Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

ENVIRONMENTAL PROTECTION AGENCY
Annual Report and Accounts | 2011

Environmental Protection Agency

The Environmental Protection Agency (EPA) is a statutory body responsible for protecting the environment in Ireland. We regulate and police activities that might otherwise cause pollution. We ensure there is solid information on environmental trends so that necessary actions are taken. Our priorities are protecting the Irish environment and ensuring that development is sustainable.

The EPA is an independent public body established in July 1993 under the Environmental Protection Agency Act, 1992. Its sponsor in Government is the Department of the Environment, Heritage and Local Government.

OUR RESPONSIBILITIES

LICENSING

We license the following to ensure that their emissions do not endanger human health or harm the environment:

- waste facilities (e.g., landfills, incinerators, waste transfer stations);
- large scale industrial activities (e.g., pharmaceutical manufacturing, cement manufacturing, power plants);
- intensive agriculture;
- the contained use and controlled release of Genetically Modified Organisms (GMOs);
- large petrol storage facilities.

NATIONAL ENVIRONMENTAL ENFORCEMENT

- Conducting over 2,000 audits and inspections of EPA licensed facilities every year.
- Overseeing local authorities' environmental protection responsibilities in the areas of – air, noise, waste, waste-water and water quality.
- Working with local authorities and the Gardaí to stamp out illegal waste activity by co-ordinating a national enforcement network, targeting offenders, conducting investigations and overseeing remediation.
- Prosecuting those who flout environmental law and damage the environment as a result of their actions.

MONITORING, ANALYSING AND REPORTING ON THE ENVIRONMENT

- Monitoring air quality and the quality of rivers, lakes, tidal waters and ground waters; measuring water levels and river flows.
- Independent reporting to inform decision making by national and local government.

REGULATING IRELAND'S GREENHOUSE GAS EMISSIONS

- Quantifying Ireland's emissions of greenhouse gases in the context of our Kyoto commitments.
- Implementing the Emissions Trading Directive, involving over 100 companies who are major generators of carbon dioxide in Ireland.

ENVIRONMENTAL RESEARCH AND DEVELOPMENT

- Co-ordinating research on environmental issues (including air and water quality, climate change, biodiversity, environmental technologies).

STRATEGIC ENVIRONMENTAL ASSESSMENT

- Assessing the impact of plans and programmes on the Irish environment (such as waste management and development plans).

ENVIRONMENTAL PLANNING, EDUCATION AND GUIDANCE

- Providing guidance to the public and to industry on various environmental topics (including licence applications, waste prevention and environmental regulations).
- Generating greater environmental awareness (through environmental television programmes and primary and secondary schools' resource packs).

PROACTIVE WASTE MANAGEMENT

- Promoting waste prevention and minimisation projects through the co-ordination of the National Waste Prevention Programme, including input into the implementation of Producer Responsibility Initiatives.
- Enforcing Regulations such as Waste Electrical and Electronic Equipment (WEEE) and Restriction of Hazardous Substances (RoHS) and substances that deplete the ozone layer.
- Developing a National Hazardous Waste Management Plan to prevent and manage hazardous waste.

MANAGEMENT AND STRUCTURE OF THE EPA

The organisation is managed by a full time Board, consisting of a Director General and four Directors. The work of the EPA is carried out across four offices:

- Office of Climate, Licensing and Resource Use
- Office of Environmental Enforcement
- Office of Environmental Assessment
- Office of Communications and Corporate Services.

The EPA Board is also advised by several key external committees and groups. The key committees are summarised in the following paragraphs.

Advisory Committee – Section 27 of the EPA Act provides for the establishment of an Advisory Committee. The Advisory Committee is chaired by the Director General and includes eleven other members. The members are appointed by the Minister for the Environment, Heritage and Local Government, seven of whom are selected mainly from those nominated by organisations concerned with environmental, developmental and wider social, economic or general matters. The Minister appoints the other four members.

The Committee has a wide range of advisory functions under Section 28 of the EPA Act, both in relation to the EPA and to the Minister. The Advisory Committee may make recommendations to the Agency in relation to general staff requirements including:

- the provision of services, including laboratory facilities, required by the Agency;
- standards, guidelines and codes of practice related to environmental protection;
- the Agency Research programme, its financing and priorities;
- the Agency Annual Work Programme and priorities;
- training conferences related to environmental protection.

The Advisory Committee also can make recommendations to the Minister for the Environment, Heritage and Local Government in relation to:

- assignment of specific functions to the Agency;
- the financing of the Agency;
- activities or classes of activities for which the Agency should have licensing functions;
- assignment to the Agency of responsibility for specific environmental matters.

GMO Advisory Committee – The GMO (Genetically Modified Organisms) Advisory Committee is appointed by the EPA under the EPA Act 1992. The Committee:

- advises the Agency on relevant GMO issues;
- is appointed for a three-year term;
- consists of 14 members nominated by both Government and non-Government organisations (NGO's).

The Committee may be asked for their expert opinion/advice on any aspect of the Agency's functions under the GMO Contained Use and Deliberate Release Regulations. Committee meetings are held approximately 4 times per year. The Committee includes one member who represents the Agency and serves as Chairman.

National Allocations Advisory Group (NAAG) – The National Allocations Advisory Group was set up by the Minister for the Environment, Heritage and Local Government to advise the Board of the Agency in relation to the National Allocation Plan and Emissions Trading. The NAAG also serves to provide advice to the National Allocation Authority, whose role and responsibilities are discharged by the Board of the EPA. The Group is chaired by an independent chairman.

National Waste Prevention Committee (NWPC) – The National Waste Prevention Committee was set up by the Minister for the Environment, Heritage and Local Government to advise the Agency and other organisations in relation to waste prevention. The Committee was established in July 2004 to monitor the development of the National Waste Management Programme and provide strategic direction for the EPA in implementing it. The EPA provides the chairperson and the secretariat for the Committee. Committee members are drawn from a range of governmental, non-governmental, business and sectoral interest groups.

Internal Audit Committee – The Code of Practice for the Governance of State Bodies requires state bodies to appoint an Audit Committee composed of at least three independent non Executive Directors. However, due to the fact that there are no non-executive Directors of the Agency, a waiver was sought and granted in July 2002 in relation to this requirement. Notwithstanding this waiver, the Agency adhered to the spirit of the Code, and in 2003 appointed an Internal Audit Committee (IAC) comprised of an external Chairperson and other external expertise (in lieu of non-executive Director input), together with senior representation from the Agency.

ENVIRONMENTAL PROTECTION AGENCY

EPA Annual Report 2011

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Published by the Environmental Protection Agency, Ireland

Designed by Yellowstone Communications Design

Environmental Protection Agency, PO Box 3000, Johnstown Castle Estate, Co. Wexford, Ireland

Images courtesy of EPA staff

Cover image – Mouth of Killary Harbour

ISBN: 978-1-84095-451-7

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DIRECTOR GENERAL'S STATEMENT

Welcome to the 2011 Annual Report and Accounts for the Environmental Protection Agency. This Annual Report provides details of our work during 2011 and also includes our financial statements.

The last year was a challenging year for the EPA; despite the various challenges, however, the Agency delivered successfully on its mandate and achieved a wide range of positive outcomes for the environment and for the people of Ireland.

The EPA's ability to deliver valuable societal outcomes and its environmental expertise were confirmed during the year in an independent external review of the Agency. In May, the Minister for the Environment was presented with the final report of an independent Review Group. This review commenced in 2010 and its purpose was, among other things, to assess the performance of the EPA against its mandate, and to review the resources allocated to the EPA in light of its current obligations and likely future obligations.

The overall findings of the Review Group Report are most reassuring. The Report states that the environmental expertise within the EPA is a significant national resource. It says that the EPA has, since its foundation, provided considerable benefit for Ireland's environment, and for the health and wellbeing of its people. The Review Group make the point that in a period of austerity, it is not easy to maintain the current impact of the EPA in protecting Ireland's environment, or to increase the Agency's effectiveness. However, the report cautions against cutting back on the EPA's resources, stating that this would be a false economy given the longer term consequences of such cutbacks – impacts on human health and wellbeing, impacts on biodiversity, and impacts on our obligations under EU law.

The report makes a series of valuable recommendations, some of which are outside the Agency's control. We have prepared an implementation plan for those recommendations relating directly to the EPA and these have been the focus of the EPA since their publication.

The Review Group also commended the extent and quality of the Agency's engagement with the Group and recorded its deep appreciation to the EPA Director General at that time, Dr Mary Kelly. 2011 also saw the departure of Dr Kelly, to take on the role of Chair of An Bord Pleanála. Dr Kelly was Director General of the EPA since 2002 and led the EPA effectively through profound change in that time. As can be seen from the findings of the Review, the Agency grew under her leadership to be recognized as a highly efficient and effective public sector organisation which is fit for purpose and can demonstrate value for money.

The challenges we faced as an Agency during the year need little elaboration: economic recession continued to result in cuts right across public bodies and the EPA is no exception. The Agency is now confronting major national environmental challenges with reduced financial and staff resources. We continued this year, as in other years, to take on additional responsibilities, including the remediation of Kerdiffstown Landfill site, responsibility for the regulation of single house treatment systems, and other functions arising from secondary legislation. This new work had to be addressed within existing resources forcing a continuous re-balancing of priorities. We managed this process effectively this year as we have done in previous years.

The Review Group noted the consistent upward trend in resource-intensive functions and additional responsibilities being assigned to the EPA. While we continued to manage effectively this year I am conscious, however, that no organization can continue indefinitely to deliver the same level of vital societal outcomes with diminishing resources.

Our mission in the EPA is to protect the environment for the people of Ireland. The outcomes we strive for are simple; the challenges we face in achieving these outcomes are formidable. We need to maintain a healthy and protected environment. Our environment is vitally important in its own right. It contributes to our health, our wellbeing and to our overall quality of life. Clean air and safe water are two of our most basic human needs. Our environment contributes also to economic recovery, growth and the creation of jobs. Ireland attracts inward investment because of the perception of our clean environment among other factors. Our water resource is seen as a major national asset. We need to ensure that the natural resources and the environmental conditions that are fundamental to the economic and social wellbeing of this and future generations are protected, and are not degraded or exhausted.

In the last year – and in recent years – we have seen a slight decrease in some of the pressures on our environment. Greenhouse Gas emissions and waste generation for example both decreased as a result of economic recession. We cannot confuse this reduction brought about by recession, however, with responsible management of the environment. We need to ensure that future economic renewal and recovery is based firmly on the principles of sustainable development and that we decouple future economic growth from environmental pressures.

I was heartened this year to see a continuing increase in the already high levels of interest in the environment and in the work of the EPA. We see this reflected in the numbers of visits to our website and the levels of interest in our range of Reports, including our Drinking Water Quality Report, our Bathing Water Quality Report, our National Waste Report, our Air Quality Report and our research reports. We see this interest also in the growing levels of uptake of the BeGreen initiatives under our National Waste Prevention Programme.

I was pleased also with the huge success of the Tyndall Conference in Dublin Castle and our associated series of climate change lectures. We co-hosted the Tyndall conference with the Royal Irish Academy to commemorate the Irish scientist who identified the critical role of Greenhouse Gases in maintaining the earth's temperature. This conference and the surrounding coverage highlighted again the growing awareness of what the science is telling us about the reality of climate change and did much to address the arguments put forward by climate change sceptics. The levels of attendance and engagement confirmed for us a growing public awareness and understanding and a growing desire to be a part of the solution.

At the end of this year, and looking forward into the coming years, we know the path we must take. Ireland will begin to recover from recession and pressures on our environment will once again begin to increase. Before that happens we must use the brief opportunity we now have to value and protect our natural environment. We must start building a resource-efficient, low carbon economy. We must implement all environmental legislation, and we must put environment at the heart of all decision-making in Ireland. Only by taking these steps can we protect this precious – and threatened – national asset.

Laura Burke
Director General

MISSION, VISION & VALUES

OUR MISSION IS:

To protect and improve the natural environment for present and future generations, taking into account the environmental, social and economic principles of sustainable development.

OUR VISION IS TO BE:

- A powerful agent for change, both in attitudes to the environment and in actions on environmental protection;
- An organisation that works to place environmental issues at the heart of international, national and local decision-making processes;
- A credible and respected organisation, speaking out courageously for the protection of the environment;
- A world-class organisation in which people are proud to work.

OUR VALUES ARE:

- Integrity, independence and professionalism;
- Service to our stakeholders;
- Value for money;
- Respect and support for colleagues;
- Openness to learning.

OUR GOALS ARE:

Goals have been set in *2020Vision* under the headings of limiting and adapting to climate change, clean air, protected water resources, protected soil and biodiversity, sustainable use of resources and integration and enforcement. The over-arching organisational goal is to be a high-performance organisation by having competent and committed people, being customer focused and organisationally efficient and being a champion for the environment.

Limiting & Adapting to Climate Change – Ireland will achieve major reductions in greenhouse gas emissions and will be prepared for the unavoidable impact of climate change.

Clean Air – Our air will be healthy and clean. Ireland's emissions to the atmosphere will meet all international and national targets.

Protected Water Resources – Our surface water and groundwater will not be depleted and will be of excellent quality, meeting all national and international standards.

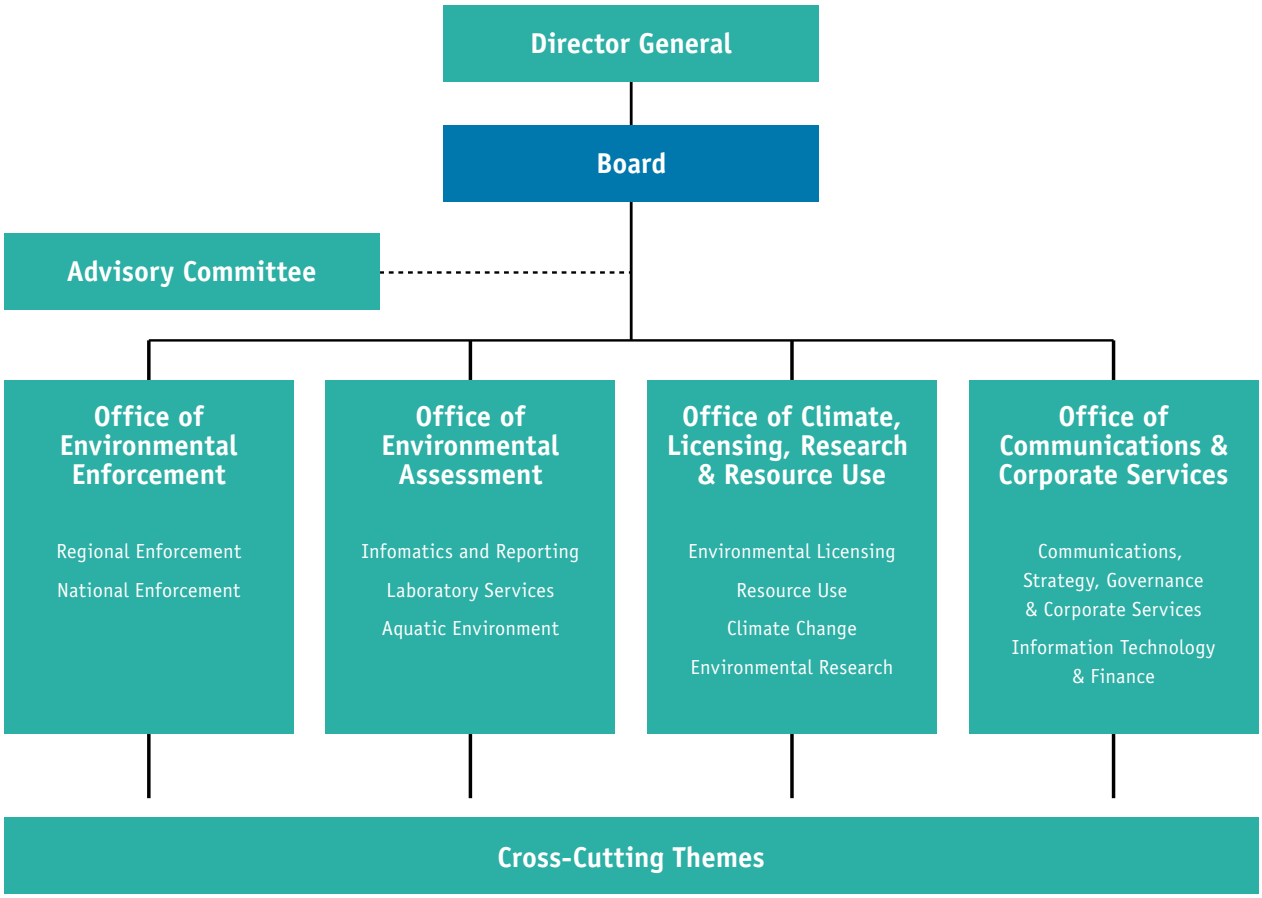
Protected Soil & Biodiversity – The soil of Ireland will be protected from contamination and loss and will support dependent plants and animals. Our biodiversity will be protected and managed for future generations to enjoy.

Sustainable Use of Resources – The overall goal is a more efficient use of resources (water, energy and materials). Waste will be prevented and minimised, with the balance safely collected, recycled or recovered. Final disposal will be completed in a way that does not harm the environment.

Integration & Enforcement – Environmental considerations will be at the heart of policy-making and decision-making. Responsible environmental behaviour will be the norm across all sectors of society and those who flout environmental laws will be held to account.

Building a High Performance Organisation – Developing the people and organisational resources to underpin our strategy is a continuing requirement. We want to build on our reputation and ensure that we are seen as an organisation with strengths in four key areas: Competent/ Committed People; Environmental Champion; Customer Focused and Organisationally Efficient Organisational Structure.

EPA ORGANISATIONAL STRUCTURE



BOARD OF DIRECTORS

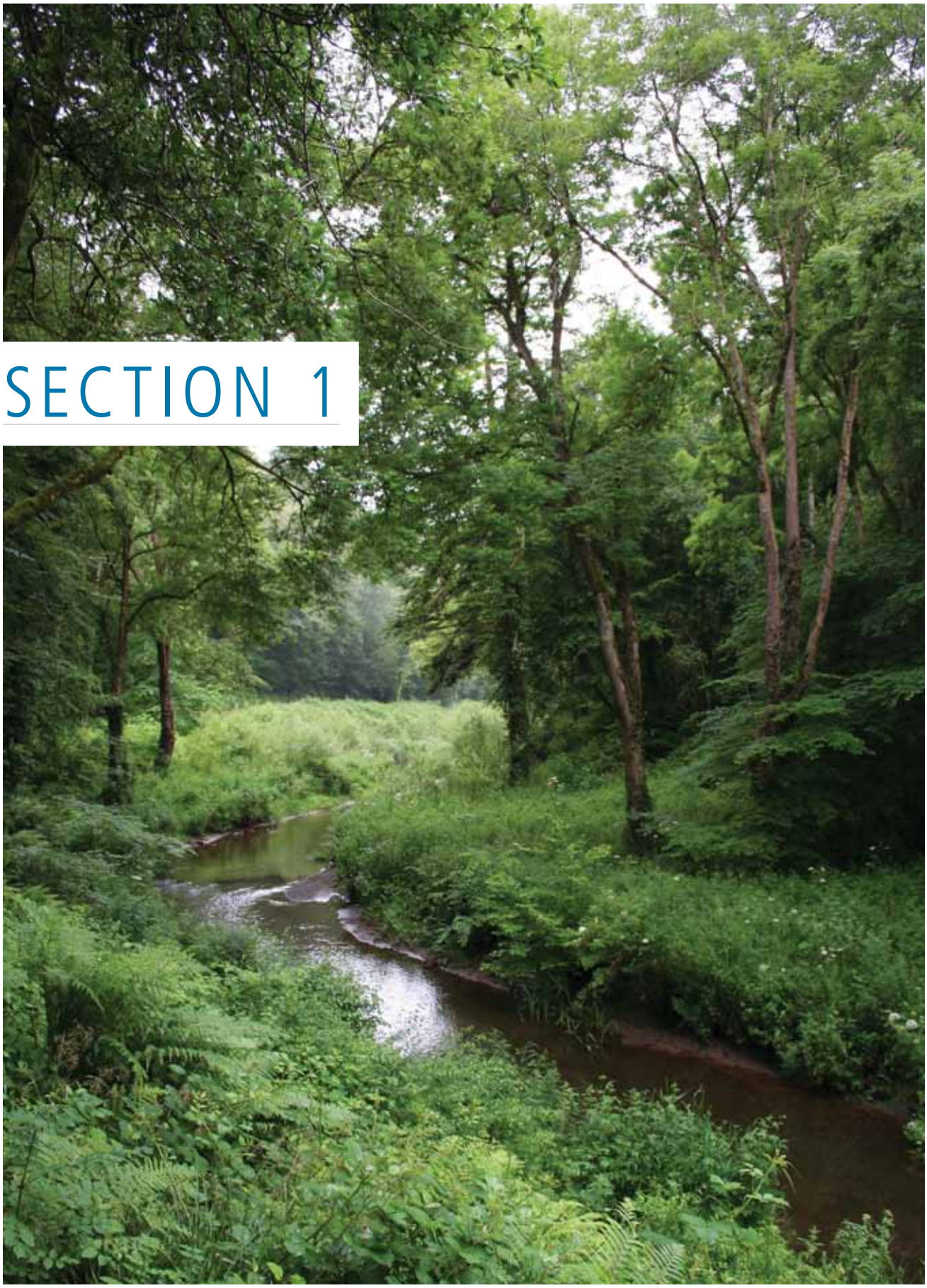
Left to right

Dr Mary Kelly	*Director General (until August 2011)*
Ms Laura Burke	*Director General (from November 2011)* *Director, Office of Climate, Licensing and Resource Use (until November 2011)*
Mr Dara Lynott	*Deputy Director General; Director, Office of Environmental Enforcement*
Mr Micheál Ó Cinnéide	*Director, Office of Environmental Assessment*
Dr Matt Crowe	*Director, Office of Communications and Corporate Services*

ADVISORY COMMITTEE

The EPA is assisted by an Advisory Committee of twelve members who meet to discuss issues of concern and offer advice to the Board. The Director General of the EPA, is ex-officio, a member and Chairperson of the Committee. The term of office of the Committee is three years. The 5th EPA Advisory Committee was appointed by Mr John Gormley, TD, Minister for the Environment, Heritage and Local Government on 21st January 2010.

Chair: Laura Burke	*(ex-officio)*
Mr. Brian Buckley	*(nominated by the Chambers of Commerce of Ireland)*
Mr. Brendan Dunford	*(nominated by the Heritage Council)*
Dr. Shirley Gallagher	*(nominated by the Environmental Sciences Association of Ireland)*
Professor Margaret O Mahony	*(nominated by the Institution of Engineers of Ireland and the Royal Irish Academy)*
Professor John Sweeney	*(nominated by NUI Maynooth)*
Ms. Eanna Ni Lamhna	*(nominated by the Irish Environmental Network)*
Cllr Brian Meaney	*(nominated by the Association of Municipal Authorities in Ireland)*
Mr. Vincent Cleary	*(Managing Director of Glenisk Organic Ireland)*
Mr. David Ball	*(Hydrogeologist)*
Dr. Elizabeth Cullen	*co-founder and committee member of the Irish Doctors' Environmental Association)*
Dr. Evelyn Moorkens	*(Ecological Consultant)*



SECTION 1

INTRODUCTION

Welcome to the EPA Annual Report 2011. This report provides a summary of the EPA's key activities and environmental and organisational outcomes achieved during 2011. The structure of the document reflects *2020Vision*, the strategic framework for protecting and improving Ireland's environment that was published by the EPA in April 2007.

The work of the EPA is carried out by its four main Offices:

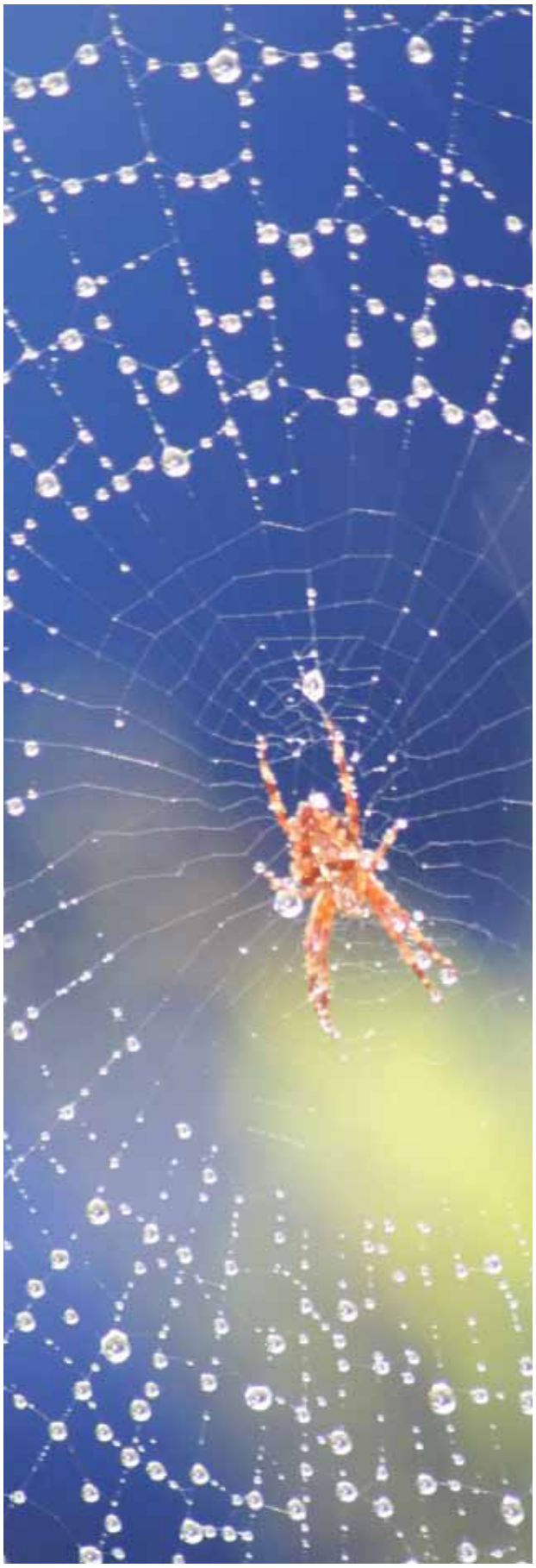
The ***Office of Climate, Licensing, Research and Resource Use*** has a broad remit, which includes licensing large-scale industrial and waste facilities, and waste water discharges by the Licensing Unit. The Climate Change Unit is responsible for regulating and reporting on Ireland's greenhouse gas emissions and coordinating climate change research. The Resource Use Unit is responsible for promoting the sustainable use of resources by implementing the National Waste Prevention Programme, publishing the National Waste Report, promoting the National Hazardous Waste Management Plan and by enforcing a wide range of Producer Responsibility regulations. The Office is also responsible for permitting large petrol storage facilities and granting consents for genetically modified organisms and for co-ordinating a national environmental research programme.

The ***Office of Environmental Enforcement*** is dedicated to the implementation and enforcement of environmental legislation in Ireland. It is directly responsible for enforcing EPA licences granted to waste, industrial and other activities. It also supervises the environmental protection activities of local authorities, through auditing their performance, providing advice and guidance, and in appropriate cases, giving binding directions.

The ***Office of Environmental Assessment*** co-ordinates and undertakes ambient monitoring of air and water including chemical, biological and hydrometric monitoring of lakes, rivers and estuaries and the qualitative and quantitative monitoring of groundwater. It supports the EPA's licensing and enforcement functions through monitoring of emissions and various laboratory related services. It also provides sampling and laboratory assistance to local authorities. The Office has responsibility for a range of functions including: developing and using assessment tools such as Geographic Information Systems (GIS); producing regular reports on environmental quality and publishing periodic 'state of the environment' and Indicator Reports. In addition, the Office implements key aspects of the EU Air Framework Directive and its Daughter Directives and EU Water Framework Directive. This EPA Office operates as Ireland's National Focal Point for the European Environment Agency (EEA), oversees Strategic Environmental Assessment and coordinates EPA activity on soils and biodiversity.

The ***Office of Communications and Corporate Services*** ensures, among other things, that the EPA conducts its business activities in an efficient manner, conforming to best business practice and also effectively communicates with its stakeholders and the general public. The Office is responsible for Finance, Communications, Corporate Governance, Information Technology, Human Resources, Training and Organisational services.

More information on EPA activities, licenses, publications and newsletters can be found on the EPA website at www.epa.ie.



1. LIMITING AND ADAPTING TO CLIMATE CHANGE

EMISSIONS TRADING

- Verified Greenhouse Gas Emissions (GHG) for 2010 showed emissions have risen slightly to 17.35 Mtonnes CO_2 compared to the overall downward trend from 22.43 Mtonnes in 2005, to 17.22 Mtonnes reported for 2009.
- 101 installations covered by the emissions trading scheme in Ireland held valid permits requiring them to monitor and report emissions for all or part of 2010 and surrender allowances, in 2011 the number of active installations dropped to 99.
- Ireland was again 100% compliant with the scheme, with all holders of greenhouse gas permits surrendering the required amount of allowances by April 30th to match their verified emissions.
- A major data collection exercise was undertaken in 2011 in order to calculate the free allocations to operators of stationary installations for Phase III of the emissions trading scheme (2013-2020). Allocation will be based on EU wide rules published by the Commission in April 2011. After public consultation the preliminary allocations were forwarded to the EU Commission for scrutiny on 22 December 2011. Allocations are preliminary as they may be subject to an EU wide cross-sectoral correction factor.
- Operators in the Aviation sector reported their emissions for the first time in 2011. A total of 109 reports were received in 2011 through an online reporting system. Many of these were small private jet operators based in the United States. Operators also had the option of applying for free allocation of allowances for 2012 and 2013-2020 by submitting a report on payload and distance travelled (a tonne-kilometre report). Fifty-four of these reports were received and submitted by EPA to the European Commission. The free allocation to these operators was published on our website on 26 October 2011 based on a benchmark announced by the Commission at the end of September.
- Security continued to be a high priority in 2011 in the operation of Ireland's National Emissions Trading Registry.

1. UNFCCC MEETINGS

- Experts from the EPA's Climate Change Unit participated in the UNFCCC Climate Change Conference in Durban South Africa in support of the national delegation and in the negotiation process.

NATIONAL EMISSIONS INVENTORIES

- The national inventory for 2009 was finalised, while the preliminary inventory for 2010 was published in November.
- For 2010, total national greenhouse gas emissions are estimated to be 61.3 million tonnes carbon dioxide equivalent (Mt CO_2eq) which is lower (0.8% lower or 0.51 Mt CO_2eq) than emissions in 2009.
- Ireland's distance to target under the Kyoto Protocol, based on the first three years of the Kyoto Period (i.e. 2008, 2009 and 2010), is 5.43 Mt CO_2eq when the impact of forest sinks and of the EU-Emissions Trading Scheme are included.

EMISSIONS PROJECTIONS

- Ireland's Greenhouse Gas Projections for the period 2010-2020 reflects the reduced activity due to the economic downturn, but there is still an ongoing challenge for Ireland to meet its 2020 obligations.
- The profile of greenhouse gas emissions in Ireland is unusual in the European context, with agriculture currently accounting for 30% of all emissions and 43% of emissions in the non-trading sector. This makes it very difficult to effect actual reductions on the scale required in the non-trading sector.
- While projections published in April 2011 indicated that Ireland was expected to exceed its Kyoto Protocol limit by 6.3 – 8.1 Mtonnes of CO_2e, indications from projection figures to be published in early 2012 indicate that Ireland's projected distance to its Kyoto target has reduced. In estimating Ireland's emissions with relation to the Kyoto Protocol, the impact of forest sinks is included as allowed for under Article 3.3 of the Kyoto Protocol. Purchases already made by the NTMA on behalf of Government, coupled with operation of the Emissions Trading Scheme, means that Ireland will comply with its Kyoto obligations without any further purchases based on the latest projections to be published in 2012.
- In the longer term to 2020, Ireland's unique position within the EU as the country with the highest national proportion of agricultural emissions will present this country with a challenge in meeting the EU's 2020 target with regard to greenhouse gas emissions. Latest projections indicate that Ireland is expected to breach its annual EU 2020 target from 2017 onwards under the best case scenario.
- The EPA will continue to update and refine GHG projections to take account of socioeconomic, technological and policy developments, to update key assumptions and to take account of better data and better models as they become available.

AIR CLIMATE SCIENCE

In 2011 significant progress was made at UNFCCC level in progressing future action on climate change. This was focused on implementation of key elements of the Cancun outputs e.g. in relation to finance and concluding work on future global actions, including the adoption of a second commitment period under the Kyoto Protocol. Durban has established a process to implement Cancun, and enable the completion of a global agreement on climate change by 2015 which will include all major economies including emerging economies.

Further work is needed to increase levels of ambition if the climate protection goal to ensure that the global temperature increase is less than 2 degrees Celsius are to be achieved. This and other and other goals including on finance for actions on climate change in developing countries are open for review starting in 2013 when the first volume of the next IPCC assessment report will be published. The IPCC produced a report on extreme events during 2011.

In 2011 the EPA:

- Maintained a strong presence in international activities on air and climate science.
- Contributed to work of the EU Science and Finance Expert groups on climate change in preparation for the Durban meeting.
- Worked as part of the Irish delegation at UNFCCC meetings and represented the EU in the negotiation process.
- Continued interactions on the future work and development of the IPCC including engagement at it plenary meetings and provision of review comments and material to the IPCC.

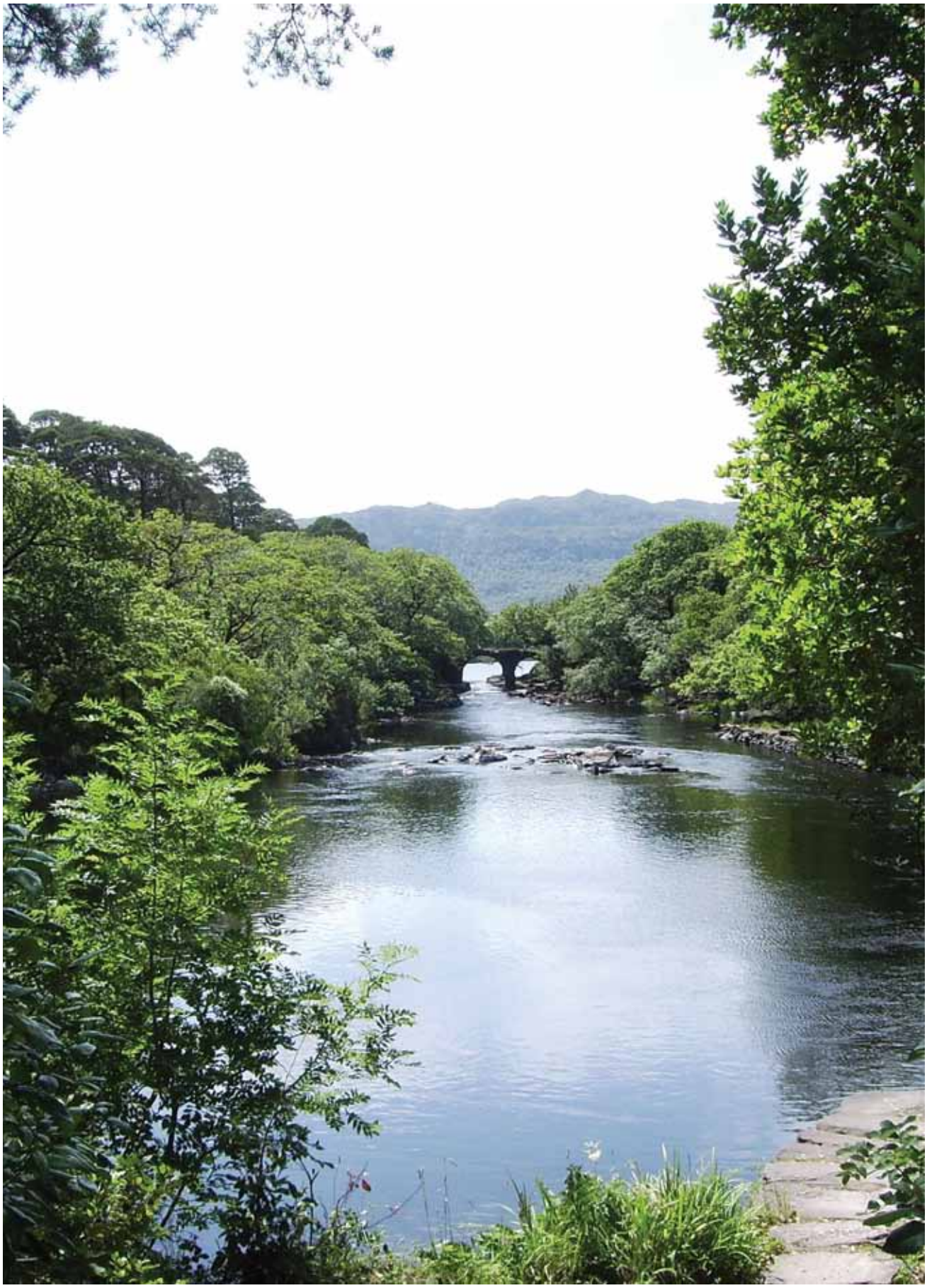
- Provided input for meetings of the Global Monitoring for Environment and Security (GMES) Advisory Council.

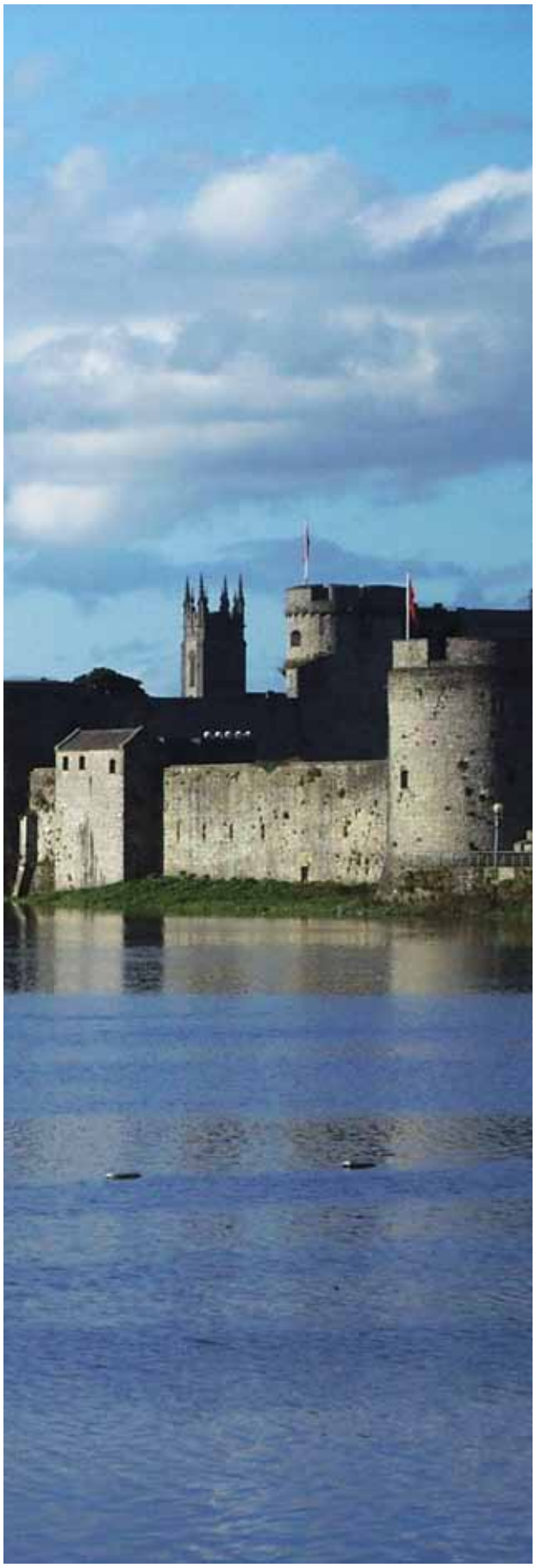
RESEARCH INITIATIVES

- In 2011 approximately €3.4 million funding was provided for existing and new research in this area. This was focused on priority projects on emissions and sinks of greenhouse gases, including work to respond to advance analysis of land use issues which are a high priority for Ireland.
- A number of research projects were completed in 2011 and project reports will be published in 2012 including work on biogas and restoration of peatland.
- Progress was made on the development of a climate change information system for Ireland and analysis of vulnerability to be published in 2012.
- Analysis of greenhouse gas emissions and sinks associated with land use in Ireland was progressed.
- National energy modeling was advanced including provision of analysis of pathways for achievement of long term i.e. up to 2050, GHG emissions reductions goals.
- Sectoral analysis of transport systems was produced along with analysis of the use of domestic offsets to advance climate actions.
- The EPA supported Irish expert engagement with the IPCC Special Report on renewable energy.

COMMUNICATIONS AND CUSTOMER SERVICE INITIATIVES

- The climate change web-pages on the EPA website provide the latest research findings from EPA funded projects; up to date information from international climate negotiations; links to international and national organisations working on climate change and carbon calculator tools for personal and business use and include answers to frequently asked questions on climate change. Visit: www.epa.ie/whatwedo/climate/
- The EPA continued to use of social media to communicate with the public and other key stakeholders; this includes the use of YouTube for provision of access to climate change lectures and conference presentations, use of Twitter for news and SlideShare for presentation materials.
- Information booklets on the EPA and Climate Change were produced and circulated to stakeholders. These outlined the roles and responsibilities that the EPA has in relation to climate change.
- A major international conference to commemorate John Tyndall was successful held in Dublin Castle.
- The EPA's popular series of public lectures on Climate Change continued during 2011 with a focus on Transport and Agriculture as well a special lecture on John Tyndall. This series will continue in 2012.





2. CLEAN AIR

AIR QUALITY

- The report *Air Quality in Ireland in 2010 – Key Indicators of Ambient Air Quality* found that air quality was of high quailty at monitoring stations across the country. Due to traffic, levels of nitrogen dioxide and particulate matter (PM_{10}) remain a concern in Dublin and Cork city centres and polycyclic aromatic hydrocarbons (PAH) may be a problem pollutant in the future. PAHs arise from domestic solid fuel burning and vehicle exhaust emissions.
- In smaller towns, concentrations of particulate matter are elevated due to the use of solid fuel and this particularly impacts air quality in areas where the sale of bituminous coal is permitted. To help with this, new regulations published in 2011 require that all bituminous coal placed on the market in Ireland for residential use has a sulphur content of no more than 0.7 per cent. In addition, the sale of bituminous coal was banned in four additional towns in 2011 – Ennis, Clonmel, Carlow and Athlone.
- The graph below (Fig. 2) illustrates trends in particulate matter (PM_{10}) concentrations between 2002 and 2010.

AIR MONITORING NETWORK

- New air monitoring sites in 2011 included Claremorris, Co. Mayo and Shannon, Co.Clare.
- The map on the following page shows the locations of monitoring sites in 2011.

NATIONAL EMISSIONS CEILINGS DIRECTIVE

- Under the National Emission Ceilings Directive, Ireland was required to limit emissions of four transboundary air pollutants in 2010. Provisional figures show emissions of three of these pollutants (sulphur dioxide, volatile organic compounds and ammonia) were below the emission ceilings in 2010. Emissions of the fourth pollutant, nitrogen oxide, were above the 2010 emission ceiling. The transport sector is the main source of nitrogen oxide (NO_x) emissions, accounting for 51% of NO_x emissions in 2010.

ENVIRONMENTAL NOISE DIRECTIVE

- The EPA continued its preparations in discharging its duties under the Environmental Noise Regulations in relation to Round 2 of the noise mapping and action planning process. This consisted of updating guidance documents to take into account changes since and experiences gained from Round 1.

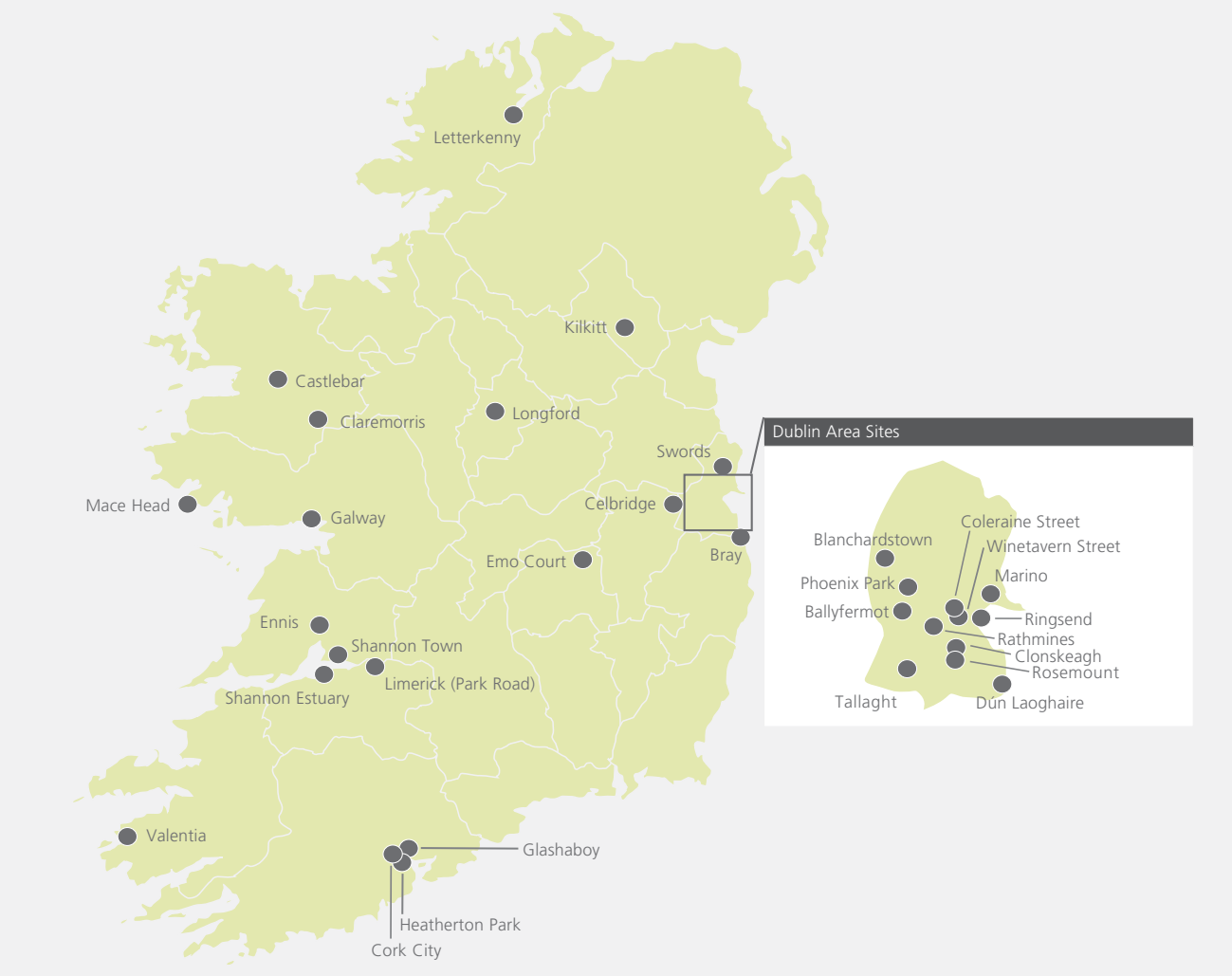


Fig 1: Locations of Air Monitoring Sites in 2011

Fig 2: Trends in particulate matter (PM_{10}) concentrations between 2002 and 2010

- The EPA commenced an exercise to clarify mapping requirements. This consisted of developing reporting templates for each of the noise mapping bodies including all local authorities and extensive follow-up by both e-mail and telephone calls. Similarly during 2011, the EPA responded to a wide range of queries from the noise mapping bodies.
- To assist in the data collection aspect of the noise mapping process, the EPA organised a workshop for all the local authorities. The purpose of this workshop was to provide local authorities with practical support in the delivery of their strategic noise maps, to provide an opportunity to raise questions and issues, the share experiences and best practice with other local authorities and to receive feedback from local authorities regarding their preparedness and the next steps to be taken. Following the workshop, the EPA developed templates and guidance documents for each of the mapping bodies to assist with the data collection aspects of noise mapping and followed up and responded to any issues raised. The EPA also established a Steering Group and a Technical Working Group which met on a monthly basis.
- The EPA also significantly contributed to the establishment of a centralised approach to noise mapping of non-national roads.

AIR ENFORCEMENT

- The EPA Air Enforcement Team provides technical expertise to back up the work of the OEE regional enforcement teams in their enforcement of licences where emissions to air are of potential significance, with particularly significant resources being deployed in early 2011 as a result of a significant landfill fire (with associated air emissions and air quality issues) which occurred in Kerdiffstown (near Naas, Co. Kildare).
- The 2011 work programme for this team included the development of projects requiring accredited emissions monitoring at licensed sites to improve the quality and reliability of compliance data (including the provision of a number of workshops for the stakeholders), as well as the completion of more than 150 EPA monitoring visits to licensed site to spot-check process emissions to air. The Air Enforcement Team also managed the provision of odour monitoring and assessment services to the regional teams which is a critical service given that the majority of complaints received by the EPA in relation to licensed sites relate to odour emissions.
- The team also completed a significant number of air emissions focussed inspections, including in particular at licensed incineration and co-incineration sites, a number of which were undergoing commissioning works in 2011.
- The team also has a role in relation to local authority enforcement activities, in particular in how they manage air related complaints (including odour, noise and air quality) and their enforcement and permitting activities in relation to smaller air emissions sources (in particular dry cleaners and vehicle bodyshops), with a number of workshops being run by the EPA for local authorities in 2011.
- New guidance notes in relation to noise and air emissions were also developed in 2011, while existing guidance notes in relation to noise were reviewed and updated.

REACH (REGISTRATION, EVALUATION, AUTHORISATION AND RESTRICTION OF CHEMICAL SUBSTANCES)

- The EPA continues to work with the Health and Safety Authority (HSA) and relevant Government Departments to ensure implementation of the REACH Regulation. Work has included input into a national report on REACH implementation prepared for the European Commission, support for a range of chemicals related research projects and awareness raising activities.

RESEARCH INITIATIVES

Two reports based on research undertaken at UCC were published which related to a 2.5 year air pollution measurement campaign at a number of selected sites in Cork Harbour region.

Key findings were:

- Locally emitted ship exhaust particles have been unequivocally identified for the first time based on their single particle mass spectra.
- Vehicular traffic was determined to be the largest single source category (23%) of ambient PM2.5 at the Tivoli Docks site.
- Domestic solid fuel (DSF) combustion was the most significant source of ambient particulate pollution at the Tivoli Docks in winter, with estimated contributions of75% and 30% to organic carbon and PM2.5 mass respectively.
- PM concentrations in the ambient air at the mid-harbour site were consistently lower compared to similar studies previously carried out in the Cork urban/city region.

On-going research is being led by Dublin Institute of Technology and Dublin City Council who are conducting field monitoring at four centres, to inform on the relationships between fuel usage and ambient air quality. A detailed report, taking account of EU and National policy, with conclusions and recommendations will be provided for policy makers.

COMMUNICATIONS AND CUSTOMER SERVICE INITIATIVES

- Real-time air quality monitoring continued at several locations in Ireland, as part of an on-going comprehensive assessment of air quality countrywide. This information is available on www.epa.ie
- The Environmental Protection Agency (EPA) published a report on dioxin levels in the Irish environment (based on a survey carried out in 2010) which showed that the dioxin levels in all of the samples tested were well below the relevant EU limits. The report also shows that dioxin levels measured in this survey compare favourably with those taken from similar surveys in the EU and other countries.

3. PROTECTED WATER RESOURCES

WATER FRAMEWORK DIRECTIVE (WFD)

Work undertaken in 2011 included the following:

- Twelve rounds of surface water sampling and analyses involving 3,266 samples from rivers and lakes, and 3,251 from estuaries. Four rounds of groundwater sampling were taken in 280 wells and springs.
- Characterisation of groundwater bodies for the next river basin management cycle commenced.
- The planned biology monitoring in rivers, lakes and estuaries was completed satisfactorily. 74 lakes were sampled for macrophytes, 71 for littoral invertebrates, three for profundal invertebrates and 27 for phytobenthos.
- Bathymetric surveying of 90 lakes was undertaken.
- The transitional and coastal waters programme involved the collection of phytoplankton samples from 90 water bodies. Assistance was provided by the Marine Institute in monitoring coastal waters.

In 2011, the EPA continued to implement the Environmental Objectives (EO) Regulations Project. The project's aim is to ensure that all EPA licences achieve the requirements of the EC Environmental Objectives (Surface Waters) Regulations 2009, EC Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009 and the EC Environmental Objectives (Groundwater) Regulations 2010.

HYDROMETRIC PROGRAMME

- A review of the EPA Hydrometric Programme was completed in conjunction with the OPW, and the findings of the review were published on the EPA website in a report entitled "Review of the Hydrometric Programme". This review highlighted the importance of hydrometric data collection for sustainable catchment management and infrastructural development. As part of the review, all stations in the hydrometric network were evaluated and the number of stations was reduced by excluding poor and low priority stations. A process of targeting data collection, assisted by the use of new technologies such as telemetry, was recommended.
- The recommendations are now being progressed.

DRINKING WATER

- A key priority for the EPA in 2011 was to improve the disinfection of public water supplies and to ensure remedial works were complete in supplies on the EPA Remedial Action List (RAL).
- All treatment plants in the country have now installed chlorine monitors and alarms and the focus of the EPA is now to ensure that these alarms are managed and responded to appropriately. The provision of this equipment was funded by the DoECLG.
- At the end of 2011 there were 240 supplies on the Remedial Action List, a significant driver for prioritising investment in drinking water infrastructure. Remedial works in a further 136 supplies was to be complete by the end of 2011 and the Water Services Authorities are currently in the process of verifying the effectiveness of the remedial works.
- The EPA conducted 116 audits of drinking water supplies of which 89 were e-audits (developed by the EPA to improve efficiency of auditing) and served 25 directions on local authorities in relation to priority drinking water issues such as supplies on the RAL where no action plans were submitted and supplies with lead mains in the distribution network.
- At the end of 2011 there were 25 public water supplies on boil water notices.
- Detailed guidance was published for local authorities and the group water scheme sector in 2011 including the Water Treatment Manual on Disinfection and 6 advice notes were issued on Source Protection, Water Safety Plans, *Cryptosporidium* Monitoring, Reservoir Inspection, Cleaning and Maintenance, Prior Investigations and Technical Assessments under the GAP Regs and Exempted Drinking Water Supplies.

GROUNDWATER

- A guidance report, required by the Groundwater Regulations, was produced on "the Authorisation of Discharges to Groundwater" and this was published on the EPA website.
- Delineation of zones of contribution and source protection zones around the groundwater quality monitoring points continued, and the associated reports have been published on the EPA and GSI websites. This work is contributing to the evaluation of the data and the protection of the sources and form part of the Water Safety Plans for the water supplies.

BATHING WATER QUALITY

- Guidance notes on monitoring programs, bathing water profile assessment and data submission were produced in 2011 to assist Public Authorities in the implementation of the new Bathing Water Quality Regulations (S.I. No. 79 of 2008). 2011 was the first year of the implementation of the new Bathing Water Quality Regulations 2008 (SI No. 79 of 2008). The 2008 Regulations give stronger focus on the protection of public health, a proactive approach to the management of bathing water quality, greater public participation and establish stricter microbiological standards for two new parameters, Intestinal enterococci and *Escherichia coli*.
- Review of the 2011 bathing water data found that 98.5% (133 of the 135 designated bathing waters) met the minimum EU Mandatory standards of achieving 'Sufficient' water quality status compared to 97% (of 131 areas) in 2010. 84% (114) met the more stringent EU guide values relating to 'Good' water quality status a drop from 90% (of 131 areas) in 2010 but comparable to the 2009 bathing season.
- Bathing water quality information is available throughout the bathing season at the 'Splash' website www.bathingwater.ie, giving as near to real time information as is practicable on bathing water quality and other issues that will be of interest to the public.

ENVIRONMENTAL DATA MANAGEMENT

- The Environmental Data Exchange Network (EDEN) processed over 1,500 electronic data uploads, consisting of over 35,000 water samples from local authorities and national organizations, including the EPA.

RESEARCH INITIATIVES

- Continued support for research supporting WFD policy formation and implementation nationally.
- On-going progress on flagship multiannual projects supporting the implementation of WFD nationally (Pathways and HYDROFOR).
- Fifteen new projects were funded in 2011 under areas such as the development of novel treatment solutions to protect our water environment (e.g. drinking water and bathing waters). A number of the funded projects will investigate significant fundamental knowledge gaps on the current state of pressures on our water resources and thereby support Ireland's commitments to attain good water status under the Water Framework Directive and the Marine Strategy Framework Directive.

- Publication of seven water research reports with a number of projects related to protecting our waters including:
  - National Wastewater research centre at Tuam, Co Galway
  - Demonstration of on-line water quality monitoring on the River Lee
  - Novel anaerobic Sewage treatment and Bioenergy production
- The EPA hosted a number of meetings of the Water Research Advisory Group which is a co-ordination committee of key national stakeholders to increase awareness, synergies & communication amongst research funders and to reduce the fragmentation of water research in Ireland.
- At EU level the EPA staff are involved in the pioneering work of a Joint Programming Initiative of Water Research Programme Managers across Europe.

COMMUNICATIONS AND CUSTOMER SERVICE INITIATIVES

- The EPA hosted the 2011 National Water Event in June. Approximately 350 delegates from 60 organisations attended. The focus this year was on delivering intermediate environmental outcomes, diffuse pollution, waste water regulation, drinking water regulation, in addition to new developments in the area.

4. PROTECTED SOIL AND BIODIVERSITY

LAND COVER

- In 2011 the EPA carried out a review of landcover activities and mapping both within the EPA and at a national level. This review highlighted that there is no co-ordinated landcover mapping programme in Ireland. The EPA co-hosted, with the National Parks & Wildlife Service and the Heritage Council, a National Landcover Workshop for relevant public sector agencies. This work shop highlighted deficiencies in Landcover knowledge and the requirement for a more integrated approach to producing landcover maps.
- In response to this the working group was given responsibility for investigating the options for development a national landcover mapping programme and report back to the relevant agencies in due course. This working group is currently in the process of this work and hopes to report back in 2012 at which stage the options for moving forward will be established.
- The EPA have also signed up for the delivery of CORINE and CORINE Change for 2012 with a delivery date of the end of 2013.

CONTAMINATED LAND

- During 2011 the Environmental Protection Agency progressed work in the area of contaminated land and groundwater assessment, including hosting a workshop with environmental consultants working in the area.

BIODIVERSITY

- The EPA published a *Biodiversity Action Plan* in 2010 and updated this plan in 2012. The plan sets out specific actions which the EPA will undertake for the implementation of its role in the protection of biodiversity. The Plan covers a range of activities in the areas of monitoring, research, assessment and reporting, environmental regulation, climate change and management and communications.

RESEARCH INITIATIVES

Soils

- Work continued on the completion of a national detailed mapping of soils. Progress includes research work carried out as part of EPA-funded project ISIS: Irish Soil Information System. This project aims at developing a 1:250,000 soil map for Ireland with associated Soil Information System. The final products will provide a strengthened Irish national response to emergent policy and legislative developments in the environmental area.
- The Cre Beo project led by a UCD research team was published and provides the first systematic baseline data for future monitoring and reporting on soil biodiversity in Ireland. Based on survey work undertaken at 61 sites nationally the research team identified previously unrecorded species including 13 predatory nematodes, an earthworm endemic to southern France and a mite species potentially new to science.

National Soil Database

An interactive GIS map interface has been developed to allow viewing of all the data compiled during the National Soil Database sampling campaigns. More information is available at: http://erc.epa.ie/nsdb.

Progress under this action point includes research work carried out as part of the following projects:

- The *Interactions of soil Hydrology, land use and climate change and their impact on soil quality (SoilH)* project which proposes to establish a network of benchmarked sites throughout Ireland using existing national sites for the measurement of soil hydrological properties and the establishment of a hydrological classification of Irish soils.
- The *Characterisation of physical properties of soils using geophysics* project which aims at developing a geophysical testing framework for use on Irish soils.

Biodiversity

Completion of six biodiversity research projects in 2011 including two major national studies detailed below

- Bogland: Sustainable management of Peatlands in Ireland was the first comprehensive assessment of peatlands (bogs and fens) for Ireland. The report provides useful guidance to policymakers and highlights the important role of peatlands in carbon sequestration and biodiversity preservation.
- Biochange: This interdisciplinary, multi-institutional study project provided necessary information for protecting the diversity of Ireland's flora and fauna and focused on emerging and important issues surrounding Irish biodiversity. The report underlined the value and importance of protecting our ecosystems and highlighted the need to mainstream biodiversity considerations into planning and governance at national and local levels.

A number of other important policy relevant projects are also in progress, including a 5-year study led by TCD on the impacts of specific sectoral activities (bioenergy crops, road landscaping and aquaculture) on biodiversity and further work on the effect of alien invasive species on biodiversity. The EPA also contributes substantially to the National Bird Atlas Project which is currently mapping all Irish birds.

The EPA continues to liaise closely with the National Parks and Wildlife Service and other stakeholders on the National Platform for Biodiversity Research. There have been working papers produced in 2011 which cover the knowledge gaps and priority research needs in Freshwater, Marine and Agriculture, Grassland and Soils.

5. SUSTAINABLE USE OF RESOURCES

The new policy document, issued by the Department of the Environment, Community and Local Government (July 2012) 'A resource opportunity – Waste Management Policy in Ireland' confirmed the Government's position that waste prevention and resource efficiency are crucial elements of a platform for sustainable economic growth. The new policy states that there will be a clear focus on prevention and resource efficiency, which builds on the success of the National Waste Prevention Programme.

NATIONAL WASTE PREVENTION PROGRAMME

- The EPA managed National Waste Prevention Programme (NWPP) has three main strands; one deals with production and consumption behavioural change (resource efficiency); the second dealing with statutory producer and holder responsibility obligations for specified materials and substances; and the third deals with measurement of progress through waste reporting. All three sections contribute knowledge and outcomes essential to working towards sustainable production and consumption activities and behaviours.
- The Seventh annual report for the NWPP provides a comprehensive overview of activities during 2011 and is available on the EPA website at www.epa.ie and www.nwpp.ie. Not all of the NWPP programmes lend themselves to measurement of progress or success. Some are engaged in behavioural change, others in communication, or production of guidance, or sponsorship of environmental excellence awards; as well as funding of awareness and education type activity (e.g. Master Composters, Smart Garages Guide, etc.).

Highlights include:

- Commencement of very successful Green Festivals programme (involving Wexford Opera Festival, the Galway Arts Festival, and Waterford Tall Ships), which is business-community based and is yielding significant resource efficiency dividends.
- Over 125 businesses now hold the coveted Green Hospitality Awards, including some of the most prestigious hotels and largest catering companies in Ireland. More than 220 businesses have joined the Green Hospitality Programme (www.greenhospitality.ie). In 2011, members surveyed demonstrated savings of €5.6 million on resource costs alone (waste, water & energy).

- Green Hospitality has become a member of Guaranteed Irish scheme, and is recognised by Fáilte Ireland.
- During the past year it has become apparent that prevention is beginning to become systemic within the core Local Authority Prevention Network (LAPN). It has been a key goal of the programme that all local authorities in Ireland should foster and carry out prevention activities at the local level within their functional area. The network operates successful Food Waste and Green Events workgroups.
- A new LAPN development in 2011 was to consolidate all the existing tools, techniques, materials and resources into a 'project catalogue' which will then be disseminated to all local authorities (expected to be completed in 2012).
- Over 480 companies have registered on www.greenbusiness.ie, which is a website offering resource efficiency assessment and water audit tools. More than 45 on-site Resource Efficiency Assessments have been completed year identifying over €6 million in potential resource savings for participating businesses.
- The Saving Money through Industry Links and Exchanges Project (SMILE) industrial symbiosis programme (which offers businesses an opportunity to exchange resources, by-products and which aims to generate partnerships) had a very successful year with over 90 participating businesses, over 650 material matches made leading to a potential 7,000t of waste diverted.
- The Green Healthcare project covered 22 hospitals (40% of hospital beds) with 60 waste surveys identifying potential resource savings of €1.6 million (€1 million of which relates to food waste), with a particular focus on food waste, risk waste and water consumption were focused on.
- In the recent reporting period, the NWPP funded and REPAK operated, packaging prevention programme worked with over 30 companies on packaging related projects and carried out 12 formal packaging optimisation surveys

NATIONAL WASTE PREVENTION PROGRAMME REPORT FOR 2011

Programme	NWPP Investment (c. 2011)	Resource Efficiency	Actual and Potential Savings Identified (last 12 months)	Return on Investment (rounded)
Green Hospitality Award	€0.452M	6,400 t waste prevented 38,748,000 KWh energy saved 352,000,000 litres water saved 221 members 125 properties certified	€5.58M	12:1
Green Business Initiative	€0.374M	Water, energy & waste savings 479 active members 45 Resource Efficiency Assessments Typical savings of €40,000 per annum per company assessed	c.€4M	11:1
Eco-Cert	€0.03M	50 members 31 certificates Average > €5,000 savings per certified member	€0.16M	5:1
Green Healthcare Project	€0.150M	2,700 t waste could be prevented €80,000 potential savings in water use in three hospitals	€1.6M	11:1
SMILE	€0.106M	658 waste 'matches' made 6,800 t waste potentially diverted Numerous services & logistics traded	€0.812M	8:1
Green Retail	€0.05M	265 cost saving actions in energy, water & waste for 10 participant stores	€0.142M	3:1
Green Home	€0.125M	11,000 participant households >40,000 visits to greenhome.ie website Est. €320 saving potential saving per high performing household	€0.8M	6:1

Table 1: Summary data for a selection of NWPP focussed Resource Efficiency programmes

- The Stop Food Waste team continues to communicate the programme widely and regularly using a wide spread of tools and applications. As a result the programme is regularly contacted for information, comment, interviews and quotes issues relating to food waste and saving money. Traffic on the Stop Food Waste website has increased 6-fold since before the launch of the website (late 2010) and as a result of the on-going media campaign daily hits on the website are now over 200 on average.
- Greening Community Demonstration Projects are being used to document the "Greening Community" process (four projects commenced in 2011). The approach to the programme development can be broken into four themes; Engagement & Communication; Mapping & Documentation; Demonstration Projects; and Certification & Awarding.
- By mid- 2011 there were approximately 11,000 households involved in the Green Home Programme. This is an increase of c.1,000 households over the last year. With an average household size of 2.81 persons, this represents an estimated outreach to c.31,000 people.

PRODUCER RESPONSIBILITY INITIATIVES

Waste Electrical & Electronic Equipment (WEEE) and battery regulations

- The first battery prosecution was concluded in 2011, for offences under the Battery Regulations. The Probation Act was applied and costs were awarded to the EPA.
- In 2011, the value of metal has created an additional challenge for the proper management of WEEE with metal theft becoming more prevalent. The EPA has been investigating this issue and is engaged with all stakeholders to ensure that WEEE is properly managed and the integrity of the system maintained. This issue forms part of a larger national issue with metal theft and the EPA is in liaison with the Gardaí to provide information on its work both on WEEE and on PCBs.

Packaging Regulations

- The EPA continues its enforcement activities in relation to the packaging *Essential Requirements* which prohibit a producer from supplying packaging where certain aggregate concentrations of lead, cadmium, mercury or hexavalent chromium are exceeded.

Harmful Substances Enforcement

- To develop local authority capacity in relation to identifying PCB holdings and to re-enforce the obligations of local authorities as potential holders of Polychlorinated Biphenyls (PCBs), 10 surveying and training events were held in 2011. Inspections carried out during 2011 continued to identify PCB holdings.
- The 8th EU Persistent Organic Pollutants (POPs) Competent Authority meeting was attended in July 2011. The EPA participated in the 5th Conference of Parties of the Stockholm Convention which was held in Geneva in April 2011. The development of a Persistent Organic Pollutants National Implementation Plan was commenced in 2011.
- The EPA is assigned as competent authority for enforcement of the European Regulation on fluorinated greenhouse gases (F-gases). New Irish regulations were published in June 2011[1], to address aspects of the F-gas Regulation[2], including penalties and fines. New regulations were also made in relation to dealing with ozone depleting substances in September 2011[3] . The EPA published a guide to the regulatory obligations of end users and contractors dealing with Ozone Depleting Substances during the year.
- The EPA took on new responsibilities for registration under the Solid Fuels Regulations (published in June 2011) dealing with limitation of the sulphur content of bituminous coal for residential use to 0.7% by weight.

Inspection Area	2011 Inspections
ODS/F-gas Investigations	69
PCB inspections	118
WEEE/Batteries Producer inspections	15
WEEE inspections and Audits	437
National Waste Report audits	34
Total	**673**

Table 2: Resource use related inspections in 2011

1 Environmental Protection Agency Act 1992 (Fluorinated Greenhouse Gas) Regulations 2011 (S.I. No 278 of 2011); Fluorinated Greenhouse Gas Regulations 2011 (S.I. No. 279 of 2011).

2 Regulation (EC) No 842/2006 of the European Parliament and of the Council of 17 May 2006 on certain fluorinated greenhouse gases.

3 Control of Substances that Deplete the Ozone Layer Regulations 2011 (S.I. No. 465 of 2011).

Launch of the Green Enterprise Guide. In the picture (L to R): Grainne O'Carroll, Department of Jobs, Enterprise and Innovation; Laura Burke, EPA; Fred McDarby, Enterprise Ireland; Phil Hogan, Minister for Environment, Community and Local Government;, Eoin Gahan, Forfas; Ray Bowe, IDA; and Declan Meally, SEAI.

NATIONAL WASTE REPORTING

The National Waste Report 2010 showed that Ireland continues to make good progress towards achieving most of the EU waste recovery and recycling targets. New efficiencies have been introduced in relation to waste data reporting by use of web based facilities. This innovation significantly reduces the administrative burden on businesses and Local Authorities. Significant effort was put into streamlining data collection activities through collaboration with CSO. Close attention to European reporting protocols and arrangements was necessary during 2011 in preparation for the EuroStat reporting obligations in 2012.

NATIONAL HAZARDOUS WASTE MANAGEMENT PLAN

In June 2011 the EPA circulated for comment a report on an interim review of the NHWMP. This interim report reviews the Plan and SEA objectives and identified progress made in implementing its recommendations since its publication in 2008 up to mid-2011. All of the NHWMP recommendations are designed to reduce the environmental impact of hazardous waste.

EUROPEAN WEEK FOR WASTE REDUCTION

The European Week for Waste Reduction took place in November 2011. A range of activities to highlight NWPP waste reduction projects were organised by prevention partner organisations and coordinated by the EPA – a total of 46 events were arranged for the week all over Ireland. This year's events included workshops jointly run by EPA Green Business, the Sustainable Energy Authority of Ireland, and REPAK, which offers a joined-up marketing approach for businesses.

RESEARCH INITIATIVES

The EPA operated the Cleaner Greener Production Programme (CGPP) is a grant scheme to encourage Irish organisations to implement cleaner greener practices. The scheme receives funding from the NWPP. The projects challenge organisations to produce goods and services in more environmentally friendly ways, targeting the minimisation of emissions through cleaner production methods. Companies commit to developing demonstration projects that reduce their environmental impact and are applicable across the business

sector. The long-term aim of this programme is to try to ensure that cleaner greener production and eco-efficiency become the established norm in Ireland. There were 12 projects completed in 2011 and a Summary report on all projects completed under Phase 4 of the Prgramme will be published in mid-2012.

The EPA STRIVE research programme also funds academic-led research in the area of Waste and Resources Management. There were five projects completed and published in 2011 and these are outlined below.

- Conversion of Waste PET Plastic to a High Value-Added Biodegradable Plastic
- Study of Pay-by-use Systems for Maximising Waste Reduction Behaviour in Ireland
- Novel Approaches for the Detection of Polluting Chemicals in the Environment
- Potential for a Zero Carbon Emission Micro Fuel Cell
- Industrial applications of membrane technology in Ireland

On-going research in this area include projects relating to the bioconversion of dairy food and farm plastics into high end products, improved waste tracking and emissions monitoring, innovative solutions for WEEE reuse and recycling, compost application and the use of "native Irish wastes" in biorefineries.

COMMUNICATIONS AND CUSTOMER SERVICE INITIATIVES

The NWPP team worked closely with the IBEC 'Green Officer' with the primary aim of marketing the Green Business Initiative offerings within IBEC, both to staff and to the 7,000 IBEC members.

The National Waste Prevention Programme held a conference on 1 June 2011 in Dublin[4]. The conference highlighted the wide range of work underway in Ireland to minimise and prevent waste and encourage resource efficiency, and thereby reduce operational overheads for organisations.

The EPA works closely with the Sustainable Energy Authority of Ireland, Enterprise Ireland and IDA Ireland to promote and support sustainable enterprise attitudes and behaviours within organisations. It is this close working relationship that in 2011 yielded the Green Enterprise Guide[5] which represents the coming together of five State agencies to produce a valuable business resource for private and public enterprises. The main aim was to provide in one document a brief introduction to the economic and operational benefits of Resource Efficiency for businesses, and to present an overview and directional information to the supports and services offered by the four principal agencies in the State active in this policy area. The goal was to be of assistance to enterprises by offering in one document a guide for the different business sectors where they can obtain the necessary State provided advice and support.

4 Presentations are available to download at: http://www.epa.ie/downloads/pubs/waste/resourcewise2011/

5 http://www.epa.ie/downloads/pubs/other/corporate/Developing%20a%20Green%20Enterprise%20Navigator.pdf

6. INTEGRATION AND ENFORCEMENT

INTEGRATED POLLUTION PREVENTION AND CONTROL (IPPC) LICENSING

In 2011:

- 21 IPPC Final Determinations were issued.
- 29 IPPC Proposed Determinations were issued.
- 42 Technical Amendment Decisions were issued in accordance with the licensing regulations, 12 of which were rejections.

Three Non-IPPC Directive Draft BAT Notes on: (i) Wood Treatment; (ii) Ferrous Metal Foundries; and (iii) Ferrous Metal Processing; were placed on the EPA website for public consultation in Q4 2011. Comments received on the Wood Treatment BAT note are now under consideration. No comments were received on the Ferrous Metal Foundries and Ferrous Metal Processing BAT notes. Two Waste sector BAT notes (Landfill Activities and Waste Transfer Activities) have been finalised and will be placed on the EPA website early in 2012.

WASTE LICENSING

In 2011:

- New or revised licences were granted for five landfills; one waste transfer station; two soil recovery facilities; one hazardous waste facility and one integrated waste management facility.
- 5 Proposed Decisions were issued (of which one was under the landfill review exercise).
- 10 Technical Amendment Decisions were issued, in accordance with the licensing regulations.
- 150 Article Eleven requests were received, to determine if facilities require a Waste Licence or Permit.

COMPLIANCE WITH LANDFILL DIRECTIVE

The review of five IPPC licences with associated landfills was initiated in 2011 in conjunction with the review of these licences for the environmental objectives regulations for surface waters and groundwater. This work is ongoing as is the assessment of four outstanding waste licences for compliance with the directive.

BIODEGRADABLE MUNICIPAL WASTE (BMW) & LANDFILL DIVERSION

- The quantity of BMW landfilled during the reporting year July 2010 - July 2011, as reported by landfill operartors, was 856,396 tonnes as compared to the landfill directive limit of 916,000 tonnes. 15 audits focused on validating BMW returns by operators were completed at landfills during 2011. The "Protocol for the Evaluation of Biodegradable Municipal Waste Sent to Landfill" was finalised in July and sent to all landfills and placed on the EPA website.
- The lower than expected waste arisings means that Ireland nationally has met its landfill directive targets.

WASTE WATER LICENSING

- 4 waste water licence applications were received in 2011, bringing the total number of applications received to 534.
- 66 Final Decisions were issued in 2011. This brings the overall total issued to 190 Final Decisions since the commencement of wastewater licensing.
- Nine Technical Amendment Decisions were issued, in accordance with the licensing regulations.
- 62 certificates of authorisation applications for agglomerations with a population equivalent of less than 500 were received in 2011. This brings the total number of applications to 518 (which includes three reviews). 467 Certificates of Authorisation issued (2 of these were reviews). The remaining applications are currently being processed.

HISTORIC LANDFILLS

Closed landfills that were operated by local authorities between 1977 and 1997 were not licensed in accordance with the 1975 Waste Directive and are now to be addressed to ensure they do not cause environmental pollution. Local authorities are currently assessing the risk of environmental pollution from these sites and will make application in due course to the EPA for a certificate of authorisation for each site. Any certificate of authorisation issued by the Agency will set out the remedial measures, if any, to be implemented at the site and will also set out what monitoring is required into the future. Four historic landfill applications have been made to date. There are currently 3 applications on hand.

ARTICLE 27

Implementing article 5 of Directive 2008/98/EC on waste, article 27 of the European Communities (Waste Directive) Regulations 2011 introduces a new provision that allows economic operators to decide that their material is a by-product and not a waste. Any such decisions have to be notified to the EPA. The Agency is responsible for assessing these notified decisions to ensure that they conform with the Regulations and the Directive and that the materials in question are in fact by-products and are not to be regulated as waste. In 2011, 12 notifications were received by the EPA. Three of the notified materials were determined by the EPA to be waste.

CERTIFICATES OF REGISTRATION

The EPA issued 27 Certificates of Registration in 2011 in relation to local authority waste recovery facilities deemed to be low risk to the environment.

GENETICALLY MODIFIED ORGANISMS (GMO)

By the end of 2011:

- There were 355 active entries on the register of GMO users in Ireland.
- 57 decisions were granted for the contained use of GMOs and 1 consent for deliberate release activities.
- GMO site inspections were carried out at 16 registered premises, some of which contained multiple users.

DUMPING AT SEA PERMITTING

The Foreshore and Dumping at Sea (Amendment) Act 2009 transferred responsibility for the issuing of Dumping at Sea Permits from the Department of Agriculture, Food and Marine (DAFM) to the EPA, effective from 15th February 2010. The EPA issued six Dumping at Sea permits and two Technical Amendments in 2011.

Enforcement of these permits commenced and an electronic receipt system for the acceptance of DAS 2011 Annual Reports and OSPAR Reports was developed. A system is being developed to make these reports available to the public via the EPA website in 2012.

EXTRACTIVE INDUSTRIES

The EPA launched a new GIS based extractive industries website on 05 December 2011 http://watermaps.wfdireland.ie/ExtractiveFacilities/ to include facilities engaged in surface or underground extraction of mineral resources for commercial purposes for example, quarries, mining sites or peat extraction.

The website is a data management system that provides a single mechanism to create a national register of Extractive Industries. Local authorities can use the e-register to maintain

a current register of facilities under their remit and the EPA is using it to provide information on all EPA-licensed extractive industries facilities. The register also contains an inventory of closed extractive waste facilities.

LICENCE ENFORCEMENT

- The EPA completed 169 audits and 658 inspections of waste and IPPC licensed sites.
- 870 notifications of non-compliance (NONCs) were issued by the EPA.
- 122 meetings were held with licensees to address non-compliance issues.
- Complaints received during the year in relation to these licensed sites totalled 1200. 80% of these related to odour issues.
- Incidents notified to the Agency (in accordance with the terms of licences) totalled 2446.

WASTE ENFORCEMENT

The EPA, HSE, Kildare County Council, Defence Forces and Gardai worked closely during the year to deal with a fire and other environmental issues at Kerdiffstown Landfill, near Naas. The EPA exercised its powers under Section 56 of the Waste Management Act to secure the site and to start the longer term process of remediation of the whole site. Preliminary works included removing stockpiles of fire-risk waste; providing security personnel at the site, establishing an on-site office; and onsite monitoring and inspection. Funding for the works to date has been provided by the Department of Environment, Heritage & Local Government.

LEGAL ENFORCEMENT

The Agency brought 22 successful prosecution cases, all of which were heard in the District Court. Three cases were brought against waste licensees and eleven against IPPC licensees. Four were brought against licensee Directors. Three were in relation to carrying on unlicensed IPPC activities and one was brought under the Waste Management (Batteries & Accumulator) Regulations. Costs and fines imposed amounted to €133,707.02.

District Court Prosecutions	Number	Total fines, costs and donations to charity
IPPC		
IPPC licensees	11	€97,627.40
Director of IPPC licensee	1	€-
Unlicensed IPPC	3	€6,097.62
Waste		
Waste licensee	3	€22,463.00
Directors of waste licensee	3	€3,000.00
Batteries' regulations	1	€4,519.00
Total	**22**	**€133,707.02**

Table 3: Legal Enforcement

COMPLAINTS IN RELATION TO STATUTORY PERFORMANCE OF LOCAL AUTHORITIES

- The EPA conducted twelve integrated audits of local authorities, in addition to 116 drinking water audits and 73 wastewater audits.
- The EPA opened 186 new investigations this year, on foot of complaints made to the EPA or based on incidents identified by the EPA, in relation to activities that were the responsibility of local authorities.
- A total of 215 investigations were closed out during the year.
- A total of twenty five Directions were issued to local authorities. These all related to drinking water issues.

ENFORCEMENT NETWORK

The Agency continues to co-ordinate a National Environmental Enforcement Network. The Network harnesses the collective resources, expertise and investigative capacity available nationally to tackle environmental crime. The Network is well established and brings together more than 1,000 staff from over 50 agencies in the country. Significant outcomes of the Network in 2011 included multi agency enforcement actions which saw the number of unauthorised scrapyards fall from 157 to 20. This had been the subject of an ECJ case against Ireland dating back to 2005. Other outcomes were that all Public Water Drinking Supplies now have chlorine monitors installed (30% in 2008/09) and also that there was a 74% reduction in E.coli failures since EPA became the supervisory authority in 2007.

The Environmental Protection Agency is responsible for compiling the European Pollutant Release and Transfer Register (E-PRTR) annually, under Regulation (EC) No. 166/2006. The Agency submitted its third E-PRTR report to the European Commission on 31st March 2011, for the year 2009.

The work associated with implementation of the PRTR Regulations has involved the following:

Collection and verification of data submitted by large industrial facilities, annually, on up to 91 substances or pollutants. It includes emissions to air, water, wastewater as well as off-site transfers of both hazardous and non-hazardous waste

Preparation of a triennial report for the period 2007-2009, to facilitate an Official Data Review by the Commission on the PRTR process adopted, the legal basis, public accessibility of data, quality assurance and data assessment process in each member state. The outcome of this data review was that the Commission were satisfied that Ireland was fully compliant with the requirements.

The establishment of an e-register, for publication of information for public access. This e-register in the form of an innovative national website was both developed and launched by the Agency in October 2011 i.e. http://prtr.epa.ie. The establishment of this website, paved the way for the ratification by the Irish Government of the UN Protocol on PRTR, in June 2012. Preceding this, the Pollutant Release and Transfer Regulations 2011(S.I.649 of 2011) were signed into law by the Minister for the Environment on 13 December 2011.

Communication with the Commission and European Environment Agency (EEA) on "Country Reports". Each year the EEA carries out a rigorous review of E-PRTR submissions from each member state, and reports back under "Country Reports". The Country Report for Ireland was received on the 28 June 2011 concerning 2009 E-PRTR data. Overall, no amendments to dataset were required under EEA's Stage 1 findings, with some minor changes, due to reporting errors from 5 facilities, required following Stage 2 EEA review. These facilities were notified by the Agency and consequently submitted corrected data in July 2011.

The development of a new e-reporting tool for estimating emissions of PRTR substances discharged from public wastewater treatment plants, based on actual monitoring data from representative treatment plants is progressing and due for completion in July 2012.

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) DIRECTIVE

Key Strategic Environmental Assessments undertaken by public bodies in Ireland, and for which submissions were made by the EPA during 2011 include:

- 3 National Plans – Offshore Renewable Energy Development Plan (OREDP), Grid 25 Implementation Programme, Petroleum Exploration in the Celtic & Irish Seas (IOSEA4)
- 1 Regional Transport Plan – Greater Dublin Area Draft Transport Strategy
- 1 Transboundary – NI Water Resource Management Plan
- 1 County Renewable Energy Strategy (Mayo)
- 3 Port / Harbour Related SEA's (Dublin, Rosslare and Dun Laoghaire)
- 28 County and Local level land use SEAs
- 47 Scoping Submissions and 127 Screening Submissions were made

INFORMATICS & GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

- The EPA commenced development of a new version of the public WebGIS viewer, Envision, and continued to add data for download to the Geo Portal Site (http://gis.epa.ie/).
- The EPA launched a PRTR website with a significant GIS element (www.prtr.ie).
- The reporting under the European Water Framework Directive is the responsibility of the EPA. During 2011 the EPA promptly resolved all queries from the European Commission flagged in their assessment of the data reported for WFD Article 13 in 2010.
- The Informatics Unit within the EPA has been extensively involved in the planning of how GIS can be used to maximum benefit within the Licence Enforcement and Monitoring Application (LEMA). Specifically this included work on a prototype for the collection of electronic licence applications via online web forms and the development and publication of the Certificate of Authorisation application for registration of new waste water discharge applications now available on EPA website at http://www.epa.ie/downloads/forms/lic/wwda/.
- The EPA continued the integrated assessment project with the Geological Survey of Ireland on the potential for risk ranking of single house treatment systems.

- The Environmental Data Exchange Network (EDEN) is a national portal for public authorities to share monitoring data. In 2011 EDEN was extended to allow local authorities to upload and report urban waste water data to the EPA.
- A new portal called ALDER was developed for customers that are not public authorities. Through ALDER customers will be able to report data to the EPA via an upload facility. In 2011 it was used by customers to report information data on Polychlorinated Biphenyls (PCBs). In the future it will be extended to allow online licence applications and the submission of monitoring data for the purposes of annual environmental reports.
- In recent years the EPA has developed a database called Aquarius for the integration of monitoring data from both EPA Labs and EDEN. In 2011 phase 2 of Aquarius development was completed and rolled out. Aquarius Phase 2 included the delivery of new functionality such as the integration of groundwater data, waste water data, and lakes & river assessment data. It also saw the development of a user interface for the WFD Monitoring Programme and new reporting tools.

LABORATORY SERVICES

- A total of 25,491 samples were taken and analysed for a range of chemical and, where appropriate, microbiological parameters. Samples were taken from rivers, lakes, ground waters, tidal waters, landfill leachates, IPPC effluents, waste water discharges and air emissions. The work was undertaken as part of national monitoring programmes including the Water Framework Directive (WFD) Surveillance and Operational programmes, in support of Environmental Enforcement, and for regional programmes on behalf of local authorities in the southeast, west and north-east.
- Services to the Office of Environmental Enforcement increased in the areas of landfill gas measurement and waste water treatment plant audits.
- 2011 saw closure of the Regional Laboratory in Cork following the OEA Review in 2010. Staff were reassigned to other tasks defined within the review.

INTERCALIBRATION PROGRAMME

- The total number of laboratories participating in the EPA's intercalibration programme, increased by four to 137 in 2011. These include local authority and contract laboratories, other laboratories supplying data to the EPA and also the EPA's regional laboratories. The sample preparation and distribution elements of the programme are now outsourced to an external laboratory.
- The register of laboratories, provided for under Section 66 of the EPA Act, 1992, was updated in July 2011 and is available for inspection at the EPA Headquarters and at www.epa.ie.

EUROPEAN ENVIRONMENT AGENCY (EEA)

- The EPA in its role as National Focal Point for Ireland continued to coordinate environmental information exchange with the EEA and to maintain and develop the national network and facilitate and coordinate contacts, requests and deliveries between national and EU level.
- The EPA's online environmental indicator website Ireland's Environment (http://www.epa.ie/irelandsenvironment/) was regularly updated throughout 2011. The website provides concise, up-to-date information about the Irish environment for the general public and policy makers. It also meets multiple reporting requirements including European Environment Agency (EEA) State of the Environment (SOE) reporting and national indicator reporting.

RESEARCH INITIATIVES HIGHLIGHTS

The publication of a research report by the London School of Economics research team who investigated the enforcement strategies employed by the regulatory agencies in Ireland and UK in enforcing low risk sites. The findings of the work were presented at a workshop in Dublin attended by over 40 persons representing 18 different organisations representing a variety of stakeholders from a variety of governmental departments, state agencies and academia who have an interest in Better Regulation.

The EPA organized six workshops at various regional locations to promote the publication of FP7-Environment calls, facilitate networking and increase cooperation between European research teams. Since 2007, over €30 million in EU funding from the FP7 programme has been awarded to Irish researchers across all thematic areas on environmental related projects.

In November as part of Science Week 2011, STRIVE held its ninth annual Post-graduate Research Seminar. Over 100 delegates attended the seminar, which included 20 presentations by EPA funded postgraduate researchers across a broad spectrum of environmental topics.

In addition, the EPA financially supported and participated in the Environ 2011 conference hosted by UCC over a three day period in April 2011. Approximately 250 delegates attended the event over 80 oral presentations from researchers across a broad spectrum of environmental topics including climate change, environment and health; environmental technologies, biodiversity and water quality.

	IPPC Licences	Waste Licences	Waste Water Licences	Certs of Authority	Dumping at Sea Permits	GMO Consents	Certs of Registration
Applications Received	117 (includes EO Regs Reviews)	6 (includes EO Regs Reviews)	4	62	2	52	24
Proposed Decisions	29	5	N/A	N/A	N/A	N/A	N/A
Objections Received	10	0	N/A	N/A	N/A	N/A	N/A
Final Decisions	21	12	66	467	6	58	27

Table 4: Licensing Activities 2011

Inspection Type	No.
License application and review inspections	50
IPPC Enforcement Inspections	426
IPPC Enforcement Audits	97
Waste Enforcement Inspections	232
Waste Enforcement Audits	72
IPPC Monitoring Visits (water)	557
Waste Monitoring Visits (water)	145
Waste Water Discharge Visits (water)	158
Landfill Gas Monitoring Visits	52
IPPC Compliance Meetings	84
Waste Compliance Meetings	38
Local Authority Audits (Drinking Water, Urban Waste Water and Integrated)	199

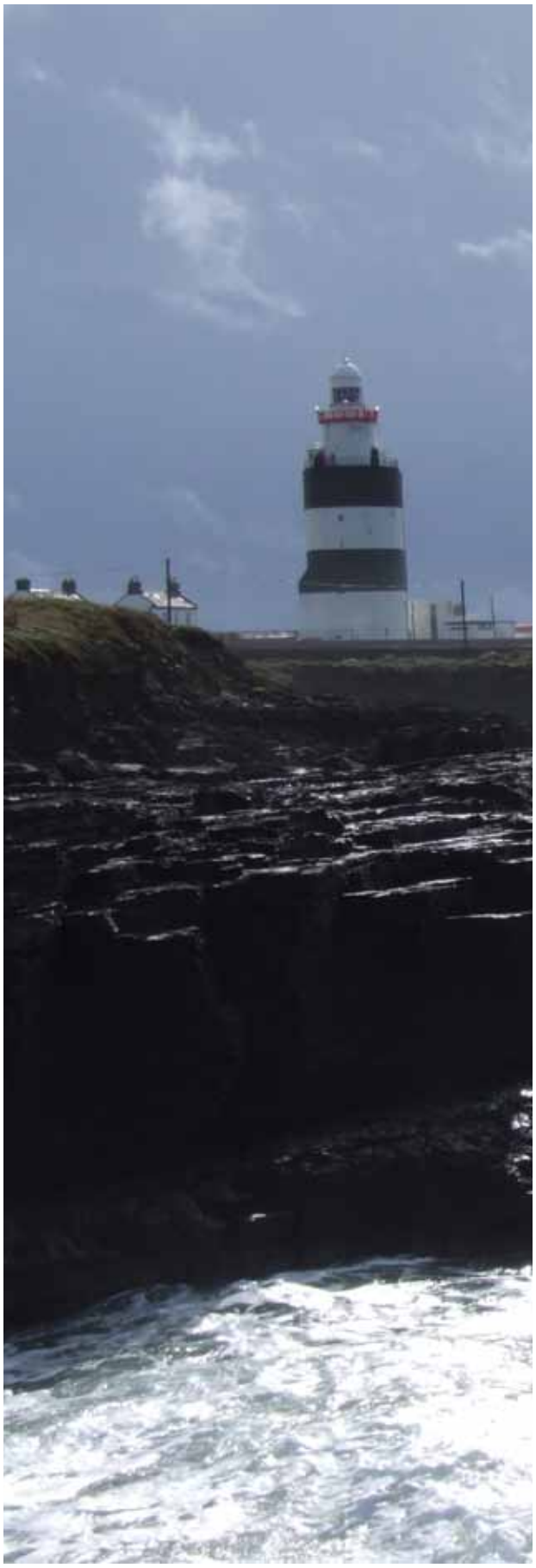
Table 5: Audits and Inspections 2011

Activity	Number in 2011
IPPC & Waste Enforcement Inspections	658
IPPC & Waste Enforcement Audits	169
Complaints Received	1200
Notification of Non-Compliance Issued	870
Compliance Meetings Held	122
Incidents Notified to the Agency	2446
Water Monitoring Visits	860
Landfill Gas Monitoring Visits	52

Table 6: Enforcement Activities 2011

Activity	Number in 2011
Audits – Drinking Water, Urban Waste Water and Integrated	201
Investigations Initiated during the Year	186
Investigations Closed during the Year	215
Directions Served	25

Table 7: Public Authority Enforcement 2011



7. BUILDING A HIGH PERFORMANCE ORGANISATION

COMPETENT / COMMITTED PEOPLE

The EPA's continuing goal is to ensure that we have a committed workforce that performs to maximum ability.

Arising from the Public Service Agreement and the Employment Control Framework, the EPA staff complement had reduced to 324 by the end of 2011. One hundred and forty four staff were located at EPA Headquarters in Wexford with the remaining staff strategically located in five Regional Inspectorates and four Offices throughout the country.

The EPA keeps its organisational structure and resources under continuous review to ensure that it is best positioned to meet its statutory functions and the goals set out in the EPA Statement of Strategy, *2020Vision.* The organisational structure has been changed significantly on a number of occasions to adapt to the loss of staff and reflect emerging needs and priorities.

The EPA has a very positive attitude to work placements and participated in the FAS Graduate Placement Programme and subsequently in the National Internship Scheme in 2011. Many of the Interns who participated in the scheme were successful in gaining fulltime employment in the private sector as a result of their placement with the EPA.

A number of developments took place with the Human Resource Information Management System. These developments and efficiencies enhanced the role of Line Managers in relation to the management of staff and also provided an improved reporting capability for staff management.

In order to continuously build a depth of skills and knowledge across the organisation, the EPA has a very significant commitment to staff development and training.

This commitment is reflected in a budget allocation to Learning & Development which represents approximately 3% of payroll spend. Direct expenditure on training in the year amounted to €600,000. During 2011 staff participated in a programme of 271 (internal, external & group) training courses, workshops, conferences and seminars, amounting to a total of 1791 training days, giving an average of 5.4 days training per person.

The EPA continued the roll out of a People Management Programme, with 71 senior staff members having completed the course by end 2011. This Programme will provide senior managers with the skills necessary to manage in the context of a rapidly changing work environment and increased pressures for efficiencies and innovation in the Public Sector.

In order to achieve the goals set-out in *2020Vision* the EPA recognises the importance of developing and promoting a Learning Culture and identified 'Promoting a Learning Culture' as a high priority challenge in 2010.

The implementation of the 'Corporate Learning Strategy 2010-2012' continued in 2011 under the LINKS Project (Learning, Innovation, Networking, Knowledge, Sharing). The aims of the Corporate Learning Strategy (CLS) are to:

- give managers and staff access to high-quality professional and managerial training and the ongoing opportunity for personal development and growth;
- provide mechanisms through which staff will be able to monitor and keep up to date with international developments, particularly in relation to environmental protection, science, technology, and research; finance, communications and information technology; find effective ways to transfer learning and embed it within the Agency;
- support high quality decision making on all environmental issues which calls for high quality skills and judgement.

In 2011 significant work took place on the LINKS workstreams; Coaching & Performance Dialogue, Mentoring, Technical Capability, Informal Learning. These four areas of work were chosen to be the most significant areas for the EPA to consider and action, in order to meet the overall goals of the CLS. Leadership Behaviours, Change Management Methodology and Best Practice are also being included as part of the implementation.

The EPA has a formal Performance Management and Development System (PMDS) in place since 2002, which is well embedded with full participation. The PMDS aims are to promote high performance standards by employees, ensure achievement of business goals set out in *2020Vision,* develop employee skills and promote clear two-way discussion between managers and employees.

The EPA is committed to ensuring the safety, health and welfare of its staff through strict adherence to Health and Safety Standards and through the provision of appropriate training, audit, risk assessment and safety awareness programmes. The EPA's excellent safety record was maintained with no serious accidents occurring at work during 2011.

Continuing emphasis was placed on internal Cross Office collaboration for the EPA in delivering its 2011 Annual Work Programme. Cross Office activities include:

Work progressed on a significant formal Cross Office LEMA (Licensing, Enforcement and Monitoring Application) project. This integrated IT project will focus on moving many of the EPA licensing, enforcement and monitoring duties onto an automated electronic platform resulting in substantial efficiencies both for the EPA and its stakeholders.

A range of technical Cross Office groups continued to meet as required and exchange information on topics such as the Water Framework Directive, the Groundwater Directive, the Landfill Directive, Waste, Groundwater, Air, IPPC and Waste Water Licensing and Enforcement issues.

The EPA has had a Partnership Committee *(Meitheal)* in place since 1999. The work of Meitheal is mainly conducted through Cross Office groups. During 2011, *Meitheal* continued to play a role in the ongoing development of the Performance Management and Development System for staff, the co-ordination of Health and Safety initiatives, Staff Development Group, Quality Customer Service, Green Team and input into the Public Service Agreement 2010-2014.

ENVIRONMENTAL CHAMPION

It is an EPA aim to ensure that environmental considerations are at the heart of all decision making. To support this aim, the EPA strives to ensure that the right information gets to the right people at the right time to inform, educate and enable effective environmental management.

For a seventh year, the EPA sponsored the annual *Environment Ireland* conference in September 2011. The theme for 2011 was *"A new direction in environmental policy"*. The conference is the largest held in Ireland each year about environmental policy and management. The 2011 conference was attended by delegates representing all the main sectors with an interest in Ireland's environment, including many from Great Britain and Northern Ireland.

The EPA organised three Climate Change public lectures during 2011. Over 400 people attended each lecture and recordings of each were provided on the EPA website at www.epa-pictaural.com and the EPA YouTube channel at www.youtube.com/user/epaireland. International experts addressed themes ranging from sustainable transport and

climate smart agriculture to the contribution by Irish scientist John Tyndall to climate science on the 150th anniversary of his discovery of Greenhouse gases.

The ninth series of the popular EcoEye was broadcast early in the year by RTE 1. The series is supported by the EPA. Viewing figures increased on the previous series, with an average of 526,000 viewers per programme. The EPA agreed to support a tenth series which was substantially completed during the year.

EPA staff engaged with stakeholders at a range of national and local events during the year, including the BT Young Scientist and Technology Exhibition where the EPA also presented a Special Award and the Native Species weekend in Dublin Zoo. Material was also provided for other events to help raise environmental awareness.

An Taisce, in partnership with the EPA's National Waste Prevention Programme, continued to run the Green Home programme during the year. In 2011, the programme was designated in the Tidy Towns competition as a 'Preferred Action' under the waste minimisation criteria and over 90 Tidy Towns groups signed up to undertake the Green Home programme. By the end of the year Green Home was also running in several community groups and businesses and in over 80 schools with 12,500 associated households.

The national Greening Communities Network is jointly led by the EPA, the Department of Environment, Communities & Local Government and An Taisce. In 2011 four demonstration projects were nominated to test the effectiveness of greening different types of communities. The approach to the greening communities' process will be tailored for each project through the demonstration process. The demonstration projects are Docklands Business Forum (business community); Wexford Opera Festival (greening events); Wicklow County Area (communal gardens) and Roscommon (Frenchpark) (village community).

EPA-funded research has provided significant support for environmental policy and decision making at national and international levels. A significant output from the research programme are the final reports from completed projects.

There were 28 research reports published in 2011.

The EPA continued to develop its web based information in 2011. Key developments included:

- Introduction of a web-based grant application and project management system for the research programme in 2011. This system is now routinely used for the for on-line grant applications, processing and awards. There are currently 350 funded researchers actively using the system for technical and financial reporting of their projects.
- Improved delivery of information from EPA-funded research through the SAFER data resource which is available through the EPA web-site. There are 2700 data files publicly available which is improving public access to data generated by EPA-funded research.

The online bathing water quality website SPLASH (www.bathingwater.ie) was updated throughout the bathing season with near real-time data in relation to bathing water quality.

The number of Video Broadcasts made available on the website increased and a new media centre was introduced to improve searching and viewing videos.

A significant amount of work was completed to improve the accessibility of information on the EPA website. It was awarded the Excellence Through Accessibility award in 2011.

The web-based environmental indicator resource 'Irelands Environment' was regularly updated throughout the year. This resource was designed to provide concise, up-to-date information about the Irish environment for the general public and policy makers. It allows the EPA to fulfill certain EU reporting obligations in close to real-time, while providing environmental assessments to stakeholders in a format that is useable for them.

A review of the EPA website was carried out at the end of 2011 to update the EPA's online strategy and to identify how the EPA's use of the web can better serve it and its audiences online. Extensive consultation was carried out with stakeholders to allow the EPA to understand its audiences' online needs and develop clear audience-focused online communications. The findings of the review will be analysed in early 2012.

EPA Environmental Management System

The EPA is committed to reducing the environmental impacts of its own operations. The EPA's Environmental Management System (EMS) is audited twice a year by an external accredited body to ensure that the requirements of the internationally recognised ISO 14001 EMS Standard are met and exceeded. During 2011 the EPA continued to maintain certification to the ISO14001 standard for all our sites and activities that have a significant environmental impact.

Overview of Energy Usage in 2011

The main energy consumption at EPA offices and laboratories is in relation to space heating, lighting, power and hot water. We have a fleet of 40 corporate vehicles using mostly diesel and also bio fuel, when available.

In 2011, EPA consumed 3,017.528 MWh of energy, which represents approximately an 18% reduction on our 2010 consumption. The breakdown of our energy usage is as follows:

- 1,216.723 MWh of electricity;
- 1,040.593 MWh of fossil fuels, including
  - 320.955 MWh of natural gas
  - 252.539 MWh of kerosene
  - 55.366 MWh of LPG
  - 411.733 MWh of transport fuels (diesel) and;
- 760.212 MWh of renewable fuels (wood chip and wood pellet).

Actions Undertaken in 2011

In 2011 the EPA undertook a range of initiatives to improve our energy performance, including:

- Installation of energy efficient induction loop external lighting at our Kilkenny office which also reduced the number of light fittings while adequate light levels.
- Thermographic studies were undertaken at three locations to identify any areas of potential heat loss through the structure and the effectiveness of existing space heating systems.
- Installation of additional insulation at our Monaghan & Castlebar offices.
- A complete re-commissioning of mechanical plant at our Dublin & Monaghan offices.

Actions Planned for 2012

In 2012, we intend to further improve our energy performance by undertaking the following initiatives:

- Implement a programme of works to remediate any issues highlighted in the thermographic studies.
- Carry out a full energy audit in all EPA locations.
- As part of a major refurbishment of our Cork office we intend to upgrade glazing with an improvement in U values from 4.37 to 1.4 giving a predicted saving of 70 kWh per square metre.
- Carry out a review of the mechanical and electrical installation in Kilkenny.

CUSTOMER FOCUSED

The EPA strives to be a customer focused organisation.

The Environmental Queries Unit continues to centralise and manage environmental queries from the public. In 2011 over 3,000 queries were dealt with and closed out by the unit, providing customers with a higher level of service. A survey was carried out at the end of 2011 to get feedback from the public on the service they received from the Environmental Queries Unit, the results will be analysed in 2012.

A new customer charter was developed, made available for public consultation and was published in early 2011.

There were no complaints referred to the QCS officer in 2011.

To better inform decision makers and to influence business, the public and the organisations that we work with, the EPA continually strives to improve our communications and develop and provide educational resources.

During 2011, 356 media enquiries were handled by EPA.

A series of articles was developed and distributed on a monthly basis to regional media. These articles featured information on a variety of EPA issues and the information was tailored to suit each county or region. Topics included a joint Green Business Guide, advice on car re-spraying service providers and not burning waste oil as well as major reports such as those on drinking water, water quality, waste and bathing water. A total of 244 articles were generated in local papers by this process as well as 10 interviews on local radio.

An *End of Year Statement* by the Director General was published and disseminated. The Statement captured the highlights of the EPA's main activities and achievements during the previous year (2010).

Two editions of *EPANews,* the corporate newsletter, were distributed to subscribers during the year.

The EPA sponsored a lesson on water and waterways in *Science and Technology in Action,* a multimedia resource for second level schools.

The EPA also sponsored and partnered with the Science Gallery a very successful exhibition "Water - Surface Tension" which ran over a three month period.

ORGANISATIONALLY EFFICIENT

The EPA is committed to maintaining the highest standards of corporate governance and embedding the culture of good governance in all Offices and business units. As part of the ongoing implementation of the Code of Practice for the

Governance of State Bodies, the EPA continued to conduct internal audits under the stewardship of the Internal Audit Committee.

CORPORATE GOVERNANCE

The EPA had an independent assessment of EPA compliance with the Code of Practice for the Governance of State Bodies carried out in early 2010. The report found, based on the work undertaken, that corporate governance standards are given high priority within the EPA. It also found that there are high levels of management awareness of corporate governance obligations and that these are kept under regular scrutiny and that, as appropriate, the EPA's governance policies and procedures are consistent with the Code.

The EPA conducted a comprehensive review of its Risk Management Structures in 2011 following which the EPA Risk Management Policy was revised during 2011 to bring it into full compliance with the provisions of the revised Code of Practice for the Governance of State Bodies. A Chief Risk Officer was appointed and a Risk Committee was established and commenced operation in line with the revised Policy. A more fundamental review of Office level risks that commenced in 2010 was completed in three of the four Offices during 2011. The review will be carried out in the fourth Office in 2012.

The EPA's Internal Audit Committee is comprised of an external Chairperson and other external expertise in lieu of non-executive Director input, together with a senior representative from the EPA.

The EPA Internal Audit Plan 2011 – 2012 was progressively implemented with one standard audit completed and one Value for Money Review commenced.

The internal audit was carried out in the area of:

- Internal Audit of Fraud / Corruption Prevention and Detection in EPA.

Progress on the implementation of the actions in Internal Audit Implementation Plans is regularly reviewed and reported to the Internal Audit Committee and the EPA Board.

Value for Money Reviews which commenced in 2010 in the following areas were finalised during 2011 and presented to the Internal Audit Committee and the Board:

- The EPA's Environmental Technologies and Cleaner Production Research Programme, and
- The Enforcement of the European Communities (Drinking Water) (No.2) Regulations, 2007.

The Value for Money Reviews were carried out in accordance with Department of Finance Guidelines.

A further Value for Money Review commenced during 2011 in the Water Framework Directive Area.

The Internal Audit Plan for the period 2012 - 2013 was developed during 2011 and approved in February 2012 and, among others, reflects the risks identified in the EPA's Corporate Risk Register, the requirements of the Comptroller and Auditor General, and developments and issues in relation to Corporate Governance that have arisen in the Public Sector in general. This Internal Audit Plan was approved by the Internal Audit Committee and by the EPA Board.

BOARD OF THE EPA

The EPA Board is comprised of five full time Executive Directors. A total of 53 meetings were held in 2011, including 11 general meetings, at which corporate policy, strategy, finance and planning issues were dealt with and 42 technical meetings, at which licence applications, prosecutions and operational issues were dealt with.

ADVISORY COMMITTEE

The 5th EPA Advisory Committee was appointed by Mr John Gormley, TD, Minister for the Environment, Heritage and Local Government on 21st January 2010. The Committee held three meetings during 2011 and continued to provide useful and timely advice to the EPA on a range of issues.

PUBLIC SERVICE AGREEMENT 2010 – 2014

The EPA developed an Action Plan under the Public Service Agreement 2010 – 2014 (referred to as the 'Croke Park Agreement') in December 2010 and presented its first and second Progress Reports to the DOECLG up to the end of September 2011. This Action Plan gives effect to the measures set out in the Agreement and outlines the specific actions to be taken by the EPA to achieve efficiencies and savings, the timescale for these, the benefits and verifiable savings arising and the periods in which they will be achieved.

An EPA Implementation Group was established in 2011 to oversee the implementation of the EPA Action Plan and progress on the plan is monitored by the Board and reported to the Implementation Body as required through the DOECLG. Significant Progress was made on the Implementation of the EPA Action Plan during 2011.

INFORMATION TECHNOLOGY (IT)

During 2011 the EPA focused its IT resources on continuing to deal with the challenge of the increasing demands of delivering on its environmental and corporate obligations.

The approach was based on the prioritisation of nine lead IT development projects, and the support of existing systems, with the overall objective of improving processes and enhancing IT services/solutions for environmental and corporate systems.

The project covering EPA's core environmental processes of Licensing Enforcement Monitoring Application (LEMA) continued to make progress in 2011. The new solution is built around a six step process, which will bring efficiencies to these environmental processes. For example in the enforcement area, the EPA is now responsible for enforcing licences for over 400 waste water treatment plants and this additional work can only be absorbed by the organisation by the use of IT and efficient processes between the EPA and Local Authorities.

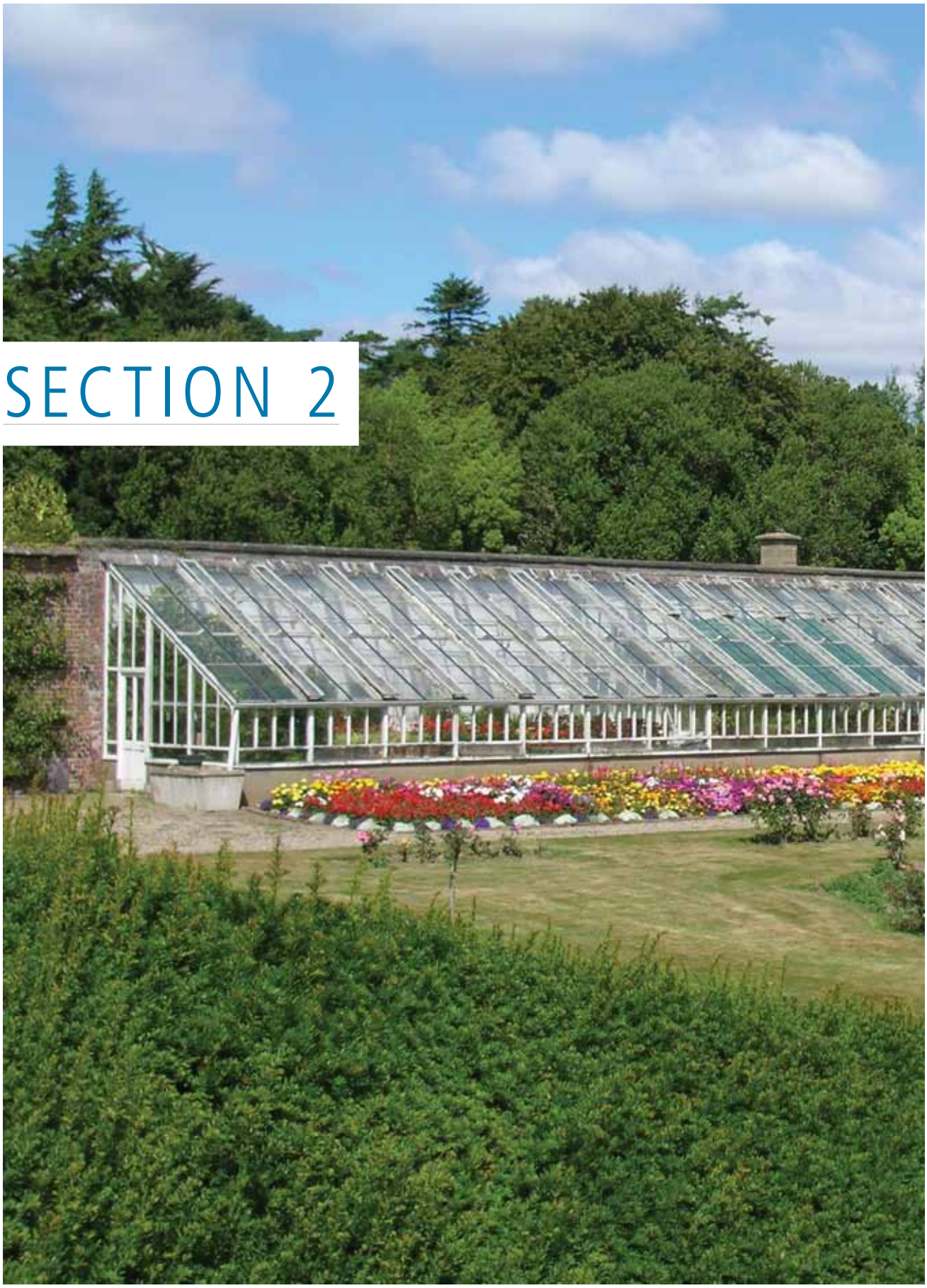
In 2011 improvements in Corporate Services systems have been focused on process improvements and small system enhancements. This includes enhanced financial information analysis to identify and drive cost reductions, enhanced control through using purchase order commitments, and enhanced efficiencies and service in creditor payments. Development of functional specifications for a new integrated HR and Payroll system was completed in 2011.

To enhance customer service the EPA have established a central contacts master file using Customer Relationship Management (CRM) software and will use this to provide new electronic service channels.

EPA's technology change project continued with the implementation of Microsoft Office 2010; the extended use of Customer Relationship Management (CRM) software; implementation of IT Infrastructure monitoring and software deployment tools, replacement of the EPA.ie technical infrastructure, and on-going improvement in capability for self-sufficiency through knowledge transfer to internal staff on technology changes.

These projects were part of the overall programme of priority projects during 2011 and the others were Business Analysis, Environmental Data Exchange Network (EDEN), Gathering and Reporting Water Data (AQUARIUS), ETSWAP, and Real time Air Quality monitoring project. These nine projects will form the main focus for IT activity in 2012.

The EPA adopt a proactive approach to the use and governance of IT under the guidance of an internal steering group comprising of two Directors, senior management and staff directly involved in IT activities. The annual IT plan for 2011, produced by the steering group, was approved by the EPA board and the Department of Finance as per ICT Circular 2/09 and Circular 2/11.



SECTION 2

CONSULTANTS AND ADVISORS ENGAGED IN 2011

Accenture Ireland	Compass Informatics Ltd	O'Callaghan, Moran & Associates
Achilles Procurement Services	Cora Systems Ltd	Penna PLC
Acustica Ltd	Cork County Council	Ronan Daly Jermyn Solicitors
Aether Ltd	DHI	Robert Meehan
Antaris Consulting	Duncan Laurence Environmental Ltd	RPS Group
Apex Geoservices Ltd	Fitzpatrick Software Development	Ryan Hanley Consulting Engineers
AMAS Ltd	Fehily Timoney & Co	Sinclair Knight Merz (Ireland) Ltd
Amec Earth & Environmental UK Ltd	Ford Consulting Group	SLR Consulting Ltd
ARIA Wealth & Investment Ltd.	Kefron Consulting	STL Ireland
Assure Health & Safety Consultants	Levett – Therivel	Tandem Consulting
AWN Consulting	Mason, Hayes & Curran	Tim Mulvey
Barry Doyle & Company	Mudway Health, Safety & Environment	Tobin Environmental Services
Camp, Dresser & McKee (Ireland) Ltd	Mott McDonald Pettit Ltd	URS Ireland Ltd
Cantab Consulting (KENT) Ltd	Niall Sweeney	White Young & Green Ireland Ltd.
Carr Communications Ltd	OCTO	William Fry Solicitors
Clean Technology Centre	Odournet UK Ltd	

PROMPT PAYMENT OF ACCOUNTS ACT, 1997

The Environmental Protection Agency comes under the remit of the Prompt Payment of Accounts Act, 1997, which came into effect on 2nd January 1998, and the European Communities (Late Payment in Commercial Transactions) Regulations 2002 which came into effect on 7th August 2002.

It is the policy of the EPA to ensure that all invoices are paid promptly. Specific systems and procedures have been put in place to enable invoices to be tracked and to ensure that payments are made before their due date. Purchase invoices are logged on a daily basis in Accounts Section, and are followed up systematically to ensure that they are certified and returned for payment without delay. Payments are issued as required to ensure prompt payment.

These controls are designed to provide reasonable, but not absolute, assurance against material non-compliance with the Act and Regulations.

There were 2 late payments with values in excess of €317 during 2011 and these exceeded the due payment date by an average of 22 days. The value of these late payments was €7,694.75. Overall, late payments represented 0.22 % of the total value of payments covered by the Act, with total associated penalty interest of €15.

Laura Burke
Director General, EPA

EPA PUBLICATIONS 2011

The majority of EPA publications are available to download from the EPA website http://www.epa.ie/downloads/. All publications can also be purchased either on-line or from EPA Publications' Sales at +353 916 0642.

AIR

The following air reports can be found on the EPA website at www.epa.ie/downloads/pubs/air/

- Air Quality in Ireland 2010
- Ireland's Greenhouse Gas Emissions Projections 2010
- Ireland's Transboundary Gas Emissions in 2009
- CO_2 EPA Emission Factors 2011
- The EU Emissions Trading Scheme - A review of the first six years of the operation
- Verified Emissions 2008-2010
- Ambient Air Monitoring in Newbridge
- Dioxin Levels in the Irish Environment 2010

CORPORATE

The following corporate reports can be found on the EPA website at www.epa.ie/downloads/pubs/other/corporate/

- EPA Annual Report and Accounts 2010
- Developing a Green Enterprise
- A Review of the EPA
- EPA Customer Charter
- 2010 End of Year Statement
- EPA News Spring 2011
- EPA News Summer 2011

ENFORCEMENT

The following reports can be found on the EPA website at ww.epa.ie/downloads/pubs/enforcement

- Environmental Protection Agency Licensing and Enforcement Charging Policy
- Ireland's 2009 Pollutant Release and Transfer Register (PRTR) Data Sets
- Ireland's 2007-2008 Pollutant Release and Transfer Register (PRTR) Data Sets

WASTE

The following waste reports can be found on the EPA website at www.epa.ie/downloads/pubs/waste/

- National Waste Report 2009
- National Waste Prevention Programme (NWPP) Annual Report 2011
- Green Guide to Organising Festivals
- Green Guide to Enjoying Festivals
- Be a Savvy Shopper!
- Children & Food Waste
- National Hazardous Waste Management Plan 2008-2012 - Implementation Report 2011
- EPA Enforcement of WEEE Regulations to date

WATER

The following water reports can be found on the EPA website at www.epa.ie/downloads/pubs/water/

- Water Framework Status Update 2007-2009
- Guidance on the Authorisation of Discharges to Groundwater
- The Provision and Quality of Drinking Water in Ireland A Report for the Year 2010
- The Provision and Quality of Drinking Water in Ireland A Report for the Years 2008-2009
- The Quality of Bathing Water in Ireland 2010
- Review of the EPA Hydrometric Programme

GUIDANCE NOTES

The following guidance notes can be found on the EPA website at www.epa.ie/downloads/advice/

- Guidance on the Authorisation of Discharges to Groundwater
- Guidance Note on X-ray Units at End-of-Life
- Information Pack for Retailers of Industrial and Automotive Batteries
- Information For Retailers Of Electrical And Electronic Equipment and Batteries
- Guidance for Retailers of Batteries
- Advertising Guidelines for Sellers of Electrical & Electronic Equipment (EEE) and Batteries
- Information For Internet Sellers of Electrical and Electronic Equipment (EEE) and Batteries
- EPA Approved Factors to Calculate the BMW Content of Municipal Waste Streams
- Protocol for the Evaluation of Biodegradable Municipal Waste sent to Landfill
- Management of Low Levels of Landfill Gas
- Final position on end-of-waste status for recycled gypsum
- Basic Air Monitoring Checklist for Licensees
- Control of Substances that Deplete the Ozone Layer Regulations 2011 (S.I. No. 465 of 2011)
- Summary Guidance for Compliance with ODS and F-gas Regulations
- Fluorinated Greenhouse Gas Regulations 2011 (S.I. No. 279 of 2011)
- Guidance Note on Noise Assessment of Wind Turbine Operations at EPA Licensed Sites (NG3)
- Water Sampling & Field Measurement
- Legislation and Licence Reporting Requirements
- Guidance on Pollutant Release and Transfer Register (E-PRTR)
- Laboratory Management
- Analytical Procedures and Method Validation
- Assessment of External Laboratories
- Report Generation and Issue
- Requirement for External Contractors who Conduct Aqueous Monitoring to Demonstrate Compliance with Licence Conditions
- Field Sampling and Measurement
- Assessment of Results
- Auditing of External/Internal Laboratory
- Laboratory Methods
- Water Framework Directive (WFD)
- EPA Drinking Water Advice Note 12 - Exempted Drinking Water Supplies
- EPA Drinking Water Advice Note 11 - Prior Investigations and Technical Assessments
- EPA Drinking Water Advice Note 10 - Service Reservoir Inspection, Cleaning and Maintenance.
- EPA Drinking Water Advice Note 9 - Cryptosporidium Sampling and Monitoring
- EPA Drinking Water Advice Note 8 - Advice on constructing a Water Safety Plan and on its content
- EPA Drinking Water Advice Note7 - Source Protection and Catchment Management to Protect Groundwater Sources
- HSE and EPA Joint Position Statement on Trihalomethanes in Drinking Water November 2011
- Water Treatment Manual: Disinfection
- Online Drinking Water Notifications Website User Manual

- Preparation and Submission of the AER for Dumping at Sea Permit Holders
- Shellfish Assessment Sept 2011
- Guidelines for the establishment of a Biological Safety Committee (BSC) and the appointment of a Biological Safety Officer
- SEA Scoping Guidance Document
- SEA Pack
- Environmental Liability Regulations Guidance Document
- Model for Transitional Waters
- Model for Lakes and Coastal Waters
- Salinity related DIN and MRP values for WFD
- EPA Guidance Note for Strategic Noise Mapping
- AER/PRTR Guidance Document No.2a: Step-by-Step guide Non EPA Licence Ver 2.0 February 2011
- Sector-Specific PRTR Guidance Document: Emissions and Waste Transfers Reporting Guidance for the Waste Sector
- PRTR Quarries Guidance V2.0 February 2011.pdf

ENVIRONMENTAL RESEARCH REPORTS

Climate Change

The following climate change research reports can be found on the EPA website at www.epa.ie/downloads/pubs/research/ climate/

- Climate Change Research Programme Projects and Fellowships awarded in 2011
- Barriers to Sustainable Transport in Ireland (CCRP 7)
- Domestic Offsetting Scoping Study for Ireland (CCRP 6)

Water

The following water research reports can be found on the EPA website at www.epa.ie/downloads/pubs/research/water/

- Alien Invasive Species in Irish Water Bodies (STRIVE 83)
- Neuro-Fuzzy Models For Use In River Basin District Management (ERC 18)

Biodiversity

The following biodiversity research reports can be found on the EPA website at www.epa.ie/downloads/pubs/research/biodiversity/

- BioChange (STRIVE 68)
- Freshwater Biodiversity in the Irish Agricultural Landscape: The Significance of Ponds (STRIVE 80)
- Development of the National Invasive Species Database (STRIVE 73)
- Evaluating the Ecological Impacts of Cultivating Genetically Modified Herbicide-Tolerant (GMHT) Oilseed Rape and Maize (STRIVE 69)
- Nutrient and Ecosystem Dynamics in Ireland's Only Marine Nature Reserve (NEIDIN) STRIVE 66

Landuse, Soils and Transport

The following landuse, soils and transport research reports can be found on the EPA website at www.epa.ie/downloads/pubs/research/land/

- CréBeo Soil Biodiversity Project (STRIVE 67)
- BOGLAND: Sustainable Management of Peatlands in Ireland-Final Report (STRIVE 75)

Waste and Resource Management

The following resource management research reports can be found on the EPA website at www.epa.ie/downloads/pubs/research/waste/

- A Study of Pay-by-Use Systems for Maximising Waste Reduction Behaviour in Ireland (STRIVE 84)
- Development of specific bacterial detoxification enzymes as bioindicators and biosensors of environmental pollution (STRIVE 72)

Socio-Economics

The following socio-economic research reports can be found on the EPA website at www.epa.ie/downloads/pubs/research/econ/

- Assessing Access To Information, Participation, and Justice in Environmental Decision Making in Ireland (STRIVE 86)

Environmental Technologies

The following environmental technology research reports can be found on the EPA website at www.epa.ie/downloads/pubs/research/tech/

- National Centre for Water and Wastewater Research and Demonstration (STRIVE 78)
- Novel anaerobic sewage treatment and bioenergy production (STRIVE 64)
- Testing a new technology for monitoring nutrients in rivers (STRIVE 81)
- The Conversion of Waste PET Plastic to a High Value-Added Biodegradable Plastic (STRIVE 77)
- Potential for a Zero Carbon Emission Micro Fuel Cell (STRIVE 70)
- EPA Cleaner Greener Production Programme: Experiences, Impacts and Outcomes for Participant Organisation (CGPP Report)
- Recombinant DNA Approaches to Enhance the Activity of the Pathway for the Degradation of the Toxic Pollutant Styrene (STRIVE 65)
- Industrial Applications of Membrane Technology in Ireland: A Review (STRIVE 63)

ENVIRONMENT AND HEALTH

- Studies of the Chemical Composition and Toxicity of Airborne Fine Particles in Cork's Mid-Harbour (STRIVE 85)
- Nanotechnology: Environmental and Human Health Impacts (STRIVE 79)
- Nanotechnology: Environmental and Human Health Impacts (STRIVE 71)

SECTION 3

FINANCIAL STATEMENTS FOR THE YEAR ENDED 31ST DECEMBER 2011

- Statement of Responsibilities of the Agency
- Statement on Internal Financial Control
- Report of the Comptroller and Auditor General
- Accounting Policies
- Income and Expenditure Account
- Statement of Total Recognised Gains and Losses
- Balance Sheet
- Cash Flow Statement
- Notes to the Financial Statements

STATEMENT OF RESPONSIBILITIES OF THE AGENCY

Section 50(1) of the Environmental Protection Agency Act, 1992, requires the EPA to prepare financial statements in such form as may be approved by the Minister for the Environment, Heritage and Local Government in consultation with the Minister for Finance. In preparing those financial statements, the EPA is required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the EPA will continue in operation;
- disclose and explain any material departures from applicable accounting standards.

The EPA is responsible for keeping proper books of account which disclose with reasonable accuracy, at any time, the financial position of the EPA and which enable it to ensure that the financial statements comply with Section 50 of the EPA Act. The EPA is also responsible for safeguarding its assets and for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Director General

Director

STATEMENT ON INTERNAL FINANCIAL CONTROL 2011

1. On behalf of the Directors of the EPA, I acknowledge our collective responsibility for ensuring that an effective system of internal financial controls is maintained and operated, for preparing the accounts of the EPA and for complying with all statutory obligations applicable to the EPA.

2. The Directors of the EPA acknowledge also that the system of internal financial controls can provide only reasonable and not absolute assurance that assets are safeguarded, transactions are authorised and properly recorded, and that material errors or irregularities are either prevented or would be detected and rectified in a timely period.

3. Key Procedures to Provide Effective Internal Financial Control

i) The Directors of the EPA have taken steps to ensure an appropriate control environment within the EPA by:

- Publishing the EPA Strategy Statement *2020Vision – Protecting and Improving Ireland's Environment.* This Strategy covers the period to 2020 and sets out the EPA's environmental and organisational goals. Implementation of the Strategy is monitored and reported to the Board of the EPA on a periodic basis. Work has commenced on the preparation of a new Statement of Strategy for the period 2012 – 2015.
- Agreeing a detailed work programme for each year and monitoring and evaluating progress against the work programme on a monthly basis.
- Holding regular Board meetings, including monthly management meetings where the Agenda includes strategic issues such as Corporate Governance, Financial Management, Corporate Strategy and staffing matters.
- Adopting a set of financial procedures to control the significant financial elements of the EPA's business and publishing these in the staff Finance Manual.
- Maintaining a comprehensive schedule of insurances to protect the EPA's interests.
- Establishing an Internal Audit Committee, as part of the on-going systematic review of the control environment and governance procedures within the EPA, to oversee the Internal Audit function and advise the Board in relation to the operation and development of that function.

- Establishing and operating a Risk Management Policy and Framework, appointing a Risk Committee and a Chief Risk Officer.
- Adopting a Policy for monitoring and assessing compliance with corporate legislation.
- Clearly defining management responsibilities, delegating appropriate functions, and reviewing and approving all EPA policies and procedures.
- Adopting a Code of Business Conduct for Directors and Staff in accordance with the requirements of the Code of Practice for the Governance of State Bodies.
- Ensuring compliance with the Ethics in Public Office Acts requirements and Sections 37 & 38 of the EPA Act 1992, relating to the Declaration and Disclosure of Interests.

ii) During 2011 the EPA Office Risk Registers were reviewed in accordance with the EPA Risk Management Policy and the Corporate Risk Register was revised. Each Director provides quarterly assurance statements to the Board acknowledging responsibility for the on-going update, monitoring and review of the Risk Register for their Office and for ensuring the implementation of the Risk Management Policy.

The Board conducted a comprehensive review of EPA Risk Management Structures in 2011 following which the EPA Risk Management Policy was revised to bring it into full compliance with the provisions of the revised Code of Practice for the Governance of State Bodies. A Chief Risk Officer was appointed and a Risk Committee was established and commenced operation in line with the revised Policy. A more fundamental review of Office level risks that commenced in 2010 was completed in three of the four Offices during 2011. The review will be carried out in the Office of Environmental Assessment in 2012.

iii) The system of internal financial controls is based on a framework of regular management information, a system of delegation and accountability, a set of financial and administrative procedures including segregation of duties. In particular it includes:

- A comprehensive budgeting system with an annual budget, which is reviewed and approved by the Board of Directors.
- The assignment of budgets and budgetary authority and responsibility for specific functions to selected managers. A Finance Manual was published in 2007, which sets out policies and procedures in relation to budgetary and financial issues.
- Restricting authority for authorising all payments of EPA monies, payment of salaries, pensions, creditors, and expenses etc. (whether by cheque or electronic fund transfer) to Directors and three named Programme Managers.
- Segregation of payment transaction processing duties into two steps: 1: confirmation that goods/services were received and salaries, pensions and expenses were due, by staff responsible for these transactions and 2: calculation of the total monies due by the Finance Unit, prior to seeking authorisation for payment.
- Arrangements for all purchasing to be conducted and controlled through the EPA's financial management system and procedures.
- Regular and on-going review of payments by senior management.
- Regular reviews by the Board of Directors of periodic and annual financial information and reports (including key financial management information and purchasing commitments), which indicate financial performance against budgets.
- The application of project management disciplines in respect of building programmes and major consultancy projects.
- A system of control on the overall approval of capital and consultancy contracts.
- Development of an Asset Management Process and Procedures.
- Adoption in 2011 of a Corporate Procurement Plan.

iv) The financial implications of business risks have been considered through the formal business risk assessment process and in the preparation of the EPA Internal Audit Plans. These are further assessed and evaluated through the phased implementation of the EPA's Internal Audit Plan. A comprehensive set of Financial Procedures have been put in place to control the significant financial elements of the EPA's business including authorisation limits for purchasing/expenditure.

v) The EPA's Internal Audit Committee is comprised of an external Chairperson and other external expertise in lieu of non-executive Director input, together with a senior representative from the EPA. The EPA Internal Audit Plan 2011 – 2012 was progressively implemented with one standard audit completed and one Value for Money Review commenced.

The internal audit was carried out in the area of:

- Internal Audit of Fraud / Corruption Prevention and Detection in EPA.
- There were no critical findings identified in the audit. An Implementation Plan to address the audit recommendations was approved by the Audit Committee and the Board of the EPA. Progress on the implementation of the actions in each of the Internal Audit Implementation Plans is regularly reviewed and reported to the Audit Committee and the EPA Board.

Value for Money Reviews which commenced in 2010 in the following areas were finalised during 2011 and presented to the Internal Audit Committee and the Board:

- The EPA's Environmental Technologies and Cleaner Production Research Programme, and
- The Enforcement of the European Communities (Drinking Water) (No.2) Regulations, 2007.

The Value for Money Reviews were carried out in accordance with Department of Finance Guidelines.

A further Value for Money Review commenced during 2011 in the Water Framework Directive Area.

The Internal Audit Plan for the period 2012 - 2013 was developed during 2011 and approved in February 2012 and reflects the risks identified in the EPA's Corporate Risk Register, the requirements of the Comptroller and Auditor General, and developments and issues in relation to Corporate Governance that have arisen in the Public Sector in general. This Internal Audit Plan was approved by the Internal Audit Committee and by the EPA Board.

Arising from a review in 2010 by the IPA of EPA compliance with the Code of Practice for the Governance of State Bodies, it was noted that the Charter for Internal Audit (2005) and the Internal Audit Committee Charter (2008) were in compliance with the revised Code but that some amendments were recommended to take account of best practice in this area. Both Charters were amended in 2011 and were reviewed and approved by the Board and the Internal Audit Committee.

5. Annual Review of Controls

I can confirm that the Directors of the Agency conducted a review of the system of internal controls in the EPA in 2011.

Signed on behalf of the Board.

Director General

02 / 07 / 2012

REPORT OF THE COMPTROLLER AND AUDITOR GENERAL FOR PRESENTATION TO THE HOUSE OF THE OIREACHTAS

I have audited the financial statements of the Environmental Protection Agency for the year ended 31 December 2011 under the Environmental Protection Agency Act 1992. The financial statements, which have been prepared under the accounting policies set out therein, comprise the Accounting Policies, the Income and Expenditure Account, the Statement of Total Recognised Gains and Losses, the Balance Sheet, the Cash Flow Statement and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and Generally Accepted Accounting Practice in Ireland.

RESPONSIBILITIES OF THE MEMBERS OF THE AGENCY

The Agency is responsible for the preparation of the financial statements, for ensuring that they give a true and fair view of the state of the Agency's affairs and of its income and expenditure, and for ensuring the regularity of transactions.

RESPONSIBILITIES OF THE COMPTROLLER AND AUDITOR GENERAL

My responsibility is to audit the financial statements and report on them in accordance with applicable law.

My audit is conducted by reference to the special considerations which attach to State bodies in relation to their management and operation.

My audit is carried out in accordance with the International Standards on Auditing (UK and Ireland) and in compliance with the Auditing Practices Board's Ethical Standards for Auditors.

SCOPE OF AUDIT OF THE FINANCIAL STATEMENTS

An audit involves obtaining evidence about the amounts and disclosures in the financial statements, sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of

- whether the accounting policies are appropriate to the Agency's circumstances, and have been consistently applied and adequately disclosed
- the reasonableness of significant accounting estimates made in the preparation of the financial statements, and
- the overall presentation of the financial statements.

I also seek to obtain evidence about the regularity of financial transactions in the course of audit.

In addition, I read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements. If I become aware of any apparent material misstatements or inconsistencies I consider the implications for my report.

OPINION ON THE FINANCIAL STATEMENTS

In my opinion, the financial statements, which have been properly prepared in accordance with Generally Accepted Accounting Practice in Ireland, give a true and fair view of the state of the Agency's affairs at 31 December 2010 and of its income and expenditure for the year then ended.

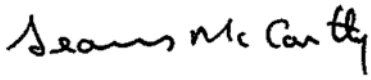
In my opinion, proper books of account have been kept by the Agency. The financial statements are in agreement with the books of account.

MATTERS ON WHICH I REPORT BY EXCEPTION

I report by exception if

- I have not received all the information and explanations I required for my audit, or
- my audit noted any material instance where moneys have not been applied for the purposes intended or where the transactions did not conform to the authorities governing them, or
- the information given in the Agency's Annual Report for the year for which the financial statements are prepared is not consistent with the financial statements, or
- the Statement on Internal Financial Control does not reflect the Agency's compliance with the Code of Practice for the Governance of State Bodies, or
- I find there are other material matters relating to the manner in which public business has been conducted.

I have nothing to report in regard to those matters upon which reporting is by exception.



Seamus McCarthy
Comptroller and Auditor General
12 July 2012

ACCOUNTING POLICIES

1 BASIS OF ACCOUNTING

The financial statements have been prepared under the historical cost convention and in the form approved by the Minister for the Environment, Heritage and Local Government with the consent of the Minister for Finance in accordance with Section 50 of the Environmental Protection Agency Act, 1992.

The financial statements are prepared on an accruals basis, except as stated below, and in accordance with generally accepted accounting practice. Financial reporting standards recommended by the recognised accountancy bodies are adopted as they become applicable.

2 OIREACHTAS GRANTS

The figures shown are the actual grants received in the accounting period.

3 LICENCE FEES

Applicants for all licences are required to pay the full licence application fee at the time of making the application. The amounts received are apportioned to the Income and Expenditure Account on completion of the following stages of the licensing process:

INTEGRATED POLLUTION PREVENTION AND CONTROL AND WASTE MANAGEMENT LICENCES:

- Application 30%
- Proposed Determination 50%
- Licence Issue 20%

WASTE WATER DISCHARGE LICENCES:

- Application 10%
- Acknowledgement of complete application 40%
- Licence Decision Issue 50%

4 FUNDING OF EMISSIONS TRADING UNIT

The Emissions Trading Unit (ETU) was established within the Agency in 2003. The auction / sale of a quantity of the total allowances (not greater than 0.5%) is provided for in the Government direction to the Agency in connection with the EU emissions trading scheme. Auction / sale proceeds are used to defray the costs of administering the emissions trading scheme and any amounts not used or retained for this purpose are paid over to the Department of the Environment, Community and Local Government and are not treated as income of the Agency.

5 RESEARCH GRANT PAYMENTS

The EPA enters into commitments in respect of research projects awarded for funding. Expenditure on these research projects is charged in the financial statements on the basis of the initial payments made on signing of the grant award, interim payments which may be made subject to satisfactory performance and further payments which are issued on receipt and verification of claims in respect of work completed. Costs incurred by the EPA in the implementation of the research programmes are charged to the financial statements as they are incurred.

6 FIXED ASSETS AND DEPRECIATION

Fixed assets are stated at cost less accumulated depreciation. Depreciation is provided on a straight line basis at the rates stated below which are estimated to reduce the assets to their realisable values at the end of their expected working lives:

- Buildings 2%
- Furniture and Fittings 10%
- Laboratory and Field Equipment 15%
- Equipment 20%
- IT and Computer Equipment 25%
- Motor Vehicles 20%

7 CAPITALISATION OF INTERNALLY DEVELOPED SOFTWARE

The external costs of software developed by the EPA are capitalised where they can be seperately identified and where it is expected to convey business benefits for a number of future years.

8 CAPITAL FUNDING

The fixed assets of the EPA and advances to fund work in progress and asset purchases are met from a combination of capital grants, approved borrowing and allocations from current revenue. Funding sourced from grants (including that used to repay borrowings) is transferred to a capital account which is amortised in line with the depreciation of the related assets.

9 STOCKS

All stocks, including consumables are written off in the year of purchase.

10 DEBTORS

Provision for doubtful debts is made, where warranted, in the accounts. Bad debts, as they arise, are written off against that provision.

11 SUPERANNUATION

The Environmental Protection Agency operates defined benefit pension schemes, which are funded annually on a pay as you go basis from monies available to it, including monies provided by the Department of the Environment, Heritage and Local Government and from pension contributions deducted from staff salaries.

Pension Scheme liabilities are measured on an actuarial basis using the projected unit method.

Pension costs reflect pension benefits earned by employees in the period and are shown net of staff pension contributions which are retained by the Agency. An amount corresponding to the pension charge is recognised as income to the extent that it is recoverable, and offset by grants received in the year to discharge pension payments.

Actuarial gains or losses arising from changes in Actuarial assumptions and from experience surpluses and deficits are recognised in the Statement of Total Recognised Gains and Losses for the year in which they occur and a corresponding adjustment is recognised in the amount recoverable from the Department of the Environment, Heritage and Local Government.

Pension liabilities represent the present value of future pension payments earned by staff to date. Deferred pension funding represents the corresponding asset to be recovered in future periods from the Department of the Environment, Heritage and Local Government.

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR END 31 DECEMBER 2011

		2011	2010
INCOME	**Note**	€	€
Oireachtas Grants	**1**	46,784,254	44,070,048
Emissions Trading Costs Recovered	**2**	1,193,654	1,219,115
Other Services		27,808	32,464
Income from Regional Laboratories		1,216,601	1,458,877
Licencing Activities	**3**	2,206,028	2,077,858
Enforcement Activities	**4**	7,353,266	7,683,500
Sundry Receipts	**5**	70,914	621,660
Net deferred funding for pensions	**22(c)**	6,296,872	5,742,435
		65,149,397	**62,905,957**
EXPENDITURE			
Salaries and PRSI	**6**	19,799,868	20,014,564
Pension Costs	**22(a)**	7,486,000	7,499,445
Travelling Expenses	**7**	1,351,897	1,389,971
Laboratory and Field Costs	**8**	3,210,959	1,435,079
Accommodation Costs	**9**	1,750,602	1,095,581
Other Administration Costs	**10**	5,421,437	5,525,868
Consultants	**11**	786,501	894,397
Contractors, Grants and External Service Providers	**12**	8,304,835	8,862,509
Environmental Research	**13**	13,337,626	13,622,417
Depreciation	**18**	2,554,890	2,482,069
		64,004,615	**62,821,900**
Transfer (from)/ to Capital Account	**14**	536,281	(128,592)
		64,540,896	**62,693,308**
Operating Surplus		**608,501**	**212,649**
Surplus on Disposals of Assets		10,126	46,656
Surplus before Interest		**618,627**	**259,305**
Interest Received	**15**	60,880	458
Interest Payable and Similar Charges	**16**	(42,753)	(73,411)
Surplus for Year		**636,754**	**186,352**
Surplus at 1 January		725,760	539,408
Surplus at 31 December		**1,362,514**	**725,760**

The results for the year relate to continuing operations. The statement of accounting policies and cash flow statement, together with notes 1 to 25 form part of these financial statements.

Director General

Director

STATEMENT OF TOTAL RECOGNISED GAINS AND LOSSES FOR THE YEAR END 31 DECEMBER 2011

	Note	2011 €	2010 €
SURPLUS FOR THE YEAR		**636,754**	**186,352**
Experience Gains / (Losses) on pension scheme liabilities		1,429,000	10,439,000
Changes in assumptions underlying the present value of pension scheme liabilities		(4,838,000)	(8,312,000)
Actuarial(Loss)/Gain on Pension Liabilities	**22(b)**	**(3,409,000)**	**2,127,000**
Adjustment to Deferred Pension Funding		**3,409,000**	**(2,127,000)**
Total Recognised Gains and Losses for the Year		**636,754**	**186,352**

The results for the year relate to continuing operations.
The statement of accounting policies and cash flow statement, together with notes 1 to 25 form part of these Financial Statements.

Director General

Director

BALANCE SHEET AS AT 31 DECEMBER 2011

	Note	2011 €	2010 €
FIXED ASSETS	18	37,409,278	37,129,032
CURRENT ASSETS			
Debtors and Prepayments	19	904,056	1,556,459
Cash on Hand and at Bank	20	15,041,319	14,465,915
		15,945,375	16,022,374
LESS CURRENT LIABILITIES			
Creditors (Amounts falling due within one year)	21(a)	(14,806,928)	(15,485,397)
Net Current Assets / (Liabilities)		1,138,447	536,977
Creditors (Amounts falling due after more than one year)	21(b)	(1,508,663)	(1,799,982)
Total Assets less Current Liabilities before Pensions		37,039,062	35,866,027
Pension Liabilities	22(b)	104,308,867	94,602,995
Deferred Pension Funding	22(c)	(104,308,867)	(94,602,995)
		0	0
Total Net Assets		37,039,062	35,866,027
REPRESENTED BY:			
Capital Account	14	35,676,548	35,140,267
Income and Expenditure Account		1,362,514	725,760
		37,039,062	35,866,027

The statement of accounting policies and cash flow statement, together with notes 1 to 25 form part of these financial statements.

Director General

Director

CASH FLOW STATEMENT FOR THE YEAR ENDED 31 DECEMBER 2011

	Note	2011 €	2010 €
RECONCILIATION OF SURPLUS TO NET CASH			
Inflow from Operating Activities			
Surplus for year		636,754	186,352
Interest Received	**15**	(60,880)	(458)
Interest Paid	**16**	42,753	73,411
Surplus on Disposal of Assets		(10,126)	(46,656)
Transfer from Capital Account	**14**	536,281	(128,593)
Depreciation charge for year	**18**	2,554,890	2,482,069
Decrease in Debtors and Prepayments		622,403	1,159,747
Increase in Creditors (other than Loan Creditors)		(683,757)	363,174
Net Cash Flow from Operating Activities		**3,638,318**	**4,089,046**
CASH FLOW STATEMENT			
Net Cash Flow from Operating Activities		**3,638,318**	**4,089,046**
RETURNS ON INVESTMENTS AND SERVICING OF FINANCE			
Bank Interest Received	**15**	60,880	458
Bank Interest Paid	**16**	(42,753)	(73,411)
INVESTING ACTIVITIES			
Proceeds on disposal of fixed assets		15,207	56,739
Payments to acquire fixed assets		(2,810,217)	(2,109,031)
Net Cash Inflow Before Financing		**861,435**	**1,963,801**
FINANCING			
Fixed Asset Loan Repayments		(286,031)	(268,097)
Increase in Cash		**575,404**	**1,695,704**
RECONCILIATION OF NET CASH FLOW TO MOVEMENT IN CASH BALANCES			
Increase in cash in year		575,404	1,695,704
Funds at 1 January		14,465,915	12,770,211
Funds at 31 December		**15,041,319**	**14,465,915**

The statement of accounting policies together with notes 1 to 25 form part of these financial statements.

Director General

Director

NOTES TO THE FINANCIAL STATEMENTS

1 OIREACHTAS GRANTS		2011 €	2010 €
Department of the Environment, Heritage and Local Government Vote:			
Grants from the Vote	Current	22,379,801	23,247,448
	Capital	1,000,000	1,500,000
	Research Funding	13,000,000	13,000,000
	Other Programmes	10,404,453	6,322,600
		46,784,254	**44,070,048**

The Research Funding is a specific allocation to meet the cost of Environmental Research. €13,337,626 was expended on these research activities in 2011 (2010 €13,622,417).

2 EMISSIONS TRADING UNIT (ETU) ACTIVITIES	€	€
(a) Cost of Emissions Trading Unit		
Emissions Trading Operator Registration Fees, etc.	12,627	10,645
Costs to be recovered from Auction Funds, etc.	1,181,027	1,208,470
Total Funding of ETU Costs	**1,193,654**	**1,219,115**

(b) Summary of Emissions Trading Unit Funds:	€	€
Funds Carried Forward	2,229,050	1,005,600
Total Funds Generated	3,216,307	2,442,565
Prior year costs to recover from current year funds	0	0
Total Current Year ETU Costs	(1,193,653)	(1,219,115)
ETU Funds Carried Forward	**4,251,704**	**2,229,050**

In 2011 the costs of the ETU were recovered from the proceeds of the sale which took place in 2009 and 2010.

Auction/sale proceeds retained by the Agency to fund the ETU are recognised as income of the Environmental Protection Agency, in line with the associated costs. A further sale of allowances took place in 2011, the proceeds of which are carried forward to cover future costs associated with ETU.

3 LICENSING ACTIVITIES - IPPC, WASTE AND WWD	€	€
Licence Fees prepaid at 1 January	7,343,352	7,902,676
Fees Received	689,219	1,577,018
Less Refunds Paid	0	(58,484)
Licence Fees prepaid at 31 December (see Note 21 (a))	(5,826,543)	(7,343,352)
Amount credited to Income and Expenditure Account	**2,206,028**	**2,077,858**

LICENSING: INTEGRATED POLLUTION CONTROL (IPPC) AND WASTE

Under Section 83 of the Environmental Protection Agency Act, 1992 the EPA is responsible for the licensing of large/complex industrial and other processes with significant polluting potential. Under Section 40 of the Waste Management Act, 1996 the EPA is responsible for the licensing of all significant waste recovery and disposal activities operated by local authorities and private enterprise.

LICENSING: WASTE WATER DISCHARGES (WWD)

The Waste Water Discharge (Authorisation) Regulations 2007 provide for the licensing of local authority waste water discharges. Discharges from areas that serve over 500 population equivalent will require a licence from the EPA. Areas that serve less than 500 population equivalent will be required to be certified by the EPA.

The EPA's licensing income arises from fees charged in respect of processing such licensing applications.

4 ENFORCEMENT ACTIVITIES - IPPC AND WASTE	€	€
Enforcement Charges Invoiced	6,984,173	7,590,704
Enforcement Income from Prosecutions	369,093	92,796
Total Income from Enforcement Activites	**7,353,266**	**7,683,500**

Under Section 96 of the Environmental Protection Agency Act, 1992 the EPA is responsible for the regulation of large/complex industrial and other processes with significant polluting potential. Under Section 15 of the Waste Management Act, 1996 the EPA is responsible for the regulation of all significant waste recovery and disposal activities operated by local authorities and private enterprise. The EPA's enforcement income arises from fees charged in respect of this monitoring work.

	2011	2010
	€	€
5 SUNDRY RECEIPTS		
Insurance claims	3,283	47,947
Sales of publications	2,881	5,085
Sundry	64,750	568,628
	70,914	**621,660**

6 SALARIES AND PRSI OF STAFF		€	€
Salaries		18,311,631	18,570,996
Employers' PRSI		1,488,237	1,443,568
Total Salary Costs		**19,799,868**	**20,014,564**
The numbers of employees on 31 December were:			
Headquarters		143	149
Regional Inspectorates:	Castlebar	29	29
	Cork	40	42
	Dublin	80	80
	Kilkenny	21	21
	Monaghan	12	13
	Regional Offices	6	6
		331	**340**

Director General's Remuneration Package and Director's Fees

The Director General received a salary of €164,464 in 2011 (2010 €182,787) and is also entitled to a pension in line with the standard entitlements of the Environmental Protection Agency (Director General and Director) Staff Superannuation Scheme, 1996. The Directors of the Environmental Protection Agency are full time executive Directors. They are paid an inclusive salary and consequently no Directors fees are paid. There is no performance related payment scheme in place for the posts of Director General or Director of the Environmental Protection Agency and thus no performance related payments have been paid.

Pension Levy

In 2011 €1,228,324 (2010 €1,240,925) of pension levy was deducted and paid over to the Department of Environment, Heritage and Local Government.

7 TRAVELLING EXPENSES	€	€
Travel and Subsistence	1,200,677	1,264,191
Motor Vehicle Expenses	168,599	131,825
Travel Refunds	(17,379)	(6,045)
	1,351,897	**1,389,971**

Board Members Expenses

The Directors of the Environmental Protection Agency are full time executive Directors based at Headquarters in Wexford. The majority of Board meetings are held in Wexford in which case no expenses arise. Where, for business reasons, Board meetings are held in another location, Travel and Subsistence expenses are reimbursed at the rates applicable for the Civil Service. Expenses paid to Directors in relation to attendance at Board meetings in 2011 amounted to €441 broken down €332 mileage,€€109 subsistence and there were no expense costs. The 2010 total was €2,592 (€1,583 mileage, €1,003 subsistence and €6 other expenses).

Staff Development & Training Costs

A sum of €133,784 (2010 €153,112) in respect of travelling expenses is included under staff development and training costs at Note 10.

Kerdiffstown Emergency Response

Travelling Expenses as set out above include €14,176 in respect of the Kerdiffstown Emergency Response - see Note 23.

	2011	2010
8 LABORATORY AND FIELD COSTS	€	€
Laboratory and Field Expenses	2,925,853	1,151,881
Equipment Repairs and Maintenance	258,059	270,728
Protective Clothing	27,047	12,470
	3,210,959	**1,435,079**

Kerdiffstown Emergency Response

Laboratory and Field Costs as set out above include €2,128,975 in respect of the Kerdiffstown Emergency Response – see Note 23.

9 ACCOMMODATION COSTS	€	€
Rent and Rates	255,914	266,198
Power, Light and Heat, Cleaning	549,039	597,758
Repairs, Maintenance, Security	945,649	231,625
	1,750,602	**1,095,581**

Kerdiffstown Emergency Response

Accommodation Costs as set out above include €641,155 in respect of the Kerdiffstown Emergency Response – see Note 23.

10 OTHER ADMINISTRATION COSTS	€	€
Telephone and Postage	250,192	259,905
Printing of Publications and Stationery Supplies	310,166	435,698
Insurance	153,470	128,493
Computer and Data Processing Charges	2,544,659	2,597,246
Audit Fees	15,510	15,510
Corporate Governance and Internal Audit Costs	31,188	103,849
Legal Fees	796,024	546,722
Human Resource Related Costs	49,466	54,004
Bank Interest and Charges	3,945	6,053
Books, Periodicals, and Library	53,394	60,214
Staff Development and Training Costs	592,147	698,804
Advertising	111,819	137,149
Communications	424,765	417,387
Sundries	84,692	64,834
	5,421,437	**5,525,868**

Kerdiffstown Emergency Response

Other Administration Costs as set out above include €103,229 in respect of the Kerdiffstown Emergency Response – see Note 23.

11 CONSULTANCY COSTS	€	€
Consultants	786,501	894,397
	786,501	**894,397**

The work programme activities which made use of these consultancies were:

Water Framework Directive Programme	0	616,850
Environmental Assessment	62,180	12,381
Environmental Enforcement	673,569	174,030
National Waste Prevention Programme	37,753	11,616
Emissions Trading Unit	3,168	46,365
Climate, Licensing and Resource Use	0	19,364
Communications and Corporate Services	9,831	13,791
	786,501	**894,397**

Kerdiffstown Emergency Response

Consultancy Costs as set out above include €303,769 in respect of the Kerdiffstown Emergency Response – see Note 23..

	2011	**2010**
12 CONTRACTORS, GRANTS AND EXTERNAL SERVICE PROVIDERS	€	€
Contractors	2,447,552	1,183,623
Grants	1,283,125	879,469
External Service Providers	4,574,158	6,799,417
	8,304,835	**8,862,509**

The main work areas which incurred costs under this heading were:

Communications and Corporate Services	345,340	483,999
Water Framework Directive Programme	1,892,087	1,361,610
Environmental Enforcement	1,933,996	2,635,262
National Waste Prevention Programme	3,613,253	3,835,060
Environmental Assessment	367,588	363,112
Emissions Trading Unit	126,769	85,344
Climate, Licensing and Resource Use	25,802	98,122
	8,304,935	**8,862,509**

Kerdiffstown Emergency Response

Contractors, etc. Costs as set out above include €195,388 in respect of the Kerdiffstown Emergency Response – see Note 23.

13 ENVIRONMENTAL RESEARCH	€	€
EPA Research Programme	13,514,889	13,622,417
Co-Funding Research Income	(177,263)	0
Research Programme Payments	**13,337,626**	**13,622,417**

The current EPA environmental research programme was launched in 2007. It is being funded through the NDP 2007 – 2013 and the Government Strategy for Science, Technology and Innovation (SSTI). The research programme aims to fund research that will address key environmental management issues, which will ultimately protect and improve the natural environment. In 2011 the EPA Research Programme expenditure of €13,514,889 includes Grant Payments of €12,573,839 and implementation and activity costs of €941,050.

At 31 December 2011 commitments entered into but not yet charged to the financial statements in respect of Research projects amounted to **€22.277M** (2010 €31.372M) with the following breakdown:

	€	€
Outstanding Grant Commitments at 1 January	31,372,000	41,087,000
Grants Approved during the year	5,995,000	3,940,000
Grants Decommitted during the year	(2,384,000)	(1,153,000)
Grant Payments made in the year	(12,706,000)	(12,502,000)
Outstanding Commitments at 31 December	**22,277,000**	**31,372,000**

These figures exclude EPA implementation costs in respect of Research programmes.

14 CAPITAL ACCOUNT	€	€
At 1 January 2011		**35,140,267**
Transfer from Income and Expenditure Account:		
Income Allocated for Capital purposes: - Fixed Asset Additions	2,800,217	
- To Fund Future Additions	10,000	
- Repayment of Loans	286,035	
	3,096,252	
Less		
Disposals	590,061	
Less prior depreciation on disposals	(584,980)	
	5,081	
Depreciation charge for year	2,554,890	
Net Transfer from Income and Expenditure Account		536,281
At 31 December 2011		**35,676,548**

As at 31 December 2011, the Capital Account balance includes €110,000 (2010 €140,000) in respect of prepayments for fixed assets (see Note 19 – Debtors and Prepayments).

15 INTEREST RECEIVED	**2011** €	**2010** €
Bank deposit interest	149,928	458
Less Deposit Interest Earned on ETU Funds incl. in ETU Total Funds Generated at Note 2(b) above	(89,048)	0
Bank Deposit Interest Earned on EPA Funds	**60,880**	**458**

16 INTEREST PAYABLE AND SIMILAR CHARGES

	€	€
Bank Loans repayable by Instalments - Mortgage on Headquarters building	**42,753**	**73,411**

17 TAXATION

The EPA is specifically exempted under the provisions of Section 32, and Schedule 2, of Finance Act, 1994. Accordingly no taxation charges have been included in the accounts.

18 FIXED ASSETS

	Total	Buildings	Furniture & Fittings	IT & IS Equipment	Lab & Field Equipment	Motor Vehicles
Cost	€	€	€	€	€	€
At 1 January 2011	54,744,777	37,677,341	2,734,778	4,071,060	9,201,523	1,060,075
Transfers	40,000	0	40,000	0	0	0
Purchases	2,800,217	187,200	328,429	1,759,527	406,711	118,350
Disposals	(590,061)	0	(8,827)	(151,788)	(350,507)	(78,939)
At 31 December 2011	56,994,933	37,864,541	3,094,380	5,678,799	9,257,727	1,099,486
Depreciation						
At 1 January 2011	17,615,745	5,338,533	1,970,872	3,076,364	6,471,340	758,636
Charge for Year	2,554,890	760,005	252,292	562,500	826,618	153,475
On Disposals	(584,980)	0	(8,827)	(151,737)	(346,065)	(78,351)
At 31 December 2011	19,585,655	6,098,538	2,214,337	3,487,127	6,951,893	833,760
Net Book Value						
At 31 December 2011	**37,409,278**	31,766,003	880,043	2,191,672	2,305,834	265,726
At 31 December 2010	**37,129,032**	32,338,808	763,906	994,696	2,730,183	301,439

Kerdiffstown Emergency Response

Purchases of Fixed Assets as set out above include €709,287 in respect of the Kerdiffstown Emergency Response - see Note 23.

Headquarters for the Environmental Protection Agency were built on the grounds of Johnstown Castle Estate, County Wexford, on a site whose title is vested in Teagasc. The EPA is in the process of finalising a long-term lease of this site from Teagasc. The headquarters building was constructed by the Office of Public Works (OPW) who financed the construction by means of a commercial loan. The EPA funds the annual repayments made by the OPW. The interest element of the repayments met by the EPA is accounted for in the year it arises.

Both the asset and the associated funding arrangements have been recorded in the books of the EPA to reflect the substance of the underlying transactions. Under an arrangement with Cork County Council the EPA shared a building at Inniscarra, Co Cork for a number of years and by agreement the EPA took possession of the entire building in 2008. The legal transfer of the premises from Cork County Council to the EPA is being handled by the respective legal advisers.

The EPA regional inspectorate building at Seville Lodge, Kilkenny was constructed by the Office of Public Works on a site acquired for EPA. The legal transfer of the site to the EPA is being processed by the OPW through the State Solicitors Office.

In 2011 the EPA capitalised €1,400,199 in respect of the external cost of software developed by the EPA. This is in line with our new Accounting Policy for *Capitalisation of Internally Developed Software*.

The introduction of this Accounting Policy does not give rise to any adjustments in the comparative figures for 2010. In 2011 there was a transfer of € 40,000 from Prepayments to Fixed Assets which relates to a 2010 prepayment to the OPW which was paid out in 2011 on behalf of the EPA for furniture.

19 DEBTORS AND PREPAYMENTS

	2011	2010
	€	€
Debtors	794,056	1,416,459
Prepayments for Fixed Assets	110,000	140,000
	904,056	**1,556,459**

Prepayments for Fixed Assets:

At 31 December 2011 prepayments totalling €110,000 (2010 €140,000) had been made as set out hereunder. These prepayments have been included in the amounts transferred from the Income and Expenditure Account to the Capital Account.

Advances to the Office of Public Works (OPW)

At 31 December 2009 advance payments of €100,000 had been made to the OPW in respect of minor capital works in Regional Inspectorates. A further €10,000 was paid to OPW in 2011. These amounts will be transferred to Fixed Assets on completion of the work.

Advance payments for other Fixed Assets

An amount of €40,000 has been paid in 2011 by the OPW on behalf of the EPA to a number of supplies for furniture.This payment has been transferred to Fixed Assets. All debtors fall due within one year.

20 CASH ON HAND AND AT BANK	**2011**	**2010**
	€	€
Cash and Bank Balances	**15,041,319**	**14,465,915**

The prepaid Licensing income (see Note 3) accounts for €5,826,543 (2010 €7,343,352) of the Bank balances at the Balance Sheet date.

21 CREDITORS AND ACCRUALS	**2011**	**2010**
	€	€
(a) Amounts falling due within one year:		
Licence Fees (see Note 3)	5,826,543	7,343,352
Proceeds of ETU Auction payable to DoEH&LG (see Note 2 (b))	4,251,704	2,229,050
Trade and Other Expenses	4,394,610	5,584,213
Instalments due on purchase of Fixed Assets	334,071	328,783
	14,806,928	**15,485,398**
Included in Trade and Other Expenses above are the following amounts due to Revenue Commissioners		
Professional Service Witholding Tax	384,109	436,071
PAYE/PRSI	521,672	479,166
VAT	149,733	243,994
Relevant Contract Tax	11,492	2,391
	1,067,006	**1,161,622**
(b) Amounts falling due after more than one year:		
Instalments due on purchase of Fixed Assets	**1,508,663**	**1,799,982**

22 PENSION COSTS	**2011**	**2010**
(a) Analysis of total pension costs charged to Expenditure	€	€
Current Service Cost	3,329,257	3,053,000
Interest on Pension Scheme Liabilities	5,086,000	5,332,000
Employee Contributions Received	(929,257)	(885,555)
	7,486,000	**7,499,445**
(b) Movement in Net Pension Liability during the financial year	€	€
Net Pension Liability at 1 January	94,602,995	90,987,560
Current Service Cost	3,329,257	3,053,000
Interest Costs	5,086,000	5,332,000
Actuarial (Gain)	3,409,000	(2,127,000)
Pensions paid in the year	(2,118,385)	(2,642,565)
Net Pension Liability at 31 December	**104,308,867**	**94,602,995**

(c) Deferred Funding for Pensions

The EPA recognises these amounts as an asset corresponding to the unfunded deferred liability for pensions on the basis of the set of assumptions described above and a number of past events. These events include the statutory basis for the establishment of the superannuation schemes, and the policy and practice currently in place in relation to funding public service pensions including contributions by employees and the annual estimates process. The EPA has no evidence that this funding policy will not continue to meet such sums in accordance with current practice.

The Net Deferred Funding for Pensions recognised in the Income and Expenditure Accounts was as follows:

	2011	**2010**
	€	€
Funding Recoverable in respect of current year pension costs	8,415,257	8,385,000
State Grants applied to pay pensioners	(2,118,385)	(2,642,565)
	6,296,872	**5,742,435**

The deferred funding asset for pensions at 31 December 2011 amounted to €104.309 million (2010 €94.603 million).

22 PENSION COSTS (CONTINUED)

(d) History of defined benefit obligations

	2011	2010	2009	2008	2007
	€ '000	€ '000	€ '000	€ '000	€ '000
Defined benefit obligations	104,309	94,603	90,988	95,301	98,329
Experience Gains / (Losses) on Scheme Liabilities:					
Amount (€ '000)	1,429	10,439	6,267	(5,002)	(583)
Percentage of Scheme Liabilities	1.4%	11.0%	6.9%	5.2%	0.6%

The cumulative actuarial loss recognised in the Statement of Total Recognised Gains and Losses amounts to €6,023,000.

(e) General Description of the Schemes

The schemes are defined benefit final salary pension arrangements with benefits and contributions defined by reference to current "model" public sector scheme regulations. The schemes provide staff members with a pension (1/80 per year of service), a gratuity of lump sum (3/80 per year of service) and spouse's and children's pensions. Normal Retirement Age is a member's sixty fifth birthday, and pre 2004 members have an entitlement to retire without actuarial reduction from age 60. The schemes provide Board members with a pension (1/48 per year of service), a gratuity or lump sum (1/32 per year of service) and spouse's and children's pensions. Board members are entitled to retire when their contract ends. Pensions in payment (and deferment) are assumed to increase in line with general salary inflation.

The valuation used for FRS 17 (Revised) disclosures has been based on a full actuarial valuation at 21 March 2011 by a qualified independent actuary taking account of the requirements of the FRS in order to assess the scheme liabilities at 31 December 2011.

The principal actuarial assumptions were as follows:	2011	2010
Rate of increase in salaries	3.50%	3.50%
Rate of increase in pensions in payment	3.25%	3.25%
Discount rate	5.00%	5.25%
Inflation rate	2.00%	2.00%

The mortality basis adopted explicitly allows for improvements in life expectancy over time, so that life expectancy at retirement will depend on the year in which a member attains retirement age (age 65). The table below shows the life expectancy for members attaining age 65 in 2011, 2031 and 2051.

Year of attaining age 65	2011	2031	2051
Life expectancy - male	87.2	89.8	91.7
Life expectancy - female	88.6	90.8	92.6

23 KERDIFFSTOWN EMERGENCY RESPONSE

During 2011, the Environmental Protection Agency took the lead in co-ordinating the emergency response to an underground landfill fire at Kerdiffstown, Naas and took charge of the subsequent management of the site. The total cost of this work in 2011 was €4,095,979 and this cost is reflected under the following cost headings in these financial statements:

	€
Note 8 Laboratory and Field Costs - Site Operations (including extinguishing fire), Waster Disposal, etc.	2,128,975
Note 9 Accomodation Costs - Mainly Security costs of the site.	641,155
Note 10 Other Administration Costs - Mainly Communications, Health and Safety and Insurance costs.	103,229
Note 11 Consultancy Costs - Mainly Firefighting consultancy, geophysical and solution design work.	303,769
Note 12 Contractors and External Service Provider Costs - Mainly personnel for firefighting work, etc.	195,388
Note 18 Capital Expenditure - Mainly portable landfill gas management equipment and site offices.	709,287
Note 7 Travelling Expenses - Travel and Subsistence costs of EPA staff.	14,176
Total Costs Incurred	**4,095,979**

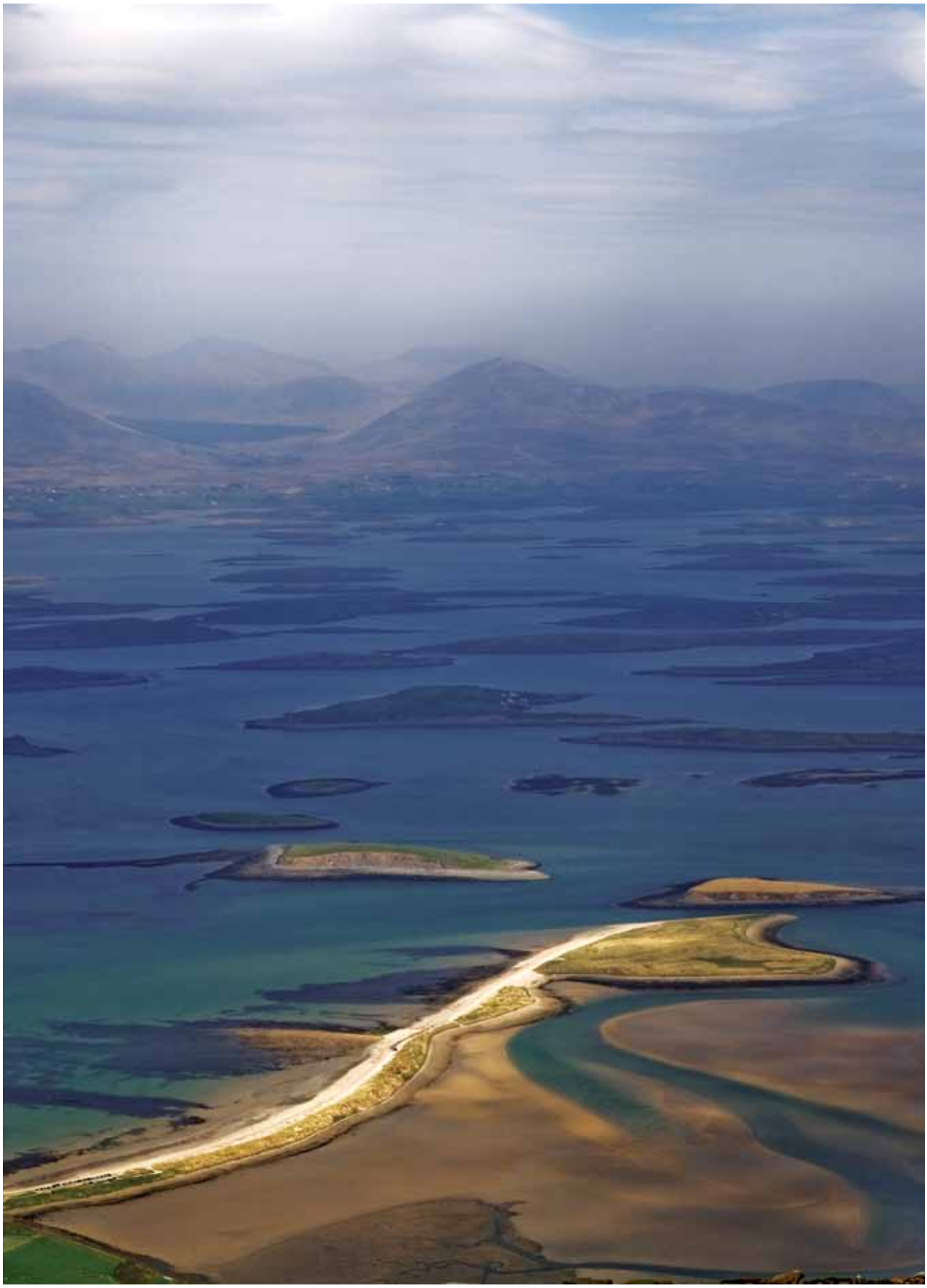
The ongoing management of Kerdiffstown site by the Environmental Protection Agency is continuing in 2012.

24 BOARD MEMBERS' INTERESTS

The EPA has adopted procedures to govern its decision making in accordance with the Environmental Protection Agency Act, 1992 and the Ethics in Public Office Act, 1995 and regulations made thereunder. These procedures have been adhered to by the EPA during the year.

25 APPROVAL OF FINANCIAL STATEMENTS

The Financial Statements were approved by the Board of Directors on 2nd July 2012.



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ISBN 978-1-84095-410-4

Printed on Fedrigoni Symbol Satin, an environmentally friendly paper stock.