

ENVIRONMENT AGENCY WALES

EVIDENCE TO EPC SCRUTINY COMMITTEE – 11th October 2006

Report of Environment Agency Wales' performance 2005/06



Introduction

Our vision in Environment Agency Wales is to look after the environment and make it a better place for people and wildlife for present and future generations. Working with the Welsh Assembly Government, other Assembly Sponsored Public Bodies, business and society as a whole, we are making the environment cleaner and healthier.

The Environment Agency is the leading public body for protecting and improving the environment in England and Wales. Our activities include Flood Risk Management, Water Resources and Water Quality, Fisheries, Conservation, Air Quality, Waste, Recreation and Navigation. We have a number of roles including regulation, incident management, management of flood risk, enhancing fisheries and biodiversity, provision of advice, and monitoring and reporting on the State of the Environment. We ensure that environmental legislation is complied with and that EU Directives such as Freshwater Fisheries Directive and Bathing Waters Directives are implemented successfully. We have a statutory duty to undertake our activities in an integrated way so as to contribute to sustainable development. The Welsh Assembly Government has provided us with specific guidance on how we should make this contribution.

We are an Assembly Sponsored Public Body whilst also being part of the larger England and Wales Agency. As part of the dynamic Welsh environmental sector, we are able to pursue, in partnership with others, innovative solutions that are specifically tailored to the needs of Wales. As part of the Environment Agency, we benefit from the resources and expertise of this larger organisation. We can tackle tasks that a smaller body could not and can take a wider view of the environment across England and Wales, and beyond.

Our own five year (2006-2011) strategy for delivering environmental outcomes on an England and Wales basis is set out in the Environment Agency's Corporate Strategy 'Creating a Better Place'. Within Wales, this is translated into 'Creating a Better Wales' (CaBW), which takes full account of the Assembly Government's Environment Strategy and other strategic plans and priorities such as Wales: A Better Country.

Our budget for 2005/06 was £85.6m of which £44.9m was Grant in Aid support from Welsh Assembly Government. A total of £32.6m was spent on waste management, water quality and process industry regulation activities. Of the remainder, £27m was spent on Flood Risk Management activities (including capital schemes) and £18m was spent on Water Resources work. Our priorities for 2005/06 were agreed with the Minister for Environment, Planning and Countryside through the issue of our Remit Letter.

This report describes what we have achieved during 2005/06 with a primary focus on the tasks identified in our remit letter. It also identifies some of the opportunities and challenges we face now and in the future as highlighted in Creating a Better Wales.

1. Climate Change

The Earth's climate has changed in the past but previously it has altered as a result of natural causes. Nowadays, the change is much more rapid and is a result of human activity through the release of greenhouse gases by modern industry, agriculture and by the use of fossil fuels in homes and cars. These have a knock-on effect on the environment, economy and society. In line with the UK Climate Change programme, Wales needs to reduce its emissions of greenhouse gases by at least 60% by 2050 to avoid irreversible and dangerous climate change.

It is forecast that Wales in 2080 will be between one and 3 degrees Celsius warmer than at present. To put this in to context, global temperatures are thought to have fluctuated by only one degree Celsius over the last 6,000 years. It is also predicted that there will be more frequent storms; a rise in sea level; increased rainfall and changes of rainfall pattern- wetter and milder winters and hotter and drier summers.

Whilst the scale of climate change is uncertain, it is already happening. Even within the short term in Wales, we will have to learn to adapt to it. The UK Adaptation Policy Review initially identified 18 sectors to consider. The Agency has some involvement in 13 of these. Important examples are changes to the natural environment, changes to agriculture and economy and increases in risk of drought and flooding. The last two consequences are ones for which we have a particular responsibility.

Our role in regulating industry through the Pollution Prevention and Control (PPC) regulations and the European Union Emissions Trading Scheme (EUETS) means we regulate about 60% of the greenhouse gas emissions in Wales. We are also responsible for ensuring that within our Water Resources and Flood Risk Management activities, we plan for the effects of Climate Change and are ready to adapt to them.

In 2005/06 we;

- Regulated the first 12 months of the European Union Emissions Trading Scheme. This is the major mechanism identified in the Climate Change Programme to reduce Carbon Dioxide Emissions. While the emissions exceeded the allocation by 1.1Mtonnes CO₂ in Wales during the first year, some industrial installations (such as Corus) had lower emissions than allocated. The first phase of the scheme will run for 3 years and it will take time for industry to invest in the infrastructure and the measures for reducing emissions that will deliver the long term benefits from the scheme.
- Included in all PPC permits issued in Wales a requirement to improve energy efficiency. Some of the installations are expected to achieve this through the EUETS scheme or Climate Change Agreements but for those outside these schemes, the PPC regulations provide a regulatory framework for energy conservation. Any new installations or changes also need to meet BAT (best available techniques) - which often include energy efficient boilers etc.
- Commented on consultations about the UK Climate Change Programme, Wales Transport Strategy, Wales Energy Strategy and the Phase 2 consultation on EU Emissions Trading Scheme.

- Included climate change adaptation measures in nearly 50% of the flood defence capital programme schemes in Wales.
- Established our own Carbon footprint. We want to lead by example so working with Carbon Trust Wales, the Energy Savings Trust and NIFES Consultants we have calculated our total carbon footprint. Our carbon emissions for 2005/06 were 2,500 tonnes - which to offset would need 3,409 new trees planted. The project has led to a new Active Building Management System.

Future opportunities and challenges

- We will be trialling the use of bio-diesel in some of our fleet vehicles to help reduce our carbon emissions.
- We will be reviewing our offices and depots to ensure they meet the highest environmental standards and minimise the carbon footprint.
- Using outputs from the EU Emissions Trading Scheme to help shape our regulatory activities at sites such as Aberthaw.
- We will work as part of WAG's cross sector group to develop a co-ordinated approach to tackling Climate Change both to reduce the overall emissions and to adapt to changes occurring.
- Adapting to climate change will be a major challenge. We estimate that major capital schemes of the order of £250m will be required over the next 10-15 years, with other annual defence asset repairs and maintenance currently costing around £10m increasing to £20m in 10 years time.

2. Flood Risk Management

Flooding can and does kill people as well as damaging property. One of the most likely effects of climate change to which Wales will have to adapt in the future is flooding, both fluvial and tidal. It is estimated that increases in sea level will be between 25 and 30cm by 2050, around the 1,300km of Welsh coastline. Winter rainfall may increase by up to 20 per cent by 2080, with twice as many floods per winter. Under a worst case scenario the UK damage costs from flooding are predicted to be as much as £25 billion, which includes £1.2 billion in Wales in the 2080s. With such severe economic consequences and risks to human life and health, we have to manage flood risk in Wales.

We will need to draw on a wider portfolio of tools to manage flood risk in the future. Development control is the most effective way of reducing further flood risk. Development in the floodplain should be avoided wherever possible. We need to understand where flooding occurs and that means having excellent maps of flood risk and flood consequence. By the end of 2006, all main rivers in Wales will have been surveyed.

There are 170,000 properties at risk from flooding in Wales. We are working to develop new defences so that by 2010 a further 5,000 properties in Wales flood less often.

We cannot prevent all flooding impacts but we can prepare for them. Advanced technology has allowed us to set up and offer a free flood warning service to properties in Wales at risk from flooding. We will work with professional partners

and communities on floodplains so that they understand the consequences of flood risk and how to live with that risk.

In 2005/06 we:

Administrative Arrangements

- Moved to a single Flood Defence Committee for Wales, funded wholly by the Welsh Assembly Government, allowing us to develop a single rather than 6 capital programmes across Wales for the first time.
- Fully utilised the Welsh Assembly Government capital grant available for the fourth year in a row.
- Agreed with Local Authorities which Critical Ordinary Watercourses would be better maintained by the Environment Agency and which would be best retained by the Local Authority, according to who is best placed to maintain, operate and fund any improvements required. The first tranche of watercourses were transferred to the Agency.

Limiting Development in the flood plain

- Supported the Welsh Assembly Government's TAN 15 meetings with each Local Planning Authority in Wales to develop better understanding and application of TAN15. We continue to work very closely with the Local Planning Authorities.
- Received 12,703 planning applications of which 2,848 were considered in terms of flood risk. Of the 795 decision notices received from Local Planning Authorities (LPA), 445 related to sustained objections on flood risk grounds. Of these 445, 30% (133) were subsequently approved by the LPA against our advice.

Managing Flood Risk

- Reduced the flood risk to 1,150 homes, completing construction of schemes at:
 - | **Rumney Great Wharf** - four weeks ahead of schedule and within budget. The scheme includes measures that provide protection to our defences and prevented the loss of Biodiversity Action Plan habitats. Formatted
 - | **Mold Flood Alleviation Scheme** - In November 2000, a period of extreme rainfall caused the River Alyn to flood 24 homes and businesses in Mold. The new standard of protection provided by the scheme is 1 in 200 years compared to the 1 in 25 years protection provided by the original earth embankments. Formatted: Bullets and Numbering
 - | **Caerleon** – where a new defence wall protects 12 properties which would have been affected by the tide without the new wall. Formatted
- Continued working on the capital flood defence projects within the European Objective One Programme. This three-year, £12.5 million programme reduced the risk of flooding in some of Wales' most vulnerable communities including; St Clears, Aberdare, Resolven, Glynneath and Pontardawe. The projects will promote social and economic regeneration and protect up to 1000 properties.
- Continued work on repairs to the Conwy Valley defences. We delivered some short term improvements (raising embankment at Trefriw, wall and embankment improvements in Llanrwst) while a major flood defence scheme is prepared. Formatted

Providing flood warnings

- Introduced a new system for issuing flood warnings, *Floodline Warnings Direct*, in January 2006. Our direct mailings during February and March 2006 urged people to register. As a result, over 15,000 new customers have registered for our flood warning service in Wales, an increase of 28% in one year.
- *Floodline Warnings Direct* has delivered significant improvements over the aged Automated Voice Messaging service it replaced, including multi-media dissemination (email, text and voice messaging) and more efficient mailing distribution to our customers at risk.
- Ran a comprehensive flood awareness campaign on Welsh television and radio at the start of the flood season, and signed a contract with S4C television to sponsor the weather forecasts for 12 months with messages to a Welsh speaking audience on the risks of flooding and what people can do to prepare for it.

Improved biodiversity

- Created around 30 ha of habitats across Wales, as part of our flood risk management activities. These benefited a diverse range of species; such as Water vole, Otter, Freshwater Pearl Mussel and Lapwing and included schemes at Abererch, Penllyn Marshes and Mold.
- Modified the beach car park at Talacre (Point of Ayr) in order to prevent vehicle access and to enable the salt marsh and dune system to re-establish.
- Improved access from the flood bank to the beach at Point of Ayr to facilitate recreational visitors. We have also provided a gate to control vehicular access to the dunes to protect habitat damage.

Improved access for recreation

- Introduced a holistic approach to Flood Risk Management that enables us to consider adding recreational facilities within our capital schemes (such as the creation of cycle tracks along new flood embankments). We have also encouraged and influenced our partners in Wales (e.g. Forestry Commission Wales) to consider incorporating recreational schemes within their own larger programmes of work and to open up access on their landholdings.

Future opportunities and challenges

- We will continue to extend Floodline Warnings Direct to over 75% of the at risk population by 2010 (currently less than 50%). During 2007, the public will be able to use a new online registration facility to register for our flood warning service.
- Continue our flood mapping programme to improve our understanding of flood risk.
- We will deliver the action assigned to us in the WAG Environment Strategy Action Plan to continue annual flood awareness campaigns to help raise awareness of flood risk in Wales.
- We will continue developing our Asset Management Plan to ensure we manage our assets efficiently and to direct our capital programme to where the risks to people and property are greatest.
- We will continue developing our Catchment Flood Management Plans for all of Wales. These look forward 100 years and will set our flood risk management policies and provide action plans to move towards more sustainable flood risk management.

3. Waste

One of the biggest environmental challenges in Wales is waste. On average, each person throws away seven times their body weight (about 500kg) in rubbish every year. In Wales, 240 million nappies are thrown away each year – almost 500 a minute.

Existing landfill capacity is under severe pressure – we all need to stop producing and sending so much waste to landfill. The Landfill Directive is a key driver to reduce the amount of biodegradable municipal waste (BMW) sent to landfill. By 2020, we must reduce the BMW landfilled to 35% of that produced in 1995. Reducing, re-using and recycling are not new concepts, however, the challenge for us is to make it part of everyone's daily practice.

We support the need to achieve the Welsh Assembly Government's Environment Strategy's targets to minimise waste produced and to seek appropriate disposal routes for the waste that remains.

Our role is to provide advice to WAG and the UK Government to shape policy and develop better regulation. We also undertake research and collection of data on waste management to provide information to those responsible for developing policies and strategies.

We regulate the waste industry's activities governing the movement, storage, treatment and disposal of wastes. We also undertake compliance assessment of permitted and registered exempt activities and take enforcement action when licences are breached. In the case of pollution prevention and control we have a role in advising on waste minimisation and provide best practice guidance.

We also investigate illegal waste activities and take legal action against the perpetrators.

In 2005/06 we;

Regulation and dealing with illegal activity

- Undertook 3424 inspections of the 520 waste sites in Wales focussing on those posing the most risk and with the poorest management.
- Continued our work to stop illegal waste activities. During the year, there were 37,469 reported fly tipping incidents in Wales, with the 22 Local Authorities dealing with the majority of these. 251 were reported directly to us. Rubbish is illegally dumped somewhere in England and Wales every 30 seconds and costs Local Authorities almost £100 a minute to clean up. It is our responsibility to deal with the “big, bad and nasty” incidents e.g. those involving hazardous waste. We had three successful prosecutions last year for major fly tipping incidents.
- Continued our Pride in our Communities and Environmental Crimewatch projects using a number of techniques including working with community groups and deploying CCTV cameras to tackle fly tipping. The clean-up by the residents on the Fairyland Estate in Neath Port Talbot was a great success. Where there were

once piles of rubbish, there are now recreational green areas. There is also a waiting list to live on the estate for the first time in years.

- Cleared an illegal scrapyards in a North Wales woodland filled with vehicles and other waste. The joint operation with Denbighshire County Council, North Wales Police and the RSPCA cleared 340 scrap vehicles including three coaches, seven caravans and a JCB. We collected 10,000 tyres, three tonnes of batteries, 125 gas canisters, two pallets of paint tins, various scrap metals, five sheets of asbestos and seven skips of household waste. All were taken to licensed waste management facilities to be re-used, recycled or disposed of.
- Completed capping works at the Nantygwyddon site. The gas management system has been improved and leachate levels have reduced to required levels. Works have been completed without significant complaints of odour or dust. Plans are now being progressed to install a gas engine to produce electricity from the landfill gas. This completes the action from the National Assembly for Wales' independent investigation into the health, environmental and planning issues relating to the operation of the site

Wales Waste Strategy

- Continued to accommodate the Welsh Assembly Government Waste Strategy Implementation team at our Cardiff office. This has been invaluable in developing joint approaches in relation to the use of WasteDataFlow for municipal waste statistics, and Landfill Allowance Scheme Wales. There are many projects where we are working with the Assembly in relation to implementing the Wales waste strategy. For example, we have developed the Waste & Resources Assessment Tool for the Environment (WRATE) for life cycle assessment work in the current review of the three regional waste plans in Wales.
- Provided data and information to both the Assembly and Local Authorities to help them develop future strategy targets and allowing others to provide the infrastructure required for sustainable waste management in Wales.
- Piloted the WasteDataFlow system. This is a web- based system designed to gather data on municipal waste arisings, collection methods and management routes from Local Authorities in the UK. It is hoped that this will replace the many other systems in use at the moment. WasteDataFlow is working well and is being used for the municipal waste statistical report and other performance indicators. We use the system to provide the base data for the Landfill Allowance Scheme Wales.
- Significantly improved our service as a result of the actions we took to respond to the National Assembly for Wales' Audit Committee Review of the Agency's activities in Wales. Twelve recommendations were made and an action plan was established. The main actions for us related to improving waste data for better waste planning decision making, smooth implementation of the hazardous waste regulations, environmental awareness raising with the Judiciary as well as influencing work with our partners to achieve the outcomes within Wales Waste Strategy. The report was signed off this year.

Future opportunities and challenges

- We will be working closely with the WAG Waste Strategy Team on the review of their Waste Strategy for Wales during 2007.

- We will work to support the implementation of the Agricultural Waste Regulations. We have set up a dedicated agricultural waste hotline for queries, working with the Farming Unions and Young Farmers Club (YFC) to ensure that help and guidance is available for the farmers. We have also run seminars and surgeries for farmers and other interested stakeholders.
- Wales is running out of landfill space. We need to work with our partners to bring about a change in waste management activity, paying particular attention to the infrastructure for waste management and making decisions on current sites, e.g. Cilgwyn and Penhesgyn as well as new facilities. The Assembly along with Local Authorities is responsible for discharging the Waste Framework Directive requirement of ensuring an adequate network of waste management facilities. We are keen to support this activity by providing accurate data and information so that they may take evidence based decisions.
- To aid increasing public acceptance of waste management facilities, we are developing a tool kit to assist Local Government in engaging with local communities.

4. Water

Water is essential for life. It plays an important role in Wales, providing us with our drinking water, shaping our high quality landscape, and contributing to tourism, recreation and fishing. We all use it at home, at work or on the farm. Over abstraction and pollution of water has a serious impact on all living creatures. It can also negatively affect the use of water for drinking, household needs, fishing, recreation, transportation and business.

We regulate over 10,000 discharges to the water environment, and through our compliance monitoring, we ensure these discharges remain within the standards we have set. We also monitor over 4,700 kms of rivers and canals in Wales and report on their quality.

We lead on strategic planning and regulation of management of Wales' water resources through undertaking abstraction licence regulation, catchment planning, developing water resource strategies and planning for droughts. This way we ensure that we meet the needs of society without causing damage to the environment.

In 2005/06 we;

Water Quality

- Maintained good river quality across Wales. Our 2005 assessment shows a slight improvement in the key indicator of water chemistry, with 95% of rivers being classified as 'very good' or 'good' compared to 94% in the previous year. Results for water biology, another key indicator, show 80% as 'very good' or 'good' compared with 79% in 2004.
- Issued 344 discharge consents with environmentally protective conditions and tackled 26 Category 1 (most serious) Pollution Incidents.
- Have seen a continued improvement at all 80 Welsh bathing waters tested. All of these met the European Union mandatory standards and 73 out of the 80 (91%)

met the tighter guideline standards set out in the European Union Bathing Water Directive. This is a significant improvement over the last 10 years, for example, in 1994 only 10 out of 50 (20%) designated Welsh bathing waters met the guideline standards.

- Strengthened our partnership with Dwr Cymru Welsh Water. Working together under AMP4, 20 schemes have been completed to improve unsatisfactory intermittent discharges, and a further 8 schemes to ensure compliance with the Urban Wastewater Directive.
- Carried out a successful seminar for the Welsh Assembly Government to raise awareness of the Water Framework Directive amongst officials. We published our framework for river basin planning in England and Wales, *Water for Life and Livelihoods*. This sets out our high-level strategy for river basin planning, including a framework for involving and working with others to achieve joint ownership of river basin management plans. We held stakeholder workshops in the Western Wales, Dee and Severn River Basin Districts.
- Undertook minewater feasibility studies at the Cwm Rheidol metal mine in West Wales in line with the Metal Mine Strategy for Wales. Working in partnership with WAGs Division of Enterprise, Innovation and Networks and the Coal Authority and supported by the European Union Objective 1 programme through the Welsh Assembly Government.

Water Resources

- Provided advice to water companies on their draft statutory drought plans, and technical advice to Assembly officials on the drought planning process.
- Began modernising the abstraction licensing system. We have deregulated over 2500 small low risk abstractions to reduce regulatory burden.
- Reviewed all abstraction licences covered by the Restoring Sustainable Abstraction (RSA) programme in Wales. This includes many sites identified under the Habitats Directive review of consents process. We are currently reviewing the Special Areas of Conservation (SACs) on the rivers Wye and Usk. These reviews will determine whether a proposed transfer of water from the Wye to the Usk is feasible.

Marine

- Launched our first ever Marine Strategy and first State of Marine Environment report. It sets out our vision for cleaner coasts and healthier seas around England and Wales and identifies four high-level objectives that we are working towards. These are promoting sustainable development, integrating management between land and sea, efficiently regulating our coasts and ensuring that we all value the coastal and marine environment.

Future Opportunities and challenges

- Will continue to work with the Assembly on areas of work required to implement the revised Bathing Waters Directive.
- We will continue to work closely with DCWW, CCW and the Assembly to prioritise environmental improvement schemes for inclusion in AMP5.
- As identified in the WAG Environment Strategy Action Plan, we are revising our long-term Water Resources Strategy for Wales to ensure that we can continue to meet the needs of society whilst protecting the environment, and taking account

of increasing uncertainties related to water demand and climate change. This work will be completed by December 2008.

- We will continue to work closely with CCW and other key marine stakeholders to develop effective arrangements for coastal and marine management within the framework provided by the new Marine Bill. This could provide opportunities for a marine spatial planning system.
- We will progress work with River Basin District liaison panels to agree key water management issues under the Water Framework Directive. This will include collection of evidence to assess and prioritise issues and prompt the development of future actions (programme of measures (POMs)). We will start new environmental monitoring programmes to assist water body classification and provide evidence for the POMs to enable production of River Basin Management Plans by 2009.
- We will progress schemes to address minewater pollution in accordance with the Metal Mine Strategy for Wales 2001 and continue working with the Coal Authority on minewaters. In particular we will continue work at Cwm Rheidol and Parys Mountain.

5. Agriculture

There are 29,000 farm holdings in Wales. Good farming practice can sustain a high quality environment. Poor farm management practices can result in soil erosion, and water pollution. We have actively engaged with WAG in developing Agri-environment schemes such as Tir Cynnal, Tir Gofal and promotion of Farming Connect to encourage good farm management practices. We regulate the sector through regimes such as the Nitrate Action Programme, Groundwater Regulations, water abstraction licenses, discharge consents, agricultural waste regulations and cross compliance.

In 2005/06 we;

- Worked with WAG, the Veterinary Medicines Directorate and the farming industry, to develop a pollution reduction plan for sheep dip. The plan identifies actions to help control sheep diseases and reduce the impact of sheep dipping on the environment, particularly from Cypermethrin. We have also received funding from WAG to carry out sheep dip monitoring across Wales to provide a baseline that we will use to measure the success of the plan.
- Continued to work with partners such as Countryside Council for Wales and Snowdonia National Park in promoting agri-environment schemes in Wales – particularly Tir Cynnal, Tir Gofal. We are also working with WAG on the Catchment Sensitive Farming pilots at Deepford Brook and Llyn Tegid. Work has included promoting practical farming measures that reduce pollution risks and improve water quality; and providing the water quality monitoring in the test catchments.
- Implemented the cross compliance regime in Wales, resulting in 213 site inspections completed on time. The inspections formed part of the first year of the 'Cross Compliance' regime in which compliance with environmental measures is linked to the farmers single farm payment. The inspection regime identified a number of breaches, with resulting reductions in grants and raised awareness of

the implications of failing a cross compliance inspection. We hope this will lead to farmers improving their environmental performance. A web-based database to make reporting of cross compliance inspections more efficient has been piloted by the Rural Payments Division of WAG, supported by us, CCW and the Forestry Commission. The database aims to improve sharing farm information held by WAG, RIW, CCW, Forestry Commission and the Environment Agency.

Future opportunities and challenges

- We are working with Quality Welsh Food Certification Limited to ensure that environmental measures are included in criteria for Farm Assured Welsh Livestock assurance schemes.
- We will implement the Integrated Regulation of Agriculture Project (IRAP) across Wales so we can make more efficient use of resources by using risk based targeting of farm inspections so we concentrate our efforts on poor environmental performance, and by co-ordinating visits to farms. This will be supported by a new integrated database - FARMS - that will allow access to all EA regulatory information for a farm from a single point.

6. Fisheries

Fishing in the rivers of Wales brings £80 million per year into the Welsh economy. We need to make sure we look after and develop this valuable asset. We have developed Salmon Action plans and the Sustainable Fisheries Project to enable us to protect and enhance the fisheries in Welsh rivers. Through our monitoring and enforcement work we continue to ensure that fish stocks are protected.

In 2005/06 we;

- Undertook 7774 Rod licence checks to ensure anglers were fishing legally.
- Obtained 328 successful convictions in for fishing licence and related offences.
- Progressed 139 out of the planned 142 Actions within our Salmon Action plans and undertook monitoring at 286 sites.
- Continued work on the three year Objective 1 Fishing Wales project designed to promote and develop the fisheries of Wales. The project has been concluded on time, to budget and with significant, quantified, environmental economic and social benefits. The initiative involved the Forestry Commission, CCW and the National Trust, plus Angling Clubs, Rivers Trusts and Voluntary organisations, and has delivered a number of environmental improvements. We have contributed to:
 - the provision of 492 new jobs in Wales.
 - protecting an existing 1,202 jobs.
 - Visits to Wales involving fishing, increasing from 408,000 in 1999 to 712,000 in 2005.
 - 397km of improved habitat and access for migratory fish (original target was 258km).
 - delivered 100 inland fishery projects improving access to fisheries (original target was 30 projects).

- In our SW Area alone, the introduction of over 2,000 people to angling at 53 events including many children, women, ethnic minorities and disabled people.
- Increased participation in angling. Licence sales figures indicate that Wales has seen a second successive year of increases of 7.3% in sales from 2004 to 2005. Notably junior licence sales are still increasing.

Future opportunities and challenges

- We will continue to monitor the performance of salmon stocks across Wales even though catch and release fishing is now gaining more support (during the 2005 season more than 50% of rod-caught salmon in Welsh waters were released). Sea trout stocks remain relatively stable (with 2005 rod catches slightly above the 5-year mean) though there remains some concern over stocks on specific catchments.
- We are reviewing our Salmon Management Strategy.
- We will contribute to the development of WAGs Fisheries Strategy, which will set the direction for fisheries management and development in Wales across inland and coastal sectors for both recreational and commercial fisheries.
- We will be responding to the WAG consultation on the future of Sea Fisheries Committees in Wales.
- We will continue our success in attracting European funding for fisheries work by accessing the European Fisheries Fund and the Convergence Programme. This will secure the financial backing required to enable us to continue our extensive programme of habitat and fish passage improvements across Wales.

7. Air Quality

Poor air quality is currently probably the greatest single environmental risk to human health. It is estimated that the impact of poor air quality causes 15000 deaths brought forward in the UK each year. Wales must reduce its use of fossil fuels, as these are the major source of sulphur dioxide, oxides of nitrogen, PM10s, benzene and ozone. Traffic is the major source of poor air quality and this needs to be better managed in our towns and cities.

Acid rain is still a problem in Wales and further reductions in the emissions of oxides of nitrogen and sulphur are required to ensure vulnerable habitats are protected. In addition, intensive farming releases significant amounts of ammonia and these can be harmful to the environment.

As a regulator, we apply the Pollution Prevention and Control (PPC) regulations to reduce emissions from regulated installations to ensure protection to human health and vulnerable habitats. We work to raise the profile of air quality issues, encouraging effective land use planning and contributing to Air Quality Management Plans and their execution where appropriate. We provide a monitoring service using the Mobile AQ Monitoring Facility (MMGF) assigned to Wales. This service is available to Local Authorities and WAG. We also provide an Air Quality modelling service that is used to support the work of the Welsh Air Quality Forum.

In 2005/06 we;

- Have ensured compliance with new Directives e.g. The Large Combustion Plant Directive and BAT. This is the key mechanism to reduce the total emissions of gases such as sulphur dioxide and nitrogen oxides. There are currently 182 Pollution Prevention and Control Authorisations in Wales.
- Have helped to improve air quality in Neath Port Talbot. In 2000, Neath Port Talbot CBC declared parts of Port Talbot an Air Quality Management Area (AQMA). We used new analytical techniques to see how on-site activities at Corus affect levels of PM10s. This work with Neath Port Talbot CBC and Corus showed that ore movement had a direct effect on the number of days exceeding the recommended limits of PM10s in the area. Corus have now reviewed their ore stockyard operations. The 2005 results show that although Corus have handled more ore than in previous years, the number of days exceeding recommended limits for PM10s has actually reduced. We are particularly pleased with this outcome as it is set against a backdrop of persistent complaints from the public, Ombudsman referrals, and Freedom of Information requests about air quality in the Port Talbot area.
- Deployed our Mobile Monitoring Facility (MMF) at the Memorial Institute, Pen-y Ffordd, North Wales from June 2005 until September 2005. It was used to monitor the air quality in the area around Castle Cement Limited, Padeswood. Kiln 4 was started up on 1st August 2005 and operated on coal fuel. The results of this monitoring show that there have been no breaches of the air quality regulations. The MMF was returned to Castle Cement Limited, Padeswood in February 2006 to carry out a further programme of monitoring. During this period, the kiln is being commissioned and tested on a range of waste derived substitute fuels.
- Have continued our appraisal of the impact of authorised industrial sites on protected Habitats in line with the requirements of the Habitats Directive.

Future opportunities and challenges

- Use PPC permitting and compliance monitoring to achieve Best Available Techniques at the sites we regulate and to apply the requirements of the Large Combustion Plant Directive to effect a fall in emissions from regulated installations
- Use our regulatory powers to reduce emissions, particularly ammonia, from intensive farming installations.
- Support Local Authorities by making available resources such as the Mobile Monitoring Facility and the air quality modelling services.
- Joint action on Port Talbot AQMP to bring PM10 levels within the 2010 targets for PM10.
- Participate in the Welsh Air Quality Forum so as to be recognised and used as a source of authoritative expertise.

8. Contaminated Land

Our long industrial history in Wales has left us with a considerable legacy of land contamination and under-used land. The full extent of land contamination in Wales has not yet been confirmed, but may exceed 24,000 hectares. Some of

this contamination may be great enough to pose a significant risk to human or animal health and the environment unless it is cleaned up and brought back to beneficial use.

We have a role to ensure that any sites we have regulated under the PPC regulations have site restoration plans for when these close. We also work closely with the Local Authorities to provide advice and data to support the identification and subsequent remediation of land affected by contamination. We are responsible for the investigation and remediation of 'Special Sites' as defined by the Contaminated Land Regulations 2001.

In 2005/06 we;

- Worked with developers and industry to bring back over 58 hectares of land affected by contamination into beneficial use. The 20 sites brought back included:

The Bryngwyn Works, Gorseinon, Swansea. Here, more than 14 hectares of a former steelworks site were cleaned up and developed into residential units.

The Spontex Site, Swansea Marina. Clean up of this site resulted in seven hectares of land becoming available for construction of luxury apartments.

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Future challenges and opportunities

- Continue to work with Local Authorities as part of the Contaminated Land Working Group to prioritise land for investigation and remediation.
- Be an effective regulator for the Radioactive Contaminated Land Regulations when Government introduces new Regulations in 2006.

9. Greener Business World

Businesses from all sectors are facing increasing pressure to improve their environmental performance. The main drivers are legislative changes, customer pressure and growing energy, water and waste disposal costs. We directly regulate most of the major industry in Wales. However, 99 per cent of businesses are small and medium-sized enterprises (170,000 in Wales) and are outside of our direct regulation. A survey of SMEs through the free site www.netregs.gov.uk showed that over two thirds of Welsh businesses that had taken some environmental action were motivated by a general concern for the environment. The need to comply with legislation and the need to reduce costs also featured highly. Improvements are being made but not as fast as we would like. When surveyed in 2005, 63% of the 1,237 businesses based in Wales had implemented at least one practical measure such as recycling waste or introducing energy efficiency to reduce their environmental impact

Many businesses, however, are unaware of the extent to which their activities can harm the environment. They have yet to take steps to reduce their environmental impact or to adapt to climate change. Businesses are more likely to achieve better financial returns to investors if they adopt good environmental practices.

We all use energy for almost everything we do – heating, lighting, electricity and transport all need fuel. Fuels like coal, oil and natural gas are not renewable. The chemicals they release into the air when burned damage the environment and cause a risk to people's health. The alternative is to use renewable resources such as wind, sunshine and water to generate electricity. Growing crops for fuel also provides a renewable source of energy.

Powers under the Pollution Prevention and Control regulations, which cover the larger industries, were transferred from Defra to the Welsh Assembly Government on 1 January 2006. Some of these powers will allow the Welsh Assembly Government to hear appeals and call in applications.

In 2005/06 we;

- Worked with the UK Government and the Welsh Assembly Government to regulate dredging at the Port of Mostyn, which is vital for the Airbus A380 project, in a way which allowed shipping movements whilst protecting the cockle and bird populations. Both Airbus and the RSPB welcomed our approach and as a result, Airbus has ordered two new shallow draught ships (costing £60 million) to allow shipping to continue with a reduced risk to the environment.
- Castle Cement Limited was fined a total of £99,000 plus costs at Mold Magistrates Court. The company pleaded guilty to nine charges relating to breaches of its Pollution Prevention and Control (PPC) licence at its Padeswood works near Mold. A further 29 breaches were taken into consideration by the court in sentencing. Since this hearing Castle Cement have taken steps to improve their environmental performance.
- Worked with RWE's npower site near Aberthaw to help strengthen their Air Quality Management Plans after the limit of sulphur dioxide was exceeded several times. The company improved short-term weather forecasting and modified the way it operates the station under high-risk weather conditions. As a result the station avoided exceeding the yearly limit for sulphur dioxide, a significant achievement given the results at the start of the year.

Future opportunities and challenges

- We will work on Spatial Planning groups in Wales to ensure that then needs of the Environment are considered in the development of their plans. This is an action identified within the WAG Environment Strategy Action Plan.
- We will continue to promote environmental management systems as mechanisms for companies to improve environmental performance, demonstrate good environmental responsibility and save themselves money.
- We will continue to modernise our approach to regulation so that it is risk based, proportionate, minimises bureaucracy and keeps compliance costs to a minimum. We will target our efforts to those sites with poor environmental performance and encourage others to go beyond the regulatory minimum standards.

Approach to Delivery

In 2005/06, we met over 95% of the 225 targets set for us in our internal performance contract and we remain one of the highest performing operational units within the Environment Agency. Additional measures - aligned to our Remit Letter and our EAW plan for 2005/06 – were also achieved.

In addition to delivering all the environmental outcomes described, we have also improved the way we operate. This aligns well with the Welsh Assembly Government's *Making the Connections* initiative that seeks to improve public services across the board by providing citizens centred services, value for money, effective partnerships and engaging the workforce.

Citizens at the centre

We strive to ensure that all our services meet the needs of the citizens of Wales. This means compliance with our customer charter, working with local communities to address their needs, responding to the diversity of the population of Wales and in particular ensuring we provide a bilingual service to all Welsh speakers.

In 2005/06 we;

- Attended the Black Environment Network (BEN) annual conference where we were able to outline our commitment to diversity. We described our Flood Defence Foundation Degree programme to an audience of potential recruits. We also explained how to “Prepare for Flooding” to the conference so that we could reach a wider audience than we traditionally have.
- Exceeded our targets for recruiting staff from Black Minority Ethnic backgrounds and now have 2.3% of our workforce from this background. This exceeds the national figure of 2.1% for Wales.
- Completed our internal audit of the compliance with our Welsh Language scheme has been completed. A review of the scheme is now in progress. We have produced a Mainstreaming Strategy in accordance with the requirements of our remit letter.
- Used our “Building Trust in the Communities” programme to enable an effective dialogue to occur in relation to the regulation of Castle Cement in North Wales. The local community who felt more informed and able to discuss their concerns welcomed this.
- Are actively engaged in the development of the Community Strategies in Wales. We help to ensure that the needs of the environment in the context of sustainable development are integrated across all the strategy themes. This way we can ensure that we help to deliver activities for the communities of Wales.

Value for money

As an organisation, we need to secure a better environment using taxpayer's money wisely and effectively. We buy around £26 million worth of goods and services each year in Wales. We are committed to being as cost effective as possible and making best use of the resources available to us.

In 2005/06 we;

- Received a formal management letter for Wales from National Audit Office, arising from our year-end audit for 2005/06. No significant control weaknesses were noted and the National Audit Office has signed off the Annual Accounts for Wales for 2005/06.
- Delivered £1.5m of savings by working more efficiently. Each department produced its own efficiency plan to achieve this and included efficiencies derived from the implementation of our new management information system (IBIS), a business planning and customer services review, changes to the way we deliver permits and a greater use of teleconferencing and videoconferencing to reduce mileage.
- Achieved our target of leveraging an additional £12m of external funding to enhance further the environment in Wales. We are currently working with the Welsh European Funding Office to ensure the environment is properly considered when assessing bids for the new Convergence Funds, totalling £1.6billion
- Achieved our grant-in-aid targets of £21.4m for Environment Protection, Fisheries, Recreation, Conservation and Navigation work and £23.4m for Flood Risk Management (FRM). This is a very pleasing result as it was our first year of managing the FRM function on a cash basis.
- Supported Value Wales' Sustainable Procurement Programme and achieved £1.02m of savings against our targets of £950k. We have also shared our good practice on sustainable procurement with Welsh Assembly Government's procurement team, Countryside Council for Wales and Caerphilly County Council.
- Introduced Activity Based Costing to provide our managers and staff with better information, to help organise and deliver work cost-effectively. This will enable us to do more internal and external benchmarking and focus effort to improve our performance in future work programmes.
- Our debt position at 31 March 2006 was £0.4m (1.6%) of annual billings, which meets Public Sector best practice. By March 2006, we met the Auditor General's requirement to pay 95% or more of our invoices within 30 days.

Engaging the workforce

Our staff are our most important asset. We will develop their skills and talents so that we are capable of delivering the outcomes we seek through flexible and modern working practices.

In 2005/06 we;

- Conducted an internal health check against the new and more rigorous standards required to be recognized as an Investor in People in 2004. As part of the ongoing process, we will apply for re-accreditation by the end of November 2007. The check found many strengths and good practices and we have already met well over half of the required evidence needs. We are developing an action plan to address those issues where we did not perform so well.

- Conducted a staff survey and were very pleased with the results. Almost three fifths of employees said they would speak highly of the Agency when asked. This is 21 percent higher than the norm for public sector employees.
- Supported staff career planning by running 4 successful 'Making the Step' programmes throughout Wales. These were a blend of self development, workshops and peer group learning which helped team members to decide whether progression means promotion into a management role or staying in their specialist/functional area and becoming even more expert. Feedback from employees was very positive and future programmes are planned for 2007/8.
- Supported skills development by stakeholder events took place in each Area and Wales Head office. These were designed to build employees' ability to communicate with passion and enthusiasm to customers and stakeholders on how our work directly benefits us and the environment in Wales.

Partnerships

We recognise that whilst we have a key role to protect and enhance the environment in Wales, we cannot achieve this alone. We have many important partners that we work with to ensure the best outcomes for the people and environment in Wales. Here are some examples of how we have worked with, and supported others to deliver for the environment in Wales.

In 2005/06 we;

- Jointly hosted a seminar with Countryside Council for Wales for all Assembly Sponsored Public Bodies (ASPBs) on internal environmental management. Lord Elis Thomas AM opened the day. The event provided practical help for attendees and guided them down the path towards achieving the Green Dragon Awards for internal environmental management. We are currently in the planning stages for this year's event and we hope NHS Trusts and Local Authorities will also attend.
- Worked as part of a Communities First programme initiative we worked with local residents, including children to clean up the fly-tipping dumped in the River Cegin near the Maesgerchien housing estate in North Wales. There were large amounts of household and commercial waste in and around the river and along the banks sloping from behind the estate to the river. The clean-up of the river has been very successful – benches were donated and an open space area was set up which was next to the river and a public footpath.
- Have provided awareness training to Magistrates on a regular basis and each session has been positively received. The success of raising magistrates' awareness is a contributing factor in the increased level and range of fines and sentences when the court is asked to sentence for environmental crime.
- Worked as part of the Coed Cymru partnership group, whose core work involves promoting the sustainable management of Wales' woodlands. As part of the partnership we worked with Coed Cymru product development staff to design, construct and install oak fish passes and baffles. These have proved successful and much cheaper than the engineered solutions we have used to date.
- Extended our Pride in our Communities project across other areas in Wales. Initially focussed on communities in South West Wales we are now working

across all our areas and have secured funding to provide project co-ordinators in each Area.

- Held partners conferences in the three Areas which aimed to improve relationships, networking and future ways of working. A total of 120 external customers and partners joined the events and we have written to them all with an agreed action plan to take the outcomes forward.