

# Creating an Environmental Vision

Progressing  
the Environment Agency's  
contribution to  
sustainable development  
by way of a better  
environment in England  
and Wales

CONSULTATION DRAFT JUNE 2000



ENVIRONMENT  
AGENCY



ASiantaeth Yr Amgylchedd Cymru  
ENVIRONMENT AGENCY WALES

GWASANAETH LLYFRGELL A  
GWYBODAETH CENEDLAETHOL

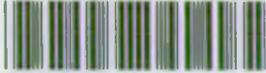
NATIONAL LIBRARY &  
INFORMATION SERVICE

PRIF SWYDDFA/MAIN OFFICE

Plas-yr-Afon/Rivers House  
Parc Busnes Llaneirwg/  
St Mellons Business Park  
Heol Fortran/Fortran Road  
Llaneirwg/St Mellons  
Caerdydd/Cardiff CF3 0LT

EA Sustainable Development Box 2

ENVIRONMENT AGENCY



097356

This document is posted on our internet site:  
<http://www.environment-agency.gov.uk>

Further copies are available from:

Nina Smith  
Environment Agency  
Rio House  
Waterside Drive  
Aztec West  
Almondsbury  
Bristol  
BS32 4UD

Tel: 01454 878868

Or e-mail [nina.smith@environment-agency.gov.uk](mailto:nina.smith@environment-agency.gov.uk)

In Wales, the bilingual version is available from:

Geoff Champion  
Regional PR Manager  
Environment Agency Wales  
Rivers House/ Plas-Yr-Afon  
St Mellons Business Park  
St Mellons  
Cardiff  
CF3 0EY

Tel: 02920 770088

Or from [nina.smith@environment-agency.gov.uk](mailto:nina.smith@environment-agency.gov.uk)

*We aim to*

**improve the quality of life  
and  
enhance wildlife**

*by*

**'greening' the business world  
and  
using natural resources wisely**

*to*

**ensure that the air is clean  
and  
protect and improve inland and  
coastal waters  
and  
restore and protect the land**

*whilst*

**reducing flood risk  
and  
limiting and adapting to  
climate change**

## Foreword by the Chairman

In the last few decades, much has been achieved in reversing the environmental damage of previous centuries. Few people, for example, would have foreseen, even fifty years ago, that a river like the Don, despoiled by the filth of two centuries of industrial intensification and decline, would flow clean enough to support thriving fish populations by the dawn of the new Millennium. Few probably even spared a thought for whether such a turn-around in environmental fortunes might be desirable, let alone achievable.

What we came to recognise towards the end of the twentieth century – the government, the growing and determined environmental movement, and the public at large – was that pursuing economic growth without taking account of the impact on our natural environment could not deliver quality of life across our society. In fact there is a growing awareness that a healthy environment and improved environmental performance are a vital part of future business competitiveness.

There is still a backlog of environmental repair to be tackled. Many new problems are only just becoming apparent to us. And we face, of course, the challenge of climate change.

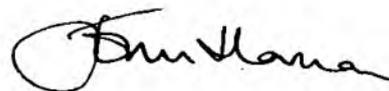
This document sets out our vision for the future. It is one that we hope you will share – indeed there would be little point in the Agency pursuing a vision that was not shared widely within society or by the partners with whom we must work to deliver it.

Taking our lead from the Government's strategy for sustainable development, we have set our long term sights on a future in which everyone will be able to enjoy the benefit of a clean, safe and healthy environment, and where a spirit of innovation and entrepreneurship can keep pace with as yet unknown demands for resources and products without taking us to environmental limits.

Delivering the vision will be a significant challenge for the Environment Agency. When we write our short and medium term plans, with targets on timescales of one to five years, it will be the long-term aims set out in the vision that will be our guide. If the vision seems aspirational, remember that it is an aid to navigation, not an exact route map. We want you to tell us now whether you think that we are setting the right course, and let us know in the future if you think we need to make corrections to it.

The vision sets out our direction of travel, but it also says a lot about how we will go about our work. Our approach is to do the things we do ourselves in the most efficient way possible at the same time unlocking resources and enthusiasm through effective partnership with national and local government, local communities, businesses, environmental groups and others.

We recognise the power of information and we will make data about the environment as widely accessible as we can to effect change and stimulate involvement. We will use our knowledge and expertise to influence the shape and balance of regulation, responsibility and incentive. We will listen to the views and experience of all who have an interest in or responsibility for the environment – starting here with your views on our vision. Please read it, think about it, and let us know what you think.



Sir John Harman Chairman  
June 2000

# Contents

- |   |         |
|---|---------|
| <b>1 Building on success</b>                              | page 5  |
| <b>2 Raising our sights</b>                               | page 9  |
| <i>A New Dimension, a New Approach</i>                    |         |
| <i>Creating a Long-Term Vision</i>                        |         |
| <i>Defining Our Role and Building on Our Strengths</i>    |         |
| <i>Moving Forward</i>                                     |         |
| <b>3 A thematic approach</b>                              | page 15 |
| <i>Quality of Life</i>                                    |         |
| <i>Enhancing Wildlife</i>                                 |         |
| <i>Greening the Business World</i>                        |         |
| <i>Using Natural Resources Wisely</i>                     |         |
| <i>Ensuring that the Air is Clean</i>                     |         |
| <i>Improving and Protecting Inland and Coastal Waters</i> |         |
| <i>Protecting and Restoring the Land</i>                  |         |
| <i>Reducing Flood Risks</i>                               |         |
| <i>Limiting and Adapting to Climate Change</i>            |         |
| <b>4 Being ready and able</b>                             | page 38 |
| <i>Taking it Step by Step</i>                             |         |
| <i>Creating the Space for Change</i>                      |         |
| <i>Prevention is Better Than Cure</i>                     |         |
| <i>Working with Others</i>                                |         |
| <i>What Does it All Mean for Us?</i>                      |         |
| <b>5 Measuring our success</b>                            | page 43 |
| <b>6 Consultation and delivery</b>                        | page 45 |

## Our vision is

### A better environment in England and Wales for present and future generations

#### **Our Long-Term Objectives are that:**

- People will have peace of mind from knowing that they live in a clean, safe, and diverse environment that they can use, appreciate, and enjoy.
- Both urban and rural areas will have an obvious and overall improvement in the extent and quality of their habitats and the wildlife that they support.
- Industry and businesses generally will be managed in a way that fully protects human health and the environment.
- Waste and wasteful behaviour will no longer be a major environmental threat because of the re-use of resources and the adoption of sustainable waste management practices.
- Neither human health nor the natural and man-made environments will be damaged by emissions to the atmosphere.
- There will be sufficient clean and healthy waters to support people's needs and those of wildlife.
- The natural resources provided by the land will be enhanced, harm to people and wildlife will be avoided, and a wide range of land uses will be supportable.
- Flood warnings and sustainable defences will continue to prevent deaths from flooding; property damage and distress will have been minimised; and all the benefits to be derived from natural floods will be exploited.
- Greenhouse gas emissions will have been greatly reduced and society will have adapted efficiently to climatic change and be prepared for further changes.

The purpose of this Vision is to set out some longer-term objectives with which, we hope, all of us will be able to identify in one way or another. We will use this vision to guide our planning and operational activities, both in terms of drawing together our more specific plans to deal with environmental issues in a thematic way, and in terms of our three-year rolling corporate planning programmes (see Box 1). We will use it to ensure that our day-to-day and our year-on-year activities do not stray too far from what we are aspiring to achieve in the longer term. And we will use it as a basis for forming partnerships with others – including those we regulate – who have a shared Vision of the future.

# 1 Building on success

**1.1** When we launched our *Environmental Strategy* in 1997 we were in no doubt that our principal task was to deliver a better environment, not just for now or tomorrow but for the longer-term. We also recognised that this was a difficult but exciting challenge for all of us. There were a number of basic problems to be overcome, and many opportunities for making improvements simply by working together.

**1.2** Much of our work consists of regulating what other people do, by way of implementing the requirements of legislation in order to protect and improve the environment. But, at the end of the day, what really matters is whether or not the environment itself improves and whether or not we are managing it in a sustainable way.

**1.3** First of all we recognised that people look at the environment from different points of view. Thus there is no point in trying to improve it in one way, such as dealing with waste, if it creates other problems – such as noise or smell, or ruins the landscape. We therefore report on the state of the environment from many different *Viewpoints*, using our own information and that of others.

**1.4** Similarly, because we regulate a wide range of activities that can give rise to environmental problems, we did not want to solve one problem by creating others elsewhere. We recognised that there are many pressures upon the environment that we do not control – such as transport, housing, and so on – and yet all of these can affect the success of our own efforts. And of course there are factors that we cannot directly control, such as changes in weather patterns caused by climate change, that nevertheless have a direct impact upon environmental quality. We therefore gather and use information on all of the *Stresses and Strains* that shape and change our environment. We recognised that the world is not static; it is very dynamic. Standing still is not an option.

**1.5** We have not kept all of this information to ourselves. A key component of our strategy has been to ensure that such information quickly reaches as wide an audience as possible. We established an Internet site (see page 46) that gives continuously updated information on the overall state of our environment, as seen from different points of view, and of what is happening to the many stresses and strains placed upon it, whether we control them or not. The use of our Internet site has played an important role in our strategy by providing national and regional information, and it now contains detailed local information on such topics as the discharge of chemicals from major industrial sites, the quality of rivers and bathing waters, as well as national league tables of industrial performance.

**1.6** Identifying environmental problems is one thing; solving them is another. One of the reasons for creating the Agency was to provide an integrated and long-term approach to such complex issues. We have therefore brought together the many ways in which we consider and manage the very different risks that threaten our environment, from dealing with pollution to minimising the effects of droughts and flood. We have also sought to develop a more equitable approach to dealing with environmental problems, not just in terms of cost-benefit analyses but in terms of all the values that society places upon them.

**1.7** But perhaps the biggest challenge in developing our strategy has been that of breaking out of our inherited, narrowly defined, responsibilities. There were many of them, ranging from the regulation of different sorts of waste disposal and different forms of industrial pollution control, through such activities as the overseeing of flood defence and water resources, as well as activities such as angling and navigation. We therefore developed a thematic approach that brought together a number of related activities in order to deliver a broader, more

integrated way of managing the environment.

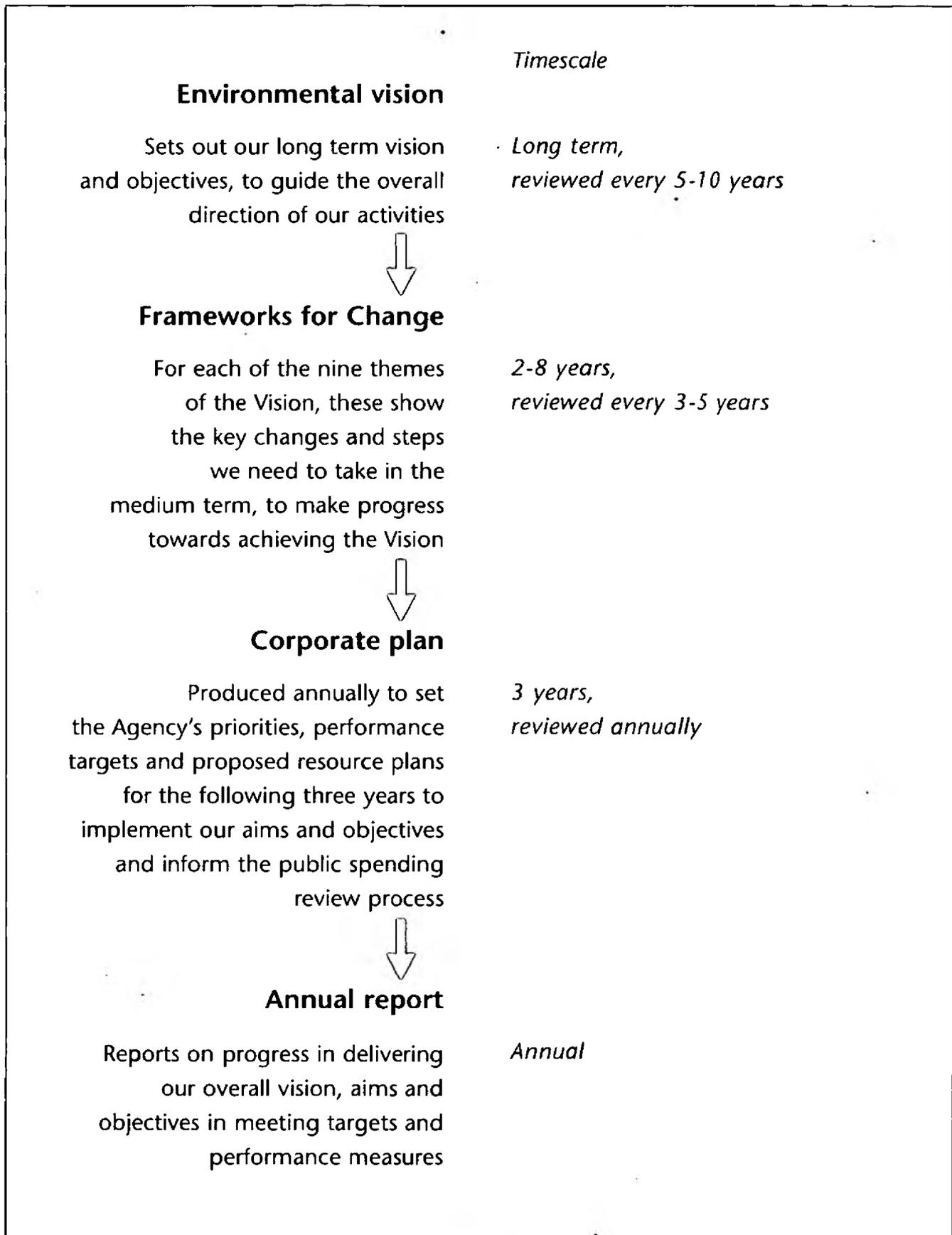
The themes chosen naturally reflected the immediate challenges with which the Agency was then faced. These included the need to implement new legislation in relation to major industries, and the need to deal with the third phase of expenditure by the water industries, plus the bringing together of new and existing waste regulatory responsibilities. They also anticipated new measures to deal with contaminated land, the long-term challenge of managing entire river basins in an integrated way, and the emerging problems related to climate change.

**1.8** We have used this thematic approach to guide all of our environmental planning, particularly where it matters most – locally – via our Local Environment Agency Plans, or LEAPs as they have become widely known. Through our eight regional offices, and twenty-six areas, we have implemented the Strategy by way of local plans. All of these have been developed through close collaboration and liaison with the public and their representatives. Many bridges and close working relationships have been built. We have created integrated teams at area level to deal with planning, with environmental protection, and to provide better services to our customers. We have backed up this corporate approach with investment in new technology, research and development, the creation of special centres of expertise, networked specialist services, and the regrouping of staff at a local level to provide simplified and more efficient interfaces with our customers. We have thus focussed on delivering real environmental improvements, usually in partnership with others.

**1.9** Our overall objective, within the context of

sustainable development, has been to allow for economic growth whilst ensuring that this was not achieved at the expense of failing to maintain and, where necessary, improving the state of our environment. We took, as our ultimate measure of success, the quality of our natural resources and the abundance and variety of our wildlife. We have already achieved a great deal with this approach (Box 2), but a more ambitious and demanding **Vision** is now needed.

## Box 1 The Agency's planning and reporting framework



## Box 2 Some key achievements since the Agency's formation

### **Sustainable environmental improvements**

- reduced water pollution incidents for four years in a row
- encouraged industry to adopt waste minimisation projects
- taken responsibility for providing a flood-warning service and doubled the number of properties connected to the automatic warning service over the last 2 years
- reduced emissions from Agency regulated sites, in some cases by up to 50% since 1990
- helped threatened wildlife species to recover their numbers, such as the return of the otter to catchments where they have been absent for up to three decades, and the restoration of fish to over 250km of previously fishless rivers

### **Being a tough but fair regulator**

- successfully prosecuted 1,700 people for pollution offences over the last 3 years, including 15 people sent to jail and a £4 million fine in the Sea Empress case (reduced to £750,000 at appeal)
- published a 'Hall of Shame' showing the most prosecuted polluters
- responded to 96% of serious pollution events within 2 hours during the day and 4 hours outside normal working hours

### **Sound Science and Research and Development**

- determined some of the implications of Climate Change for the Agency
- explored how business approaches the environment and what factors provide incentives in order to assist the Agency target its regulatory policy and approach to partnership
- launched the pioneering computer software 'WISARD', designed to help waste managers identify more sustainable, integrated approaches to waste management
- provided guidance on the most appropriate options and Best Available Techniques for the Electricity Supply Industry
- developed innovative aerial surveillance technology to map environmental features that has saved millions of pounds compared with field surveys carried out in the traditional way

### **Working in Partnership**

- worked with over 500 companies on waste minimisation projects
- liaised with local authorities on 230 air quality reviews
- worked with wildlife groups on over 600 projects to improve habitats and wildlife
- consulted local communities to complete 120 Local Environment Agency Plans, committing the Agency to local priorities and actions
- worked with fishing interests to improve habitats on over 500km of river

### **Openness, Accountability and Accessibility**

- had our Board meetings and Advisory Committee meetings open to the public and the press
- held an Annual General Meeting for the public, the first Government Agency to do so
- held an extensive consultation process for licence applications
- opened new or refurbished information centres where the public can get access to environmental information
- created an Agency internet site, with over 1000 pages of environmental information, including 'your backyard' information updated weekly, that already receives around 250,000 requests a month

## 2 Raising our sights

### A New Dimension, A New Approach

**2.1** Sustainable development is not simply about creating wealth and protecting the environment. It is also about caring for people and their quality of life. It is about ensuring that the quality of life of future generations will be as good as, or better than, it is for us. As an Agency we aim to earn respect at all levels of society, and to work with those people that we aim to protect. In short, we recognise that sustainable development is a balance of environmental protection, social equity, and wealth creation. We also recognise that a clean, safe, and healthy environment is a basic human right.

**2.2** Sustainable development can only be achieved by having a thriving and competitive economy. Moving in that direction brings, literally, a wealth of opportunities for industry and economic activity generally. Fortunately it is now widely appreciated that measures necessary to secure a better environment also make good business sense. And many of our historic problems can only be solved by making use of the latest scientific and technological thinking.

**2.3** Sustainable development also requires us all to work together to achieve common, sustainable, goals. As regulators we need to work with those we regulate, with other fellow regulators, with government at all levels, and with the public in order to make our country a better place in which to live. This is by no means a simple task, and cannot be achieved merely by taking a few well-chosen steps. We are well aware that we are only a small cog in a very big wheel. Strategies are being developed and revised at all levels: globally, at a European level, nationally, regionally, and locally. All of them approach the challenges of the future in different ways. Government has set out the overall strategies within which we all need to work. And our fellow regulators, particularly those with key environmental

responsibilities – English Nature and the Countryside Council for Wales – have been setting out their own future plans. Our colleagues elsewhere in the UK have been similarly engaged. So how do we see the longer-term future? How do we see our own role in helping to achieve sustainable development?

**2.4** The Government has set out four objectives in its Sustainable development Strategy, *A better quality of life*:

- social progress that 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.

**2.5** We, the Environment Agency, believe that our contribution to this Vision for the Environment is best achieved if we can help everyone to:

- understand the effects that we all have upon the environment;
- take steps to change all of our attitudes with regard to our use of it;
- ensure that industry changes its approach to its direct dependence upon, and use of, the environment;
- take care of our natural resources and deal with our own waste; and
- recognise that the natural environment is always changing, particularly now because of climate change.

**2.6** Actions speak louder than words. We have therefore decided that we need to add a more forceful dimension to our own work; to concentrate on those areas that have a high impact on the environment and to reduce our activities elsewhere. We also need to embrace a more rounded concept of sustainability, incorporating the needs of society generally and of embracing the views of all members of the community.

**2.7** An essential first step has been the need to formulate a long-term vision, to take a real long-term perspective of what we do. We have therefore looked beyond the confines of current legal requirements to consider what we are trying to achieve; what challenges have to be addressed; how we are going to meet and overcome these challenges; and how we are going to do all of this in an integrated way. We have set out our forward thinking and, in doing so, wish to encourage others to do the same. Society can only achieve a more sustainable future if we all have a common and shared view of what that future holds and what it may look like.

### Creating a Long-Term Vision

**2.8** Of course it's always difficult to predict the future accurately but here we have attempted to develop a long-term vision. We have taken a time horizon of about a couple of decades, but not in a specific sense, in that this is not simply a tick-list of what we would like to achieve over that time. But the achievement of sustainable development does need careful long-term planning, and there are many targets and deadlines already set, or are very likely to be set, that will have to be delivered during this period. Some key milestones and targets are shown in Box 3; they represent both challenges and opportunities. They also have to be set against the general background of pressures arising from greater national wealth and personal affluence – potentially more use of natural resources, more cars, more waste, more housing, more consumption.

**2.9** There are thus many factors to be borne in mind when planning for the future. The following predictions are some of those that have already been made.

- Average temperatures are likely to rise about 0.1 to 0.3°C per decade. Sea levels could be some 12

to 67 cm higher in 50 years' time. Winter storms will be more severe, rainfall patterns will change and domestic, agricultural, and environmental demands for water may rise.

- The population of England and Wales – one of the highest densities in Europe – is projected to grow by 10% over the next 40 years. New housing will grow even more quickly, four out of five being one person households. Demand will increase in the south-east, placing even greater pressure on this area.
- Road transport will continue to grow – by anything from 30 to 60% over the next 20 years. Air transport, too, is projected to increase putting pressure on both the atmosphere and land use near urban areas.
- Wastes, too, are continuing to rise and insufficient percentages are being re-used or re-cycled. Quantities of municipal solid wastes are at a record level, equivalent to about 1 tonne per household per year.
- Many more chemicals will be in use but potentially damaging chemicals and products will however be controlled at source, with a major shift away from disposing of wastes to landfill and increased emphasis on other forms of waste management.
- Land use patterns will continue to change; farming may become more intensive, rural land use more diverse and derelict land will have been put to good use.
- Biodiversity will be affected by climate change and thus habitats and their wildlife will need more positive management to sustain them. And although existing environmental quality standards will be met, new ones will arise and the focus will be on attaining biologically based targets.
- Possible links between environmental quality and human health will be of even greater concern and

aesthetic quality issues may well predominate, with increasing concern about landscapes, light pollution, noise and smell.

- The public will be better informed, with easy access to electronic information, globally linked, and ready to act directly on the information they receive.
- The environment will come under increasing pressure from many diverse and conflicting uses, particularly with regard to leisure activities, access, natural beauty and tranquillity. And whilst worrying about the future, we also have to have regard to the past. We have a legacy of historic environmental damage that, in itself, is a growing economic burden. Like all bad debts it needs to be resolved quickly. This, again, makes both environmental and economic sense.

**2.10** We can deal with these issues, and deliver a long-term vision, but only:

- if we overcome a number of obstacles;
- if everyone – not just the Agency – can become involved and committed;
- if we face up to the implications for us, for government, for our partners, and for the public; and
- if we focus on those things that matter, and choose our priorities carefully, recognising that we can't do everything at the same time, but equally, that we can't just carry on in the same way as before.

### Defining Our Role and Building on Our Strengths

**2.11** We therefore recognise that we cannot deal with all of the challenges facing us on our own, and we are fully aware that our role and relevance differs from one issue to another. But we are determined that the Agency becomes a dominant force for change, and a change for the better. A key element in

our Vision has therefore been a re-assessment of our attitude and approach, of the way in which we carry out our business, and of our basic principles.

**2.12** We have been examining fundamental issues: such as what makes a good regulator; which of our current functions and activities we need to improve; how our methods of operation will have to change. We recognise that we have many roles to play: we regulate, but we can also influence, persuade, educate and inform.

### The Agency as an upholder of the law

**2.13** We aim to command respect as a regulatory body: respect from the public, from government, and from those we regulate. This respect will only develop if we strive to deliver a consistent approach to regulation right across the country, and across all of the environmental licences for which we have responsibility. We will also expect consistent good performance from those we regulate, as does the public. We will report comprehensively on our enforcement action and publish league tables of industrial performance, both good and bad.

**2.14** We recognise that legislation in relation to environmental protection has become increasingly complicated, for both the regulator and the regulated alike. We will therefore aim to implement new legal changes smartly, and to use the law and its regulations in a constructive way. We will base our own regulatory activities on the principles of being tough but fair, and that prevention is better than cure. We will also base them on sound science and an assessment of the risks inherent in the activities that we regulate. And we will focus on issues that have a high environmental impact, having regard to the fullest implications for costs and for benefits.

### The Agency as an agent for change

**2.15** The law is itself an agent for change and we will continue to argue for a simplified system of

environmental licences that more directly reflects the actual impact upon the environment. We will work towards revisions in legislation that will make the widest possible use of the latest technology and understanding; that will ensure that polluters and users of environmental resources pay their full environmental costs; and that full use is made of economic instruments and financial incentives. We will also seek legislative changes that will make company directors more responsible for the action of their companies, for the sake of both the companies themselves and the environment. We will ensure that companies, their customers, and the general public are fully aware of the company's environmental performance and compliance with environmental legislation.

**2.16** We will also consolidate our own expertise, and strive to be the best possible source of environmental knowledge and advice by way of:

- spending more time on analysing environmental data instead of just collecting it;
- making the best use of all information available, via the use of external experts where necessary;
- extending our ability to use the latest in the way of scientific, technological, and engineering know-how by way of our national centres and services;
- making our own scientific and technical knowledge more intelligible and available to a wider audience, in order to enable the public to play its own part in delivering a better environment;
- developing our skills in working with others;
- improving our liaison with regional and local government; and
- using our liaison with others to deliver real changes in our own corporate planning.

**2.17** Working with others, to achieve common goals, is essential. We recognise that the Agency is

not the sole player, nor the only expert. We will therefore encourage others to point out the problems that need rectifying, to suggest solutions and, indeed, to be part of the solutions. We will therefore continue to work with government, with our partners and key collaborators, and with the public.

**2.18** We will develop a strong approach to education, not just of the young but of those we regulate, and of the public itself. We will aim to spend more time on education and influencing than we have done in the past, in order to change understanding and behaviour. We aim to achieve more via this approach than can be achieved by imposing regulations upon those who intend to comply with them; our regulatory effort in the future will be concentrated upon those who do not intend to comply.

**2.19** We will continue to develop staff, information systems, and research and development programmes ensuring that they are aligned to our business needs, will make us smarter in our work, and fully prepared for what lies ahead. Via the knowledge gained we will do more than simply provide data and information, but aim to win respect. Our opinions must carry weight, and be in tune with the wider scientific, technical, social, and economic thinking.

**2.20** Corporately, we aim to simplify and prioritise. An essential task is the overhaul of the Agency's own highly complex financial arrangements. These must be changed if more integrated approaches, resulting in real environmental outcomes, are to be efficiently delivered. And as the potential workload of new things to do is seemingly endless, in addressing our current and future work we will:

- concentrate on those areas that have a high environmental impact and where we are in the best position to achieve positive and beneficial results;
- express opinions upon other areas that have a

high environmental impact, and work with those who are better placed than us to achieve positive and beneficial results; and

- prioritise and, if necessary, reduce our effort in those areas that have little environmental benefit, or where others can have more impact, even if we are the lead players.

## Moving Forward

**2.21** In short, we aim to build a good reputation by:

- delivering real environmental improvements
- being a firm but fair regulator
- being expert in environmental matters
- basing what we do on sound science
- and being open, accountable, trustworthy, and approachable.

**2.22** We have therefore re-examined our existing thematic approach and how to deliver it. In doing so, we are fully aware that all of this is still but an interim step towards working in a fully integrated way. Our ultimate aim is to provide a means of understanding the state of the environment, how it may differ from our ultimate aims and objectives in terms of sustainable environmental management, and thus how the latter can best be achieved. This aim can only be fully met by living within the resource capacity of the environment and by ensuring that the environment is central to the quality of life. A better environment, full of varied wildlife and habitats, to be used and cherished for recreation and enjoyment, is just as important as one which is simply pollution free. It can also only be met by investing in sound science, engineering, and technology. As our understanding of the world around us grows we will be able to revise our objectives and how best to achieve them.

**2.23** All of this will take considerable time and effort. In the meantime, we have recognised the need to move forward and set clearer long-term aims and

environmental outcomes for our work, and to set out the steps we regard as being necessary to achieve them. We have considered those aspects of our work that are directly related to improving the quality of our lives. We have also explored the longer-term thinking behind our various managerial responsibilities. The result is that we have re-examined our thematic approach, to bring it more in line with the broader social context which is essential to sustainable development. We thus now aim to:

Improve the **quality of life**

and **enhance wildlife**

by way of **'greening' the business world**

and **using natural resources wisely**

to **ensure that the air is clean**

to **protect and improve inland and coastal waters**

to **restore and protect the land**

whilst **reducing flood risks**

and **limiting and adapting to climate change**

**2.24** All of this is an exciting challenge. It is not simply a re-labelling of what we already do. In fact it cannot be achieved by the Agency alone. Without changing our own approach, and without changing the vision, role, attitudes and approach of others, it will not be achieved at all.

**2.25** In the longer term, further changes will be needed. No doubt the predominant issues will be those relating to how we derive our energy, how we live, how we run our industries and how we make best use of natural resources against a background of social and climate change. And with the development of technology such as interactive and fully compatible geographic data bases, that will be accessible at national, regional, and local levels, future goals will be met by way of community-driven local

sustainability plans. But that is for the future. In the meantime, we have developed the following aims and objectives.

**2.26** All of them are essentially aspirational, but the results are real enough. We therefore want to share them with others, for if we do not all have a shared long-term vision then our hopes of changing the way we do things will fail. If, however, we can

achieve some general agreement, then we can devise practical ways of working together, and of implementing agreed plans. Business as usual will not solve the problems. And we need to start now. There are already many wrongs from the past to put right. So, what are these long-term objectives, and what will be the result if we achieve them?

**Box 3 Some key targets for the next 20 years**

<b>Longer Term</b>	2020	OSPAR: Sintra Agreement – Cessation of hazardous substances discharges, Substantial reductions in radioactive substances discharges	
	2020	65% reduction of biodegradable waste to landfill	
	2016	Water Framework Directive basin management plans reviewed	
	2015	Deadline for complete phase out of HCFCs	
	2012	Kyoto target deadline – reduce greenhouse gas emissions by 8% from 1990 levels	
	2010	Water Framework Directive basin management plans start	
	2010	Compliance with higher ambient air quality standards Sox, Nox, PMs & lead	
	2010	Recycling/composting 30% household waste	
	2010	Recover 45% municipal waste	
	2010	CO2 emissions 20% below 1990 levels	
	2010	25% reduction in biodegradable waste to landfill	
	<b>Medium Term</b>	2008	100% Government transactions done electronically
		2007	All old IPC process authorisations to be converted to IPPC
2006		All urban wastewater treatment plants to have secondary treatment	
2005		Compliance required with all ambient air quality standards	
2005		50% Government transactions done electronically	
<b>Short Term</b>	2003	Liquid waste, most hazardous waste, and whole tyres banned from landfill	
	2002	25% Government transactions done electronically	
	2000	Implementation of Revised Basic Safety Standards for Radioactive Substances	

### **3 A thematic approach**

# Quality of life

## LONG-TERM OBJECTIVE:

*People will have peace of mind from knowing that they live in a clean, safe, and diverse environment that they can use, appreciate, and enjoy.*

## AND THEREFORE:

- People will be confident that the environment is well cared for, is not damaged by pollution, and does not provide a health risk because of human activities.
- The environment will be sustainably used in the provision of food, water, materials and employment across a wide range of sectors.
- The environment will be greatly valued and cared for by all sectors of society, as a source of income, recreation, sport, and wildlife conservation.
- Sensible urban and rural planning will ensure that the environment is readily accessible to, and enjoyed by, all sectors of society.
- Public awareness of local environmental matters will be high because of the ready availability of high quality local environmental information and
- People will recognise the importance of a clean environment in their daily lives and behave accordingly to keep it that way.

## The Agency's Role

● All of the Agency's activities are ultimately aimed at improving the quality of our lives. So why a separate theme? There are two reasons. The first is that some of our activities are directly related to the enjoyment of the environment. These include our recreational responsibilities, such as angling and boating, and ensuring safe navigation, as well as our role in improving the aesthetic and directly health-related problems, such as sewage debris and fly-tipping. The second reason is that, without such a theme, it is easy to lose sight of our principal goal. Thus although we recognise that the Agency is but one player in this very complex area, we nevertheless need to demonstrate that improving the environment is a basic feature of our work on the ground, but that a better environment is a fundamental component of our quality of life.

## The Agency's goals

- People enjoy the environment for recreation and leisure as well as simply depending upon it for food and resources. Protecting public health is essential, and we do this by controlling emissions from industry, and by regulating the way that waste is managed. We also ensure that bathing waters are clean to swim in. We aim to provide a clean, healthy, and safer environment for everyone to enjoy.
- But what the public see, smell, and hear is now just as important as knowing what harmful substances may be present in the environment. Pollution from industry also includes the nuisance they may cause, and we will seek ways of reducing it.
- Confidence in this area will increase if the Agency is seen to be proactive in directly cleaning up the environment. We will therefore prioritise and increase our activities – including taking legal action – with respect to fly-tipping and the littering of

rivers, lakes and ponds. We will take action to ensure beaches and riverbanks are clean.

- We will also improve opportunities for angling by developing fishery action plans, promoting the potential commercial benefits of angling waters – particularly still waters – as well as providing better advice on how to pursue the sport in a more environmentally-friendly way.
- Increased access to the countryside is also essential to the involvement of the public in environmental issues. We will set an example by making the most of existing opportunities to access our own land for leisure and recreation, with due regard to the needs of conservation.
- The Agency has already played a part in helping local initiatives across the country to deliver real environmental benefits. Such collaborative projects – involving individuals, schools, local communities and industry – play an enormous role in linking our staff with the local people they serve, as well as contributing to local quality of life. We will produce priority lists of such work in each of our areas and report regularly on their progress.
- We will ensure that urban as well as rural environments are recognised and valued in our local actions. Good urban environments are considered by many to be every bit as desirable and attractive as good rural environments. We will therefore develop specific environmental plans within our LEAPs for inner city and urban areas. We will also develop specific practical approaches to improve access and facilities for disabled people, particularly at interesting urban sites.
- People will only gain confidence in the lasting quality of their environment if it really does improve and they can see this for themselves. We will therefore get more information to the people, and harness the power of the people to change local

attitudes and aspirations. We will provide more information relevant to local situations ('your backyard') and about what it means in a local context. We will provide more environmental information via the Internet and publicise local information and local trends in local newspapers and on local radio. We will promote the open discussion of regional environmental issues. We will ensure that our own environmental information can be easily used to inform regional bodies in the development of their plans.

- If the Agency itself is seen to be doing more to improve the quality of people's lives by acting directly, as well as via its regulatory role, then this will encourage others. We will therefore provide information on the range and number of facilities such as angling waters, public footpaths, recreation sites, nature reserves and so on in each of our Areas.
- In the longer term, we would envisage that Regional Sustainable Development frameworks will have been implemented and that the need for fully integrated environmental, social, and spatial planning will be an accepted practice. This will take time. On the road to this long-term goal it will be necessary to demonstrate more clearly the economic links between environmental quality and the quality of life. Human health issues may well be a more important factor, with the Agency playing a greater role. Public confidence however will still largely be dependent upon the openness, transparency, relevance and speed of the information given to them. At the current rate of technological development, we would foresee a large variety of 'real-time' data from satellite and local monitors being available to all within a few years time. Looking at quality of life indicators will therefore be part of the daily routine.

## Enhancing wildlife

### LONG-TERM OBJECTIVE:

*Both urban and rural areas will have an obvious and overall improvement in the extent and quality of their habitats and the wildlife that they support.*

### AND THEREFORE:

- There will be a broad consensus on how biodiversity should be managed against a background of climate change.
- Degraded habitats, especially rivers, estuaries, and wetlands will have been restored.
- Wildlife corridors and their associated habitats will be of high quality, with no artificial barriers to wildlife movement amongst them.
- The UK Biodiversity Action Plan will have been successfully delivered and priority species will no longer be under threat.
- Rivers, estuaries, lakes and canals will all support thriving fish communities.
- Urban and rural land-use practices will encourage the protection and restoration of habitats, species and natural processes.
- Land-use changes will recognise all of their implications for wildlife and management of wetlands and other semi-natural habitats for wildlife will be valued as a basic land use.
- The management of land for wildlife and landscape benefits will be accepted and supported as a normal activity of rural life.
- Threats to the genetic integrity of our native wildlife will have been greatly reduced.
- All forms of agricultural and other forms of economic support for land use will encourage habitat protection and restoration.

### The Agency's Role

- Providing a better quality of life for our wildlife is as important as providing a better quality of life for ourselves. The Agency has a number of specific conservation roles, but we believe that a major driving force behind all of our regulatory work is that of providing a clean and healthy environment, and the protection of natural habitats, so that wildlife can flourish in both rural and urban areas.
- We have a number of specific targets and objectives with regard to individual species and habitats, to which we are committed via various agreements. We intend fully to meet their requirements. And we recognise that we are not the lead conservation body. We will therefore work closely with our partners, both statutory and voluntary, to help them meet their targets.
- We also believe that by improving environmental quality generally it will help others to plan and deliver more challenging targets for increasing the range and diversity of wildlife populations. This will particularly be the case where isolated wildlife communities are prevented from mixing because of degraded habitats and poor environmental quality that we the Agency can improve by our own actions.

### The Agency's goals

- We already have commitments via the UK Biodiversity Action Plans. In order to meet them we will set targets for our own performance, publish them, and report on progress. We will use the presence of such species as otters and salmon as evidence of good quality rivers, streams and estuaries.
- Conservation criteria need to be widely adopted and we will develop them for all of our operational and environmental licensing procedures, and adhere to them. We will ensure, in particular, that no new

activities or licences in any way threaten our national or international wildlife sites.

- Wildlife considerations also need to become an integral part of industrial, commercial, and financial planning. In combination with our partners we will therefore help to provide guidelines for industries to use in their own environmental performance reports. We will raise the profile of wildlife crime.

- We will also pursue opportunities to benefit wildlife directly as we work with others in the delivery of their sustainable development plans. We will ensure that wildlife conservation is central to the delivery of our LEAPs.

- There are two very specific environmental issues that we consider we must concentrate on. The first is the need to provide a broad network of linked habitats throughout the aquatic environment. We need to agree the outline of this network with our partners and, through our LEAPs, target those key stretches and waterside areas that need to be improved. The improvements needed may be in terms of environmental quality, or by way of removing or getting around physical barriers. We will enlist the help of all voluntary wildlife groups to achieve this specific outcome.

- The second area upon which we will concentrate is that of ensuring the genetic integrity of our aquatic wildlife, particularly our freshwater fish. We will make an accurate assessment of their status and deliver action plans for their survival. We will establish gene banks for the species most at risk. And we will take extra measures to control the introduction of alien species and restrict them to known sites.

- In the longer term we would wish to see self-sustaining runs of salmon in all our major rivers, with parasite and disease threats to all of our major fish well under control. Eutrophication would be

fully understood and also well under control. The extent and use of our wildlife would be a feature of national pride and international envy. Fish counters should be fully operational on all major rivers, with the data fed back to, and used by, local authorities in order to fulfil our second target – a high regional profile for all wildlife issues. We aim to see local government competing to achieve the highest wildlife diversity and conservation targets, because the maintenance of our wildlife is crucially dependent upon local attitudes and actions. We will help, by expanding our local agreements with respect to the promotion of wildlife-friendly goods and services. And we will help to maintain a high level of enforcement for wildlife related crime.

## 'Greening' the business world

### LONG-TERM OBJECTIVE:

*Industry and businesses generally will be managed in a way that fully protects human health and the environment.*

### AND THEREFORE:

- All business practices will have environmental concerns at the heart of their thinking, and this will be reflected in their operational activities.
- The adoption of sustainable production and consumption practices will be the norm.
- Industries will exercise stewardship over their products to ensure that they are compatible with sustainable development.
- Incentive-based charging will reward reduced risks to human health and the environment and encourage effective environmental management.
- The public will use its purchasing and investment powers, and its opinion, to influence industrial performance in terms of human health and the environment.
- Through the public being better informed and involved, there will be greater general approval of the regulatory process and public confidence in it.

### The Agency's Role

- The Agency directly regulates a vast range of industry including the nuclear and other electricity generators, heavy industry, the water and the waste industries, plus some aspects of agriculture, horticulture and forestry. We therefore regard the term 'business' to encompass any producer or service with which we have a direct or indirect contact. But we are not the sole regulator and other industries, including transport, plus many small businesses, are regulated by others. It is therefore important for us to keep our own work in perspective.
- It is however equally important to ensure that our own work is not made more difficult as a result of the actions of others. We therefore need to spend more time considering how we liaise with other regulators, and how best we can generally educate, influence, and inform.
- We are also aware that environmental regulation is becoming ever more complex, for both the regulator and regulated alike. We therefore also see our role as ensuring that environmental regulation is kept as simple and equitable as possible, at all levels of legislation.
- And, most importantly, we also wish to help and encourage businesses to adopt more eco-efficient ways of working, to be less wasteful of resources, to generate less waste. This will help the UK business community to be more competitive and more successful. Environmental protection is, in itself, a growing sector of the economy with a market that is likely to grow both at home and abroad. Wealth creation and a flourishing economy are both essential to the achievement of sustainable development and we very much believe that what is good for the environment is good for business too.

## The Agency's Goals

- An overall goal is that of continuing to seek major reductions in the impact on both human health and the environment arising from industrial activities as reflected in what they abstract from, use, and release back into the environment. We will take into account all impacts on the environment, from all sources, and work with others to achieve the necessary targets and standards.

- We will also ensure that industries are assessed on a common basis across different sectors. We will therefore make greater use of information on the total quantities of substances used or released from sites and practices, as well as information on the concentrations of particular substances. We will place greater emphasis on setting long-term environmental objectives and targets to be achieved by individual industries and sites. This will involve more effort being put into the development of life-cycle assessments for products and processes, plus tools and techniques to assess environmental impacts and burdens. We would look to such methods to help simplify environmental regulation, not to make it more complicated.

- We recognise that our regulatory activity is not an end in itself. We do not regulate for regulation's sake. Nor can we hope to achieve a high level of regulation of every industrial sector; it is an impossible task. We believe that good environmental performance is actually in the best interests of those we regulate, and it is they who should take full responsibility for their environmental impact, be most aware of how they perform on a daily basis, and consider how such performance could be improved – to their own competitive advantage.

- We will therefore target our regulatory effort on those activities that have the greatest adverse environmental impact, or the potential to do so. This will involve risk-based inspections and the

auditing of industrial activities, and of their own environmental management systems, plus the introduction of toxicity-based consents in some cases.

- To help industry, we will adopt a standard approach to the issuing of environmental licences wherever we can. And make them as simple as possible. We will also establish groups of experts on particular industrial sectors, to provide a more consistent and timely service to industry.

- It would be in everyone's best interests if we were to work towards the delivery of single, integrated, environmental site licences and we will identify the legislative changes necessary to achieve this aim. We will also seek to harmonise and simplify all waste licensing, again identifying the necessary legislative changes.

- We will also seek legislative changes to shift environmental licensing onto a different economic basis, so that charges reflect the use of the environment, that economic incentives exist to reduce risks to the environment and human health, and that charges reflect individual site performance.

- To help business planning, we will also encourage the setting of national targets for reductions in the emissions of specific chemicals from all sources.

- We also want to see businesses exercising greater stewardship over what they produce. Once made, products ultimately have to be re-used, re-cycled, or disposed of. The producers have as big a role here as anyone else to ensure that all of this is done in an environmentally responsible way. We will therefore examine carefully the environmental consequences of different products.

- We believe that employees, company shareholders, local residents, as well as the public at large all have an interest in the environmental performance of industrial sites. We will therefore extend our pollution

inventory on our web site to as wide a range of industries as possible. We will also extend our analyses of comparative performance of individual companies – both good and bad – so that others can draw their own conclusions. These analyses will include information on total releases, compliance with environmental licences, plus performance against codes of conduct and the industries' own environmental performance targets. We will require sites to record the number and nature of complaints made to them, and to take appropriate action. We will use all of this information when consulting the public on contentious environmental issues.

- In the longer term we want to see a simpler, more comprehensive, and more transparent system of environmental licensing for all business sectors. The companies themselves must then regard their own environmental performance as a vital asset, demanded by investors, customers, and consumers. It will affect their stock-market value. We therefore need to encourage the introduction of environmental management systems and reports. As more information becomes available we will draw up more complete pictures of how different industrial sectors affect the environment in all respects, and to what extent their long-term plans incorporate positive environmental improvements.

# Using natural resources wisely

## LONG-TERM OBJECTIVE:

*Waste and wasteful behaviour will no longer be a major environmental threat because of the re-use of resources and the adoption of sustainable waste management practices.*

## AND THEREFORE:

- The environment will be less stressed and less scarred visually.
- All renewable resources will be managed sustainably.
- The justified demands for water use will be well known and the means of supplying them in place.
- The built environment will be energy, water, materials, and spatially efficient.
- Durability, re-usability, and low environmental impact of products will be a key feature of design and marketing.
- Both business and the public sector will be essentially eco-efficient.
- The majority of wastes will be disposed of as close to their source of origin as possible, taking full account of their environmental impact.
- Waste will be regarded by both industry and consumers as a potential resource, with the efficient re-use and recycling of materials the social norm.
- Product licensing will make producers responsible for the end-of-life fate of their products.
- Prices of goods will reflect their full environmental costs, based on their global environmental impact.

## The Agency's Role

- A large amount of our regulatory effort goes into controlling the use of natural resources, such as water and minerals, and into controlling wastes. Both have the potential to cause considerable adverse environmental impacts. If our overall use of resources and the amounts of wastes we generate were both reduced, then it would be better for the environment, easier for us, and cheaper for industry.
- The potential for ever-increasing legislative requirements in relation to dealing with waste, in particular, is very large indeed. We therefore consider that if this legislative burden is not to become unbearable for all of us, we must do more to change behaviour and attitudes. We therefore consider that more action is required to bring about such changes, and that it is in our own interests to become involved in this process.

## The Agency's Goals

- We will argue for the introduction of economic incentives to promote the sustainable use of resources. We will also argue that the efficient use of resources should be part of planning guidance and building regulations; and that resource management targets should be set for industry in such a way that they will be audited by all of their relevant regulators.
- In order to progress the concept nationally, we will identify which sectors of industry could deliver the greatest environmental benefit if the 'producer responsibility' approach was to be more widely adopted, providing that its implementation was as simple as possible.
- We will promote the twin-track approach to water management, placing equal emphasis for innovation on both the demand and the supply side. We will take all steps necessary to minimise the need for any

additional abstraction from the environment, and to optimise the timing of water abstraction from an environmental point of view. Water use reduction, recycling, and waste minimisation plans should then be required of all major industrial sectors, and small businesses should be encouraged and shown the economic advantages of using them.

- The 'twin-track' approach needs to be more widely applied to other industrial sectors. Waste creation is an unnecessary use of resources, and it is time for all of the major companies that we regulate to have energy efficiency and waste minimisation plans in place. We will then be able to quantify and characterise the different types of wastes that arise, or are used by, different industrial sectors. This will enable us to target our own regulatory resources more effectively. We will also be able to review best practices in energy and waste use and provide and promote good examples of them.

- Dealing with waste is a major national problem and we will continually improve our own information on how much waste arises and what happens to it. We will make this information widely available and explain why waste practices vary across the country. The incineration of wastes will, in particular, give rise to many issues that will have to be dealt with in a sensitive way.

- We believe that the higher level nuclear wastes should be disposed of underground in a staged way, and that work to do this should begin as soon as possible.

- The soil itself is a major resource, and we will put more effort into the control of sewage sludge and organic wastes applied to land. We will consider better ways of protecting soil from erosion, and work with others to ensure that agricultural and forestry activities do not result in its long-term degradation. We will encourage sustainably managed woodland and forest schemes.

- We will also seek to reduce the extraction of aggregates for building materials and encourage the use of recycled material instead.

- In the longer term we believe that a reduction in the use of natural resources and a reduction in the creation of waste will only be achieved if more accurate sets of information are available. These will then affect public opinion and could be used for simple forms of taxation and economic incentives. This will take some time to achieve, but the basis of such a set of information could soon be in place. One result should be the establishment of a more comprehensive range of facilities across the country to deal with the re-use and re-cycling of materials. Local and regional targets could then be set and be easily audited. League tables of natural resource use, and wastes generated, would also be available for different industrial sectors and different geographic regions. Better information would also help to change public attitudes to waste, so that they could make more informed choices about buying, using and ultimately disposing of their goods. This would also encourage a more detailed environmental consideration of the entire life-cycle of products and of the materials needed to produce them.

# Ensuring that the air is clean

## LONG-TERM OBJECTIVE:

*Neither human health nor the natural and man-made environments will be damaged by emissions to the atmosphere*

## AND THEREFORE:

- Clean air will be valued and demanded by society.
- Air quality will no longer be a significant cause of adverse human health effects and damage to the urban and rural environment.
- Air quality will no longer have a detrimental effect on plants, animals, or their habitats.
- Adverse effects on the natural processes of the global atmosphere will have been greatly reduced.
- All national and international aspects of air pollution will be recognised and addressed.
- Air quality standards will have been set, and met, for all relevant pollutants.
- All controllable emissions to air will be regulated on the basis of their environmental impact.

## The Agency's Role

- Although the Agency regulates emissions to the atmosphere from major industrial sources, and monitors their effects, we again nevertheless recognise that we are only one player amongst many. So what role do we have? A key feature is that of how we collaborate with others, not simply in terms of regulatory practice but in terms of getting the right information in order to inform ourselves and the public, and thus to educate, influence and inform.
- We appreciate that air quality issues are difficult for the public to understand. There is confusion over who is responsible for what; although air quality data across the country are readily available to the public. We therefore aim to maintain an overall picture, and to demonstrate the comparative causes and effects of poor air quality, in relation to both our own responsibilities and those of others.

## The Agency's Goals

- We will work with all other regulators and local authorities to deliver real and lasting improvements in local, regional, and national air quality. The improvements made will have to be clearly and directly related to air quality standards and targets.
- We will provide as much information as possible on the factors that affect air quality in order to improve public understanding. And in order to provide local interest and awareness, we will ensure that air quality issues are an integral part of all of our LEAPs and, to help in this task, we will request all of the industries that we regulate to make assessments of their emissions into the atmosphere.
- Where such emissions have to be reported under existing legislation, we will produce league tables of the quantities emitted. We will also make national and regional comparisons of the quantity and quality

of gaseous emissions from all major industrial sectors, and draw comparisons with other sources of the same gases.

- We will work towards combined strategies at a local level to improve air quality from all sources. And to help in this process we will produce regional air quality maps which identify areas of poor air quality, their causes, and who is responsible for them.

- In relation to our own regulatory role, we will make more accurate estimates of the gaseous emissions from active and closed landfill sites. Smell is also often a local problem, and we will ensure that landfill sites [and sewage works] are required to eliminate it. We will also require improvements to be made in all discharges to the atmosphere, but particularly from incinerators, large combustion plants, cement kilns and active landfill sites. And we will require sites to record the number and nature of complaints made to them by the local public.

- In the longer term we expect to produce a more complete picture of the causes and effects of air quality at regional and local level. We recognise that long-term improvements may often depend on the emissions from other countries, and will thus be beyond our direct control. But local interest is likely to remain high and, with rapid improvements in technology, we would envisage that real-time reporting of air quality in public places will be as common as the reporting of the temperature or the time. The public is likely to become more sensitive to air quality issues and will thus demand more accountability from industry and from us. They will also expect other sources of poor air quality, such as vehicle emissions, to be reduced by better emissions' control and traffic management.

# Improving and protecting inland and coastal waters

## LONG-TERM OBJECTIVE:

*There will be sufficient clean and healthy waters to support people's needs and those of wildlife.*

## AND THEREFORE:

- Inland and coastal waters will be cherished by local communities.
- All surface waters will be regarded as a recreational and amenity asset.
- Surface and groundwaters will be managed in an integrated way.
- Abstractions and discharges will not damage the environment, nor threaten human health.
- All sources of water pollution, eutrophication, and acidification will have been fully controlled.
- The quantities of chemicals entering the sea from land-based sources will have been greatly reduced.
- Damaging pollution incidents will have been prevented at source.
- All surface waters will sustain a diverse variety of habitats and wildlife
- Water will be acknowledged to be a scarce resource

## The Agency's Role

- The concept of managing the water environment in an integrated way has been around for a long time. It involves relating water quality to water quantity, and relating the use of water below ground with the management of waters on the surface, including rivers, lakes and ponds. It includes relating the quality of wildlife to the quality of the water and the surrounding land, and relating freshwater quality with that of the waters of our estuaries and along our coasts.
- We are involved in regulating almost all of the practices that can have a major effect on achieving a balance amongst all of these different aspects of water management. It is not an easy thing to do. We have a very large number of relatively short rivers, and large areas of estuarine and coastal wetlands to look after. We have a very complicated geology beneath our feet, through which ground waters flow. And we have a very large human population that makes extensive use of the water environment. We therefore need to ensure that the entire community plays its part in safeguarding all of these waters all of the time.
- Good management of the water environment is fundamental to many other aspects of environmental protection. That is why we have based our LEAPs and our operational teams, geographically, on a water catchment basis. We have an important overall role to play in achieving a sustainable use of water across the country, and thus the LEAPs help us to do this in a consistent way. But they also help us to relate other environmental issues to people on a scale with which they can more readily identify.

## The Agency's Goals

- We can only keep our rivers and streams, our lakes and canals, and all of our other waterways and wetlands in good condition if local people play their

part. We therefore believe that the use, and therefore the care, of surface and ground waters should feature more highly in all urban regeneration plans. Our LEAPs should have community ownership.

- We recognise that the interactions between surface and groundwaters, and the general quality of groundwaters, is not sufficiently known. We will research into these aspects quickly. Equally, however, we would expect our existing groundwater protection plans to be used now in local authority planning. We will ensure complete compliance with the legal steps necessary to safeguard groundwater against pollution from nitrates and other substances.

- Water resource needs must also be fully incorporated into regional and local planning guidance. We will ensure that all major abstractors have their own, compatible, water resource management plans. And we will help to provide advice for all major water users to make their own, robust, forecasts of future water needs. For our part, we will use nationally consistent models to calculate existing and future water quantity and quality in all of our regions and areas.

- We will keep a very close watch on the delivery of the future asset management plans of the water companies. These plans take time to develop and we are already considering what will need to be done once the next ones have been delivered. Demands for more water use are likely to grow, and thus the measuring of water use will have to be generally accepted by the public in the future.

- We will be setting targets to improve the worst of our poor quality river habitats, and targets to remove all remaining barriers to the free passage of fish and other aquatic wildlife along our rivers and canals. We will make full use of the forthcoming legislation to ensure a proper balance is struck between environmental needs and water abstraction. We will also set ecological targets for rivers, lakes, and estuaries.

- Continually improving our water quality remains an important issue. We will therefore ensure that serious pollution incidents are reduced further and will produce league tables on the Internet of those that do occur. We will also target, and provide more information on, groundwater pollution.

- We are also very conscious of the need to put more effort into lakes and ponds, and other still waters, including wetlands. We will provide guidance for the management of small areas of water, that are essential for wildlife, so that local conservation groups can play a greater role, in a more consistent way.

- Actually knowing what the states of our freshwaters are, at any one time, is a complex and time-demanding job. There are many complex legal requirements that have to be met. We will therefore continue to strive for a more simplified but comprehensive monitoring regime. We will use the latest technology to improve our monitoring work, with automatic 'real-time' monitoring stations at key locations in all major water catchments and estuaries. And we will place greater reliance on using information on the biology, and the biological 'health' of our aquatic wildlife, to tell us where future improvements need to be made.

- We are already reaching the stage where diffuse sources of pollution and land use practices are – with the exception of over-abstraction – the predominant problem in most of our catchments. These problems differ from one part of the country to another and, via our LEAPs, we will prioritise what needs to be done. We will also decide what needs to be done to reduce the total quantities of chemicals entering our coastal waters, much of which arises from diffuse sources, and the effects of soil erosion within catchments, and we will set targets to do so.

- In the past we have developed catchment

management plans, which have served us well. But total catchment management planning – which requires a complete re-look at the consequences of how water flows through a catchment – is still difficult to do and not always practical. Coastal management planning is also difficult. Nevertheless, we will ensure that fully integrated coastal and catchment management plans are developed. This will provide a vital input to broader sustainability plans.

- In the longer term we will aim to have all water management decisions made within a fully accepted, risk-based approach for deciding options at a regional level. Water management decisions will be made within an economic framework, with incentives, taxes, and penalties. This would be supported by local plans for catchment management that have been adopted by local communities, and within a new framework of European law. Only in this way will it be possible to eliminate, permanently, current problems which still remain to be tackled – such as discharges from some long-abandoned mines. To achieve these aims we will deliver a much better understanding of the complex relationship between ground, fresh, and coastal waters, through monitoring and research.

# Protecting and restoring the land

## LONG-TERM OBJECTIVE:

*The natural resources provided by the land will be enhanced, harm to people and wildlife will be avoided, and a wide range of land uses will be supported*

## AND THEREFORE:

- Society will value land and soil quality as much as they value the quality of the air and water.
- Major historic contaminated land problems will have been identified, and the land cleaned up and restored so that it is fit for specific uses, and the landscape enhanced.
- The creation of new problems by the inappropriate use and development of land, by direct and indirect additions to the soil, and by accelerated soil erosion, will have been prevented.
- More land will have been brought into sustainable use through more effective clean up methods and clearer planning targets.
- Land use will match its capability, take account of the whole life cycle of what is to be done upon or in it, and land users will, in advance, guarantee appropriate restoration of it if necessary.

## The Agency's Role

- Care of the land has always been a complex issue. The soil itself is a medium, like air or water, but is far more complicated and more difficult to sample and monitor. The land is also a platform, upon which things are done and structures built. And it is a medium that is quarried and mined. Factors that affect it are therefore also numerous and complex, and its care lies in the hands of many.
- The Agency does have a number of direct roles. We control certain activities that can affect soil quality, such as the spreading of wastes onto land. We have a specific role to play with regard to reporting on the state of contaminated land, and in dealing with specific sites that are complex or otherwise difficult. Via our controls over heavy industrial practices we have a role to ensure that neither land use nor soil quality are permanently damaged as a result. And of course we have a role to play with regard to assessing the state of pollution of the terrestrial environment generally.
- But we are acutely aware of all of the processes that can affect the land, and how these are regulated via planning controls and agricultural and forestry practices in particular. It is important for us all to work together; to work towards common sustainability goals. We therefore need to provide high quality information and guidance, and ensure that our LEAPs provide a sound basis for constructive dialogue with others at a local level.

## The Agency's Goals

- We aim to help make the best possible use of land and to put as much contaminated land as possible back into productive use.
- In order to remediate contaminated land we need to implement comprehensive guidance on what standards need to be met, and for what purpose. We

will do all that we can to help. But we also need to ensure that the remediation methods developed and used are environmentally acceptable and thus do not cause other problems. We therefore need a regime in place that oversees the remediation techniques and processes.

- We will publish our own plans for dealing with those sites for which we will be specifically responsible and, in the light of the responses received, act upon them.
- Good and consistent information on the state of contaminated land is still lacking. We will collect that which exists – within local authorities – and publish relevant statistical information. This will initially be incomplete, but will hasten the production of a more complete national picture.
- We will also gather, in a common format, information on the status of land for those industrial sites falling within European legislation. This will be used to check that neither the land nor the soil deteriorates over time as a result of the industrial practices on these sites.
- The government's overall soil strategy will make best use of our existing legal powers. This will help us provide guidance on best practice techniques, where relevant, in order to maintain or improve soil quality, whether it be by adding materials to it or by running industrial processes upon it. Such best practice guidance will need to be based on the ability and capacity of soils to cope with what is added to them. New regulations will be needed in order to manage the spreading of wastes onto land in a more sustainable way.
- With an agreed soil strategy, it will be possible to develop a better way of reporting on the state of quality of the land. In the meantime, we will continue to report on how land is used, how this

changes with time, and the implications this has in a sustainable environment context.

- Land problems are not restricted to those of quality and contamination. The physical erosion of soil is a severe problem in many areas. It erodes river banks, clogs up the gravel beds in which fish spawn, and carries pollutants into rivers and streams. Soil erosion is a direct result of how we manage the land. We will therefore produce area maps of existing and potential soil erosion and degradation, and suggest action plans to deal with them. These data sets will be incorporated into our LEAPs.
- In the longer term it will be essential for the potential implications of soil quality and erosion to be central to land use planning. The capacity of the land to withstand physical and chemical abuses is as limited as that of water or air. Any financial support to any industry – including agriculture and horticulture – must therefore be at least benign, and preferably helpful, to soil and land quality. A change in public attitude is required, which in turn will influence planning issues. We will therefore greatly increase our reporting of land and soil issues, to bring them on a more equal footing with those provided for the other media.

# Reducing flood risk

## LONG-TERM OBJECTIVE:

*Flood warnings and sustainable defences will continue to prevent deaths from flooding; property damage and distress will have been minimised; and all the benefits derived from natural floods will be exploited*

## AND THEREFORE:

- Flood warnings will be given in good time, acted upon, and damage minimised.
- People will accept the need to avoid flood risks, take warnings seriously, and act accordingly.
- Nationally consistent standards of sustainable flood defences will be in place, in the right places, to meet the challenges of climate change.
- Flood defences will be designed and constructed to deliver optimum environmental benefits.
- Planners will understand and accept their role in sustainable flood risk management.
- Flood-risks arising from land-use and climate change will be recognised, understood, and fully reflected in planning decisions.
- Properties at risk will be designed or modified to cope with the likely consequences of being flooded.
- New developments will bear the full cost of their flood protection and will not increase the risk of flooding elsewhere.
- Positive aspects of natural flood events will be recognised and flood defences designed to work with nature in accommodating them.

- Innovative uses of technology will have improved the ability to predict and cope with floods.
- Water resource and wildlife benefits will be achieved from natural flood events.

## The Agency's Role

- Flooding is a natural event, but a natural event with risks that, under certain circumstances, can be substantially reduced. It is also a natural event that has environmental consequences, both positive and negative. We therefore aim to reduce the risks and maximise the benefits in an integrated way.
- The potential risk of flooding occurring is likely to increase because of the effects of climate change. We have a responsibility to ensure that the risks of flooding in any one place are reduced, by way of the proper management of inland waters, and of coastal defences against the sea. But all we can do is reduce that risk. We cannot eliminate it.
- We are therefore not only responsible for overseeing measures taken to avoid and defend against floods, but of warning that they may or actually will happen – given time – and of helping to cope with them when they do occur. It is a difficult challenge that, over the years, has been made worse by planning decisions allowing developments to be built in the middle of natural flood-plains. And quite often flood defence measures taken in the past, and the re-routing of rivers and surface waters, have made matters even worse downstream. An effective relationship with regional and local planners is therefore an equally important task for us.

## The Agency's Goals

- Flood risks are with us daily. We will therefore ensure that we continually have the best flood

warning arrangements in place. We will build public confidence in these systems by demonstrating that they are maintained and managed to the highest standards.

- Flood risk management has, nevertheless, to allow for the fact that floods will occasionally happen and that they cannot always be predicted in good time. We will therefore make sure that people know what to do when warnings are given. And that they know what to do if it does happen. For some people this involves developing life styles that accept and accommodate occasional flooding events. For others it involves avoiding the risk at all costs. But in all cases we will make sure that emergency plans are understood and well rehearsed. Fully integrated flood-risk management plans, involving ourselves, local authorities, and other relevant organisations will be put in place.

- We have a very large number of rivers, a long and complex coastline, plus large areas of land that are below sea level. We have a very dense population, much of which resides within areas that require complex flood defences. But the Agency does not own and manage all of them; many are the responsibility of other owners. Flooding will however always occur at the weakest link. We therefore need to maintain an overview of the state of all flood defences. We will make the results of these reviews widely known, and ensure that they form the basis for regular planned inspections of flood defences by all of the authorities responsible for their maintenance and operation. We will produce a national flood defence asset database for inland and coastal waters.

- We will also improve all of our digital flood plain mapping by using the latest remote sensing and ground-truthing techniques. These will form the basis for future planning, help forecast the needs arising from predictions of climate change, and help

set long-term targets. Each flood plain map will be combined with a dynamic flood plain model to improve flood prediction at a local level.

- As the burden of maintaining existing flood defences grows, and climate changes add to this burden, it is essential for new planning guidance to be developed and used to achieve sustainable coastal and flood plain management. We will produce our own, consistent sets of guiding principles and advice to enable this to be done. We also recognise that, in some cases, it is more sensible to seek opportunities for new wildlife habitat creation than to try to maintain historic defences.

- Flood defences are, in any case, not the only answer. We seek changes in building regulations to make property which is at risk from flooding less prone to damage and less hazardous. We will seek changes to reduce the risk of pollution, particularly by sewage, when floods occur. We will also seek changes in conveyancing law to include flood risk assessment and, where relevant, to include compulsory insurance in relation to it.

- There are many other actions that need to be taken to reduce flood risks and the damage caused by flooding. Downstream flooding is often made worse by what is, or isn't, done further upstream. Steps need to be taken to manage excess water where it arises, by allowing it to seep into the ground where it can, and delay the speed with which it passes down the river. We will set targets for restoring the natural flood meadows and capacity of catchments to cope with excess water. We will also set targets to restore damaged river channels, and to maintain the most important drains and sewers. We will set targets for the time it should take for people to be able to re-occupy their homes once floodwaters have gone down.

- The implementation of water level management plans for European status and national conservation

sites will greatly help to demonstrate some of the positive and beneficial aspects of flooding events. We will make sure that these issues are fully taken into account.

- Even in the longer term, floods will still be with us. But we will ensure that flood event forecasting is better and warnings are given in good time. New technology such as satellites and other systems will help in such predictions. We also believe that the public in general – not just those affected – need to be brought into the wider debate, and to support investment needs. The cost of protecting the few cannot always be borne by everyone. If targets are set and met to manage water better, then flood risks will undoubtedly be reduced. Equally, more people may be willing to accept the risk in order to live in more interesting places. In either case, personal decisions will have to be made, and personal risks supported by personal financial commitment.

# Limiting and adapting to climate change

## LONG-TERM OBJECTIVE:

*Greenhouse gas emissions will have been greatly reduced and society will have adapted efficiently to climatic change and will be prepared for further changes.*

## AND THEREFORE:

- Greenhouse gas emissions, from all sources, will have been quantified and greatly reduced.
- Energy and transport policies will take full account of their carbon emissions and this will be reflected in pricing in order to reduce emissions.
- Energy efficiency programmes will be an integral part of all industrial sectors, transport, and domestic life.
- The basis for positive attempts to remove carbon from the atmosphere will be better understood.
- Society will have accepted the reality of climate change, and will be prepared to take the necessary actions, and to bear the necessary costs of limitation and adaptation.
- Uncertainty over future impacts of climate change will have been incorporated into long-term decision making and reflected in environmental standards and targets.
- Environmental monitoring programmes will provide accurate information of the direct effects of climate change.
- Environmental needs for water and the continuity of public supply will still be in balance as the climate changes.

## The Agency's Role

- Climate change is an issue that will increasingly affect the way we consider what we do in all of the other themes. It is however such a large and complex subject that many people may find it difficult to see exactly where the Agency's actions directly relate to it. And because the predicted effects of climate change will be relatively slow to develop – compared with the other environmental matters with which we have to deal – it is difficult to recognise the sense of urgency that is required. But urgent action is required, and we see ourselves as having to address three separate but related aspects.
- The first is that of playing our part in reducing the emissions of gases, the so-called greenhouse gases, that contribute to climate change. These not only arise from major industry, such as carbon dioxide and the oxides of nitrogen, but include methane which arises from landfill sites. There are of course other sources of all of these gases, and the UK itself is but a small contributor on the world stage. But we have our own national targets to meet.
- Secondly, current scientific thinking is agreed that, whatever we do now in a preventative way, sufficient greenhouse gases have already been emitted to have a lasting effect on our climate. For the UK, we can expect more storms, more droughts, more risks of floods. We can also expect less frost and less snowfall in the near future. We must also accept that the future will be different from the recent past. We therefore need to be involved in these predictions, and consider how our own extensive environmental monitoring programmes will be able to detect the changes caused by climate change and separate them from those changes caused by other events and actions. This work will also help to validate the predictions themselves as time passes by.
- And thirdly, we need to consider quickly what action we need to take in the light of these

predictions. They will affect our plans with regard to water resources, flood defences, wildlife protection and conservation, as well as our approach to regulating industries as these, too, adapt to the demands of climate change. These changes are occurring now, and the rate of change is expected to accelerate. It is therefore even more important to look at all of these related issues together, in a thematic way.

### The Agency's Goals

- Some goals are already set for us. We will ensure that those industries that we regulate under national and European law fully meet them. We will produce lists of the most relevant industrial sites and report on their performance. We will also require estimates of carbon dioxide emissions to be made from the other industries regulated under this set of legislation and will reduce the emissions of other greenhouse gases from them as part of the regulatory process.
- We will also explore, with others, the most effective mixture of economic measures, negotiated agreements, and direct regulation to reduce greenhouse gas emissions from industry generally. We will produce options that can be applied to different industrial sectors. And we will relate these to other efficiencies that could be derived in the overall efficient use of energy.
- Emissions of methane are difficult to quantify. We will improve our estimates and require the operators of landfill sites to reduce emissions by better management of the gases emitted and by reducing the amounts of biological waste deposited in them. We will compare emissions from such sites across the country.
- It will be important to review continually the relative role of different greenhouse gas emissions from all sources, to ensure fair play and to make sure that everyone plays their part. We will therefore put systems in place to measure the extent to which our own regulatory role has been successful, including that of regulating methane emissions from landfill sites. We will compare these with estimates made by others for other sources. We will produce league tables of all emissions and place them on the Internet.
- All forms of energy production have some form of environmental impact, even the so-called renewable resources. And all may well have some part to play in the future. We will promote greater debate on the full lifetime impact of different energy sources, their use of non-renewable resources, and their environmental impact as seen from all points of view. We will advise on the scientific and technical aspects of each, in terms of environmental impact.
- Because climate change is already happening, it is important to measure its direct effect, particularly in terms of changes to sea level, the impact of an expected increase in storms, and of an increase in plant growth – particularly of algae in enclosed waters. We will therefore obtain baseline information at key environmental sites, to a high level of accuracy and precision, so that changes in these direct effects can be recorded in the future.
- We already make allowances for the predicted increase in sea level rise in designing new flood defences. We will evaluate the future protection afforded by existing flood defences against a range of climate change predictions. This may prompt early investment to maintain the level of protection.
- We will similarly test water company and other major water users for the robustness of their resource plans against a range of climate change predictions, to ensure continuity of water supply.
- We will also carefully assess the likely effects for those wildlife and natural habitats for which we have

direct responsibilities, particularly in the aquatic environment. We will agree what needs to be done with our partners, achieve a consensus on what to do, and do it. We will also help to produce for discussion a strategic list of those areas around the coast where we consider that a so-called managed retreat of our existing flood defences would be a sensible option.

- We will also attempt to act as we would wish others to do. We will make assessments of greenhouse gas emissions from our own activities and publish them. We will show to what extent we have been successful in reducing them per unit of our own activity.

- In the longer term there is much that could and should be done. The predictive models will certainly improve. And there will be a greater sense of urgency. As well as the focus on the contribution made by energy producers and users being maintained, attention will be turned to the roles that different forms of waste management play. Waste reduction and management practices will have targets set in relation to greenhouse gas emissions and energy use. More attention will be paid to diffuse sources of emissions. And the ability to predict and therefore adapt to climate change will be focussed on regional studies.

## 4 Being ready and able

### Taking it Step by Step

**4.1** In the longer term we envisage a fully integrated approach to sustainable environmental management, combining environmental, economic, and social issues, applied at local, regional, national and international levels. Our thematic approach is but a step in that direction. We will continue to deliver and report on our progress on a wider canvas, by looking at changes in the state of the environment from different points of view, and by reducing and then showing how the many stresses and strains upon it change with time.

**4.2** But to achieve this long-term goal we, too, will have to change. We will have to shift our own resources, and be more flexible and adaptable. We need to simplify our own business. We need simpler environmental regulation. All of this will be better for us, for those we regulate, and for those with whom we interact. We cannot achieve this immediately. At present we know that in many areas we are more reactive than proactive. Nevertheless we need to retain the trust of government and the public. We must retain and enhance our own skills, and maintain enough people to carry out our vital work. We need to retain and enhance the enormous commitment and energy of our staff. So we need to change, but in a way that maintains our ability to do our current work.

### Creating the Space for Change

**4.3** Change will not happen by itself. We have already been examining a number of areas where we think it sensible to switch some of our effort, such as using and interpreting data instead of just collecting it, and putting our people to work where environmental risks are greatest. But if we are to achieve step changes in, for example, our regulatory activity, then we need to have more detailed discussions with government and the different

industrial sectors that we regulate. We will do that. We will also consult the public more, to engage them in their longer-term aspirations. We will review the time, effort, and efficiency with which we currently engage with the public, at all levels. All of this will produce a positive impetus for change.

**4.4** We will aim to produce convergent strategies on the timing of changes to the law and, with industry, seek a harmonisation of existing environmental law. We will argue for the production of a single regulatory system that covers the environmental impact of processes and their resource use, products and their effects, and their impact on land use. We will argue for companies themselves, through their boards and company directors, to take direct responsibility for the environmental and social impact of their businesses. All of this would reduce the existing complex, fragmented, and constraining legal system and thus enable our staff to devote more time to delivering the aims and objectives that we have identified in this document. And by setting an example, we may be able to influence changes for the better on a European scale.

### Prevention is Better Than Cure

**4.5** Continually responding to ever-changing demands is hard work. Being proactive and anticipatory is more sensible. More thought needs to be given to building and product design. We will argue for an increase in the application of environmental policy appraisals, and potential impact assessments to be made by industry, together with likely costs and benefits. We will argue for industry to make greater efforts in monitoring their own abstractions, discharges, and general environmental impact in such a way that it can be transparently audited and verified in order to supplement, and complement, our own regulatory work. We want to see industry build public confidence in themselves as well as in us. More needs to be done to introduce

market mechanisms, economic instruments, and taxation in order to change behaviour and re-enforce our basic regulatory role. And the revenues raised should be used directly and simply to reduce the risks from pollution and the creation of waste, to maintain and improve the environment for everyone, to enhance their quality of life.

### Working with Others

**4.6** If we can identify and agree common longer-term goals with others, a shared long-term vision, then we can more easily work collectively to achieve them. We believe that regional and local authorities, and Development Agencies, will play an increasing role by developing and delivering their own sustainability plans. Land use planning and development control should then be more closely aligned to environmental risks and the steps necessary to avoid them. There will be a greater role for regulatory bodies, industry, and voluntary groups to work together to deliver sustainable and positive changes to the local and thus national environment.

**4.7** One pre-requisite to working with others to achieve common aims is that of having a shared knowledge base. We have already set up a national forum on environmental monitoring. We have collated regional and area environmental information. And we plan to do much more to link and share our knowledge with others in relation to all that we do. We will use this shared knowledge base to set priorities, to interpret what is happening, and to educate and inform the young, those we regulate, and the general public.

**4.8** We will also discuss fully with our partners how all of our long-term visions collectively contribute to the achievement of sustainable development. We recognise that it may often be difficult to strike the right balance amongst them. The interplay of the environmental, social, and economic components of

sustainable development are very complex; we still have as much to learn as we have to offer. We will therefore often be heavily dependent upon others to deliver our shared vision.

**4.9** We also need a common understanding of what all of us can contribute in terms of resources, skills and technology. We have already set up close working relationships with the Welsh Assembly, RDAs, local authorities, and with our colleagues elsewhere in the UK. We already collaborate with others to address issues and deliver projects.

### What Does it All Mean for Us?

**4.10** It would be unrealistic to expect the Agency to be much bigger than we are now. We are already large and complex. But we could pack a much bigger punch. Our aim is not to want to do more, but to create the need to do less – because action will not be required. We want to re-deploy our existing resources more effectively, not to add to them.

### People and Skills

**4.11** Our Vision will require us to change significantly, but in the short-term we must respond to the job that exists now. We therefore have both short-term and long-term resource management goals.

**4.12** Over the next three or four years we will continue to build public confidence through reliability and competence in our basic regulatory work. We will review the training of our warrant-holding staff to ensure demonstrable competence in all aspects of their work. Our manual workforce will provide a multi-skilled integrated input across a broad range of activities, in addition to essential flood defence work.

**4.13** We will ensure that we are able to exert the maximum influence in a changing political scene.

We will have more people who are confident in both their technical expertise and their persuasiveness with the public, with industry, and at all levels of government.

**4.14** We will nurture a small number of specialists who are at the leading edge of science, engineering and technology, and strengthen links with the best external sources of knowledge and advice. We will build on our reputation for sound science and best practice in the wider scientific and technical community.

**4.15** In view of the scale of what lies ahead we must retain, enhance and where necessary redirect the commitment and energy of our staff. This is a major management challenge to which senior technical staff as well as line managers will have much to contribute. A confident, skilled management group will be a vital ingredient of success.

**4.16** In the longer term, however, we will need to rebalance jobs within the Agency in order to deliver our Vision. There will be fewer repetitive tasks of sampling and analysis, and more that demand an understanding of health issues, social sciences, and economics.

**4.17** The nature of jobs will also change. We will be realistic about required skills and qualifications, and develop the people we recruit so that they acquire a basic set of competences. There will be less of an emphasis on jobs for life: more people will think positively about leaving and possibly returning. Careers will be more varied. Time spent on significant projects will be seen as skill- and career-enhancing.

**4.18** Our procedures, terms and conditions must support the direction of these changes. We will maintain our equal value approach to pay, and promote genuinely equal opportunities. We will pay close attention to succession planning.

## Organisation and Culture

**4.19** We will ensure that we build an organisation that will deliver its aims using the best tools available. We will make maximum use of new technology to change the way we work, to eliminate unnecessary travel, to share and communicate knowledge. We will ensure that we have, or can gain rapid access to, the very best advice. We will seek flexibility, so that we can quickly switch resources once targets or jobs have been completed.

**4.20** We must also identify the right balance between consistency of quality, and the need to respond appropriately to local circumstances, be they environmental or political. We will achieve this by developing an approach that in some fields specifies both what needs to be done, and how, but in others only specifies environmental outcomes, leaving local flexibility about how they should be achieved within broad corporate policies and standards.

**4.21** We will also attempt to lead by example. We have already introduced an 'environment-first' culture, developed our own environmental management systems, and gained certification for many of our own sites. There is still much to do. But we intend to continue to improve our own environmental performance, and to report openly upon it. We are by no means perfect and, like everyone else, have much to find out in discovering how to live and work in a more sustainable manner.

## Use of Technology and Research

**4.22** The Agency can only deliver if it is focused on environmental outcomes rather than activity, and if it fully embraces the latest in technology and scientific thinking. Our strong and widely cast research and development programme will help us to develop, make use of, and apply the latest in scientific, technological and engineering thinking. We have already produced an R&D strategy in anticipation of

the many challenges that lie ahead. All of our work has to be based on sound science and understanding.

**4.23** We have already devoted much time and effort on streamlining and updating our information technology, and have placed priority on getting information to the public. We will now concentrate on providing our own frontline staff with the advantages that information technology can bring. We will help deliver the Government's own targets for electronic communication and methods of conducting business. This will involve a change from traditional working methods to those that make use of remote sensing and recording, advanced forms of communication, and the use of data and information. We will develop a culture capable of making fast and effective use of technological advances.

#### Funding and Planning

**4.24** Funding must help us achieve our aims, not constrain them, and it is clear that traditional sources of funding will not always match our workload. Alternative sources will be needed. We already benefit from a variety of external funding sources, but not in a sufficiently structured way. We will take a more proactive and co-ordinated approach to obtaining external funds to deliver our key objectives, often in collaboration with others. And we will ensure that, in doing so, we in no way compromise our regulatory or statutory roles. We will also work constructively with others to ensure that their spending on environmental improvements is achieved efficiently by providing advice or assisting in other ways.

**4.25** We already have a number of so-called value added resale agreements with those who make use of our information and communicate it to a wider audience, from which we benefit financially. We will seek further opportunities to use such avenues to provide income that we can use to produce services

for the public good. We will also explore the possibility of other commercial opportunities that can exploit our own expertise, especially where they result in positive environmental results at home or abroad.

**4.26** With regard to large items of capital expenditure we already make use of private-public partnerships and will seek other opportunities to do so.

**4.27** Perhaps more important than any of these issues, however, is the basis of our financing. We will seek greater long-term certainty for the way we spend our money from year to year. This would enable better strategic planning for our work and better strategic financing of it. It would enable us to work more constructively with other funders, and encourage them to work with us. Such an approach would be more in line with the government's own philosophy of three-year cycles of funding. And it would involve less management effort and enable us to be more empowering and capable of responding to change and innovation.

**4.28** Delivering an integrated approach to our environmental work is considerably handicapped by what is known as 'ring fencing', that does not enable us to apply our income in an integrated way. Without losing an ability to account accurately and precisely for how that income is spent, the removal of ring fencing would enable us to be more flexible and would reflect more accurately what we actually do on a day-to-day basis. It would allow us to manage our money more easily. It would enable simpler methods of billing customers, to their advantage as well as to ours. We will seek the changes necessary to remove these obstacles.

**4.29** We have already done much to increase our efficiency, with programmes to deliver continual savings. We will therefore continue to take full advantage of our corporate purchasing power, to get

the best deals we can. We will continue to streamline our support functions, making use of new technology. And we will continue to audit and review all of our activities to ensure that we do our work in the most efficient way, as compared with how others might do it.

**4.30** And although we recognise that charges relating to water management – water resources, and flood defence – still need to be locally driven and accounted for, there are nevertheless national tasks that have to be done, and financed, for the good of everyone. Both are national assets and a proportion of the total income raised has to be spent in recognition of this fact.

**4.31** We will also put greater effort into our forward planning. There will be many plans emerging from many different players in the future. We will therefore ensure that at national, regional, or area level, and via the LEAPs that we have already produced, we can readily interface with sustainability and community plans as they arise, and be able to deal with information on any relevant geographic or political boundary.

#### **Information and communication**

**4.32** Sustainable development will only be delivered through a major shift in public attitudes and behaviour. It will not happen passively. We therefore plan to sharpen up our communication skills and focus on key issues. We will make more information available and accessible, using all forms of communication. We will seek partners to help us in this task, and aim to be a driving force in helping to bring about lasting cultural change in environmental behaviour.

## 5 Measuring our success

**5.1** Although we have taken a thematic approach to the delivery of our Vision for the Environment, we fully recognise that what ultimately matters is the improvement it delivers to our quality of life and thus the extent to which the environment improves, the stresses and strains upon it are reduced, and our international and national legal obligations are met. We do not want to confuse activity with progress. We want to work together, with those we regulate and with the public at large, to help achieve sustainable development.

**5.2** Our success will therefore not be measured simply in terms of the frequency with which we carry out inspections, take enforcement action, or call for legislative changes. Instead, it will be assessed and measured by the lack of the need to take such actions. This will require a major shift in understanding our approach and of measuring our effectiveness, and hence success.

**5.3** We will expand upon the amount and clarity of the information we produce, to demonstrate our success. We will show how the state of the environment is improving, from different points of view. Not just in terms of meeting standards, but in terms of changes to the use of land and natural resources, to wildlife populations, and in terms of the aesthetic quality of the environment, as reflected in estimates of noise levels and so on. We will also demonstrate how those stresses and strains upon the environment that can be controlled have, indeed, been controlled. We will therefore continue to report on changes to the quantities of materials and chemicals taken from the environment, used and discharged back into it, and of the quantities of wastes which arise and are managed and disposed of in one way or another. And we will continue to report on pollution incidents and illegal practices.

**5.4** Obtaining information on the environment is not an end in itself. The issues that emerge can only

be dealt with, sustainably, by putting them alongside economic and social factors. This is what sustainable development is all about. The information we obtain is therefore but part of the overall picture, but a vital part.

**5.5** Success for us will be the extent to which the environment is improved from one point of view without it being degraded from another; and the extent to which the stresses and strains on the environment are reduced without creating others. Overall, this will reflect our direct action, our influence, and our success in educating and informing. All of the relevant sets of information are permanently displayed, and regularly updated, on our website.

**5.6** The government has produced a set of National Sustainable Development Indicators, and it is therefore essential to see how our own data and assessments fit into the overall picture. We will continue to develop our own environmental indicators to support the national set. Some of the key components are shown in Box 4. No doubt these will change with time, in relation to the successful achievement – or not as the case may be – of different targets. And no doubt public pressures for action will also change over time.

## Box 4 Key Agency Indicators

### Quality of life

- *Bathing water quality*
- *Quality of surroundings*
- Beach litter in the U.K.
- Leisure day visits in the U.K.
- Craft on inland waters

### Enhancing wildlife

- **Population of Wild Birds in the UK**
- River Habitat classification
- Salmon catches
- Coarse fish catches
- Achievement of Biodiversity Action Plan targets

### Greening the business world

- *Discharges from the nuclear industry*
- *Compliance with environmental regulations*
- Emissions to air from Agency-regulated industrial processes
- Pollutant load from sewage treatment works

### Using natural resources wisely

- **Waste arisings and management**
- *Special wastes arisings*
- *Household water use and peak demand*
- *Water demand and availability*
- *Abstraction of water by purpose*

### Ensuring that the air is clean

- **Days when air pollution is moderate or high in the UK**
- *Atmospheric (SO<sub>2</sub>, NO<sub>x</sub>) emissions from industries*

### Improving and protecting inland and coastal waters

- **Rivers of good or fair quality**
- *Dangerous substances in water*
- *Nutrients in water*
- *Loads of major contaminants to coastal waters*
- *Estuary water quality*
- Water pollution incidents

### Protecting and restoring the land

- *Area of derelict land*
- *Organic matter in topsoils*
- *Net loss of soils to development*
- *Landscape features*

### Reducing flood risks

- *Sea level rise in Great Britain*
- Major flooding incidents
- Thames barrier closures against tidal surges

### Limiting and adapting to climate change

- **Emissions of greenhouse gases**
- *Annual average surface temperatures in central England*
- *Electricity from renewable sources*
- Summer and winter rainfall

Footnote

**Bold type** – UK Headline indicators

*Italics* – UK Core set of Indicators

Other – proposed Environment Agency indicators

## 6 Consultation and delivery

**6.1** It is impossible in this short document to spell out all that we would wish to do. It is merely intended to be a high-level overview of our longer-term aspirations. At a time when the world is rapidly changing, and many approaches to the need for a more sustainable way of life are being developed, we thought it useful to set them out in a simple way. As we have stated throughout, we fully recognise that our own vision has to be cast within the overall frameworks that are emerging at international level, and within the sustainable development strategy set out by Government. Its delivery is highly dependent upon working closely in partnership with others. We hope we will prove to be a strong ally for our fellow regulators and an asset for regional and local government.

**6.2** We are of course fully aware that the devil is always in the detail. This applies not only to the detail required to deliver each of the objectives set out in the themes, but also how the overall vision will be applied to the different regions and areas across England and Wales. A major challenge for us has always been that of addressing the different problems we inevitably have, from one location to another, whilst having to deliver national targets to the same time-scale. We will therefore develop frameworks for change for each of our themes, spelling out their short, medium, and long-term goals in the overall context of our strategic approach, and consult widely on each of them. These frameworks will be published for consultation later this year. The overall programme will be put into effect by way of our three-year rolling corporate plan. This plan will be developed and updated by direct reference to our success and failure in delivering the environmental aims and objectives that we have set out in this report.

**6.3** But before we do any of this, we wish to consult first on our general approach and overall Vision. This document is itself therefore being

widely circulated and made available on our website [[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)].

**6.4** We would welcome your views, opinions and reactions, particularly on the following:

- 1** Do you support the need for a long term vision for the environment, even if some of the outcomes seem optimistic in the short term? How challenging should such a long term vision be? Should the vision include some indication of the pace of change we envisage?
- 2** What should the Environment Agency's role be in the delivery of such a vision – should we focus on our regulatory role, or act more broadly as a champion of the environment?
- 3** To structure the vision, we have adopted nine themes (Chapter 3) each with long term objectives and outcomes.
  - Do you agree with these objectives and outcomes?
  - Which do you think are the highest priority?
  - Do they cover the key environmental issues?
  - Can they be accomplished in the context of sustainable development – i.e while still maintaining social and economic progress?
  - What are your views on the goals we have set ourselves?
- 4** How can we harness business' spirit of innovation and entrepreneurship, and the support and enthusiasm of others, including the general public, to help deliver the overall vision?
- 5** What are your views on how we propose to change, as an organisation, in order to achieve the vision (Chapter 4)?

Please send responses, by 18th August 2000, to Dr R. J. Pentreath, Chief Scientist and Director of Environmental Strategy at the Environment Agency, Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol BS32 4UD.

Contents of relevant pages from  
the Environment Agency's internet site  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

## **State of the environment index**

### **Viewpoints on the environment**

- Land Use and Resources
- Biological Populations, Communities and Biodiversity
- Standards and Targets
- Health of the Environment
- Long Term Reference Sites
- Aesthetic Quality

### **Stresses and strains on the environment**

- Natural Forces
- Societal Influences
- Abstractions and Removals
- Usage, Releases and Discharges
- Waste Arisings and Disposals
- Illegal Practices

### **Snapshots**

This explores some of the issues relating to each of the Environment Agency's environmental themes.

## **What's in your backyard?**

This allows you to explore our environmental data from the national level right down to your local environment.

## CONTACTS:

### THE ENVIRONMENT AGENCY HEAD OFFICE

Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol BS32 4UD.  
Tel: 01454 624 400 Fax: 01454 624 409

[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)  
[www.environment-agency.wales.gov.uk](http://www.environment-agency.wales.gov.uk)

### ENVIRONMENT AGENCY REGIONAL OFFICES

#### ANGLIAN

Kingfisher House  
Goldhay Way  
Orton Goldhay  
Peterborough PE2 5ZR  
Tel: 01733 371 811  
Fax: 01733 231 840

#### MIDLANDS

Sapphire East  
550 Streetsbrook Road  
Solihull B91 1QT  
Tel: 0121 711 2324  
Fax: 0121 711 5824

#### NORTH EAST

Rivers House  
21 Park Square South  
Leeds LS1 2QG  
Tel: 0113 244 0191  
Fax: 0113 246 1889

#### NORTH WEST

Richard Fairclough House  
Knutsford Road  
Warrington WA4 1HG  
Tel: 01925 653 999  
Fax: 01925 415 961

#### SOUTHERN

Guildbourne House  
Chatsworth Road  
Worthing  
West Sussex BN11 1LD  
Tel: 01903 832 000  
Fax: 01903 821 832

#### SOUTH WEST

Manley House  
Kestrel Way  
Exeter EX2 7LQ  
Tel: 01392 444 000  
Fax: 01392 444 238

#### THAMES

Kings Meadow House  
Kings Meadow Road  
Reading RG1 8DQ  
Tel: 0118 953 5000  
Fax: 0118 950 0388

#### WALES

Rivers House/Plas-yr-Afon  
St Mellons Business Park  
St Mellons  
Cardiff CF3 0EY  
Tel: 029 2077 0088  
Fax: 029 2079 8555



ENVIRONMENT AGENCY  
GENERAL ENQUIRY LINE

**0845 933 3111**

ENVIRONMENT AGENCY  
FLOODLINE

**0845 988 1188**

ENVIRONMENT AGENCY  
EMERGENCY HOTLINE

**0800 80 70 60**



ENVIRONMENT  
AGENCY