



# cleaner coasts healthier seas

Working for a better marine environment

Our strategy for 2005-2011

We are the Environment Agency. It's our job to look after your environment and make it a **better place** – for you, and for future generations.

Your environment is the air you breathe, the water you drink and the ground you walk on. Working with business, Government and society as a whole, we are making your environment cleaner and healthier.

The Environment Agency. Out there, making your environment a better place.

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## Foreword

Our coasts and seas are under threat. Sea levels are rising and flood risk is increasing. The climate is warming up and marine ecosystems are changing in response.

Here at the Environment Agency, protecting the marine environment is a top priority. We know that the health of our coasts and seas matters enormously to people throughout England and Wales. How can we all help to care for our marine environment?

In this marine strategy, we set out what we are doing now to protect the marine environment, and present our vision for the future.

We want to see a cleaner, healthier marine environment that will be a better place for people, business and wildlife. We will achieve this by putting the environment first, and by working together with other regulators, businesses and coastal communities. We are determined to work effectively with Government to achieve its aim of making a real difference to our environment within one generation.

The publication of our marine strategy is timely. It complements the UK Government's commitment to producing a Marine Bill during this Parliament that will improve how we manage our coasts and seas. We welcome this step, and we will work closely with the governments of England and Wales to make our contribution to a better coastal and marine environment.



*Barbara Young*

**Barbara Young**  
Chief Executive, Environment Agency

# our marine environment



## Why it matters

The coasts and seas are vital to our economy, health and wellbeing. But as our new *State of the marine environment* report shows, human activities are affecting many aspects of the marine environment.

Our economy relies on the sea. The maritime sector is worth £37 billion each year, and 95 per cent by weight of our imports and exports are transported by sea. Our fishing fleet landed over 630,000 tonnes of fish and shellfish in 2003, worth more

than £500 million; offshore oil and gas production is valued at £23 billion per year; and 20 per cent of the UK's sand and gravel production, vital for the building trade, comes from the sea.

The marine environment is also vital to the health and wellbeing of our communities. From angling and birdwatching to surfing and waterskiing, we enjoy a wide range of leisure activities on the coast. Each year, two million people go sea

angling, and 23 million of us took a seaside holiday in 2003, spending £4 billion in our coastal resorts.

Our 255 offshore oil and gas fields provide most of the UK's fossil fuel production. In the future, the sea's wind, waves and tides could provide a significant proportion of our 2010 renewable energy targets. By the end of 2005, four offshore windfarms will be generating electricity, and 10 more will be producing power by 2010.



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Our seas also support over 10,000 plant and animal species, including our nations' largest and most impressive animals such as seals, whales, dolphins and sharks. Important coastal habitats such as estuaries are a focus for wildlife, attracting vast flocks of birds and shoals of fish.

We must all ensure that the value of our coasts and seas is maintained for future generations. We welcome the forthcoming Marine Bill and

believe that new approaches to management will be vital to the health of the marine environment, including a statutory marine spatial planning framework; stronger links between management of coasts and seas; simpler regulation of activities; better protection for our marine wildlife; improved management of fisheries and flood risk; and planning for the impacts of climate change.

Our marine strategy will guide our work and allow us to build stronger partnerships with government and other organisations so that we can create cleaner coasts and healthier seas.

# how it is cha



## There is some good news:

- Discharges of sewage, hazardous chemicals and radioactive material have been greatly reduced. Our coastal waters are now generally of good quality.
- All of the bathing waters in Wales and 98 per cent of those in England meet mandatory EC standards.
- Nutrient levels in our seas have changed little over the past 20 years, and there are only a few signs of harmful enrichment, limited to some inshore areas.
- Most of the protected wildlife sites on our coasts are in good condition.

## But there's a lot still to do:

- In the past century, average sea temperatures have increased by 0.5 – 1°C, sea levels have risen by 10cm, and sea water has become more acidic.
- In hot summers with low rainfall, pollution has killed fish in estuaries; and over the past 25 years marine fish distributions have steadily moved northwards as the sea has become warmer.
- 100 hectares of our saltmarshes are estimated to be lost to rising sea levels each year. This shrinking coastal habitat is vital for the birds and fish that thrive in coastal areas, and its loss is a major concern.

# nging



- Litter is a problem on many of our beaches. Plastics are the biggest problem, either from sanitary products flushed down the toilet, litter left by beach users, or washed ashore from the sea. This litter isn't just unsightly – it can kill sea birds and marine mammals that become entangled in it or mistake litter for food.
- Although water quality has improved in recent years, many pollutants generated by past industrial activity remain locked up in marine sediments in estuaries and around our coasts.
- Pollution from widespread sources, known as diffuse pollution from rural and urban areas is a risk to 25 per cent of our estuaries.
- Only 38 per cent of our commercial fish stocks are being harvested sustainably; salmon are below conservation limits in 40 per cent of our rivers, and the number of elvers returning to our rivers has dropped by 70 per cent in the past 20 years. Fishing can harm species caught accidentally as bycatch, and both trawls and dredges can harm habitats.
- Invasive non-native species like slipper limpets, Japanese seaweed and Chinese mitten crabs have been introduced to our seas by accident and are now becoming pests. Over 50 non-native species have been found in our coastal waters, and warmer water temperatures may allow more to spread.

# our strategy



## Our aims

It is clear we need to strike a much better balance between the different uses of our coasts and seas and the need to protect the marine environment. Our marine strategy sets out our agenda for action over the next five years in four priority areas. We will create cleaner coasts and healthier seas by:

**Promoting** sustainable development;

**Integrating** management between land and sea;

**Providing** efficient regulation of our coasts and coastal waters;

**Ensuring** that we all value our coastal and marine environment.

Our strategy identifies the key priorities today and sets our agenda for progress tomorrow, to create cleaner coasts and healthier seas for the future.

## Our role

Our regulatory duties span land and sea, and range from promoting recreation to managing flood risk and controlling pollution. It is our job to look after your environment and make it a better place – for you, and for future generations.

Our wide remit puts us in a unique position to encourage better protection of our coasts and seas. We are already doing this by working closely with businesses, local communities, other regulators and partner organisations.



## Our conclusions

Our nations' economic wellbeing, our local communities and marine wildlife all need clean, healthy and productive seas.

Although our coasts and seas are a national asset, they are threatened by growing pressures from human activities and climate change. Most indications are that the marine environment is in decline.

The threats facing our coasts and seas will only be tackled if we all work together and develop new ways of both managing the marine environment and planning how we will use it in the future.

We must work with Governments and our partners to build a framework for the future sustainable use and protection of our marine environment. Our nations' health and wellbeing depend on it.

# Priority 1

## Promoting sustainable development – to get results for people, businesses and wildlife.

We need to make sure that marine ecosystems are healthy and protected. Human activities are putting great pressure on our marine environment.

We want our coasts and seas to continue to provide food for people, homes for local communities, a destination for tourists, a place for business, and habitats for wildlife.

We will continue to work with businesses, communities, other regulators and partner organisations to tackle environmental problems and develop new approaches to managing our coasts and seas.

### Key issues:

- Our coasts and seas are important for people, businesses and wildlife. But human activities are harming the marine environment and reducing biodiversity. We need to give greater priority to the marine environment if we are to create healthier seas for future generations.
- There is no formal planning system at sea. Different human activities often clash with one another and may have adverse effects on the marine environment. Better management, such as a statutory marine spatial planning framework, would help minimise impacts on our coasts and seas, and get the best from the sea for people and businesses.
- New approaches to managing the marine environment will be needed to achieve sustainable development. The Government is presently reviewing marine nature conservation measures; evaluating new approaches to marine planning; and reviewing how fishing and coastal defences are managed.

- Climate change is fundamentally changing our coasts and seas. Sea levels are rising, storms are becoming more severe, coasts are eroding, and marine ecosystems are changing.

### What we need to do:

- Work with Government and other regulators to develop and introduce new approaches to both managing human activities today, and planning how to manage them better in the future.
- Work with communities, businesses and regulators to make sure that we maintain and improve standards of environmental protection.
- Implement legislation, such as the Water Framework Directive, that will help to improve the quality of marine ecosystems.
- Plan for the effects of climate change, whilst tackling its causes.

### What this will achieve:

- Sustainable development, through better marine planning that will harmonise how we manage different human activities on land and at sea, whilst protecting the marine environment.
- Management plans for marine and coastal areas that take account of the impacts of climate change.
- Marine biodiversity that is better protected and enhanced.



## Green Seas Partnership

Wales has a spectacular coastline, and thanks to the Green Seas Partnership, its beaches are now some of the best in Europe. The Partnership's 'Green Coast Awards' have created cleaner, better beaches, and are boosting coastal tourism.

The *Green Seas* Partnership was set up in 1996 as an alliance of over 40 bodies committed to establishing Wales as a European leader in beach management. Its Green Coast Awards were established to encourage environmental improvements by identifying beaches that meet the highest bathing water standards and are prized for their natural, unspoilt beauty.

In 1999, only eight beaches qualified for an award. By 2005, 41 beaches received awards. All of the designated bathing waters in Wales now meet mandatory EC standards. The Green Seas Partnership shows how both businesses and the environment can profit from cleaner coasts and healthier seas.

## Priority 2

### Integrating management between the land and sea

Things we do on land can have a profound effect on the marine environment – through pollution for instance. Storms and flooding by the sea can devastate coastal communities. The links between the land and sea are strong, and we must closely integrate how we manage our activities on land and at sea. Our work on the Water Framework Directive links the management of our rivers, estuaries, and coastal waters.

We have a wide range of responsibilities to protect the environment, on land, in rivers, in estuaries, and at sea. We are already working with other organisations to improve water quality, and to integrate how we manage coastal defences and flood risk. It will be important to strengthen and develop integrated management if we are to successfully balance our needs with those of the marine environment.

#### Key issues:

- Links between managing activities on land and at sea have been weak in the past. The Water Framework Directive, will help us to strengthen these links.
- The marine environment hosts a wide range of human activities, which are regulated by many different authorities. Integrated management can only be achieved if these authorities and local communities are able to work together effectively. This is especially important in the coastal zone – the few miles inland and offshore of the coast – where so many human activities take place.
- Pollution from land can disrupt marine ecosystems. Water quality is constantly improving as discharges from industry are cleaned up. The next challenge will be to tackle diffuse pollution from urban and rural areas.

- We must address the increasing risks to life, property and the environment from coastal flooding due to climate change. We're already investing £500 million a year to manage flood risk. Steps to integrate management of shoreline defences and river flood risk will be vital for coastal communities.

#### What we need to do:

- Implement regulations, such as the Water Framework Directive, that will strengthen integration between how we manage land, rivers, estuaries and the sea.
- Work in partnership to promote inclusive and integrated management of both the coastal zone and open sea.
- Investigate, identify and address sources of marine pollution.
- Promote integrated management of shoreline defence and flood risk management, supporting the Government's '*Making Space for Water*' strategy.

#### What this will achieve:

- Integrated management of our coasts and seas through co-operation between regulators and people.
- Less pollution and improved environmental quality of coastal and estuarine waters.
- Strategic management plans that will minimise coastal flooding and erosion.



## Humber Estuary Flood Risk Management Strategy

The Humber Estuary flood plain is important for people, businesses and wildlife, but they are under threat from increased flooding due to rising sea levels. We are working together with partners to tackle the risk of future flooding around the Humber, where an estimated £1 billion will have to be spent on flood defences in the next 100 years.

We have developed the Humber Estuary Flood Risk Management Strategy which sets out a plan for protecting people and businesses that is compatible with natural processes, and takes into account the effects of climate change. Importantly, we have developed it by collaborating closely with many partner organisations, and liaising extensively with local residents and landowners.

The Humber Estuary shows how integrated management is vital to make sure that our use of the land is compatible with the influence of the sea – it proves the value of integrated coastal zone management. The close partnership for developing the Flood Risk Management Strategy will be used to help implement the Water Framework Directive, strengthening the links between managing land and sea.

## Priority 3

### Efficiently regulating our coasts and seas

Our regulatory work focuses on areas where the environmental impacts and risks are greatest. We are constantly working with businesses to find innovative and cost-effective ways to protect the environment.

Many different organisations share responsibility for managing marine activities, with regulatory powers established under many different laws. Some human activities are regulated by several different authorities, while other activities are largely unregulated. This prevents efficient regulation and management. A new approach is needed, and we will work with our governments and other authorities to create a more efficient regulatory regime.

#### Key issues:

- Traditional approaches to regulation don't always give the best results. As a modern regulator, we must target our efforts and use innovative ways of getting the best possible results for the environment by working with people and businesses.
- There is limited awareness of our wide range of roles in the marine environment, and how we work in partnership with others to regulate efficiently.
- Responsibility for managing our coasts and seas is shared between many different regulators and authorities, often with overlapping responsibilities. This can cause confusion and duplication. New approaches to management, such as marine spatial planning, would help to simplify regulation and improve management.
- Regulations are often baffling. People and businesses may not understand what they need to do, which can hinder effective environmental protection.

- Regulations for managing some aspects of the marine environment need updating. Government reviews of key marine issues, such as fisheries and nature conservation, should bring about a new and more efficient approach to management.

#### What we need to do:

- Raise awareness of our roles as a marine environmental regulator, and how we are already working with partner organisations to protect our coasts and seas.
- Inform people and businesses of the regulations that apply to their activities.
- Work with people and businesses to continue developing innovative and cost effective ways to regulate activities.
- Work in partnership with other regulators to minimise the problems caused by fragmented regulations.

- Encourage changes to marine environmental legislation and management that will allow future regulation to be more effective and more efficient.

#### What this will achieve:

- People and businesses will understand the regulations that apply to them, and the role of each regulator in the marine environment.
- A new and simpler approach to regulation that is more efficient, and more effective in protecting the marine environment.
- Better protection of the environment at lower cost through modern risk-based regulation.



## Better bathing waters

In 1990, only 78 per cent of designated bathing waters in England and Wales met mandatory EC water quality standards. Today, 98 per cent of these make the grade, thanks to £2 billion of investment by water companies and our efficient regulation.

The improvement of bathing water quality has been underpinned by legislation that allows us to work in partnership with businesses. Together, we have identified problem areas and agreed the investment programmes necessary to tackle them. The result has been steady progress towards improved environmental quality.

The successful improvement of our bathing waters shows the value of an efficient and modern regulatory framework. In a relatively short time, this has allowed us to tackle one of the biggest environmental issues in the marine environment. The lessons we have learnt from bathing waters could help us to design new regulations for tackling other threats faced by our coasts and seas.

## Priority 4

# Making sure that we all value our coastal and marine environment

The sea provides us with food, and is a home for some of our rarest and most important wildlife. The sea is cherished by people who work on it, live by the coast, enjoy seaside holidays, or take part in water-based recreational activities. Although the sea once seemed limitless and immune to human impacts, we now know that marine environments can be fragile, and that our activities can harm them.

To help protect our seas, we need to make sure that everybody understands the effects of what they do on the environment, and the value of the marine environment to us all. We will monitor the state of the marine environment and share this information with Governments, businesses and people, so that we can understand and reduce these impacts.

### Key issues:

- Not everyone understands the effect their activities may have on the marine environment. Unless we can improve awareness and understanding, better protection of the marine environment will be an uphill struggle.
- Information about the marine environment can be hard to get and understand. This makes it hard to improve how we manage the marine environment and raise awareness of the value of our coasts and seas.
- Restricted access to the marine environment can prevent people from appreciating its value. Improved access for recreation, and better quality information will raise awareness of the health of the marine environment.

### What we need to do:

- Raise awareness of the state of the marine environment, its importance to us all, and the effect we are having on it, by making information more readily accessible.
- Provide information on how to make human activities less harmful to the marine environment.
- Coordinate monitoring programmes, easier access to information which will help raise awareness and improve management decisions.
- Make sure we base our policy decisions on the best information available.
- Encourage recreation in the marine environment that will raise awareness of its value, and create a better place for the whole community.

### What this will achieve:

- People will have easier access to information about the state of the marine environment, raising awareness of its value and the effect human activities can have on it.
- People will understand how to reduce the effect of their activities on the marine environment.
- Management of the marine environment will be based on the best information available.
- More opportunities for recreation, enjoyment, and understanding of the marine environment.



## The Thames Estuary – recovery and recreation

In the 1950s, the Thames Estuary was highly polluted. Today, thanks to improved water quality, wildlife is returning to the estuary and it's a popular place for recreation. The Thames now supports 120 species of fish, and is valued by the thousands of people who enjoy all sorts of leisure activities on and around its waters every week.

Problems remain, however. In wet weather the sewers can overflow, discharging raw sewage into the estuary. This can happen 50-60 times a year, leaving sewage waste on the foreshore, killing fish, and harming wildlife. We are working with the Government, Ofwat, Thames Water, businesses, local people and the Thames Estuary Partnership to tackle these problems.

Investing in the recovery of the Thames is as vital today as it was in the past. London is growing, which puts even greater strain on its sewers. Future developments like the Thames Gateway and Olympic Development Zone will lie on the banks of the estuary, and a healthy environment will be crucial for their success. If we can sustain the recovery of the Thames, we will leave a legacy that will be valued by future generations.



# our next steps

This marine strategy will guide our work in the marine and coastal environment over the next five years. The priorities set out here provide us with a framework within which we can make plans and get the best possible results for the marine environment. We will create cleaner coasts and healthier seas by applying the priorities set out in this strategy to our day to day work.

## What we will do:

- Continue to protect the marine environment for future generations by carrying out our wide range of duties effectively and efficiently.
- Produce an annual plan that will set out how we will implement our marine strategy. We will also report progress from the previous year.
- Encourage new management approaches that promote sustainable development and improve integration between land and sea.
- Continue to work in partnership with businesses, people, and other regulators to manage the marine environment. By identifying areas where we have common goals, and by working in effective partnerships, we can achieve far more together than we could alone.
- Use best available knowledge to guide our decisions and policies. Our science and monitoring programmes will develop an improved understanding of the marine environment and impacts on it. Our research will focus on key areas, including pollution, environmental quality, microbiology, impacts of climate change and new technologies.

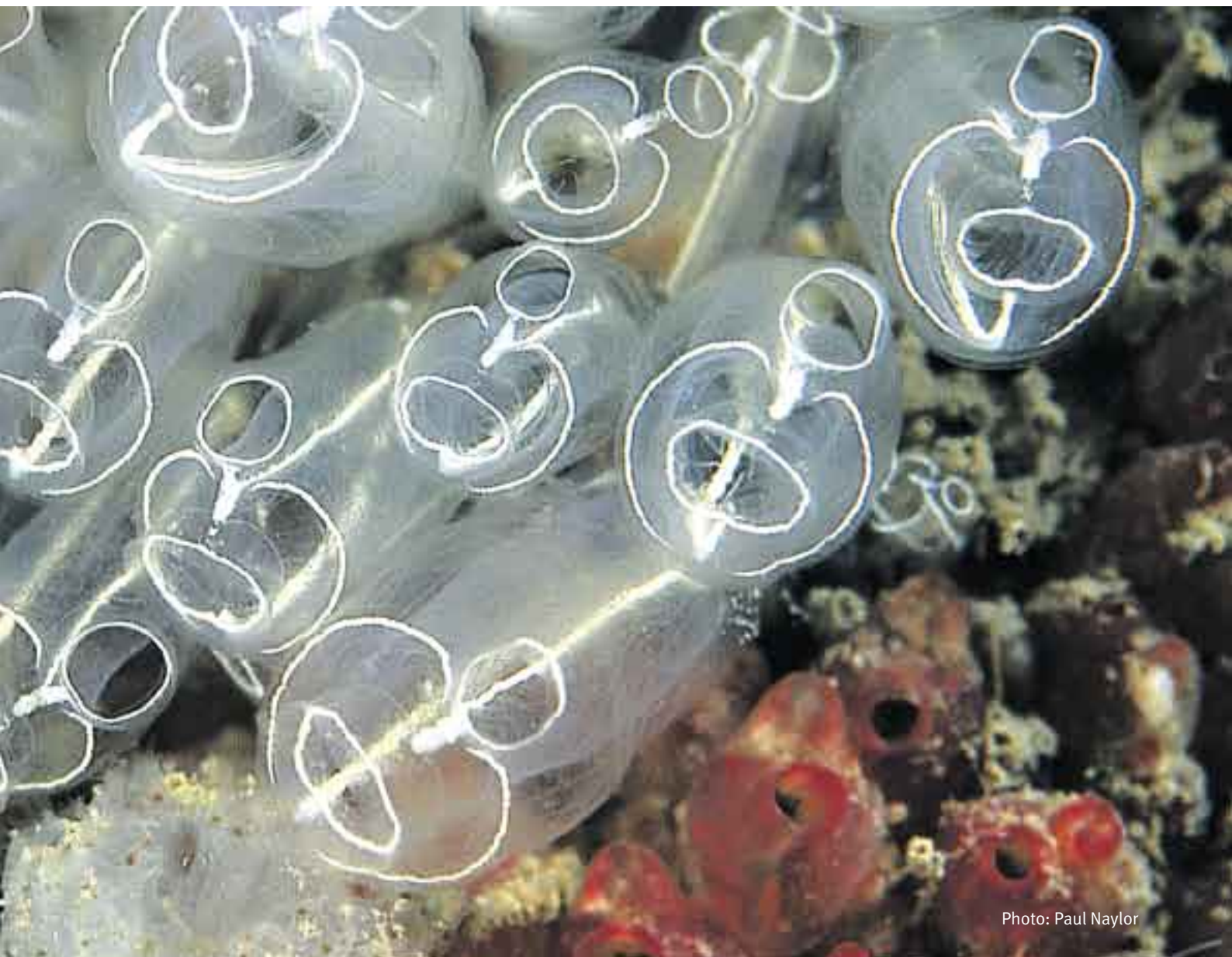


Photo: Paul Naylor

## What this will achieve:

- Assess the state of the marine environment using the results of our monitoring work and scientific information from other sources. This will help us to measure the success of this strategy, and to report on compliance with European Directives and commitments made by our Governments.
- Encourage sharing of information about the marine environment.
- We will carry out our duties and implement the priorities of our marine strategy effectively and efficiently.
- Improved management of our coasts and seas based on clear plans, strong partnerships, and improved integration between land and sea.
- Our management of the marine environment will be based upon the best available information.
- We will be able to tell if the marine environment is getting better or worse.
- People will understand the value of the marine environment, the impacts that human activities can have, and how to minimise adverse effects.

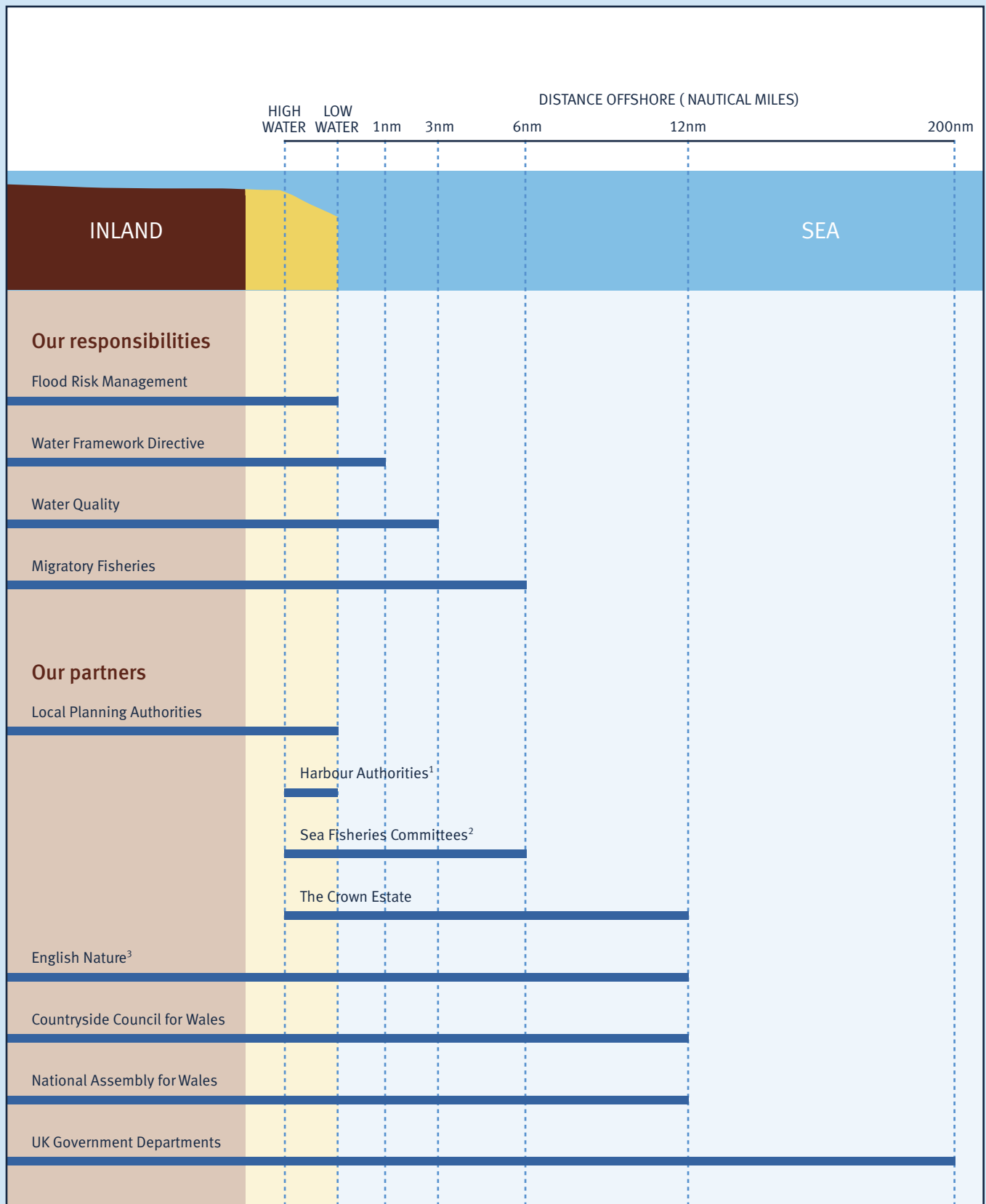
# working with our partners

Although we have a wide range of responsibilities, we cannot protect the marine environment alone. Human activities on our coasts and in our seas are managed by many different authorities. We already work closely together, and new legislation will help us to play a leading role in working more effectively and efficiently to protect our estuaries and coastal waters.

In many coastal areas around England and Wales, formal partnerships have been set up in recent years to help regulators and authorities to work more effectively with one another and with local communities. Although these are non-statutory, they have made a valuable contribution to tackling issues that are shared between many different authorities, such as the management of coastal recreation and raising awareness of the value of the marine environment. We are active members of many coastal partnerships, and recognise the important role these play.

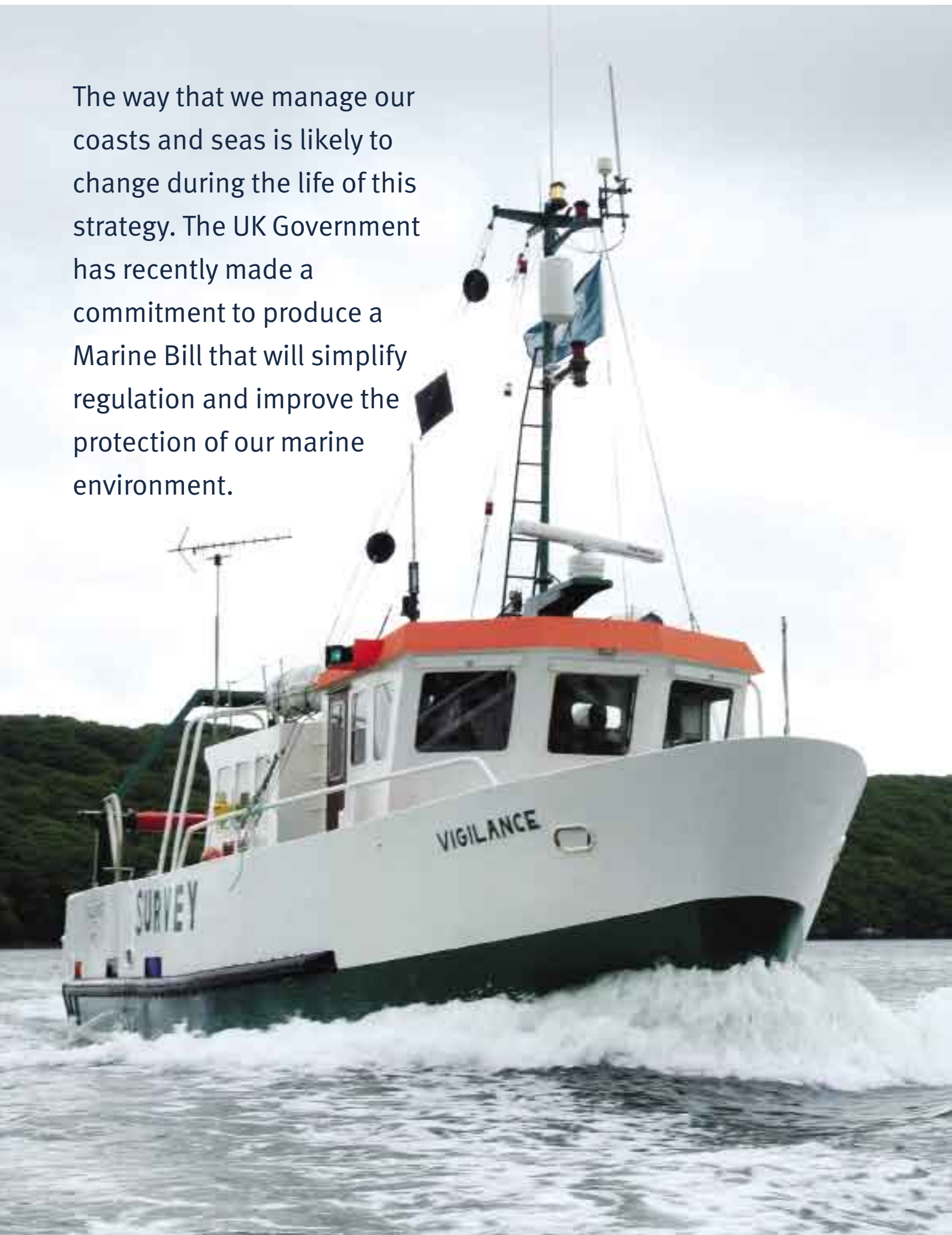
We are now leading the introduction of legislation that will raise management of our estuaries and coastal waters to a new level. The Water Framework Directive requires that the management of rivers, estuaries and coastal waters is fully integrated. It also promotes the ecosystem approach. This will allow us to work with our partners to steadily improve the quality of our estuaries and coastal waters.

# Who does what? Managing our marine environment.



- 1 We are the harbour authority for the Dee estuary and Rye harbour.
- 2 In many estuaries, such as the Dee, we are responsible for managing sea fisheries.
- 3 English Nature will become part of Natural England in 2007.

The way that we manage our coasts and seas is likely to change during the life of this strategy. The UK Government has recently made a commitment to produce a Marine Bill that will simplify regulation and improve the protection of our marine environment.



# the future management of our coasts and seas

Recent UK Government reviews of marine nature conservation and fisheries management may bring changes to the conservation and protection of marine resources.

The priorities we have set out in this strategy are long lasting. They will be as relevant in the future as they are today. Our priorities will allow our strategy to adapt to changes in legislation and regulation, as well as long-term environmental trends like climate change.

## What we will do:

- Support new approaches to planning and management, such as marine spatial planning and integrated coastal zone management. Marine spatial planning will match the management of different human activities with the needs of our marine environment. Integrated coastal zone management will bridge the gap between the management of land and sea.
- Work with Governments and partners on new legislation for the marine environment that will create a marine spatial planning framework; simplify regulation; promote sustainable development; strengthen links between land and sea; provide better protection for marine wildlife; improve management of marine activities; and plan for the impacts of climate change.
- Improve our understanding of the effects of climate change. Our research programme will ensure that our own work is based on well-informed responses to climate change, and will help us to provide advice and guidance to others.

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