

Creating a better place

Midlands local contribution 2006/11



improving the environment in the midlands region



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

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

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

Published by:

Environment Agency

Sapphire East

550 Streetsbrook Road

Solihull

B91 1QT

Tel: 08708 506506

Fax: 0121 711 5824

Email: enquiries@environment-agency.gov.uk

www.environment-agency.gov.uk

This is the local contribution that Midlands Region will make to our corporate strategy *Creating a better place*. There is a similar document for each of our seven regions and Environment Agency Wales.

If you would like details of the strategy itself, it is available as a summary and full document. You can get copies of any of these publications by calling - 08708 506 506 (Mon - Fri 8-6), emailing - enquiries@environment-agency.gov.uk or by visiting www.environment-agency.gov.uk/strategy.

We will translate our strategy into action through our corporate plan.

© Environment Agency

All rights reserved. This document may be reproduced with prior permission of the Environment Agency.

Improving the environment in the Midlands

We have an environmental vision: a better place for people and wildlife. Our corporate strategy *Creating a better place* explains how we will work towards that vision and defines our goals for the next five years. This work will happen nationally, regionally and locally. This is the contribution of Midlands Region

Working for the environment; working smarter and working together: These are the themes supporting our contribution. We are proud of our achievements for the environment over the last ten years, addressing the legacy of many decades of industrial development. But there is more to do and there are new challenges.

Working together with our partners, we will tackle the most pressing environmental priorities, including responding to climate change, using resources more efficiently, restoring river habitats and regenerating our urban communities.

We are proud of the diversity of our Region and will work together with all our communities to improve the environment.

We want to reach out to people and organisations in the Region to help everyone understand just how important our environment is for our economic success and for our quality of life.

We also recognise the need to work smarter, making the most of our funding and helping our people make the most of themselves. By understanding our customers better, we can provide a more responsive service so that together we can create a better place in the Midlands.

Mark Sitton-Kent
Regional Director



Midlands Regional Management Team

ENVIRONMENT AGENCY



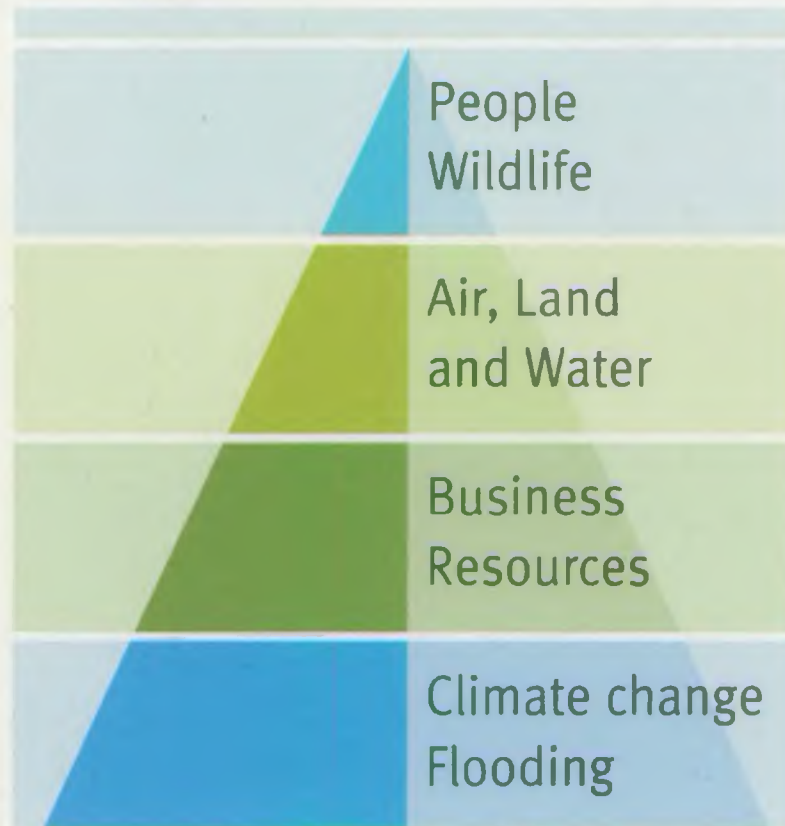
134855

Our vision for the environment is...

... A better place for people and wildlife, for present and future generations

In order to achieve our vision, we work to nine environmental themes

Goals



Our region in numbers

8,300,000 population

21,601 sq Km in area

2 nations: England and Wales

4 English regions: West Midlands, East Midlands, South West and Yorkshire & Humberside

79 local authorities

11,475 water quality discharge consents

109 integrated pollution control authorisations

210 pollution prevention control permits effective

79 radioactive substances authorisations

356 radioactive substances registrations

2 nuclear sites

11,400,000 tonnes of waste deposited at landfill sites in the Midlands region

1,466 waste management site licences

842.2 mm annual average rainfall

2 major rivers – the Severn and the Trent

4,387 water resources abstraction licences

1,001 Km of raised fluvial flood defences

209 Km of raised tidal and sea defences

292 Km of coastline

63,000 properties covered by a flood warning service

250 monitors around the region to provide data for flood warnings

27 landholdings with potential for recreation

2,606 salmon and sea trout rod licenses sold

252,288 rod licences sold for non-migratory fish

2,801 Sites of Special Scientific Interest

160 prosecutions for environmental crime

1,250 staff

1 regional office

4 areas

£82 million annual expenditure.

Our environment

We have achieved a great deal through traditional regulation. To achieve more, we will work with people and organisations in the Region to encourage everyone to take greater responsibility for the environment.

A better quality of life

The Rivers Severn and Trent are major assets for water-based recreation, used for fishing, boating and canoeing as well as walking beside the river. We can make more of these assets, particularly in urban areas, where they can contribute to regenerating urban communities.

Nationally, 70 per cent of fly-tipping occurs in areas targeted for regeneration. In the Midlands, someone fly-tips every five minutes, costing nearly £16,000 every day to clean up. We will contribute to urban regeneration by tackling waste crime in partnership with local authorities.

We are increasingly aware that there are links between poverty, poor health and the environment. We need to understand these links so that we can take appropriate action to improve the quality of life of our poorer communities.

An enhanced environment for wildlife

The last ten years have seen a spectacular return of otters to Midlands' rivers. They have now spread throughout the Severn catchment.

Even more impressively, otters have crossed the catchment boundary back into the Trent.

Salmon have also returned to the River Trent, spawning in the River Dove, but the fall in numbers in the Severn is causing concern, as is a steep decline in the eel population.

We can do more to restore habitats lost through insensitive improvement works. By planning ahead, we can create habitats which will help wildlife adapt to a changing climate.

Cleaner air for everyone

Emissions from the industrial processes that we regulate have decreased but have levelled off in recent years. For example, nitrous oxides emissions have shown no changes since 2001. The major contributor is the power generation sector in the East Midlands.

Traffic volumes continue to show an increase year on year and are the main cause of failures to meet air quality standards. We advise local authorities and regional planners on air quality

issues. 16 in the East Midlands and 11 in the West have taken action in response to air quality problems, in the main, caused by traffic.

Improved and protected waters

Water quality has shown a good improvement from 1990 to 2000 as a result of major capital investments by water companies in their first ten years.

However, only 60 per cent of watercourses in the East Midlands and 50 per cent in the West Midlands are of fair or good biological quality. Since 2000, the rate of improvement has levelled off, as a proportion of the investment funds have been switched to maintaining the improvements.

We will need to deliver further improvements as we implement the requirements of the Water Framework Directive.

Water resources in the region are intensively used for drinking water and for irrigation with no spare capacity in summer months. In dry summers, we

have to restrict abstraction. This will become more frequent as our climate changes.

Even with restrictions in place, low river flows in the last six months of 2003, during a period of continuous dry weather, led to an apparent decline in the reported water quality figures – Again this will become more frequent as summer rainfall decreases due to a changing climate.

Restored, protected land with healthier soils

Our Region has a legacy of contaminated land, particularly in areas where there used to be high industrial activity. In the West Midlands, there are around 28,000 hectares which are potentially contaminated; in the East Midlands 26,000 hectares. We advise landowners and local authorities on cleaning up contaminated land and are directly responsible for cleaning up four of the worst sites in the Region.

Cleaning up contaminated land and redeveloping it can make a major contribution to the regeneration of urban communities.

75 per cent of land in our region is used for agriculture. Most of it is at risk of erosion. Erosion leads to a loss of soil and potential damage to habitats used by fish for breeding. It can also increase phosphate concentrations in our rivers.

Reforms to land management have given us new opportunities to work with landowners to limit soil erosion, an issue we will have to address as part of the Water Framework Directive.

A greener business world

In 2004, 90 per cent of pollution incidents in the Midlands, where a source was identified, were from industrial and commercial sectors. Over 60 per cent of waste produced in the Region comes from business and from construction.

The challenge is to work with business to develop responsible environmental behaviour; to minimise waste production and to encourage re-use.

Wiser sustainable use of natural resources

Municipal solid waste collections have been

increasing year on year in the Midlands, mainly due to an increase in the amount collected for recycling. The amount disposed to landfill is increasing slowly in the East Midlands and decreasing slowly in the West Midlands.

Waste planners in the Region need to meet the obligation to divert 25 per cent of municipal waste from landfill by 2010. Many local authorities could achieve higher levels of recycling.

Climate change

Emissions of carbon dioxide, and global warming potential from the 'basket of six' main greenhouse gases, have changed little since 1998.

Between 1901 and 1998, the mean central England temperature has risen by 0.6 °C. To avoid what is now being called dangerous climate change, we must limit the maximum rise to less than 2 °C through reducing carbon emissions.

December rainfall in the East Midlands has increased by 30 per cent since the 1930s. July rainfall has decreased by 30 per cent over the same period. Our climate is already changing and we all need to consider the risks in any long-term decision.

Managing flood risks

Over the last three years, we have developed some exciting new approaches to protecting properties on the Severn – using temporary and demountable defences. We also operate a world class warning system to provide flood warnings to 63,000 properties in the Region.

Some 175,000 households in the East Midlands are still at risk of flooding from a 1 in 100* year event; 57,000 in the West Midlands. We plan to invest some £170 million over the next five years. These investments will be integrated with the requirements of the Water Framework Directive and will deliver multiple benefits – contributing to urban regeneration and improving or restoring habitats – in line with the policies in *Making space for water*.

** Floods are categorised by their size and frequency with which they can be expected to occur. A 1 in 5 year flood is one that has a 20 per cent chance of happening in any year - this is a relatively minor flood. A 1 in 100 year flood has only a 1 per cent chance of happening in any year, but its effects can be enormous.*

Our priorities

Taking all these together, we have developed our priorities for contributing to our corporate strategy over the next five years.

Working for the environment

- Responding to climate change.
- Using resources more efficiently.
- Restoring river habitats.
- Regenerating our urban communities.

Working smarter

- Delivering better service to our customers.
- Increasing efficiency.
- Driving corporate performance.

Working together

- Engaging with the Region.
- Developing our people.

Working for the environment - Our priorities

These are our four priorities for the environment in the Midlands.

Regenerating urban communities

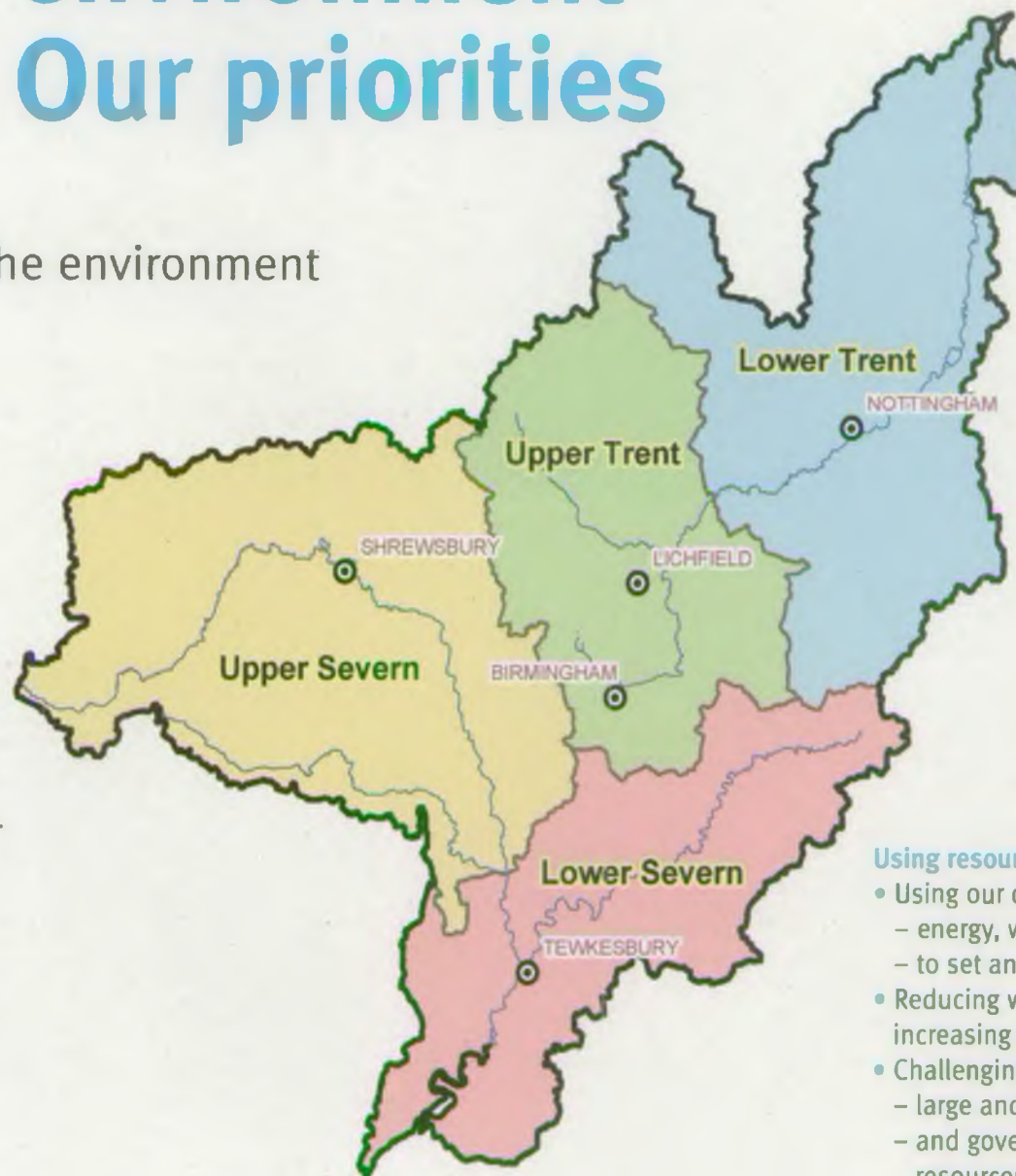
- Tackling fly-tipping with local authorities.
- Helping clean-up contaminated land.
- Restoring urban rivers.
- Promoting sustainable design and construction.
- Responding to the links between a poor environment, poor health and poverty.

Responding to climate change

- Adapting to the growing risk of floods and droughts.
- Reducing our own carbon emissions.
- Encouraging others to reduce emissions and to adapt.
- Considering the impacts of climate change in all our work.

Restoring river habitats

- Using the Water Framework Directive as a major opportunity to improve our river habitats.
- Making the most of our flood risk investments to restore river habitats.
- Developing the catchment management approach to:
 - improving soil management;
 - combating diffuse pollution;
 - improving river water.



Using resources efficiently

- Using our own resources efficiently
 - energy, water and materials
 - to set an example.
- Reducing waste to landfill and increasing recycling.
- Challenging business
 - large and small
 - and government organisations to use resources more efficiently, reducing costs and environmental impact.

Working smarter - Our priorities

Tackling our priorities will be challenging. To create a better place, we need to create a better organisation. Over the next five years, we will continue to improve the way we do things.

Delivering better service to our customers

- Responding promptly to our customers, based on a thorough understanding of what they want.
- Developing our role as a modern regulator.
- Focusing our efforts on the greatest environmental risks, reducing the costs of regulation to those who comply with the law.
- Pursuing vigorously those who do not comply, pressing for maximum penalties.

Increasing efficiency

- Spending every pound as if it were our own.
- Continually searching for ways to increase efficiency, using benchmarking to improve our processes.
- Reviewing the way we work in response to changing pressures.
- Building on our fund-raising successes and encouraging others to invest in the environment.

- Streamlining our systems and procedures to make the right decisions more quickly.
- Underpinning all this by improving the quality of all our data.

Driving corporate performance

- Focusing our managers on performance and managing their teams to a consistently high level.
- Making sure individuals are fully aware of their own targets, the links to our business plans and taking personal accountability for delivery of their own work.
- Making the most of our new management information systems to manage performance.
- Improving the quality of all our data so that it can be used with confidence.
- Keeping our business continuity plans up to date and exercising them regularly.

Working together - Our priorities

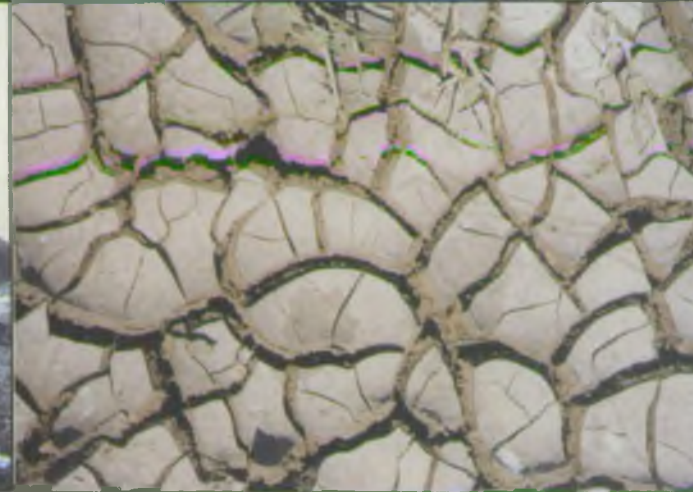
We will work with those we regulate and with our partners in the Region to deliver this vision. We will work to understand their needs and objectives and then respond effectively. We will achieve our environmental outcomes by developing the talents and skills of our people. We will have great leaders who will ensure that our workforce reflects the richness of the communities we serve and have the commitment to make this a great place to work.

Engaging with the region

- Using our evidence base and state of the environment reporting to inform our own and our partners work.
- Using plain English to communicate with our customers and stakeholders.
- Engaging with regional government organisations to develop the best strategies for the environment in the East and West Midlands.
- Collaborating with local government through local strategic partnerships.
- Reaching out to all the Region's communities, making sure they understand our role and our successes.
- Engaging with communities to build trust in our work and decisions.
- Encouraging people and organisations in the Region to make those small changes in environmental behaviour which together will make a big difference.
- Firmly linking our communications and engagement plans to delivering our business priorities.

Developing our people

- Working with our leaders to develop a more diverse/inclusive, efficient and consistently high performing organisation that is a safe and healthy environment to work in.
- Ensuring that we have sufficient people with the right skills and behaviours in place at the right time, to be able to respond quickly and communicate positively to a changing world.
- Encouraging our people to regularly challenge how they can continuously create a better place and ensuring that they feel valued, recognised and rewarded for their work.
- Becoming recognised as an employer of choice across all communities and as a Region that attracts the best people who want to join us to develop their careers.





A better quality of life

The Greening for Growth programme of environmental projects across North Staffordshire aims to improve key parks, greenways and landscapes to help aid the social and economic regeneration of the area. The key concept behind it is to aid inward investment into the area by enhancing the image of North Staffordshire.

The programme is a joint initiative between a range of over twenty partners including ourselves, Stoke-on-Trent City Council, Newcastle-under-Lyme Borough Council, Groundwork Stoke-on-Trent, North Staffordshire Regeneration Zone, Government Office West Midlands, and Advantage West Midlands.

Michelin Bridge in Stoke-on-Trent

Working for the environment

A better quality of life

Our vision

Everyone will have the opportunity to enjoy a high quality environment now and for future generations. More people will care for, use, appreciate and enjoy their environment

The environmental challenges we face now include:

- reversing the growing problem of illegal waste dumping;
- developing our understanding of the links between a poor environment, health and poverty in our most deprived areas to focus effective action;
- raising awareness throughout the Region of individuals' impact on the environment;
- making the most of the opportunities for water-based recreation and exercise.

By 2011 we will have:

- established effective fly-tipping partnerships with local authorities and the Police using Flycapture data to target activity, so as to reduce fly-tipping incidents;

- engaged with local authorities in the most deprived parts of the Region, such as in north Nottinghamshire and the Birmingham conurbation, to increase our understanding of the part that a poor environment plays in deprivation, and to tackle the causes of locally poor environments;
- used taster sessions, promoting the 'Get hooked on fishing' schemes and trained more coaches to encourage new anglers from all sections of the community to take up the sport, increasing overall rod licence sales by 10 per cent over the five years;
- invested our income from rod licences in fisheries improvements, including facilities in urban areas and for the disabled;
- worked to improve water-based recreation on the Region's rivers and canals, such as Lydney Dock, the Cotswold, Montgomery and Droitwich canals and canoeing on the Severn;
- made the most of our investment in flood defences to create new opportunities for water-based recreation, such as the Nottingham schemes;

- involved thousands of people across the Region in World Environment Day and similar activities to raise awareness and to encourage personal responsibility for the environment.

To do this we will work with:

- local authorities
- angling clubs
- fishing trusts
- water companies
- Police
- British Waterways
- canal restoration trusts
- canoe clubs
- Health Protection Agency
- Wildlife Trusts
- Natural England.





An enhanced environment for wildlife

We have worked with Severn Trent Water and the Wildlife Trusts on the Water for Wildlife project on river restoration, reedbed creation, pond restoration, the protection and enhancement of wildlife sites, fencing and planting schemes, building artificial otter holts and providing advice to landowners.

Otters are now using Cannock Chase for the first time in over 30 years. The brooks and wetlands of the area hold amphibians and native crayfish and otters are exploiting these seasonal prey

Working for the environment

An enhanced environment for wildlife

Our vision

Wildlife will thrive in urban as well as rural areas. Habitats will be improved and extended so that priority species will no longer be threatened. Everyone will understand the importance of safeguarding biodiversity and of sustainable ecosystems.

The environmental challenges we face now include:

- maintaining and improving the range of habitats in the Midlands;
- maintaining and improving our fisheries, particularly salmon in the Rivers Severn and Trent;
- preparing for the adverse impacts of climate change;
- restoring water abstraction to sustainable levels.

By 2011 we will have:

- improved habitats for specific species, such as water voles at Battlefield Brook and otters on the Trent, freshwater pearl mussels on the Clun, lampreys in the lower River Trent and breeding waders in the upper reaches of the Severn;

- restored degraded river habitats to a natural state through historic flood defence work by projects such as removing culverts in urban areas;
- created new river habitats and wetlands as part of flood risk management schemes, such as Beckingham Marshes, Alkborough Flats, Severn and Avon Vales Wetlands project;
- achieved salmon conservation limits in more of our rivers, through delivering the Salmon Action Plan for the River Severn; removing barriers to migration or building fish passes, such as at Norbury, Tutbury and Dovecliffe and through creating new spawning habitats on the River Dove;
- tackled threats to fish populations such as illegal fish movements and localised pollution issues on the River Rea, River Dove and the Wyre Forest Site of Special Scientific Interest (SSSI);
- regularly updated our data on all Special Wildlife Sites and Environment Agency led Biodiversity Action Plan (BAP) species habitats to support better decision making;

- delivered improvements to SSSIs, such as Idle Washlands, Puxton Marsh, River Teme; Natura 2000 sites such as Mease, Peak District and Dales, Thorne and Hatfield through water level management plans agreed with Natural England.

To do this we will work with:

- Natural England
- farmers and farmers organisations
- landowners
- angling clubs
- fishing trusts
- Wildlife Trusts
- RSPB
- water companies.





Cleaner air for everyone

A planned lakeside development close to the Corus steelworks in Scunthorpe has prompted declaration of an air quality management area (AQMA) in the town.

Corus's permit imposes tight conditions and is subject to an improvement programme to cut pollution and improve monitoring.

We are working with the Company and North Lincs. District Council to increase understanding of emissions from the works and to prioritise and target improvements.

Corus works near Scunthorpe

Working for the environment

Cleaner air for everyone

Our vision

We will have cleaner and healthier air. The emission of pollutants into the atmosphere will decline greatly and will be below the level at which they can do significant harm to human health and the environment.

The environmental challenges we face now include:

- improving the performance of companies which we regulate;
- bringing new processes into the regulatory regime to improve the environment;
- advising on reducing emissions from diffuse sources such as traffic.

By 2011 we will have:

- developed and implemented joint action plans with local authorities, such as Sandwell, Stoke-on-Trent and Wolverhampton to tackle poor air quality, emphasising the links with poor health;
- used state of the environment reports to ensure air quality issues are fully considered in strategies for the East and West Midlands, such as transport;

- implemented the Large Combustion Plant Directive and contributed to the National Emissions Ceilings Directive;
- improved the emissions performance of the intensive agriculture and food and drink sectors through effective implementation of the Pollution Prevention and Control (PPC) regulations, reducing ammonia emissions by 10 per cent and reducing odour complaints;
- reduced fugitive emissions from high-risk industrial processes and from landfill sites such as Lickhill Quarry, through permit conditions and enforcement;
- worked with Natural England to identify wildlife sites at risk from air pollution and developed an improvement strategy.

To do this we will work with:

- industry
- farmers
- local authorities
- Natural England
- regional assemblies
- regional development agencies.



Improved and protected inland and coastal waters

Sustainable drainage systems (SuDS) can provide great benefits to water quality, flood management, biodiversity and amenity space.

The SuDS site at Hopwood Park motorway service area near Bromsgrove collects, cleans and stores water running off from the vast car parks before discharging the cleaned water to the Hopwood Stream. Besides providing attractive landscape features and reducing heavy metals, silt and BOD the system provides 30-50 per cent cost savings in maintenance.

Hopwood Park services

Working for the environment

Improved and protected inland and coastal waters

Our vision.

Our rivers, lakes and coastal waters are cleaner and richer in wildlife. They will support diverse and healthy ecosystems and provide for recreation and the needs of communities and the economy. Land and water will be managed in an integrated way.

The environmental challenges we face now include:

- making the most of the Water Framework Directive catchment management approach to improve water quality in the region;
- reducing the impact of diffuse pollution from rural and urban sources on water quality in rivers;
- reducing the impact of over-abstraction on SSSIs in the Region.

By 2011 we will have:

- worked with Severn Trent Water to deliver the environmental improvements set out in the 2004 Water Price Review and agreed the 2009 Review;

- dealt with long term specific pollution problems such as the Graisle Brook in Wolverhampton; minewater discharges in the north and south Staffs. coalfield; the Leigh/ Cradley Book catchment; the Lea Marston lakes;
- promoted the use of sustainable drainage techniques, for example at Gloucester Business Park and the Brockworth Housing Development;
- delivered the requirements of the Water Framework Directive for both the Humber and Severn basins;
- reduced the impact of diffuse pollution from agriculture through working with farmers and other land managers;
- worked with local authorities to control pollution from contaminated land, for example Telford and Wrekin Council and Shrewsbury and Atcham Borough;
- worked with water companies and other abstractors to reduce abstraction to sustainable levels at over 20 SSSIs across the Region;
- reduced the impact of upstream consented discharges on the marine environment in the

Humber and Severn estuaries, through monitoring, modelling and review of the consents.

To do this we will work with:

- Severn Trent Water
- local authorities
- property developers
- Highways Agency
- farmers and land managers
- Natural England.





Restored, protected land with healthier soils

Following the launch of the Government's Rural Strategy a pilot project was set up to demonstrate how Defra agencies can work together with local partners to deliver environmental policies more effectively in rural areas. With a vision to make the Teme a clean and healthy river which enhances people's quality of life and supports the local economy, the work programme includes gathering evidence on diffuse pollution and identifying future improvements.

River Teme

Working for the environment

Restored, protected land with healthier soils

Our vision

Land and soils in towns and the countryside will be exposed to fewer pollutants. Land will support a range of uses without risk to the environment or human health. Contaminated and damaged land will be restored and protected.

The environmental challenges we face now include:

- soil run-off causing silt problems in rivers;
- cleaning up contaminated land particularly in areas of historic high industrialisation;
- preventing further contamination of land.

By 2011 we will have:

- used the catchment management approach to work with farmers and land managers to reduce soil erosion into rivers, such as the Mor Brook, and to halve pollution from dairy farms caused by siltation through the use of soil management plans;
- worked with local authorities to incorporate our recommendations on contaminated land in spatial plans;

- encouraged contractors and developers to use new approaches to cleaning contaminated land so as to reduce the amount disposed to landfill;
- worked with local authorities, regional development agencies, land owners including English Partnerships to bring previously contaminated land back into beneficial use, for example the Stoke-on-Trent Renewal Partnership, through planning, statutory and voluntary approaches.

To do this we will work with:

- local authorities
- pathfinder programmes
- regional development agencies
- regional assemblies
- English Partnerships
- land owners
- Natural England
- farmers and land managers
- farm advisers
- developers.



A greener business world

Over 60 per cent of waste in Midlands Region comes from business and construction

Working for the environment

A 'greener' business world

Our vision

Industry and business will value the benefits that come from a rich and diverse natural environment and recognise their own contribution to getting positive results for the environment. In the process they will reap the benefits of sustainable business practices, improve their competitiveness and value to their shareholders, and secure trust in the wider community.

The environmental challenges we face now include:

- changing the way we regulate business by adopting a risk-based outcome-focused and cost-effective approach;
- encouraging all business to take greater responsibility for their environmental impacts;
- making sure that our own environmental performance is exemplary so that we can speak with integrity to those that we regulate and those that we seek to influence.

By 2011 we will have:

- reduced industrial waste dumping, particularly hazardous waste, through targeted campaigns such as in Stoke-on-Trent;
- improved the performance of regulated processes through the consistent application of the Operator Pollution Risk Appraisal (OPRA) approach and greater use of audits, leading to a reduction in the numbers of pollution incidents, permit breaches and emissions;
- ensured that all high risk sites registered in the Region under the Control of Major Accident Hazard Regulations (COMAH) have effective up-to-date contingency plans in place;
- improved the environmental performance of business by encouraging the uptake of environmental management systems and by working with advisers and other intermediaries to improve the performance of Small and Medium Enterprises (SMEs), including farms;
- minimised our own environmental foot-print by reducing our use of energy, paper, water, our waste production and mileage;
- made greater use of telephone conferencing, recycling office furniture;

- explored rainwater harvesting and electricity generation at our own sites.

To do this we will work with:

- our staff
- industry that we regulate
- SMEs and their advisers
- regional development agencies
- farmers, land managers and their advisers.





Wiser, sustainable use of natural resources

Household waste is currently growing at around 3 per cent per annum, and if this trend continues the amount of such waste produced in the region will have doubled by 2020.

The Government has adopted targets to reduce the amount of waste that goes to landfill. We are working with all those involved in the waste cycle to develop new strategies to meet these targets. We provide information and advice for regional and local waste plans. We encourage producers to reduce packaging and support a range of recycling schemes

Working for the environment

Wiser, sustainable use of natural resources

Our vision

Businesses, organisations and individuals will re-use and recycle more and so minimise the waste that they produce. They will make more efficient use of energy and materials. They will reduce the amount of water they waste.

The environmental challenges we face now include:

- reversing the growth in waste production;
- responding to the impact of climate change on the availability of resources such as water.

By 2011 we will have:

- worked with the regional technical advisory boards (RTABs), regional assemblies and local authorities to develop waste strategies and plans, encouraging waste minimisation, re-use and recycling;
- worked with industry and the regional development agencies to reduced waste from industry and encourage greater resource efficiency by supporting initiatives such as the National Industrial Symbiosis Programme (NISP);

- worked with planners, builders and developers to promote the use of site waste plans and the benefits of sustainable design and construction to reduce resource use in the sector;
- completed catchment abstraction management strategies (CAMS) for all remaining catchments and worked to restore water abstraction to appropriate levels to ensure sustainable use of water in our Region;
- produced new regional and area drought plans, co-ordinating our plans with those of water companies in the Region and;
- reviewed the rules for regulating water flows in the River Severn to prepare for the impacts of a changing climate.

To do this we will work with:

- regional technical advisory boards
- local authorities
- regional assemblies
- Envirowise
- voluntary organisations such as Groundwork, Sustainability West Midlands, Midlands Environment Business Club.
- water companies.



Limiting and adapting to climate change

We are working in partnership with Advantage West Midlands, Worcestershire CC, NFU, RDS, Midland Growers & Pershore College to study the impact of climate change on horticultural irrigation in the Vale of Evesham and how growers may need to adapt.

Dessicated agricultural soil eastern England 2003.

Jerry Knox, Cranfield University at Silsoe

Working for the environment

Limiting and adapting to climate change

Our Vision

We have helped to meet greenhouse gas reduction targets to keep temperature change to below two degrees Celsius and avoid dangerous climate change. Everybody will be prepared to adapt to the unavoidable impacts of climate change and will take steps to prevent further change.

The environmental challenges we face now include:

- reducing emissions of carbon dioxide and other greenhouse gases;
- preparing for the unavoidable impacts of climate change.

By 2011 we will have:

- encouraged industry that we regulate to meet or surpass the energy requirements of the PPC/ climate change levy requirements;
- encouraged the use of biomass fuels, by supporting demonstration schemes and at our major power stations;
- supported the regional energy plans in the East and West Midlands to reduce carbon emissions;

- reduced carbon emissions from landfill sites by waste diversion and methane capture;
- raised awareness of the issues and encouraged action to prepare for a changing climate, through supporting effective climate change partnerships in the East and West Midlands;
- promoted the Nottingham Declaration on Climate Change to local authorities in the Region;
- started to prepare for the impacts of climate change in our flood mapping, new flood defence schemes and flood risk management strategies, such as the Dove, Trent and Tame flood risk strategies;
- addressed climate risks in our water resource and drought planning;
- created a Midlands meeting centre to reduce our own transport emissions.

To do this we will work with:

- local authorities
- regulated industry
- regional assemblies
- regional development agencies.



Reducing flood risk

Between 1990 and 2000 some properties in Ironbridge had flooded 11 times. The town was selected for a trial of innovative temporary defences which were used successfully during the February 2004 floods along the Wharfage. The flood water reached a depth of one metre against the barrier which in previous years would have brought misery and disruption to homes and businesses. This time they remained dry.

Working for the environment

Reducing flood risk

Our vision

The risk of flooding will be reduced by increased investment in flood protection, flood warning, sustainable planning and building resilience. We will adapt to the impacts of climate change by using best science to assess the risk of flooding and set priorities. We will create benefits for both the prosperity of communities and for wetlands and wildlife.

The environmental challenges we face now include:

- responding to the growing risk of flooding due to the impact of a changing climate;
- developing our ability to provide flood warnings, particularly in rapid response catchments;
- incorporating biodiversity and other improvements in our flood risk management activities.

By 2011 we will have:

- protected 32,000 homes from flooding through new flood defences, for example at Nottingham;

- extended our new flood warning service to 78 per cent by 2008, for example to Knighton, Welshpool, Cheltenham, Gloucester and Coventry;
- be providing warnings in a range of languages in Coventry and Gloucester and have developed plans for the vulnerable;
- improved the condition of our urban flood defence structures, for example at the Severn/Vyrnwy confluence so that 70 per cent are in 'good' condition by 2007/8;
- regularly updated our flood maps and the information on existing flood defences so that they can be used with confidence;
- promoted new temporary/ demountable defences, including Coton Hill, Shrewsbury and Beales Corner, Bewdley;
- reduced inappropriate development in the flood plain year on year, implemented flood zoning strategies for Worcester, Shrewsbury, Stourport, Tenbury Wells and Bromsgrove;
- encouraged the routine use of sustainable drainage solutions and an integrated approach to surface water flooding;
- used our investments in defences to deliver a range of additional benefits for biodiversity, fisheries, and for people through recreation, health and amenity gains;
- integrated our investments with the implementation of the Water Framework Directive;
- developed our ability to respond to flood incidents by developing and exercising contingency plans with local authorities, Police and other partners in Local Resilience Fora.

To do this we will work with:

- local authorities and police
- local resilience fora
- farmers and land managers
- RSPB and Natural England.

Would you like to find out more about us, or about your environment?

Then call us on **08708 506 506** (Mon-Fri 8-6)

email **enquiries@environment-agency.gov.uk**

or visit our website **www.environment-agency.gov.uk**

incident hotline **0800 80 70 60** (24hrs)

floodline **0845 988 1188**



Environment first: This publication is printed on paper made from 100 per cent previously used waste. By-products from making the pulp and paper are used for composting and fertiliser, for making cement and for generating energy.