, networks of Marine Protected Areas, including those that are closed to all extractive use.
- Develop biophysical operating principles to guide decision-making on networks of Marine Protected Areas.
- Improve on current computer-based models, such as Marxan, to identify options for networks of Marine Protected Areas.

Work at a national scale to put **Biodiversity Action Plans** into place will include the following:

- Work with stakeholders to look at ways of fulfilling Biodiversity Action Plan targets outside of protected areas, as well as within them.
- Achieve UK Biodiversity Action Plan targets for marine habitats and species, taking account of whole-ecosystem function. Work with partners will identify targets that are meaningful and measurable, and so indicate whether the actions taken in the marine environment are effective.



Distribution of marine landscapes in the Irish Sea. JNCC. (See Golding, Vincent & Connor 2003). Irish Sea Pilot Copyright information Defra 2003.

- Produce an ‘adapting to change’ publication that sets out English Nature’s views on coastal management and champions the case for dynamic coasts and estuaries.
- Develop new approaches to defining boundaries for Natura 2000 sites to ensure effective conservation of wildlife and geodiversity, in the face of coastal change.

2 Increase understanding of coastal and marine environments, their natural processes, the impact that human activities have upon them, how to minimise those that have an adverse effect and improve the quality of decision-making.

Developing **marine and coastal information** systems at a national scale will improve the information we have and make better use of it. We will work to better integrate the wide range of organisations involved in the management of our coasts and seas. Work will include the following:

Better information

- Further development of the National Biodiversity Network, to collate and disseminate data.
- Work with others to map the equivalent of ‘marine landscapes’ for all the seas around England consistent with the methods used for the whole of the UK. Contribute to other mapping projects, ensuring links between them (including through the Mapping European Seabed Habitats project) to co-ordinate resource mapping.
- Work with industry and the science community to ensure that the best available information is used in the identification of new sites (Special Areas of Conservation (SACs) between 0 and 12 nautical miles offshore, and other Marine Protected Areas).
- Collation and analysis of existing data, and new survey work where required, to identify new SACs between 0 and 12 nautical miles offshore.
- Support a business case for detailed and comprehensive mapping of the coast and sea, pending the outcome of current mapping projects.



Recreational divers can gather useful biodiversity information. Lisa Browning

- Continued research into the impacts of activities, ensuring that lessons learned from ongoing activities are applied to the management and assessment of new projects.
- Maximise the opportunities to allocate funds from the marine Aggregates Levy Sustainability Fund to better understand practical ways of mitigating the impacts of, and benefiting from, marine aggregate extraction.
- Work with industry and the science community to ensure that the best available information is used in the Environmental Impact Assessment process and application of consent conditions, to ensure that information from monitoring feeds back into future decision-making.

Better integration is key to ensuring better value for money from the information that we have and the research that we do. By sharing information and working together, we can improve links between research and policy. Action needed includes:

- better integration and sharing of information and data from the existing European Marine Site network;
- work with the Environment Agency and researchers to review the use of environmental indicators of ecological ‘health’;
- close work with the Environment Agency on site monitoring programmes, including the use of biomarkers, to ensure cost-effective information gathering;

Monitoring the impacts of developments such as this wind farm at Scroby Sands off the Norfolk coast can help to inform the assessment of new projects.
Dan Laffoley/English Nature





Effective implementation of measures to prevent the introduction of alien species from ballast waters in ships travelling between ports is needed.
Chris Gibson/English Nature

- work with others, such as ports and the Environment Agency, to promote a focused drive to improve biosecurity to prevent further introductions of alien species;
- continued work with the Rural Development Service to promote reducing eutrophication of coastal waters through improved agricultural measures;
- work with the Countryside Agency and the Rural Development Service to integrate landscape evaluation into the development control aspects of coastal projects;
- continued support to Defra and other stakeholders in developing a UK marine climate impacts partnership to collate scientific information and inform policy-makers on all aspects of marine climate change;
- introducing the concepts of food web energy and nutrient cycling into marine policy-making, by incorporating them into scientific programmes such as COST-IMPACT; and
- continuing to develop and improve relations between environmental concerns and the fishing sector.

In order to gain value for money from research it is essential to **make information available**. This needs:

- work with stakeholders and the science community to ensure decision-making in the marine and coastal environments is based on best available information; and
- action on, and encouragement of others to implement, recommendations for greater harmonisation and co-ordination of marine data and information arising from Government-commissioned reviews.

Making the most of knowledge held by ourselves and those who live and work in the marine and coastal environments will encourage a wider understanding of the way these environments operate and enable better assessment of the effectiveness of their management. In particular we will work with management and advisory groups to develop social, economic and environmental indicators of the health of European Marine Sites. This will help to inform future management of these and other protected areas from a national perspective.

Key actions include:

- acting as an advocate for the value of geodiversity on our coastline;
- using our understanding of coastal evolution to better plan for future change; and
- continuing to implement and review the effectiveness and deliverability of existing European Marine Site management schemes.

3 Promote and encourage the use of natural resources in a sensitive manner to ensure long-term environmental, social and economic benefits.

Work at a national scale on **undertaking research, developing tools and promoting best practice** will focus on the following actions:

Taking account of the link between land and sea, by:

- contributing to the national Integrated Coastal Zone Management strategy, ensuring it takes account of marine spatial planning, the revised land-use planning system and other changes in governance tools;
- ensuring a clear link between the Water Framework Directive and other planning and decision-making tools on the coast and at sea (drawing on the outcome of the regional marine spatial planning pilot); and
- promoting new marine legislation (through the possible Marine Bill) that ensures sustainable use of England's coasts and seas and which fully implements the recommendations of Defra's Review of Marine Nature Conservation.

Managing flood and coastal erosion risk, by:

- establishing a common vision for sustainable coasts and estuaries;
- making Shoreline Management Plan recommendations a material consideration in planning decisions;
- advocating the need for a statutory system of 'erosion risk planning' to inform planning decisions in the coastal zone; and
- revising Planning and Policy Guidance 20: Coastal Planning.

Erosion of soft cliffs supplies beach sediment that can be transported elsewhere along the coast. Shoreline Management Plan policies need to reflect this.
Dan Laffoley/English Nature

Establishing an effective marine spatial planning system, by:

- advising on the planning and policy guidance needed to accompany legislation, for example, a Marine and Coastal Planning Policy Statement;
- working with others to ensure that a network of Marine Protected Areas is developed as part of marine spatial planning and a wider management framework;



The Houses of Parliament. Dan Laffoley/English Nature

“The fight to preserve marine life is the second biggest challenge the world faces after climate change.”

Ben Bradshaw, Fisheries Minister
December 2004

- working with partners in Government and industry to ensure sustainable solutions for development projects that are deemed to be in the national interest; and
- advising on the legislation required, including the relationship to the consenting system, drawing on the outcome of the regional pilot in the Irish Sea.

Bringing fishing mortality in line with available stocks, by:

- participating in the working groups of Defra’s Sustainable Fisheries Programme, to ensure appropriate changes in national fisheries management; and
- supporting the recommendation of the Prime Minister’s Strategy Unit Report *Net benefits* (Cabinet Office 2004) to reduce the whitefish fleet, as part of a package of overall reforms, in order to ensure stock recovery and long-term profitability.

Improving environmental assessment and managing impacts, by:

- supporting the recommendation from the Prime Minister’s Strategy Unit *Net benefits* report, for the implementation of Strategic Environmental Assessment and Environmental Impact Assessment for fishing activities;
- working with the Environment Agency and Defra to assess practical options for reducing diffuse pollution from agriculture; and
- working with Government departments to establish compliance mechanisms and enforcement powers and responsibilities.

Buying fish at Mersea Seafood Festival.
Rebecca Whitfield



4 Work with stakeholders to promote awareness, understanding and appreciation of the value of coastal and marine environments and seek wider involvement in adapting to change and in developing new policies.

Developing **marine and coastal partnerships** at a national scale will help us to improve access to the marine and coastal environments and increase understanding of the need to adapt to change. It will focus on the following actions:

Encouraging appropriate public access, appreciation and enjoyment, by:

- further developing the marine and coastal parts of the English Nature website, building on initiatives such as the Lundy webcam and links to other related sites; and
- reviewing the role and effectiveness of existing coastal landscape protection and enhancement.

Generating greater understanding of the value of marine and coastal ecosystems, by:

- working with the Countryside Agency and the Rural Development Service on proposals for access to coastal land;
- encouraging initiatives that improve public understanding of how the coast behaves and changes;

Families enjoy all year round access to the beach.
David Smalley/Wash Estuary Steering Group



- promoting research, such as the Tyndall Centre Project, on community involvement in coastal management and using the recommendations to develop further dialogue with stakeholders;
- investigating and demonstrating the ecosystem ‘services’ that the coast provides for people;
- ensuring there are good planning policies for the coastal zone in the new planning system and that they influence Regional Spatial Strategies; and
- maintaining and building upon links with the fishing industry.

Suffolk Yacht Harbour, River Orwell. Planning policies need to balance the importance of our estuaries for both recreation and wildlife. Chris Gibson/English Nature



3.4 The international perspective

As a member of the G8 group of nations and one of the 25 Member States of the European Union, the UK has an important contribution to make in the governance of our marine and coastal resources at European and global scales. The UK is already a signatory to, and participant in, a wide range of commitments that have an impact on how we use natural resources.

English Nature, together with the other country conservation agencies and the Joint Nature Conservation Committee, has an important role in promoting best practice and developing new approaches to environmental management. Working with other European experts is a key way to take this forward. This reflects the UK's lead in environmental management and best practice.

The Water Framework Directive is the single most important piece of legislation to affect water management across the European Union. To help implement the Directive consistently across Europe working groups are undertaking a range of activities, including developing classification schemes and preparing river basin management plans. We will work with others at a national scale to influence and contribute to these European working groups.

The development of the European Marine Strategy will also shape the way we use marine resources in the future. Set within the context of the planned Green Paper on maritime affairs in Europe, these initiatives will provide a solid basis for achieving sustainable development across Member States. The recent review of the Common Fisheries Policy and reform of its implementation within the European Commission, which will bring fisheries and environmental management closer together, also provides new opportunities to ensure wise use of marine resources.

Multi-partner and long-term science programmes funded by the Commission provide opportunities to more effectively bring together science and knowledge. We have benefited from European funding for initiatives in the UK, for example, the *Living with the Sea* and *UK Marine SAC LIFE* projects. We increasingly benefit from taking part in programmes with experts from other countries. Our marine and coastal management experience and knowledge is valuable in helping to apply the outputs of such programmes. We will continue to seek opportunities that provide sustainable solutions to managing marine and coastal environments.

Working with others to share information and build networks will increase the effectiveness of our work and the advice we provide. Through the Joint Nature Conservation Committee we will contribute knowledge and experience to global fora.

Some key areas of work for the coming years are set out below.

Some examples of key partners at an international scale are:

Department for Environment, Food and Rural Affairs
Joint Nature Conservation Committee



Work at the European level is needed to apply the Ecosystem Approach to fisheries management.
Dan Laffoley/English Nature

Country nature conservation agencies
European Commission
European Environment Advisory Council
Scientists and Research Institutes
Scottish Executive
Welsh National Assembly
OSPAR Commission
The fishing industry
European Environmental Bureau
Birdlife International
World Conservation Union (IUCN)
Marine Institute

International actions

1 Recover and conserve the wildlife, habitats and geodiversity of our coasts and seas, their supporting ecological processes and overall resilience.

Work on applying the **Ecosystem Approach** at an international scale will include:

- contributing to the development of a framework for applying the Ecosystem Approach to fisheries management;
- supporting the implementation of the revised European Biodiversity Action Plan for Fisheries;
- influencing and contributing to the European working groups set up to help with consistent implementation of the Water Framework Directive;
- supporting the development and implementation of the European Marine Strategy and the Green Paper on maritime affairs, directly and via others; and
- working directly, and through others, to identify the environmental outcomes sought and indicators required to support marine management.

At an international scale work on developing a **fully representative network of Marine and Coastal Protected Areas** will include:

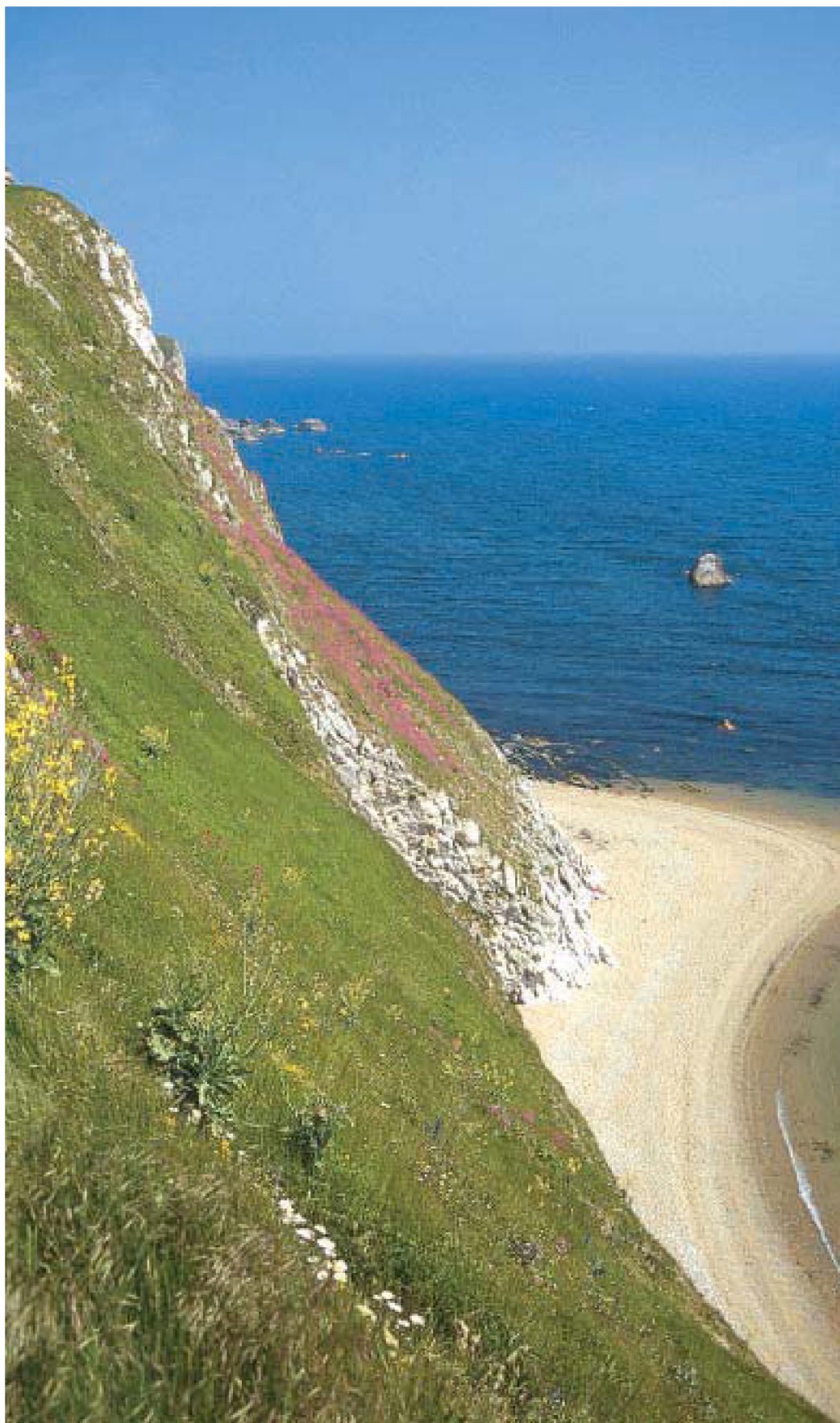
- contributing to the review of the annexes of the Habitats Directive;
- working with Defra, the devolved administrations, the country agencies and JNCC on implementing the OSPAR recommendation for an ecologically coherent network of well-managed Marine Protected Areas by 2010; and
- working with UNESCO to designate, promote and manage natural World Heritage Sites and other internationally important geological sites.

2 Increase understanding of coastal and marine environments, their natural processes, the impact that human activities have upon them, how to minimise those that have an adverse effect and improve the quality of decision-making.

Work on developing **marine and coastal information** systems at an international scale will involve collaboration with European partners, including:

- optimising English Nature's work as part of the Mapping European Seabed Habitats project and using its outputs;

Work with UNESCO is needed to help promote the value of the Dorset and East Devon Coast World Heritage Site. Sue Rees /English Nature





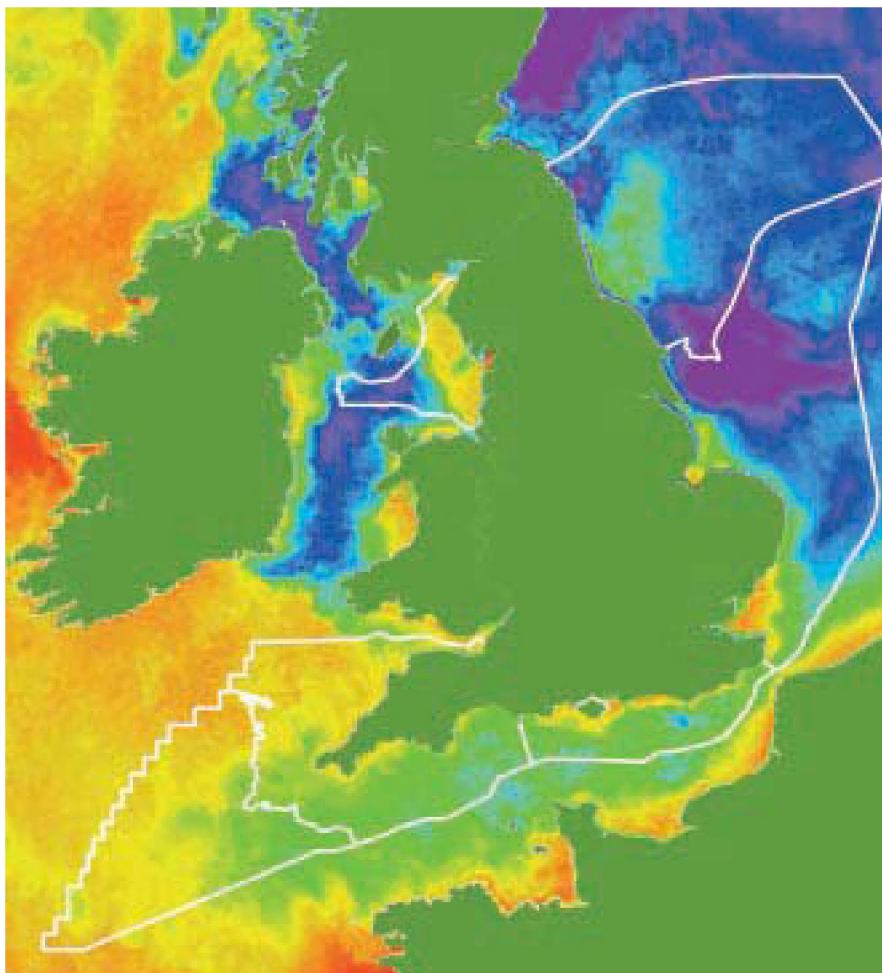
Trimley managed retreat was constructed as part of the compensation package for dredging the Orwell Estuary for port development. Chris Gibson/English Nature

- promoting collaboration between industry and regulators across Europe in order to effectively assess cumulative effects of activities, provide adequate mitigation and learn from lessons elsewhere;
- helping to direct scientific research so that it provides relevant fisheries and environmental knowledge, to help underpin policy decisions; and
- ensuring that the assessment of the effectiveness of European Marine Site management schemes in England informs European policy.

3 Promote and encourage the use of natural resources in a sensitive manner to ensure long-term environmental, social and economic benefits.

At an international scale, we will build on existing work on **undertaking research, developing tools and promoting best practice**. The emphasis will be on having an input to the development of the European Marine Strategy, and improving fisheries management through the Common Fisheries Policy, by:

- helping to define regional seas and associated governance drawing on Marine Natural Areas, the marine spatial planning pilot and outputs from the European Marine Strategy process;
- supporting the recommendations from the EU Eurosion project to improve coastal sediment management and allocate sufficient space for more dynamic coasts and estuaries;
- developing recovery plans for fish stocks outside of safe biological limits, and long-term management plans for other stocks, under the Common Fisheries Policy;



“The same regions do not always remain sea or always land but all change their condition in the course of time.”

Aristotle 384-302 BC

Information from Marine Natural Areas can be used to define Regional Seas. Copyright Natural Environment Research Council (NERC) and Plymouth Marine Laboratory

“It is hard to imagine that we would tolerate a similar scale of destruction on land, but because it happens at sea the damage is largely hidden.”

Sir Tom Blundell (RCEP chair) on fishing

- responding to consultations on new and amended regulations for fisheries management under the reformed Common Fisheries Policy; and
- encouraging the investigation of planning across national maritime borders, including under the auspices of OSPAR and the European Marine Strategy.

4 Work with stakeholders to promote awareness, understanding and appreciation of the value of coastal and marine environments and seek wider involvement in adapting to change and in developing new policies.

Developing **marine and coastal partnerships** at a European scale will focus mainly on reducing the impacts of fishing, through:

- having an input into, and working with, Regional Advisory Councils to help achieve a regionally-based Ecosystem Approach to fisheries management.

The revised Common Fisheries Policy will bring fisheries and environmental management closer together. Fishing vessels, Boston, Lincolnshire.
Jon Watson/Wash Estuary Steering Group



4 Making it happen

A recurrent theme throughout this document is that we need strong partnerships to take the necessary action, if we are to have coasts and seas where there is space for people, industry and wildlife. Although there has been progress since the launch of our *Maritime State of Nature Report* in 2002, the present state of our coasts and seas is not good. As the scale of the task has unfolded, it is clear that a new approach is required if recovery is to be achieved.

Building a better future is a collective responsibility. Government has already signalled its intent by signing up to a number of international agreements, ranging from the Kyoto protocol to the Convention on Biological Diversity. Government will, however, need clear, firm and ambitious actions if these aspirations are to be achieved. English Nature sees this strategy as setting out what we need to do and acting as a catalyst for combined action.

Significant progress has already been made through the implementation of the EU Habitats, Birds, and Water Framework Directives, and by advancing the Strategic Environmental Assessment process. These are already making gains for the marine and coastal environments. New initiatives, arising from the England Biodiversity Strategy and the Flood and Coastal Erosion Risk Management Strategy consultation *Making space for water*, are welcome. The Marine Stewardship Process requires a collective input and Government departments have a fundamental role to play in its success.

A brighter future

In developing this strategy we have examined how we can better achieve nature conservation objectives in dynamic marine and coastal environments. Strong legal and policy measures are still needed to protect the environment and progress our agenda. We need to work better with the social and economic sectors to understand the problems and develop a common and shared understanding of them, and then to work together for truly sustainable solutions.

Our strategy highlights the benefits that this new approach will bring. The benefits we receive from these environments are clear for all to see and are valued by society.

Benefits of achieving our ambitions at the coast include:

- coastal habitats that are better able to adapt to long-term change;
- more natural transitions between freshwater, brackish and saline habitats;
- coastal communities that are better able to adapt to coastal change;
- better information so that new developments are sited in more suitable locations, taking into account likely long-term changes on the coast; and
- more and better opportunities for sustainable tourism.

Benefits of achieving our ambitions at sea include:

- better water quality;
- healthier, more robust food chains;
- a long-term future for marine wildlife;
- recovery of fish stocks with consequent benefits for fishing communities;
- healthier and more robust seas that can better cope with some of the major impacts we have little direct control over, such as climate change; and
- a long-term future for wildlife.

Such healthy environments will benefit future generations as there will be fewer social and economic problems associated with depleted fisheries, poor water quality, inappropriate coastal development and climate change.

It is in all our interests to work together to find win-win solutions. There needs to be a greater political will across Government, and agreement at a European level to turn the tide for the greater benefit of all UK and European citizens respectively. We look forward to the possible UK Marine Bill, the European Marine Strategy and the end-point from the forthcoming Green Paper on European maritime affairs. These will put frameworks in place within which we can all act responsibly to ensure healthy marine and coastal environments for future generations.

Turnstones are found on rocky shores. They particularly like rocks covered in seaweed where they search for invertebrates. Chris Gibson/English Nature



Some international Government commitments that aim to protect our coasts and seas

The UK Government has signed up to a number of agreements and conventions. Some of them are listed below.

The Gothenburg summit. In June 2001 EC Member States signed up to halt biodiversity loss across the EU by 2010. An internationally important network of sites under the Habitats and Birds Directives is an important contribution towards meeting this target.

The World Summit on Sustainable Development met in Rio de Janeiro in 1992 and Johannesburg in 2002. As well as establishing the Convention on Biological Diversity in 1992, the 2002 agreement led to the following targets:

To establish representative Marine Protected Area networks by 2012.

To restore depleted fish stocks to maximum sustainable yields by 2015, where possible.

The Convention on Biological Diversity has led to many Biodiversity Action Plans in the UK and recommends the Ecosystem Approach to managing the marine environment. This is included as a key element in the reform of the Common Fisheries Policy.


OSPAR - the Oslo-Paris Convention on protecting the marine environment of the north east Atlantic. This set targets to reduce inputs of man-made pollutants into seas and recommends restoration, where feasible. It also recommends establishing an ecologically coherent representative network of marine protected areas by 2010.

The European Marine Strategy, established under the 6th Environmental Action Programme, contributes to the Community Strategy for Sustainable Development. It strives for clean, healthy, safe and productive European seas and ecosystems, sustainable exploitation of renewable marine resources, and regional seas management planning.

The Bergen Declaration. North Sea Environment Ministers signed up to progress no-take zones in the North Sea by 2010.

EU recommendation on Integrated Coastal Zone Management (ICZM) requires Member States to develop national ICZM strategies by 2006. The UK has already completed an initial stock-take exercise.

The Water Framework Directive seeks more integrated, ecologically-driven management of transitional and coastal waters. The overall objective is for waters to achieve "good ecological status" by 2015.



Sea pea - a BAP species which grows on shingle and is vulnerable to trampling.
Chris Gibson/English Nature



Coastal processes in action at Burton Cliff, Bradstock, Dorset. Chris Gibson/English Nature

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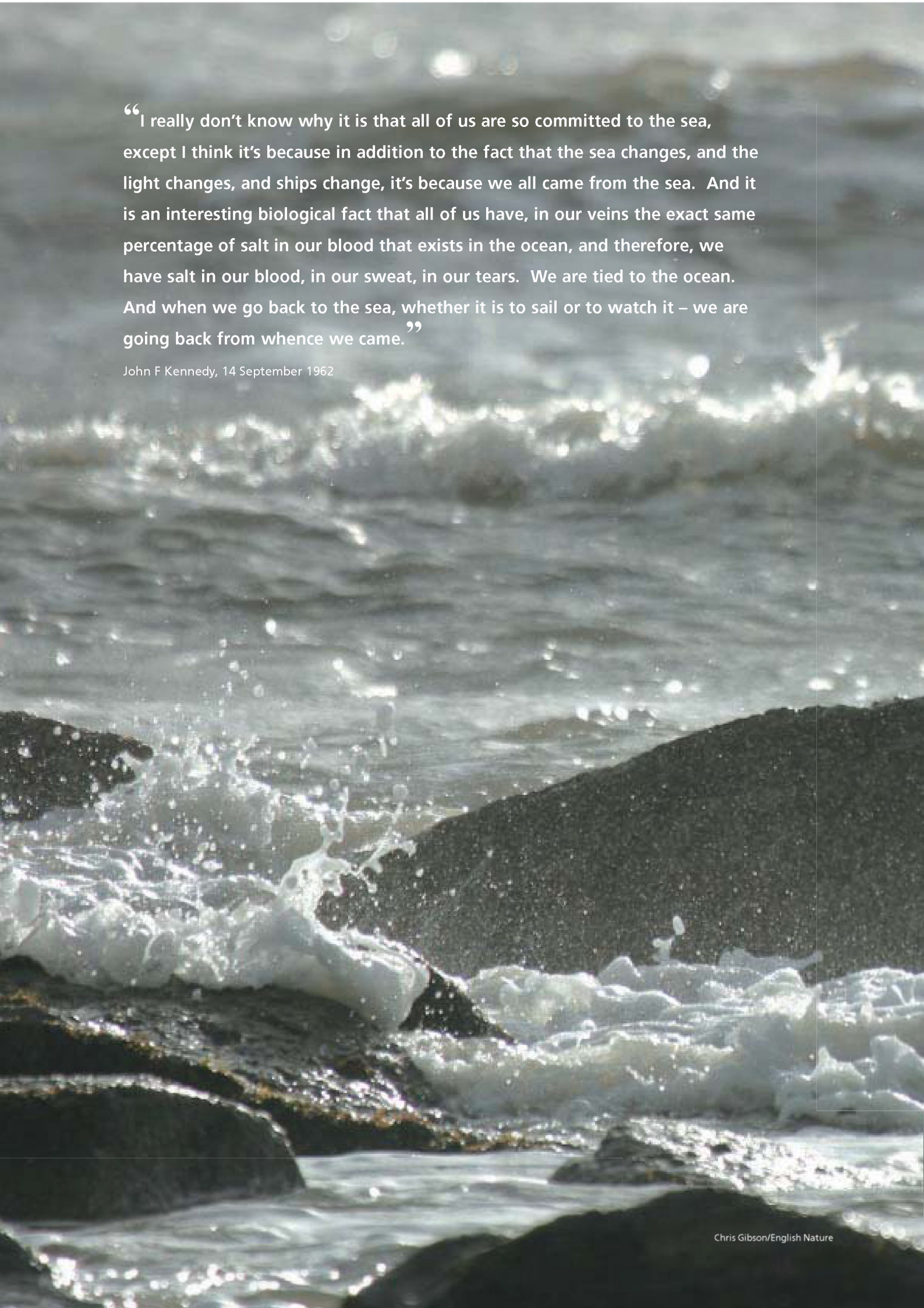
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“I really don’t know why it is that all of us are so committed to the sea, except I think it’s because in addition to the fact that the sea changes, and the light changes, and ships change, it’s because we all came from the sea. And it is an interesting biological fact that all of us have, in our veins the exact same percentage of salt in our blood that exists in the ocean, and therefore, we have salt in our blood, in our sweat, in our tears. We are tied to the ocean. And when we go back to the sea, whether it is to sail or to watch it – we are going back from whence we came.”

John F Kennedy, 14 September 1962



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England, as part of the UK has an intimate relationship with the marine environment; the sea and the land are linked by complex biological, physical and chemical processes requiring action at a range of scales. Jaques Desclotres, MODIS Rapid Response Team NASA/GSFG