



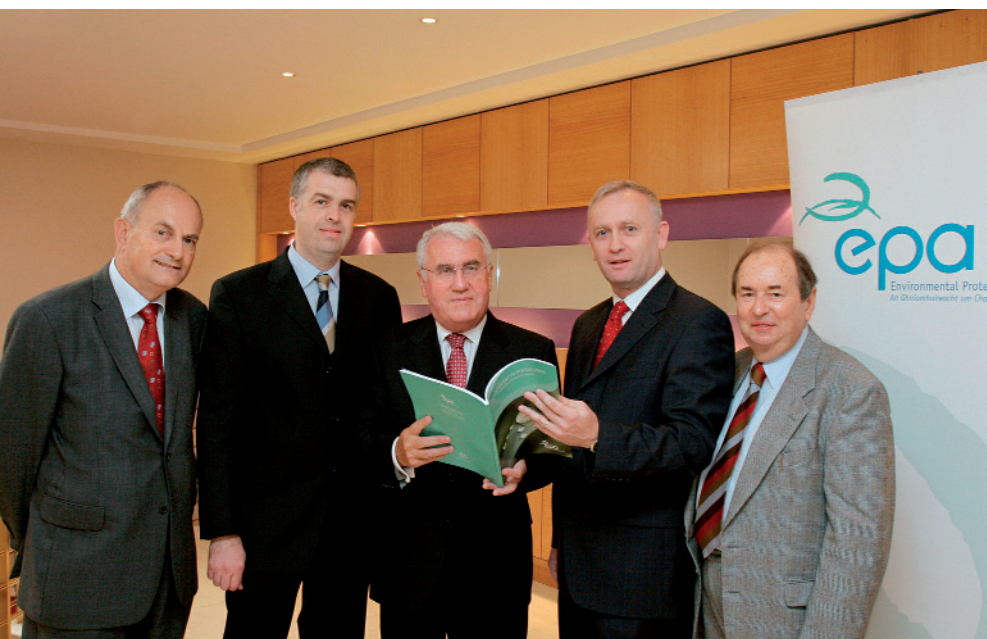
The newsletter of the Environmental Protection Agency

## Environment in Focus 2006

### - Environmental Indicators for Ireland

Environment in Focus 2006 is the third in a series of environmental indicator reports prepared by the EPA. Using key indicators the report assesses trends over time and identifies the underlying causes of environmental damage or degradation and the potential consequences for the environment and human health. The indicators provide valuable information for policy makers,

emissions were 23.1 per cent higher than in 1990. The most significant and sustained increase in emissions has been in the transport sector. For this sector overall, emissions are well over double what they were in 1990. Emissions from energy industries in 2004 were almost 35 per cent above 1990 figures, but a downward trend is evident since 2001. Opportunities



*Pictured at the launch of the Environment in Focus 2006 report were Larry Stapleton (Director, EPA), Tom Stafford (EPA), Mr. Dick Roche, T.D. (Minister for the Environment, Heritage & Local Government), Gerard O' Leary (EPA) and George McHugh (EPA).*

both in evaluating existing environmental policies and in developing new ones.

The report assesses the following environmental challenges:

#### Greenhouse Gases (GHGs) – Meeting the Kyoto Target

Meeting international commitments on GHGs is one of the key environmental challenges facing Ireland. In 2004, Ireland's GHG

for reduction on a sector-by-sector basis must be identified and delivered. Investment is therefore required to reduce emissions to meet our Kyoto protocol target of 13 per cent above 1990 emissions.

#### Acidifying Gases Nitrogen Oxides (NOX) – Achieving the EU National Emissions Ceilings (NEC)

The reduction of NOX emissions and the attainment of the NOX ceiling

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under the NEC Directive in 2010 is a major challenge. The transport and power generation sectors are the major contributors of NOX emissions. The increase in vehicle numbers, and in road transport in general, is sustaining emissions of NOX. This is despite improved technologies that reduce emissions from individual vehicles. Should the current trends continue Ireland will not achieve the 65 kilotonne limit set out in the NEC Directive by 2010.

#### Attaining Good Water Status by 2015 - Water Framework Directive

Achieving the objectives set in the Water Framework Directive is the primary challenge that Ireland faces over the next decade in water resource management. The Water Framework Directive sets out that a Member State shall implement the necessary measures to prevent deterioration of the status of all bodies of surface water. It shall protect, enhance and restore all bodies of surface water with the aim of achieving good status in degraded aquatic ecosystems by 2015. Not all waters in Ireland currently meet this objective. Progress has been made in reducing emissions to the water environment. The decline in the

> Continued on page 2

## Environment in Focus 2006 continued

percentage of unpolluted river length appears to have been halted, and in recent years there has been a slight improvement. However, major efforts in river basin management are required to ensure that the objectives of the Water Framework Directive are achieved. River Basin Management Plans are currently being developed for this purpose.

### Waste Prevention and Waste Management Infrastructure

The trends in municipal waste management are encouraging: landfill is decreasing and recovery is increasing. Household waste diversion from landfill now stands at 19 per cent, compared to 13 per cent in 2003. There is however still some way to go to the 50 per cent landfill diversion target for household waste for 2013. Though improvements in recycling in recent years are encouraging, the real challenge of waste prevention remains. In the absence of significant waste prevention efforts, waste quantities

produced will grow and Ireland will continue to rely on less environmentally favourable waste management options.

### Protecting and Maintaining Biodiversity – Implementing the National Biodiversity Plan

The EU has developed a strategy to halt biodiversity loss by 2010 and to restore habitats and natural systems. In Ireland a National Biodiversity Plan has made progress in implementing the 91 Actions listed in the Plan (10 of which relate to protected areas). However, local authorities, government departments and public authorities have been slow to make biodiversity action plans. The implementation of such plans is required if we are to halt biodiversity loss.

### Curb Unsustainable Transport Use – Substantially Increase Public Transport Use

The transport sector is the fastest growing contributor to national GHG emissions and accounts for 18.4 per cent of the national total. Public transport use, despite an increase in the numbers of users, has failed to keep pace with the increasing use of the car. Its share as a means by which people travel to work decreased steadily from 14 per cent in 1981 to just 9 per cent in 2002. Continued efforts are needed to curb unsustainable transport use, particularly by increasing the share of public transport.

Environment in Focus 2006 can be found on the EPA website at [www.epa.ie/OurEnvironment/EnvironmentalIndicators/](http://www.epa.ie/OurEnvironment/EnvironmentalIndicators/)

## 2020 Vision - Protecting and Improving Ireland's Environment

In 2003, on our tenth anniversary, the EPA laid out a programme for change to be implemented in the Strategic Framework 2003 - 2006. As this time frame draws to a close I am pleased to report that all the major milestones set out have been met and delivered.

Now the EPA's third formal strategy is nearing completion and has been released for public consultation. It focuses on improving the delivery of positive environmental outcomes, setting out a long-term vision for Ireland's environment. *2020 Vision - Protecting and Improving Ireland's Environment* also specifies the priority actions the EPA is committed to between 2007-2010 as our part in meeting this vision.

We look forward to receiving your input and comments on this strategy.

Mary Kelly



Dr. Mary Kelly  
Director General  
Environmental Protection Agency

### ENVIRONMENT IN FOCUS 2006

Environmental Indicators for Ireland



## Environmental Research Centre

The Environmental Research Centre, which is part of the ERTDI programme, was established as a centre of excellence under the National Development Plan 2000-2006 to allow for a more structured approach to environmental research and to provide stronger environmental support to the National Development Plan.

It is distinguished from the rest of the ERTDI programme in that:

- its research, including technological development and innovation, is implemented mainly within EPA facilities in co-operation with third level colleges and other research bodies and
- its emphasis is on developing information and related systems, as a key environmental component of the knowledge economy.

The major achievements of the Environmental Research Centre to date are in the establishment of environmental data research archive and in providing support for the EPA across a wide range of work areas.

The key resources for the Environmental Research Centre to date have been placements via the 'Fellowship' route. At present there are 11 active researcher fellowships working on a range of topics including air quality, water quality, climate change, information technology/GIS and environmental technologies.

The first three recently published reports from the Environmental Research Centre, as detailed in the table below, are currently available on the EPA website at [www.epa.ie/EnvironmentalResearch/EPA-FundedResearchProjects/](http://www.epa.ie/EnvironmentalResearch/EPA-FundedResearchProjects/)

Further details on the Environmental Research Centre can be obtained at the following weblink:  
<http://coe.epa.ie/erc/>

No.	Author	Title
ERC 1	W. Bashir, F. McGovern, M. Ryan, L. Burke B. Paull	Long-Term Trends in Atmospheric Pollutants at Valentia Observatory, Ireland
ERC 2	T. Cleary, S. Malone, S. Dawson and K. Keats Martinez	National Data for Integrated Assessment Modelling under the Clean Air for Europe Programme
ERC 3	L. Barrie and K. Puckett	Review of Global Atmospheric Watch Sites at Valentia and Mace Head, Ireland

## EPA Doctoral Scholarship Scheme

The EPA Doctoral Scholarship Scheme was launched in June 2001 to encourage graduates to undertake research in environmentally relevant sectors. The objectives of the scholarship scheme are to:

- encourage training and professional development of scientists in environmental research;
- support high quality, novel and innovative research in environmental science and related disciplines;
- provide the research personnel needed to sustain environmental research and development in Ireland and
- disseminate the results of ongoing Irish environmental research at an international level.

Proposals for doctoral scholarships are invited periodically through advertised calls in the national press and on the EPA website [www.epa.ie](http://www.epa.ie). The scheme is open to all full-time and contract academic researchers employed by third level colleges in Ireland who will act as project supervisors.

This year we have extended the PhD programme to cover new areas such as Risk Communication, Nanotechnology and Green Chemistry and to augment the Soils and Air Quality programmes. There were 65 applications received under the PhD Call in 2006. These were evaluated by two independent evaluators based abroad. We are pleased to announce the awarding of 25 PhD scholarships which brings the total under the Direct Scholarship scheme to 92.

### Outputs:

To date there have been 15 PhD theses completed. Abstracts of completed PhD theses funded through the EPA Doctoral scholarship schemes are available on the EPA Website (<http://www.epa.ie/EnvironmentalResearch/EPA-FundedResearchProjects/ProjectSearch/DoctoralScholarshipScheme/>)

Copies of the theses are also available from the relevant University libraries.

Details of the 2006 Doctoral Scholarship awards are outlined in the table on page four.



## GMO Contained Use activities licensed during period August 2006 to December 2006.

Notifier	Notifier
Dr Paul Spiers	Dept of Pharmacology & Therapeutics, TCD
Centocor Biologics (Ireland) Ltd	Ringaskiddy, Co Cork
Dr Catherine Dempsey	Environmental Science Laboratory, Department of Biology, Callan Building, NUI Maynooth, Co Kildare
Dr Brian Glennon	Dept of Chemical & Bioprocess Engineering, Engineering Building, UCD, Belfield, Dublin 4
Dr Richard Anney, Prof. Michael Gill, Dr Derek Morris	Institute of Molecular Medicine, St James's Hospital, Dublin 8
Wyeth Research Ireland Limited	Conway Institute, UCD, Belfield, Dublin 4

## Doctoral Scholarship Awards 2006

Supervisor	Organisation	Project Title
<b>EMISSIONS TO AIR (4)</b>		
B. Misstear	TCD	Evaluation of background concentrations of air pollutants in Ireland, their health significance, and development of guidelines for local assessment
C. O'Dowd J. Sullivan	NUI Galway UCD	Quantifying Seasonality in CO <sub>2</sub> fluxes over the North East Atlantic The effect of NO <sub>x</sub> traps on the combustion and size Dublin distribution of carbonaceous particulate matter emitted from diesel engines
G. Kiely	UCC	Total Carbon Balance of a Blanket Peat Catchment
<b>ENVIRONMENTAL TECHNOLOGY - GREEN CHEMISTRY (6)</b>		
U. Bond	TCD	Biomass to Bio-fuel: Generation of Cellulose-based Biomass Degrading Strains of Brewery Yeasts.
F. Aldabbagh	NUI Galway	Photochemical Alternatives to Hazardous Radical Initiators for the Synthesis of Potent Anti-tumour Agents
N. Gathergood	DCU	Biodegradable solvents for the pharmaceutical industry: toxicity, ecotoxicity and stereochemistry
F. Paradisi C. O'Reilly	UCD WIT	Novel alcohol dehydrogenases for the synthesis of chiral alcohols A functional metagenomics approach to the identification of Technology cyanide/nitrile metabolising enzymes.
G. Walsh	UL	Environmental issues relating to the manufacture of antisense-based products of pharmaceutical biotechnology
<b>ENVIRONMENTAL TECHNOLOGY - NANOTECHNOLOGY (6)</b>		
C. Breslin	NUI Maynooth	Sensing and Remediation of Nitrates using Copper and Bimetallic Copper Nanoparticles
M. Morris	UCC	Development of nanoengineered materials for mitigation of indoor VOC (carbonyls) pollutants
T. O'Dwyer	UL	Development of a Novel Process for the Removal of Selected Organic Compounds from Waste Streams
D. Leech	NUI Galway	Environmental diagnostics: biomolecular interactions at nanostructured surfaces
F. Regan	DCU	Novel anti-fouling strategies based on materials doped with nano-particles for use in new monitoring technologies
I. Shvets	TCD	Tungsten oxide based environmental gas sensors
<b>RISK COMMUNICATION &amp; ASSESSMENT (4)</b>		
A. Davies	TCD	Communicating environmental risk: waste, incineration and dioxins
I. Papkovsky	UCC	Advanced systems for biological assessment of toxicity of industrial Cork chemicals
K. Dawson	UCD	Post-genomic approaches to assess the nanotoxicity risk of Dublin nanoparticles
E. Cummins	UCD	Development of a risk assessment methodology for evaluating Dublin ecological dispersion and human risks from nanoparticles through environmental pathways
<b>SOILS (5)</b>		
F. O'Gara	UCC	Assessing the impact that plant species may have on the diversity and activity of phosphate-solubilising soil microbes
W. Magette B. Kelleher	UCD DCU	Hierarchy for Land as a Receptor of Organic Wastes Molecular studies of <sup>13</sup> C and <sup>15</sup> N isotopically enriched soil microbial biomass; influence on carbon cycling and agriculture.
P. Whelan O. McIntyre	UCC UCC	Active Microwave Remote Sensing of Soil Moisture Identification of an Appropriate Legislative Regime for the Remediation of Contaminated Land in Ireland

# Good air quality depends on local emissions

The EPA's Air Quality in Ireland report for 2005 was published in July. This annual report shows levels of air pollutants in ambient air. Results in the report were based on monitoring data from 25 stations. The monitoring produces hourly or daily data as required by the EU Directives on Air Quality. The pollutants measured were

- ✈ Nitrogen dioxide and oxides of Nitrogen
- ✈ Sulphur dioxide
- ✈ Particulate matter (PM10)
- ✈ Lead
- ✈ Carbon Monoxide
- ✈ Benzene
- ✈ Ozone

In 2005 air quality in Ireland was generally good throughout the country and complied with the air quality standards in force across Europe for all pollutants. The pollutants of most concern in Ireland are nitrogen dioxide and particulate matter (PM10). These were highest in urban centres subject to heavy traffic. Average concentrations of particulate matter (PM10) were similar in all population centres as the larger towns and cities now use smokeless fuel.

The results for 2005 show that good air quality generally depends on local emissions. Heavy traffic and non-smokeless fuel are the two main causes of poor air quality in Ireland. The EPA therefore would encourage members of the public to consider the environment in their choice of transport and domestic fuels. Previously high levels of lead are no longer a problem and ozone levels remained below the "information threshold" throughout the year in 2005.

The Air Quality in Ireland 2005 report can be accessed at <http://www.epa.ie/OurEnvironment/Air/AirQualityReports/>

Real-time air quality information is available on the EPA website at [www.epa.ie/OurEnvironment/Air/AccessMaps](http://www.epa.ie/OurEnvironment/Air/AccessMaps)

The website provides direct access to current levels of pollutants from relevant fixed stations across Ireland.



Larry Stapleton (Director, EPA) explains the air monitoring equipment in the EPA mobile air monitoring units.

# Continued Good Progress on Waste Recycling

The EPA produces annual national statistics on waste generation and management in the Republic of Ireland, including information on waste exports and imports. The *National Waste Report 2005* presents the latest available national statistics. The report is published annually as part of the National Waste Prevention Programme.

The objective is to present the most up to date available information, as reported to the EPA. By publishing this data we can report on trends and progress towards targets, identify gaps and initiate debate on waste issues. This report contains an update on municipal waste collection and management (with particular reference to biodegradable municipal waste and packaging), construction and demolition waste and the export of waste. Generators of waste described in the report include households, commercial premises and construction activities.

The report concludes that while some recovery targets have been achieved ahead of schedule, waste generation remains high, highlighting the need for concerted action to focus on waste prevention. Recycling is up across the board, but landfilling of waste is also increasing, reflecting an overall increase in waste generation and material consumption in Irish society and business. The diversion of waste from landfill is the most important challenge in managing Ireland's waste today.

The report finds that in 2005:

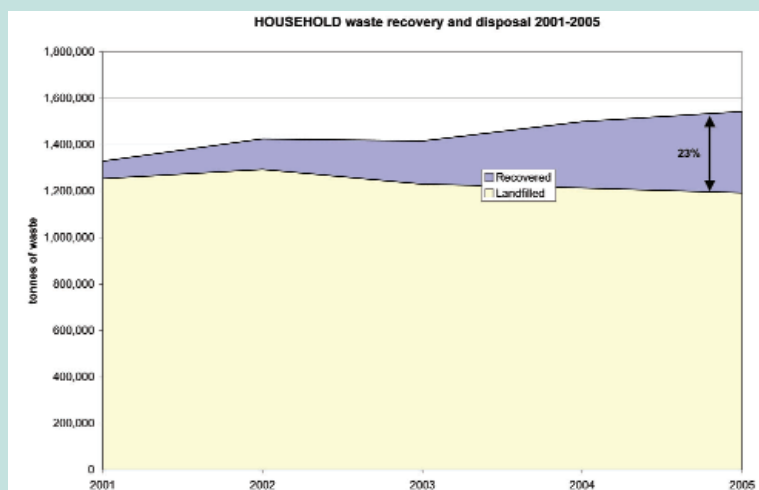
- ✚ Just under 35 per cent of municipal waste was recovered.
- ✚ 23 per cent of household waste was recycled, an increase for the fourth consecutive year.
- ✚ 77 per cent of household waste was landfilled.
- ✚ 60 per cent of packaging waste was recovered, comfortably exceeding the EU target set for 2005.

## Municipal Waste

Municipal waste consists of household, commercial and street cleansing waste. The landfill of municipal waste increased by 0.3 per cent in 2005 and the recovery of municipal waste increased by 9 per cent. In 2005, 34.6 per cent of municipal waste was recovered, progressing steadily towards the national target of 35 per cent recycling by 2013.

## Household waste:

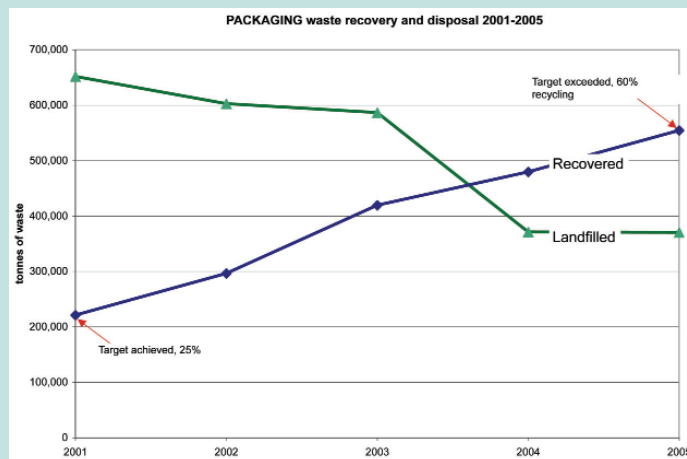
Recycling of household waste increased to 23 per cent in 2005. The national target is to divert 50 per cent of household waste from landfill by 2013. Continued effort is needed to increase household recycling rates in the medium term. The landfilling of household waste decreased for the fourth year running,



to 77 per cent in 2005, down 1.7 per cent from 2004. In 2005, the number of bring banks for the collection of recyclable household waste increased to 1,937 and civic amenity facilities to 81, compared to 1436 bring banks and 49 civic amenity facilities in 2001. The tonnage of recyclable waste collected at these facilities increased by 12 per cent and 25 per cent respectively.

The kerbside collection of mixed household recyclables increased by 49 per cent in 2005, which shows the importance of making recycling convenient and easy for every householder.

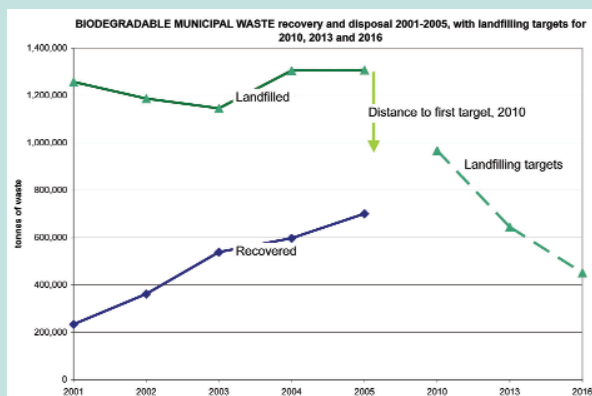
## Packaging waste:



Packaging waste recovery and disposal 2001-2005

An impressive 60 per cent of packaging waste was recovered in 2005. This means that the EU target of 50 per cent packaging waste recovery by 2005 has been comfortably achieved. Though recycling remains high, disposal of packaging waste to landfill is also relatively high. This highlights the need to reduce overall packaging use. The EPA has developed a packaging minimisation programme with Repak to be launched early in 2007. This programme will create new momentum to reduce the use of packaging in the first place.

### Biodegradable municipal waste:



**Biodegradable municipal waste recovery and disposal 2001-2005, with landfilling targets for 2010, 2013 and 2016.**

The management of biodegradable municipal waste remains a challenge. Progress in diverting biodegradable municipal waste (such as food, garden waste, wood, paper, cardboard and textiles) from landfill was relatively slow in 2005, particularly with regard to food and garden waste. Biodegradable waste causes considerable management problems in landfills, including the generation of methane (a greenhouse gas), leachate and the attraction of vermin. *The National Strategy on Biodegradable Waste* was published in 2006, and this is expected to divert increasing quantities of biodegradable waste from landfill. It is necessary that the Strategy be implemented on schedule if its targets are to be achieved.

### Construction and demolition waste:

Construction and demolition waste has increased to almost 15 million tonnes in 2005 (up from 11 million tonnes in the previous year). A recycling rate of 87 per cent was reported by the waste management industry - however, when soil and stones are excluded, this recycling rate drops to 43 per cent.

### Export of municipal waste for recycling:

Despite significantly increased collection of recyclable material, less waste was actually recycled in Ireland in 2005 (234,696 tonnes) than in 2004 (315,628 tonnes). In 2005, 83 per cent of Irish waste recycling took place abroad, compared to 74 per cent in 2004.

### Uncollected waste:

The *National Waste Report 2005* received widespread coverage in the national press and on national and local radio. Reporting was broadly well balanced and dealt with the main issues. Some

articles - and most of the headlines - focused on household waste classified as "uncollected", reporting that almost a quarter of all households are not using waste collection services.

An estimated 202,940 tonnes of household waste was uncollected in 2005, representing 12 per cent of all household waste. It needs to be clarified that while the report highlights that 24 per cent of Irish households have either no access to collection services or choose not to avail of them, there may be legitimate reasons for this, including:

1. householders may choose to share bins with a neighbour or other family members;
2. some householders have direct access to, or the use of, a local landfill facility;
3. many holiday homes are unoccupied for long periods of time during the year;
4. householders may avail of nearby bring banks and civic waste facilities for recyclable materials;
5. some dwellings are located too far away from the route of the collection service on offer in the area.

However, it is also clear that many householders do engage in illegal practices such as backyard burning or fly-tipping. Considerable work is being done by local authorities to gain an understanding of how this waste is managed. The EPA will continue to highlight this issue and report on progress to address it. The EPA's Office of Environmental Enforcement have highlighted these issues in national advertising campaigns.

The report, entitled *National Waste Report 2005* is available from EPA publications and on the EPA website at [www.epa.ie/ourenvironment/waste/nationalwastereport/](http://www.epa.ie/ourenvironment/waste/nationalwastereport/)



## IPPC Licences issued

### Energy

Pfizer Overseas Pharmaceuticals and C.P. Pharmaceuticals International C.V.  
(a limited partnership represented by and acting through Pfizer Manufacturing LLC and Pfizer Production LLC) trading as Pfizer Ireland Pharmaceuticals  
PO Box 140, Ballintaggart, Ringaskiddy, County Cork

**P0013-04**

Pfizer Ireland Pharmaceuticals  
Pottery Road, Dun Laoghaire, County Dublin

**P0019-02**

Dynea Ireland Limited  
Marino Point, Cobh, County Cork

**P0034-02**

Carl Zeiss Vision Ireland Limited  
Whitemill Ind Estate, Clonard, County Wexford

**P0062-02**

Helsinn Chemicals Ireland Limited  
Damastown, Mulhuddart, Dublin 15

**P0125-02**

Huntstown Power Company Limited  
Huntstown, Finglas, Dublin 11

**P0483-03**

Viridian Power Limited  
Huntstown Power Station Phase II,  
Huntstown Quarry Road, Finglas, Dublin 11

**P0777-01**

### Surface Coatings

Saint-Gobain Performance Plastics Ireland  
Kilrush, County Clare

**P0096-02**

AHP Manufacturing B.V. Trading As  
Wyeth Medica Ireland  
Buckley's Cross Roads, Old Connell,  
Newbridge, County Kildare

**P0153-05**

SR Technics Ireland Limited  
Dublin Airport, County Dublin

**P0480-02**

### Food & Drink

Glanbia Fresh Pork Limited  
Edenderry, County Offaly

**P0180-02**

Kerry Ingredients (Ireland) Limited  
Islandmaccloughry, Tralee Road, Listowel,  
County Kerry, Banemore, Listowel,  
County Kerry & Clooneen, Causeway,  
County Kerry

**P0393-02**

Bulmers Limited  
Annerville, Clonmel, County Tipperary

**P0443-02**

### Metals

P Carney Limited  
Kells, County Meath

**P0402-02**

Hegarty Metals Processors Limited  
Trading As Shannonside Galvanising  
Drombanna, County Limerick

**P0650-02**

### Wood, Paper, Textiles & Leather

Brooks Group Limited  
Unit BC 5-8, M1 Business Park,  
Courtough, Balbriggan, Fingal

**P0780-01**

## Science and Technology in Action resource pack

### - Teaching Resource for Second level Students & Teachers

The EPA has again participated in an innovative teaching and learning resource, *Science & Technology in Action*. For a second year, the multimedia resource has been distributed to schools nationwide and brings the theoretical classroom lesson in line with the practicality of real industry situations, an approach that is proving popular with teachers and students.

The EPA has contributed a lesson on Drinking Water to this year's resource. It will be of most benefit to those working at Junior Certificate Science and Leaving Certificate Chemistry level. The lesson looks at the need for clean water and describes the contaminants that can be present. It then describes the processes involved in the purification of water and the tests that are carried out before the water is ready for public distribution.

Much of the lesson content is based on exploring how scientific principles apply in everyday life and are designed to enhance understanding

and generate interest and enthusiasm in students.

The lessons deal with biology, physics, chemistry and technology and come with a range of teaching and learning exercises to encourage interaction and creativity. The participating organisations represent the bio-technology, pharmaceutical, food, oil and gas, shipping, telecommunications and technology sectors.

Off-prints from the EPA's lesson on Drinking Water and on last year's lesson on Urban Waste Water Treatment are available from the EPA. Please phone Niamh Leahy on 053 917 0744 to request a copy.

For further information on the Science & Technology in Action resource please visit [www.sciencetechnologyaction.com](http://www.sciencetechnologyaction.com)

**SCIENCE AND TECHNOLOGY**  
**IN ACTION**



## Environmental Liability and Risk Assessment Guide places responsibility on companies to provide for environmental liabilities and costs.

Following a period of extensive public consultation, the EPA published a guidance document to help companies quantify and provide adequately for their environmental liabilities - thereby protecting the public purse and the environment. *Guidance on Environmental Liability Risk Assessment, Residuals Management Plans and Financial Provision* presents a step-by-step approach for companies, local authorities, financial institutions and consultants in assessing the inherent risk to the environment that an industrial activity poses.

The document underlines the polluter pays principle - that the higher the risk a facility poses to the environment the more financial provision they will have to put aside to cover both known and unknown

liabilities. This financial provision can then be used for remediation, closure and/or restoration, and aftercare in the event of the company going into liquidation. The aim of the financial provision element is to protect the public purse and to ensure that funds/insurance are available to the EPA in the event that a company cannot address any liabilities that they may leave behind.

The guidance document sets out how companies can:

- identify the risks associated with their particular activity;
- eliminate or reduce the risk by improving environmental performance and thus reducing financial provision costs and
- prepare for closure and aftercare of the facility in a structured manner.

It also provides information on how to:

- reduce the potential for environmental damage as a result of accidents.
- minimise residual / long term impacts from manufacturing and waste management facilities upon closure.
- financially plan for environmental liabilities and
- reduce the financial provision required.

The EPA guidance document subdivides liabilities into known liabilities (such as a planned facility closure) and unknown or unexpected liabilities (such as a leak or explosion). In many instances, potential liabilities extend well beyond the operational life of a company.

The level of financial provision required of a company will vary depending on three things:

1. Complexity of the risk attributed to the site
2. The sensitivity of the receiving environment
3. The effective management of environmental risk by the company.

Step by step guidance is also provided to licensees in relation to planned closure of a site and for the restoration and aftercare management plan requirements.

This document is now available for purchase from the EPA's on-line publications shop at

<http://www.epa.ie/Shop/>

or from our Publications Office, McCumiskey House, Richview, Dublin 14 on 01-2680100. Price €20.



# Water Quality in Ireland 2005

The EPA has issued the first in a new series of annual summary statistics on the latest information on water quality in Ireland. The report details the current situation and also includes analyses of trends over time to show quality changes in recent years. Ten indicators were selected on the basis of their ability to fully describe the quality of our aquatic ecosystems.

Ireland's water quality continues to be of a high standard, according to the report entitled *Water Quality in Ireland 2005*. While the data is encouraging there remains an unacceptable level of polluted waterbodies in the country. 30 per cent of rivers, 10 per cent of lakes and 22 per cent of estuaries and coastal waters are in a condition that will require remedial measures if we are to protect our valuable water resources and comply with the requirements of the Water Framework Directive.

The principal findings outlined in the report are:

## Surface waters

The biological quality assessment in the 13,200 km of river and stream channel examined in 2003-2005 showed that 70 per cent was in a satisfactory state, over 29 per cent slightly or moderately polluted and less than 1 per cent was seriously polluted.

In a comparison of the nitrate concentrations in 11 of the larger rivers in the country the highest values were recorded in the south-east. With the exception of two, all of these rivers have significantly increased nitrate levels in 2005 as compared with when first sampled in the late 1970s or early 1980s. The increase in nitrate values has coincided with the demise of the pollution-sensitive pearl mussel in some rivers.

Ninety percent of lake surface area examined was classified as being in a satisfactory condition; the figure for the number of lakes was 84 percent. These percentages are relatively unchanged from the corresponding values from the previous period of assessment.

There were 45 reported fish kills in 2005 compared with 43 the previous

year, representing an unacceptably high incidence of these catastrophic events.

Water quality data from 67 water bodies from 20 estuarine and coastal areas in 2001-2005 were summarized. Seventy eight percent were in a satisfactory condition with the remainder showing various degrees of enrichment. These figures represent an improvement, compared with previous periods, with the trend toward a decline in the percentage of water bodies being classified as eutrophic.

Nutrient enrichment, resulting in eutrophication, is the principal pressure on surface water in Ireland.

## Groundwaters

Bacterial (faecal coliform) contamination was detected in approximately 30 per cent of the 1,714 groundwater samples taken in 2003-2005 with some 11 per cent being grossly contaminated. Trends over the past decade indicate an increase in the number of samples with zero contamination and a decrease in those showing gross contamination.

Nitrate concentrations exceeded the mean guide for drinking water at approximately 23 per cent of groundwater locations with two per

cent breaching the mandatory limit. Since 1995 there has been an increase in the number of samples with concentrations exceeding the guideline value. The occurrence of elevated nitrate appears to be mostly in the south-east.

## Shellfish

In 2005 the quality of shellfish waters showed 30 per cent of sites were of the Highest Quality with 54 per cent of intermediate quality. No low quality sites were detected. This represents an improvement over the previous year.

## Bathing waters

The quality at the 131 bathing waters showed 82 per cent complied with the national limit values in 2005. This was an improvement when compared with 2004. However, the number of sites complying with EU mandatory values in 2005 showed a reduction of two per cent (to 96.2%).

The report is available on the EPA web site at

<http://www.epa.ie/NewsCentre/Reports/Publications/Water/>

or from the EPA's Publications Office, McCumiskey House, Richview, Dublin 14 on 01-2680100.



## Prosecutions

A total of two cases were brought by the EPA before the District Courts during the period between August and December 2006 both of which were successfully completed. Both cases were taken under the Waste Management Acts, 1996 to 2003.

The EPA initiated these legal actions having detected non-compliances through audits, licensee reporting and site investigations.

### Ballinasloe Town Council

On the 6th September 2006 at Ballinasloe District Court, the Environmental Protection Agency took a prosecution against Ballinasloe Town Council in relation to an offence under the Waste Management Acts 1996 to 2005 for a breach of its Waste Licence at Pollboy Landfill, Ballinasloe, Co. Galway.

The prosecution related to the failure by the Council to ensure that odours did not give rise to nuisance either at its facility at Pollboy, or in the immediate area of that facility.

On hearing details of the offence, Judge Michael Reilly imposed a fine of €1,750 and the EPA's costs of €10,104 were also awarded.

This prosecution was taken following numerous site inspections carried out by the EPA's Office of Environmental Enforcement in 2005 and complaints of odour received by the Office.

### Padraig Thornton Waste Disposal Limited.

On the 11th September 2006 at Dublin Metropolitan District Court, Padraig Thornton Waste Disposal Limited pleaded guilty to an offence under the Waste Management Acts 1996 - 2005 for a breach of its Waste Licence.

The company admitted breaching a condition of its licence by exceeding the tonnage of waste it was allowed to accept over the twelve-month period for the year 2005.

On hearing details of the offence, Judge Sheridan imposed a fine of €1,500 and EPA's costs of €4,642 were also awarded.

This prosecution was taken following reporting from the company of the exceedance and an audit undertaken by the EPA's Office of Environmental Enforcement.

## Science for Environmental Policy



**Putting Research To Good Use: wide coverage of easy-to-read scientific information relevant to environmental policies**

Addressed to policy-makers and the wider public, the European Commission DG Environment "Science for Environment Policy" News Alert is designed to reinforce the links between science and policy. The News Alert is disseminated weekly by e mail and completely free of charge.

The results of research projects in the fields of ecological and environmental sciences are vital for the development of effective environment policies. However, there is evidence that scientific results are not always fully exploited. In this context, DG Environment has established a News Alert service that aims at reinforcing the links between science and policy.

The 'Science for Environment Policy' News alert service aims at providing "science digest for policy makers". Addressed to policy-makers and the wider public, this service is designed to promote – in a user-friendly form and in a comprehensive non technical language – the integration of the environmental science into management and decision-making practices and to help to communicate understanding of environmental issues to the general public. The News Alert addresses scientific results of achieved or on-going EU funded projects and findings of other research initiatives implemented at international, national and regional levels.

Weekly disseminated by e-mail and free of charge "Science for Environment Policy" covers 20 research topics, from biodiversity, air pollution and forests to climate change and marine ecosystems to the effects of noise on human health. These also cover the main themes of the EU's Environment Action Programme and DG Environment's policy priorities. Published articles classified by theme and by date are

also available on the web.

BIO Intelligence Service assists the European Commission - DG ENV - in the edition and dissemination of the News Alert.

For full details and to access the service please consult the following web address:

[http://ec.europa.eu/environment/integration/research\\_alert\\_en.htm](http://ec.europa.eu/environment/integration/research_alert_en.htm)



## Waste Licences issued

### Waste Transfer Station

AVR-Environmental Solutions Limited **W0211-01**  
*Foxhole, Youghal, County Cork*

Greenstar Limited **W0220-01**  
*Ramstown, Gorey, County Wexford*

Veolia Environmental Services (Ireland) Limited **W0177-03**  
*Six Cross Roads Business Park, Waterford*

### Hazardous Waste Facility

AVR-Safeway Ltd. **W0050-02**  
*Corrin, Fermoy, County Cork*

### Landfill

Bord Na Mona **W0049-02**  
*Clonbulloge Ash Repository, Clonreen Bog, Clonbullogue, County Offaly*

Neiphin Trading Ltd. **W0047-02**  
*Kerdiffstown, Naas, County Kildare*

### Landfill Remediation

Brownfield Restoration Ireland Ltd **W0204-01**  
*Whitestown Lower, County Wicklow*

### Civic Amenity Site

Kerry County Council **W0225-01**  
*Flemingstown, Lispole, An Daingean, County Kerry*

### Materials Recovery Facility

Killarney Waste Disposal Limited **W0217-01**  
*Aughacurreen, Killarney, County Kerry*

The EPA Annual Highlights Report 2006 will soon be published. This report provides a summary of the EPA's key activities during 2006. It details the work completed in the areas of licensing and guidance, environmental enforcement, environmental monitoring and assessment and communications. The report will be available on the website at

<http://www.epa.ie/AboutUs/CorporatePublications/>



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## e-epaNews

We hope that you enjoy this edition of the EPA newsletter. e-epaNews is also available on the EPA website at [www.epa.ie/NewsCentre/Newsletter/](http://www.epa.ie/NewsCentre/Newsletter/)

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