Environmental Protection Agency
Annual Report and Accounts
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ENVIRONMENTAL PROTECTION AGENCY

Annual Report and Accounts, 2024

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The layout of this report has been structured and aligned to reflect the EPA Strategic Plan 2022-2026

Our Purpose

To protect, improve and restore our environment through regulation, scientific knowledge and working with others

Our Vision

We live sustainably in a healthy environment that is valued and protected by all

Our Values & Behaviours

Professional

We hold ourselves to high standards in our interactions and work

- I take responsibility for my work and am accountable for my decisions
- I listen to others and respect diversity of views

Trustworthy

We act with integrity as an independent leader and advocate for our environment

- I base my decisions on the best available evidence and facts
- I am honest and transparent in my interactions with others

Customer & Stakeholder Focussed

We actively listen to and understand our customers and stakeholders to design and deliver excellent services

- I take account of our customers' and stakeholders' perspectives in everything I do
- I work to deliver public value and our vision

Collaborative

We work together and with others to protect our environment and health

- I work with others to deliver better outcomes
- I share my time, resources and knowledge to support my colleagues

Innovative

We innovate and adapt to deliver our vision and strategy

- I try new ideas to improve how I do my work, knowing that I won't always get it right
- I support and champion innovation to deliver on our vision

LIST OF ABBREVIATIONS

AD	Anaerobic Digestion
AIE	Access to Information on the Environment
AMOC	Atlantic Meridional Overturning Circulation
AMR	Antimicrobial Resistance
API	Application Programming Interface
ARC	Audit and Risk Committee
AQIH	Air Quality Index for Health
BAT	Best Available Techniques
B2B	Business to Business
B2C	Business to Consumer
BWN	Boil Water Notice
C&D	Construction and Demolition
CAFE	Clean Air for Europe Directive
CAP	Climate Action Plan
CBAM	Carbon Border Adjustment Mechanism
CLRTAP	Convention on Long-Range Transboundary Air Pollution
CORSIA	Competent Authority for the Carbon Offsetting and Reduction Scheme
CRMs	Critical Raw Materials
DAFM	Department of Agriculture, Food and the Marine
DECC	Department of the Environment, Climate and Communications
DHLGH	Department of Housing, Local Government and Heritage
DFHERIS	Department of Further and Higher Education, Research, Innovation and Science
DWWTS	Domestic Waste Water Treatment Systems
ECHA	European Chemicals Agency
EEA	European Environment Agency
EEE	Electrical and Electronic Equipment
EEX	European Energy Exchange
EIONET	European Environment Information and Observation Network
EMS	Environmental Management System
ENSREG	European Nuclear Safety Regulators Group
EPR	Extended Producer Responsibility
ERC	Executive Risk Committee
ERIC	European Research Infrastructure Consortium
ESD	EU Effort Sharing Decision
ESR	Effort Sharing Regulation
ESRI	Economic and Social Research Institute
EU ETS	European Union Emissions Trading System
F-gas	Fluorinated gas
FOI	Freedom of Information
GCOS	Global Climate Observation System
GHG	Greenhouse Gas
GMM	Genetically Modified Micro-Organism
GMO	Genetically Modified Organism
GPP	Green Public Procurement
HERCA	Heads of the European Radiological Protection Competent Authorities
HFC	Hydrofluorocarbons
HIQA	Health Information and Quality Authority
HSA	Health and Safety Authority
HSE	Health Service Executive
ICAO	International Civil Aviation Organisation
ICCA	Ireland's Climate Change Assessment
ICEL	Irish Centre for European Law
ICOS	Integrated Carbon Observation System
ICT	Information and Communications Technology
IED	Industrial Emissions Directive
IEN	Irish Environmental Network
INAB	Irish National Accreditation Board
IPC	Integrated Pollution Control
IPCC	Intergovernmental Panel on Climate Change

JAI	Junior Achievement Ireland
JPI	Joint Programming Initiatives
LEAP	Licence and Enforcement Access Portal
LULUCF	Land Use, Land Use Change and Forestry
MoU	Memorandum of Understanding
Mt CO_2eq	Million Tonnes Carbon Dioxide Equivalent
MCP	Medium Combustion Plant
MWh	Megawatt Hours
NAIP	National Agricultural Inspection Programme
NAP	Noise Action Plan
NBDC	National Biodiversity Data Centre
NCCRA	National Climate Change Risk Assessment
NCTC	National Construction Training Centre
NDCA	National Dialogue on Climate Action
NEC	National Emission Ceiling Directive
NEPs	National Enforcement Priorities
NERCG	National Environmental Research Coordination Group
NIECE	Network for Ireland's Environmental Compliance and Enforcement
NIR	Non-Ionising Radiation
NMVOCs	Non-Methane Volatile Organic Compounds
NORF	National Open Research Forum
NPS	National Priority Sites
NRCS	National Radon Control Strategy
NZEB	Nearly Zero Energy Building
ODS	Ozone Depleting Substances
OECD	Organisation for Economic Cooperation and Development
OPW	Office of Public Works
OSPAR	Oslo and Paris Conventions
PFAs	Per- and poly-fluoroalkylated substances
$PM_{2.5}$, PM_{10}	Particulate Matter
POPs	Persistent Organic Pollutants
PRTR	Pollutant Release and Transfer Register
RAL	Remedial Action List
RBMP	River Basin Management Plan
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulations
RoHS	Restriction of Hazardous Substances
RPU	Radiation Protection Unit
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCADA	Supervisory Control and Data Acquisition
SCOIR	Secondary Rights, Copyright, Open Access, Institutional Policies and Rights Retention
SEA	Strategic Environmental Assessment
SETU	South East Technological University
SLA	Service Level Agreement
SME	Small to Medium Enterprise
SMN	Senior Management Network
SPOC	Single Point of Contact
SUP	Single Use Plastics
TEG	Temporary Energy Generation
THMs	Trihalomethanes
UÉ	Uisce Éireann
UNECE	United Nations Economic Commission for Europe
UNFCCC	UN Framework Convention on Climate Change
UWWTD	Urban Waste Water Treatment Directive
VOC	Volatile Organic Compound
WEEE	Waste Electrical and Electronic Equipment
WFD	Water Framework Directive
WWTP	Waste Water Treatment Plant

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1. DIRECTOR GENERAL'S STATEMENT

In 2024, the EPA synthesised years of work into the most comprehensive analysis of Ireland's environment to date. This state of the environment report, the eighth of its kind, brings together the work of the EPA across all areas, to thoroughly assess our air, water, waste, nature and more. In the three decades of the EPA's existence, the Irish environment has indeed changed, but the EPA's core role -- to protect, improve and restore Ireland's environment has stayed the same. We regulate activities that have the potential for significant pollution. We produce timely, reliable, trustworthy data on Ireland's environment. We work with others to protect and preserve our environment.

The report set out the need for a national policy position on the environment to address the interactions, synergies and trade off across environmental policy areas and the many interconnected policy domains. Moreover, the report reiterated previous EPA calls for delivery of existing environmental plans and policy which are essential to making any substantial progress on environmental issues. Scaling up investment in environmental infrastructure is critical to meeting the current and future challenges and it is clear that transformation is needed in many of our core systems including energy, transport, water, wastewater, waste and food. The report again highlighted the integral link between our health and the environment: we protect our health by protecting the environment.

In addition to our State of the Environment Report, we published over 50 major reports on water, air, circular economy, environmental compliance and more. In 2025, the EPA will continue to use our expertise, extensive monitoring systems, evidence and research to protect, improve, and restore Ireland's environment.

In my role as Director General, I wish to acknowledge the hard work and commitment of the staff of the EPA throughout 2024 and to thank my fellow Directors for their dedication and support in delivering on our strategic goals.

I would like to extend my best wishes to our colleagues who retired during 2024 after many years of dedicated service. Finally, I would like to thank the Department of Climate, Energy and the Environment and the Department of Housing, Local Government and Heritage for their continuing support.

Laura Burke
Director General, EPA

2. EXECUTIVE SUMMARY

This Annual Report 2024 highlights how the EPA is delivering on challenges new and old, across all areas of the Irish environment.

Human health and wellbeing are closely linked to the state of our environment. The EPA strives to deliver cleaner water, cleaner air and to reduce exposure to harmful radiation, noise, chemicals and pathogens through regulation, enforcement, monitoring and assessment.

Licensing

A primary function of the EPA is environmental and radiological regulation, including assessment, authorisation and enforcement of activities. The EPA is also the enforcement and implementation authority for the EU Emissions Trading System (EU ETS).

In 2024, the EPA prioritised the issuing of licences in the energy sector including Temporary Emergency Generation (TEG) plants, power plants and power generation at data centres. In total 143 authorisations were issued across licence and permit regimes including Industrial Emissions, IPC, waste, wastewater discharges, historic landfills and genetically modified organisms and micro-organisms. Eight applications were returned to the applicants due to their being incomplete or of poor quality. Forty-eight GMO decisions were made and 13 wastewater discharge licences issued. Some 157 licences were updated to ensure compliance with Commission Implementing Decisions that require the application of Best Available Techniques at Industrial Emissions regulated sites.

Continuous process improvements aim to improve the EPA's capacity to process applications, increase our throughput and provide greater clarity to applicants and stakeholders on decision timelines.

Enforcement

The EPA takes a risk-based approach to on-site inspections, targeting non-compliant sites and responding to significant environmental incidents and complaints. The EPA regulated almost 900 industrial and waste facilities, focusing on waste management, energy supply security and water quality impacts. The EPA's Compliance and Enforcement Policy outlines its enforcement powers, including prosecution for breaches of licence conditions. In 2024, the EPA initiated legal proceedings in several cases, leading to five convictions and the application of the Probation Act for three defendants.

Radiation protection inspections focused on compliance with the Ionising Radiation Regulations in high-risk sectors such as interventional radiology, cardiology and industrial site radiography. An enforcement campaign in the dental sector also began in 2024, targeting the use of unauthorised handheld dental X-ray units.

The EPA supervises local authority environmental activities and acknowledges their vital role in protecting the environment. However, local authorities need to prioritise and resource environmental functions to deliver the national enforcement priorities. These include improving waste management, reducing the agricultural impact on water quality and safeguarding public health from harmful air pollutants.

The EPA also tackled the illegal industrial extraction of peat, investigating 38 peatlands across seven counties and initiating various legal actions. EPA is also using its powers under Section 63 of the EPA Act to direct local authorities to take appropriate regulatory actions against illegal commercial peat extraction operations within their jurisdiction.

Air Quality

The EPA's National Ambient Air Quality Monitoring Programme offers real-time data from 115 monitoring stations. The Life Emerald project, completed in 2024, improved understanding of Ireland's air quality and supported the production of Ireland's national air quality forecast. The annual air quality report showed Ireland met EU requirements, but not the stricter WHO guidelines. In order to meet clean air targets, emissions from residential heating need to be addressed and there needs to be investment in transport systems right across the country to reduce our dependence on cars.

Drinking Water

The quality of drinking water in public supplies remains high, ensuring safe drinking water for homes. While Uisce Éireann made progress in reducing supplies on the Remedial Action List in 2024, many treatment plants still need upgrades for future resilience. The EPA's inspection and monitoring programme continues to identify plants at risk. Investment in these plants is necessary for a secure drinking supply into the future.

Enforcement actions on drinking water resulted in 14 supplies being removed from the remedial action list, reducing the at-risk population by almost 65,000.

In early 2024, the Court of Justice of the European Union ruled that Ireland failed to fully implement the Drinking Water Directive regarding Trihalomethanes (THM). Of the 21 supplies in the complaint, 19 are resolved, and the remaining two are due to be resolved by 2026. The EPA targets THM compliance in its enforcement activities. Progress on removing lead from our water supply network remains too slow. The Department of Housing, Planning and Local Government needs to report progress on the National Lead Strategy and Uisce Éireann must accelerate the removal of lead connections from the public supply network.

Water Quality

The 2023 Water Quality in 2023 Indicators Report. showed there was no significant change in any of the water quality indicators for Ireland's rivers, lakes, estuaries and groundwaters in 2023 and no sign of improvement overall. While improvements are happening in some rivers, these are being offset by declines elsewhere. The biggest issue impacting water quality is nutrient pollution from agriculture and wastewater. High nitrate levels were found in 42% of rivers and 17% of estuaries, mainly due to agriculture, while phosphorus levels were largely unchanged. More sustained action is needed to reduce nutrient concentrations in our waters to restore healthy aquatic ecosystems. The report called for improvements in the tracking of and reporting on measures to identify what is and isn't working so that actions can be adapted or enhanced where needed to deliver water quality improvements.

Bathing Water

The 2023 Bathing Water report, published in May 2024, showed that 77% of bathing sites had excellent water quality while 97% met the minimum standard. The report found that heavy summer rainfall is putting pressure on our beaches and that there is a need to build climate resilience into the effective management of bathing waters to protect bather health.

Urban Waste Water

The 2023 Urban Waste Water Treatment report, released in October 2024, showed improvements but noted ongoing infrastructure delays affecting water quality. Ten large urban areas did not comply with the European standards, down from 15 the previous year. The number of areas discharging raw sewage daily dropped from 19 to 16 in 2024.

Over half (58%) of licensed treatment plants did not always meet EPA licence standards, necessary for protecting water bodies.

The EPA conducted 218 inspections of Uisce Éireann's wastewater works and analysed effluent samples from 74 wastewater treatment plants, leading to a reduction in priority areas from 80 to 73. However, the number of unresolved domestic wastewater treatment system failures continues to accumulate.

The recast Urban Wastewater Treatment Directive, effective January 1, 2025, must be transposed into national legislation by July 31, 2027. It introduces stricter treatment standards, obligations on pharmaceutical and cosmetics industries, and requirements on energy neutrality and greenhouse gas emissions.

Ionising and Non-Ionising Radiation

In relation to ionising radiation, Gamma dose rate data from the EPA's upgraded National Radiation Monitoring Network is made publicly available with the automatic transfer of data to the European Commission and the EPA's website on an hourly basis. Results from radiation monitoring in the marine environment are also now available online. The EPA also monitors developments related to nuclear safety in Europe and events in Ukraine affecting nuclear power plants, including the Zaporizhzhya Nuclear Power Plant.

During 2024, the EPA rolled out a monitoring programme aimed at assessing non-ionising radiation (NIR) emitted by major electricity infrastructure such as high-voltage overhead powerlines with 52 locations monitored. The EPA maintained webpages with information on NIR from both telecommunications and electricity infrastructure and continued to respond to queries in relation to NIR during 2024.

Climate Action

The EPA addresses Climate Change by preparing Ireland's greenhouse gas inventories, regulating emissions, supporting climate science research, and facilitating the National Dialogue on Climate Action. The newly established Climate Science and Policy Analysis team began work in late 2023.

Emissions Inventories and Projections

Provisional greenhouse gas inventory data for 2023 showed a 6.8% reduction in emissions from the previous year, marking the lowest levels in three decades However, Ireland is projected to exceed its national and EU climate targets. EPA projections indicated that Ireland would achieve a reduction of up to 29% in GHG emissions by 2030.

The EPA launched a new series of quarterly greenhouse gas emission indicator reports to support more frequent monitoring of national and sectoral progress on climate action.

Adaptation and Climate Services

Results from the Climate Change in the Irish Mind study, conducted by the EPA and Yale University, show high levels of concern and support for climate action.

The EPA began the National Climate Change Risk Assessment (NCCRA) process in January 2024, with the final report expected in mid-2025. The EPA supports adaptation planning through the Climate Ireland platform and the Climate Ireland Adaptation Network, which held its second annual seminar in October 2024. The EPA began the National Climate Change Risk Assessment (NCCRA) process in January 2024, with the final report expected in mid-2025.

Climate Science

In January 2024, the EPA published the first comprehensive and authoritative assessment of the state of knowledge of climate change in Ireland. Ireland's first Climate Change Assessment (ICCA) report was published in January 2024.

The EPA published a special bulletin on greenhouse gas emissions from Land Use and Forestry and facilitated national environmental observations through involvement in multiple international committees and conventions such as the IPCC and the COP29 meeting in Azerbaijan.

Greening the EPA

The EPA is committed to reducing its carbon emissions by 35% by 2026 and further decreasing its energy usage beyond the 50% reduction achieved to date. Energy efficiency and decarbonisation projects completed to date include energy efficient LED lighting, low carbon heating (e.g., biomass and electric heat pumps) and transitioning our fleet to fully electric vehicles. The EPA has advanced a project to install solar PV across all our buildings in 2024 and self-generate 28% of its electricity requirement.

Total carbon emissions arising from the EPA's activities in 2023 were 36% lower than the base period 2016-2018 due to a combination of decarbonisation, energy efficiency measures, and blended working.

Sustainable Production and Consumption

The EPA is responsible for monitoring and validating data on resources and waste. The Circular Economy and Waste Statistics Highlights Report 2022 revealed rising waste generation and insufficient recycling rates, indicating that Ireland is off track to meet EU recycling targets for 2025. Regulatory provisions for declaring materials as end-of-waste or by-products are well-utilised, aiding the circular economy. The EPA published criteria for safe reuse of greenfield soil and stone, supporting waste prevention in construction projects. Regulatory provisions for declaring materials as end-of-waste or by-products are well-utilised, aiding the circular economy.

Under the government's Green Public Procurement (GPP) Strategy, the EPA measures and reports GPP activity annually. The GPP report for 2022 reported a 34% inclusion of green criteria in government department contracts.

The EPA encourages businesses in the food supply chain to join the Food Waste Charter to reduce food waste. The EPA's Stop Food Waste programme offered continual campaigns to support household waste prevention.

State of the Environment Report 2024

The report presents the most recent integrated information on the quality of Ireland's environment. It outlines the current state of our environment at a strategic level, and it also provides an update on the environmental challenges that we face nationally, and globally.

Partnering and Networking

The EPA made submissions to several consultations and policy developments, including the National Planning Framework, Water Services Strategic Plan 2025-2050, and Climate Action Plan 2024. In 2024, the EPA attended various Joint Oireachtas Committees on topics such as Circular Economy, Nitrates Derogation, Water Quality and the National Agricultural Inspections Programme, and the Citizen's Assembly on Biodiversity Loss.

The EPA is involved in expert working groups and consultative committees, including five groups for water policy, the Network for Ireland's Environmental Compliance and Enforcement (NIECE), and the National Textile Advisory Group.

The European Environment Agency's (EEA) country network, EIONET, relaunched in 2023 and by the end of 2024, included 23 Irish organisations, with 10 new to the network.

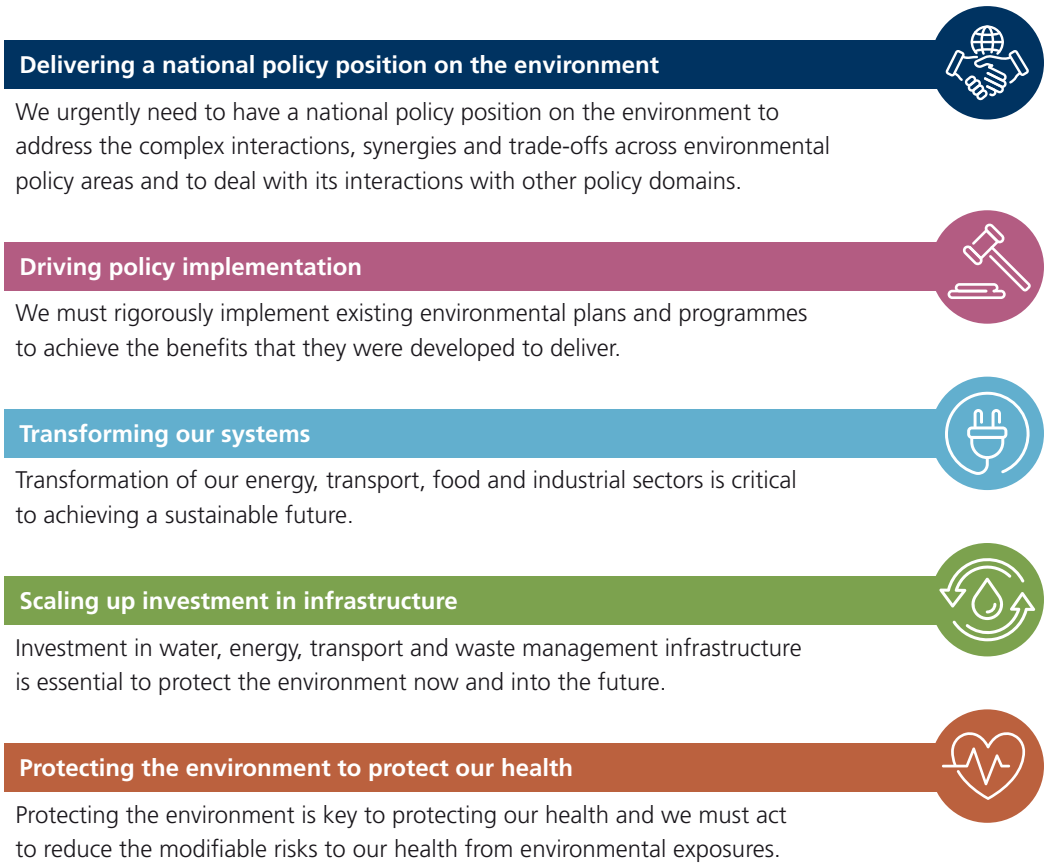


Figure 1. Five key priorities from the State of the Environment Report 2024

Research

The EPA runs a responsive research programme that supports environmental policy development and decision-making. The role of scientific research in tackling climate change and environmental degradation is growing in importance.

In 2024, the EPA awarded €18.5 million for new research projects and published 30 research reports. The refreshed EPA Thematic Research Priorities 2024-2026 will guide the programme's strategic direction. The EPA also partners with various organisations to co-fund environmental research and focuses on transferring scientific evidence from EPA-funded research into policy.

Communications and Outreach

The EPA's website remains the principal communication channel for the Agency, with over 1,200,000 visits throughout 2024. Efforts to reach newer audiences continued via social media, amplifying the EPA's work.

Citizen science projects were supported through collaborations with various organisations. In Galway City, the Clean Air Together project, in partnership with Galway City Council, published findings from over 300 residents who monitored Nitrogen Dioxide (NO_2) levels. The project expanded to Limerick City in 2024, partnering with Limerick City and County Council, where over 400 citizen scientists participated in the study during October 2024.

Engaging with new and younger audiences, the EPA sponsored an environmental award at the BT Young Scientist competition and an Environmental Journalism Award at the National Student Media Awards. The EPA also continued to work in partnership with ECO-UNESCO and Junior Achievement Ireland to increase environmental awareness.

Culture of Excellence

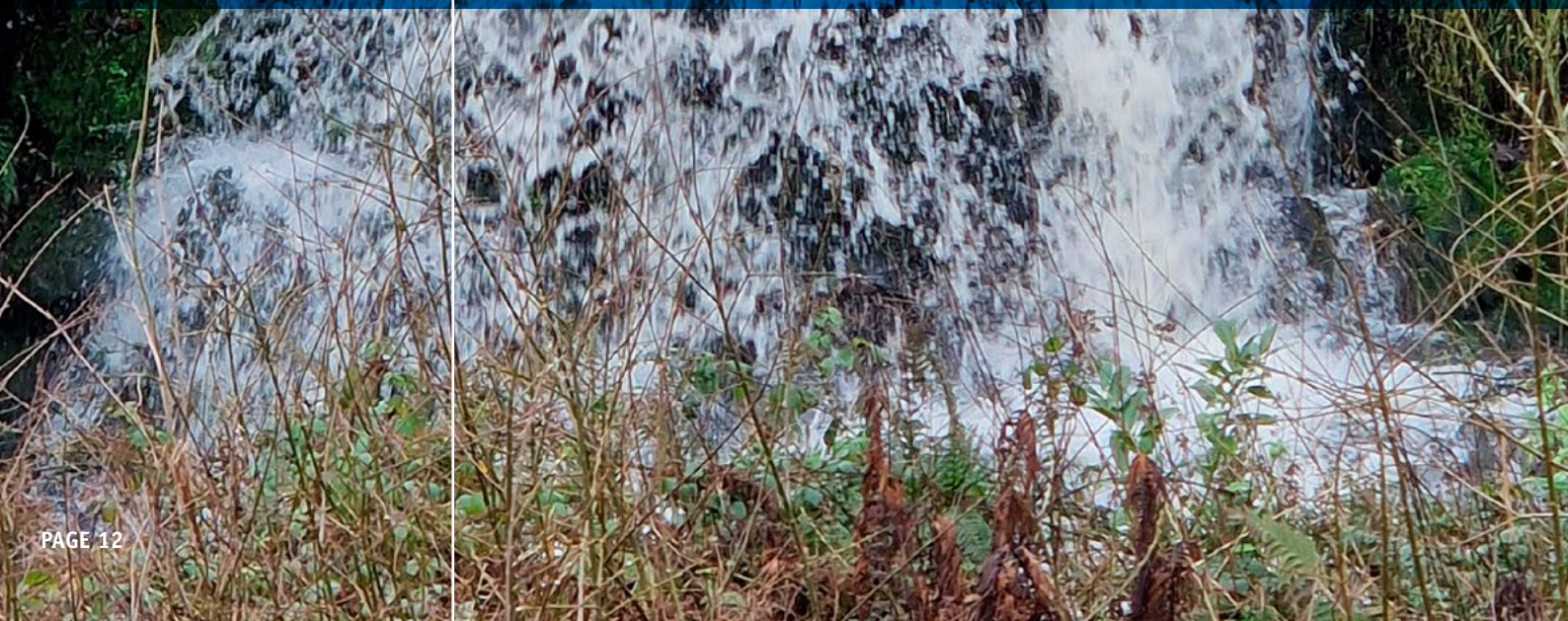
The EPA promotes a supportive and inclusive workplace, empowering staff to deliver public value and achieve a vision of a sustainable environment.

Staff development and maintaining our expertise is a strategic priority for the EPA. Learning is valued by our highly educated workforce and the EPA continues to expand the opportunities to support ongoing professional development.

In line with the EPA's increasing remit, sanction for an additional thirty posts was received, bringing the approved staff complement to 550.

3

Protected and Healthy Environment



We deliver a protected and healthy environment.

We deliver cleaner water and cleaner air and have reduced exposure to harmful radiation, noise, chemicals and pathogens through our regulation, enforcement, monitoring and assessment.

3. PROTECTED AND HEALTHY ENVIRONMENT

3.1 Authorisation of Activities

The EPA has a wide licensing remit and is responsible for a range of tasks relating to the authorisation of activities that could have an impact on the environment or on human health (Tables 1 and 2). This work includes implementing Ireland's obligations under various EU Directives by carrying out environmental assessments prior to granting or refusing authorisations. It incorporates Environmental Impact Assessment and Appropriate Assessment.

Licensing and Permitting

The EU Industrial Emissions Directive (IED) requires Ireland to carefully regulate how industrial activities are conducted in Ireland. EPA licences include measures necessary to achieve a high level of protection for the environment.

In 2024, the EPA again published the list of the Industrial and Waste licence applications scheduled to be assessed for the year. This, together with the licence application prioritisation criteria for IED, Integrated Pollution and Control (IPC) and Waste Licensed installations, allows all stakeholders to clearly see the aspects of an activity that are considered during EPA's licensing work programme planning stage.

Environmental licensing and permitting decisions in 2024 are summarised in Table 1 and included a range of activities, in the waste, pharmachem and power sectors. In 2024, the EPA prioritised issuing of licences in the energy sector. Across these licence and permit regimes, 160 authorisations were issued.

In 2024, the EPA issued 15 Waste Water Discharge Licences as well as one dumping at sea permit and has a further eight on hand at the end of the year. The Water Environment (Abstractions and Associated Impoundments) Regulations were published in August 2024. The EPA carried out preparatory work during 2024 to be in a position to accept applications and carry out assessments.

In 2024, 108 intensive agricultural licences, 47 waste treatment sites, one large combustion plant and one wood panelling facility were brought into compliance with the relevant Commission Implementing Decisions.

In addition, the EPA issued 46 consents in respect of Genetically Modified Organisms (GMOs)/ Genetically Modified Micro-organisms (GMMs) contained use activities relating predominantly to research facilities and presenting low or negligible risk. This included one consent in respect of a Class 3 GMM contained use activity presenting a moderate risk. In addition, one consent was issued in respect of a Genetically Modified clinical trial application under the GMO (Deliberate Release) Regulations S.I. No. 500 of 2003.

An amendment to the IED Directive was issued in April 2024 (Directive 2024/1785/EU) and this will have to be transposed into Irish legislation by 1 July 2026. The main aim of this revision is the full and consistent implementation of the IED across member states, the promotion of cleaner technologies, supporting sustainable growth, broadening the Directive's scope and enhancing data transparency.

Seven draft certificates of authorisation were issued for historic landfills in 2024. Final certificates of authorisation were issued for five historic landfills and five new historic landfill applications were received in 2024, bringing the total on-hand number of applications to 54 at the year end. Of the total applications on hand at the year end, 15 are classified as high-risk sites: seven of these have been issued a draft Certificate of Authorisation and the remaining eight are at various stages of assessment.

The EPA continued to support its web service to include electronic submission of licence applications and electronic processing and communication with all stakeholders. This facilitated a more efficient service for our customers and enables more efficient and accurate reporting of data to the European Commission.

Table 1. Environmental Licensing Programme (licensing activities 2024)

Licence Type	Total Applications Received 2024	Total Objections Received 2024	Total Proposed Decisions Issued 2024	Total Final Decisions Issued 2024
IED/IPC Licences (includes Industrial Emissions (IE) Waste)	29	13	40	**36**
Waste Licences	2	0	1	**0**
Waste Water Licences	8	N/A	N/A	**13**
Waste Water Certificates of Authorisation	3	N/A	N/A	**2**
GMO Permits (Contained Use)	41	N/A	N/A	**46**
GMO Permits (Deliberate Release)	0	N/A	N/A	**1**
Historic Landfill Certificates	5	3	7	**5**
Dumping at Sea Permits	5	N/A	N/A	**1**
Certificates of Registration (Waste)	11	N/A	N/A	**20**
Volatile Organic Compound (VOC) Permits	0	N/A	0	**1**
Greenhouse Gas Permits	63	N/A	N/A	**18**
Total	**167**	**16**	**48**	**143**

N/A, not applicable.

Table 2. Office of Environmental Sustainability (other regulatory activities 2024)

Tasks	Total tasks assessed 2024
Article 11 requests	60
IE/IPC Amendments	197
Waste Amendments	5
Waste Water Treatment Plant (WWTP) Amendments	4
Dumping at Sea Amendments	0
By Product Notifications – Single Case	553
End of Waste Applications – Single Case	3
Transfers	9
Air Pollution Appeals	3
Planning correspondences examined	49
Medium Combustion Plants registered	230
Total	**1,113**

Radiation Protection Activities

The system in place for radiation protection authorisations allows for two forms of authorisation: registration and licensing. Table 3 outlines the authorisations undertaken in 2024. Registration is a simpler and less administratively onerous form of authorisation, appropriate for practices that are less complex in nature and have been demonstrated to be relatively safe, such as mammography giving rise to a medical exposure. Licensing applies to higher risk practices including industrial radiography using High Activity Sealed Sources. Authorisation fees are reflective of the level of risk associated with the types of practices being carried out and therefore the level of regulatory oversight required.

Table 3. New Radiation Protection Authorisations, 2024

Licences	Registrations	Authorisations Amendments	Closed Authorisations
17	68	660 (558 licences, 102 registrations)	10 licences and 11 registrations

Security of Electricity Supply

The security of electricity supply was a key activity for the EPA throughout 2024, with significant engagement with the Department of Environment, Climate and Communications (DECC), the Commission for Regulation of Utilities, Eirgrid, and the power sector. The final licence for Temporary Emergency Generation (TEG) plants and proposed determinations for five power plants and three data centres issued in 2024.

In 2024, 36 new Medium Combustion Plants (MCPs) were registered and 62 MCPs on the register were incorporated into IED licensed sites. The majority of these were at data centres that were licensed in 2024.

Emissions Trading

The EPA is the enforcement and implementation authority for the European Union Emissions Trading System (EU ETS) in Ireland, including ETS Stationary installations, ETS Aviation, and most recently the new areas of ETS Maritime, 'ETS2', covering fuels supplied to Buildings, Road Transport and Additional Sectors and the Carbon Border Adjustment Mechanism (CBAM). As part of this system the EPA implements the EU rules for harmonised free allocation of carbon emission allowances.

In 2024, 109 stationary installations (industries, power stations and other high-energy users) were obliged to report their CO_2 emissions for the previous calendar year. All installations complied with reporting and surrender deadlines. The results from the installations covered by the ETS for 2023 showed that carbon dioxide emissions from Irish companies decreased by 17% (2.4 million tonnes) compared to 2022, to 12.19 million tonnes of CO_2.

Aviation emissions from flights within the European Economic Area reported to Ireland by 31 March 2024 increased by over 9 per cent compared to 2022, to over 11 million tonnes. This reflects the ongoing growth in the sector since the pandemic. These emissions arose from flights anywhere within the European Economic Area, where the aircraft operator has been assigned to Ireland for administration within the EU ETS.

The EPA acts (along with the Department of Transport and the Irish Aviation Authority) as Competent Authority for the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). The CORSIA reporting deadline was 31 August 2024, by which time each member state was required to submit total annual CO_2 aggregated for all attributed Aircraft Operators. The EPA performed the necessary checks and collated the aggregated report before passing to the Department of Transport for submission to the International Civil Aviation Organisation (ICAO) via the CORSIA Central Registry.

The list of installations entitled to some free allocation of carbon allowances in the current allocation period (the National Allocation Table 2021-2025) was approved by the Commission on 29 June 2021. Since production levels, and therefore CO_2 emission levels, can vary from year to year, the rules for Phase IV (2021-2030) are designed to reduce over-allocation in the event of changes to the activity levels, as calculated in the baseline, and to increase allocation where there are significant increases in the activity level. Operators are required to submit annually a verified activity level changes report to the EPA. For each year, the EPA is required to assess all verified activity level changes reports for the 67 incumbent operators listed in the National Allocation Table and consider if an adjustment should be made to that year's allocation. All adjustments are notified to the Commission for approval. Thirty-two such reports were forwarded by the EPA in 2024.

In 2024 the competent authorities and the Commission were also focused on the second allocation period of Phase IV (2026-2030) and rules were introduced to further tighten free allocation in this period. Baseline reports applying for free allocation for the period 2026-2030 were submitted by 14 June from 66 eligible stationary installation operators. All reports were scrutinised by the EPA for compliance with the Free Allocation Rules and data was uploaded to the Commission's National Implementation tool and formally notified by the deadline of 30 September 2024.

The auctioning of ETS allowances takes place on a common auction platform. The European Energy Exchange (EEX) is the current common auction platform to auction allowances on behalf of 25 EU member states. The EPA tracks auctioning of Ireland's quota of allowances each week. Further information on ETS auctions is available in the Commission's Carbon Market Report.

The Union Registry is used as the compliance tool for stationary installations and aircraft operators regulated under the EU ETS. These Stationary and Aircraft Operators are legally obliged to open an account on the Union Registry to fulfil their compliance obligations in relation to GHG emissions. The EPA, as National Administrator, exercises a high level of scrutiny in relation to the eligibility to open registry accounts and to maintain access to them in accordance with the requirements of the Commission Delegated Regulation (EU) 2019/1122. The Irish domain of the Union Registry, managed by the EPA, had 552 users at the end of 2024.

These registry users include shipping companies obligated for the first time in 2024 under the application of the ETS Directive to Maritime emissions. Shipping companies are obliged to file verified emission reports for 2024 by 31 March 2025. Ireland has currently 16 active shipping companies with 112 ships assigned to it as administering authority.

Under the new parallel system of emissions trading for the buildings, road transport and additional sectors (i.e. smaller industries) (ETS2), regulated entities are the fuel suppliers who pay excise duties. Regulation is upstream of the point where emissions arise. Monitoring and reporting obligations arise from 2025 but financial obligations, in the form of allowance surrender, will not commence until 2028 for 2027 emissions. Although Ireland has applied to the EU Commission to use a derogation allowed under Article 30(e)3 of Directive 2023/959, to exempt ETS 2 Regulated Entities from the obligation to surrender emissions allowances for the years 2027-2030, all other obligations including permitting, monitoring and reporting must be applied. The implementing regulations transposing Directive 2023/959, the *European Communities (Greenhouse Gas Emissions Trading) Regulations 2024 (S.I. No. 470 of 2024)*, require regulated entities to hold a GHG emissions permit by 1 January 2025 in order to continue supplying fuel in the state. The EPA permitted 17 regulated entities in 2024 and approved their monitoring and reporting plans. The EPA continues to engage with companies within the sector regarding this legislative requirement.

Obligated importers (declarants) under the CBAM Regulation (Regulation EU 2023/956), bringing CBAM goods into Ireland, filed quarterly reports and amended reports during 2024. A high degree of assistance to declarants was given by the EPA's CBAM team and 987 reports were submitted. The Commission discussed with MS the administrative burden of CBAM due to the high volume of reports compared to the quantity of CO_2 covered because of the very low *de minimis* threshold in the CBAM regulation (150 euro) and the need to extend the use of default values for small consignments. Towards the end of 2024 the Commission indicated that a legislative amendment would be proposed in early 2025.

The EPA takes an active role in EU Climate Change Expert Groups and Task Forces, which are vital to ensure the uniform application of the ETS Directive and supporting legislation.

3.2 Enforcement

Industrial and Waste Licence Enforcement

The EPA regulated almost 900 industrial and waste facilities during 2024. The EPA's objective is to ensure that operators carry on their activities in accordance with their licence conditions. These objectives are advanced through a combination of inspections and guidance and taking enforcement actions where necessary. The EPA's enforcement approach for these facilities is underpinned by the principles published in its Compliance and Enforcement Policy and set out in Figure 2 below. Table 4 includes the number of inspections carried out on industrial and waste licensed activities during 2024.

Figure 2. EPA enforcement principles

The EPA prioritises enforcement effort on sites that present the highest risk to the environment based on the type of activity that is licensed, the location of the activity (i.e. proximity to people or protected areas) and the enforcement history of the site (i.e. whether the site has a history of non-compliance). During 2024, the EPA focused on management of waste at waste management facilities, unauthorised extraction of peat, security of energy supply and licensed activities that are having an impact on water quality.

The National Priority Sites List is used to target EPA's enforcement effort at the poorest performing sites to drive improvements in environmental compliance. The list ranks industrial and waste sites in order of priority for enforcement, based on factors such as complaints (Table 5), incidents, compliance investigations and non-compliances with the licence. This list is published quarterly, with 10 licensed sites included on the list at least once during 2024, from the food and drink, waste anaerobic digestion, intensive agriculture and synthetic fibre sectors. The EPA's enforcement activities are summarised in the infographic in Figure 3.

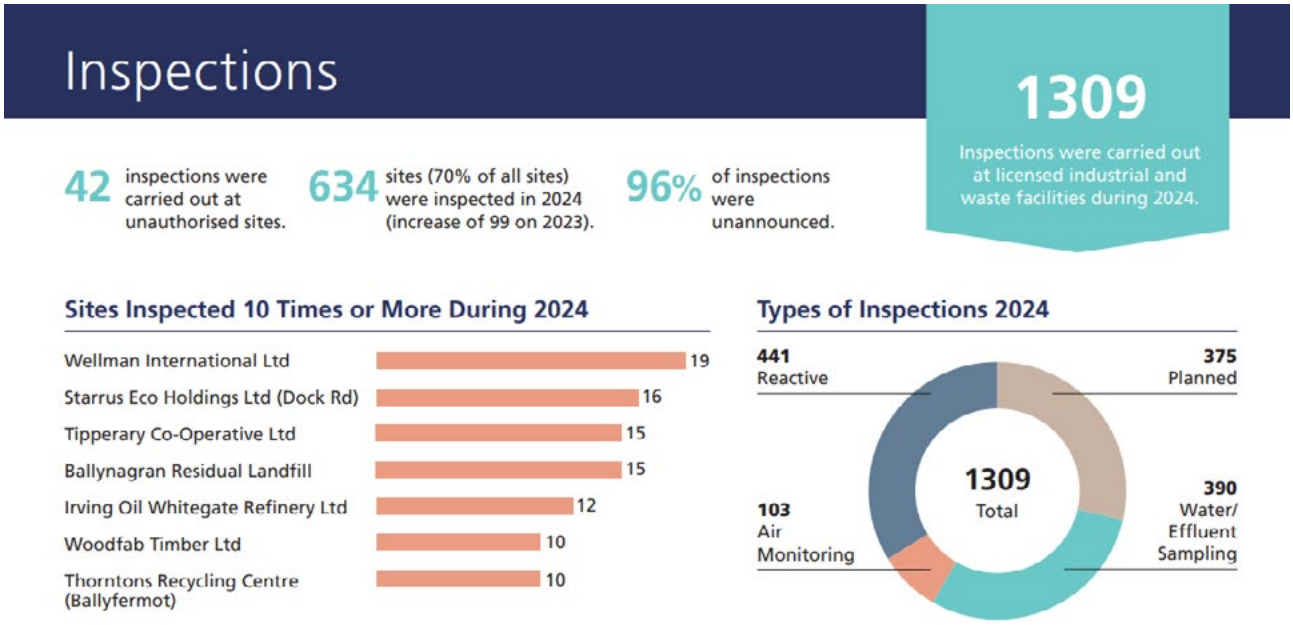


Figure 3. Summary of EPA Industrial and Waste Licence enforcement activities

Table 4. Number of inspections by sector undertaken in 2024

Activity	Number of inspections
Industrial and Waste Licences	1,309
Urban Wastewater Discharge Authorisations	218
Drinking water treatment plants	204
Dumping at Sea Permits	4
Genetical Modified Organisms Permits	15
Volatile Organic Compound Permits	0
Market surveillance – chemicals	150
Ozone Depleting Substances (ODS) and F-gas	4
Producer Responsibility Initiative	213

Table 5. Number of complaints received in 2024 and number of facilities the subject of those complaints by sector

Activity	Number of complaints	Number of facilities the subject of those complaints
Industrial and Waste Licences	809	104
Urban Wastewater	206	66
Drinking Water	40	18
ODS and F-gas	1	N/A
Total complaints	**1,056**	

Illegal Peat Extraction

The EPA continued to dedicate significant resources in 2024 to the illegal commercial extraction of peat. A total of 42 site visits were carried out by the EPA to 38 different peatlands across seven counties. Various legal actions in relation to unlicensed peat activities were progressed.

The lack of action by Local Authorities on illegal peat extraction was also targeted by the EPA. Seven Section 63(5) Proposed Directions under the EPA Act 1992 were issued to the following Local Authorities:

- Longford County Council
- Westmeath County Council
- Offaly County Council
- Kildare County Council
- Roscommon County Council
- Tipperary County Council
- Sligo County Council.

Ten Bord na Móna rehabilitation plans were approved in 2024 (covering 4,021 hectares), bringing the number of plans approved under the Peatlands Climate Action Scheme to 60, covering an area of 24,202 hectares. By the end of 2024, 18,861 hectares of rehabilitation works had been completed by Bord na Móna.

Challenges in the Waste Sector

Environmental performance at EPA licensed waste management facilities remained a key priority for the EPA's Waste Enforcement Team in 2024. The team focused its enforcement efforts on the most non-compliant sectors, including anaerobic digestion (AD), closed landfills and soil recovery facilities.

AD is an important growth industry in Ireland currently underpinned by the National Biomethane Strategy. The Strategy, published by the Department of Agriculture, Food and Marine (DAFM) and the DECC in May 2024, has the ambition to scale up indigenously produced biomethane to 5.7 TWh per annum by 2030. The strategy notes that 'sustainability will be central to the development of biomethane in Ireland' and will assist Ireland in achieving its 2030 carbon reduction targets. The waste enforcement team carried out a coordinated programme of inspections across the licensed AD sector in 2024, and while the technology is seen as a critical element in our transition to the circular economy, compliance issues across the industry were found to include poor management of biogas and digestate and associated odour nuisance with the potential to negatively impact on the environment. A lack of appropriately experienced and skilled staff is seen as a root cause in many cases. Continued effective regulation of the biomethane industry as it grows is critical to ensure facilities are operating correctly and do not cause environmental harm.

There are 71 closed landfills licensed by EPA, the majority of which are under the control of local authorities. Ten closed landfills have been identified under the Water Framework Directive to be a significant pressure on surface or ground waterbodies. Consistently we see local authorities failing to prioritise and adequately resource the management and restoration of these sites. Compliance issues include poor-quality capping, leachate breakout and migration of landfill gas. In 2024, our strategic focus on this sector resulted in improved leachate and gas management at several local authority landfills; however, others have been identified as problematic and will require additional enforcement activity in 2025.

The team prioritised effective cradle-to-grave regulation of the waste management chain, including a multi-agency approach to tacking unauthorised waste activity at soil recovery sites. Ongoing focused enforcement of soil and stone requirements at inert facilities aims to ensure a level playing field between licensed and permitted sites, and implementation of national byproduct criteria for greenfield soil and stone. Training was provided to local authority staff on the EPA Guidance note on waste acceptance criteria at authorised soil recovery facilities, with a view to achieving a consistent enforcement approach across all regulated sites.

The team actively monitored national waste capacity, including the gathering of acceptance tonnage data from licensed sites, close collaboration with other regulators and regular meetings with the industry. While a capacity shortfall was avoided in 2024 by the activation of contingency arrangements at one landfill, the system remains finally balanced and will require close monitoring again in 2025.

Drinking Water and Wastewater Enforcement

The Environmental Protection Agency (EPA) is the environmental regulator of Uisce Éireann (UÉ) through the enforcement of wastewater discharge authorisations and the drinking water regulations. The are over 700 public water supplies, 504 active wastewater licences and 554 active Certificates of Authorisation.

Public Drinking Water

At the end of 2024, the number of people served by public water supplies on the EPA's Remedial Action List (RAL) was over 496,000 (45 supplies) compared to over 561,000 (57 supplies) at the end of 2023. During 2024, 14 supplies were removed from the RAL due to improvement works by UÉ, with two new supplies added due to trihalomethane (THM) exceedances or inadequate treatment.

During 2024, 59 Boil Water Notices (BWNs) were in place at 49 supplies affecting almost 95,000 consumers. This is down from 91 in place during 2023 (254,000 people affected – Table 6). The increased prevalence of notices in recent years is linked to improved awareness of incidents and incident reporting by UÉ on foot of increased EPA enforcement activities. BWNs are essential to protect public health when drinking water supplies are compromised.

Table 6. Boil Water Notices and water restrictions

Advisory Notices issued by Uisce Éireann	2022	2023	2024
Boil Water Notices	79 notices affecting 182,000 people	91 notices affecting 254,000 people	59 notices affecting 95,000 people
Water restrictions	10 notices affecting 8,700 people	12 notices affecting 2,500 people	24 notices affecting 21,000 people

Approximately 21,000 people were affected by 24 water restrictions during 2024, compared to approximately 2,500 people affected by 12 water restrictions during 2023. This is a significant increase on 2023. It should be noted, however, that one water restriction related to a fluoride dosing incident and accounted for the majority of people affected. The notice affected 19,000 of the 21,000 people in question, and it was in place for less than five hours with no parametric failure detected in the public network. The remaining 23 notices affected approximately 2,000 people.

In 2024, UÉ replaced over 4,500 lead connections (approximately 9,500 in 2023), bringing the total number of replacements to approximately 66,000 out of approximately 180,000. UÉ will not meet its commitment to remove all public-side lead pipework by 2026 at this removal rate. The removal of lead piping must be urgently prioritised due to the health risks posed by lead and the impending stricter limit, as required under Drinking Water Directive (EU) 2020/2184). These works must not be delayed further as they are the only sustainable way to reduce people's exposure to lead in drinking water.

There were 68 pesticides exceedances notified across 23 water supplies in 2024, compared with 52 Pesticide exceedances notified across 23 water supplies in 2023. UÉ, in conjunction with other stakeholders, is primarily looking at a catchment-based approach to resolve these pesticide breaches.

On 25 January 2024, the Court of Justice of the European Union ruled that Ireland had failed to fully implement the Drinking Water Directive in relation to breaches of the 100 ug/l limit for THMs in drinking water in 30 supplies. The EPA has regulatory oversight of 21 of the 30 public water supplies, with the remaining nine regulated by local authorities. Nineteen of the 21 supplies have been resolved, with the remaining supplies to be resolved by the end of 2026.

There are now 19 supplies serving over 245,000 consumers on the RAL for elevated levels of THMs above the standard in the Drinking Water Regulations. This is a decrease of over 50,000 consumers at risk from THMs from end 2023 (25 supplies). The EPA will continue to target THM compliance as part of its enforcement activities.

Urban Wastewater

Wastewater treatment has improved in recent years but is still not as good as it needs to be in many areas. Over half (58%) of licensed treatment plants discharged wastewater that did not always meet the standards set to protect the environment. The wastewater discharges from 164 areas have been identified as pressures on the quality of rivers, estuaries, lakes and coastal waters (characterisation for the third cycle River Basin Management Plan)

Based on UÉ's estimates, it will take more than two decades to complete the improvements needed to bring treatment in all areas up to standard. The EPA has highlighted the need for a greater national effort to shorten this timeline and accelerate the delivery of essential infrastructure.

During 2024, the EPA completed 218 inspections of UÉ's wastewater works to assess compliance with discharge authorisations, investigate significant pressures on water quality and follow up on incidents and complaints. The EPA took and analysed effluent samples from 74 wastewater treatment plants to assess the quality of treated wastewater discharged from the plants.

The EPA has identified the priority areas where improvements in treatment are needed most and will bring the greatest benefits. Prioritising improvements at these areas helps restore the quality of surface waters most impacted by wastewater discharges, stops discharges of raw sewage, protects critically endangered freshwater pearl mussels and improves Ireland's compliance with EU obligations on the collection and treatment of wastewater.

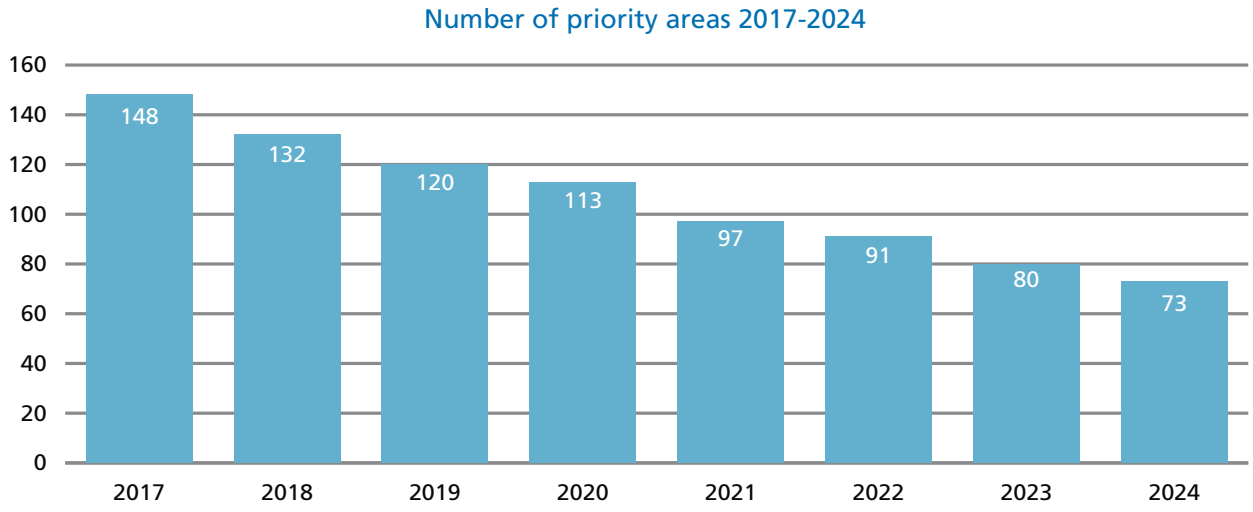


Figure 4. Reduction in the number of priority areas since 2017

There were 73 priority areas at the end of 2024 compared to 80 at the end of 2023 (Figure 4). Ten areas were removed from the list in 2024 following improvements in treatment, but three new areas were added.

Raw Sewage

The number of towns and villages discharging raw sewage daily continued to decrease, from 19 at the end of 2023 to 16 at the end of 2024. The large urban areas that failed to meet the mandatory treatment and effluent quality standards in the Urban Wastewater Treatment Directive decreased from 15 to 10 in the past year. Ireland's largest treatment plant at Ringsend in Dublin, which treats over 40% of Ireland's wastewater, has failed the standards for many years. Upgrade works to bring treatment at Ringsend into compliance with the Directive are well advanced and due for completion in 2025.

UÉ is making progress at some priority areas but significant work remains to deliver the improvements needed at almost half the priority areas. This is prolonging risks to the environment. The EPA requires UÉ to accelerate the pace at which improvements at priority areas are being designed and delivered.

The recently revised Urban Wastewater Treatment Directive must be transposed into national legislation by 30 June 2027. The revised Directive introduces several new and more stringent obligations over a phased basis and UÉ must factor these new requirements into the planning and delivery of wastewater services.

Domestic Waste Water Treatment Systems (Septic Tanks)

The EPA published the Domestic Waste Water Treatment System (DWWTS) Inspections 2023 report on the 1390 inspections completed by local authorities on household domestic waste water systems. The report highlights the following:

- 45% of systems failed inspection in 2023.
- 80% of systems that failed during 2013-2023 were fixed by the end of 2023, which is an improvement from 75% in 2021 and 78% in 2022.

The failure to resolve older advisory notices is a continuing concern. Figure 5 illustrates that the number of DWWTS failures open more than two years has accumulated year on year to 576 at the end of 2023 and these need to be brought to resolution by the relevant local authorities. Focused enforcement effort is needed by local authorities to close out these advisory notices and resolve faulty septic tanks. Increased grant funding and amendments to the registration requirements will support the resolution of these advisory notices.

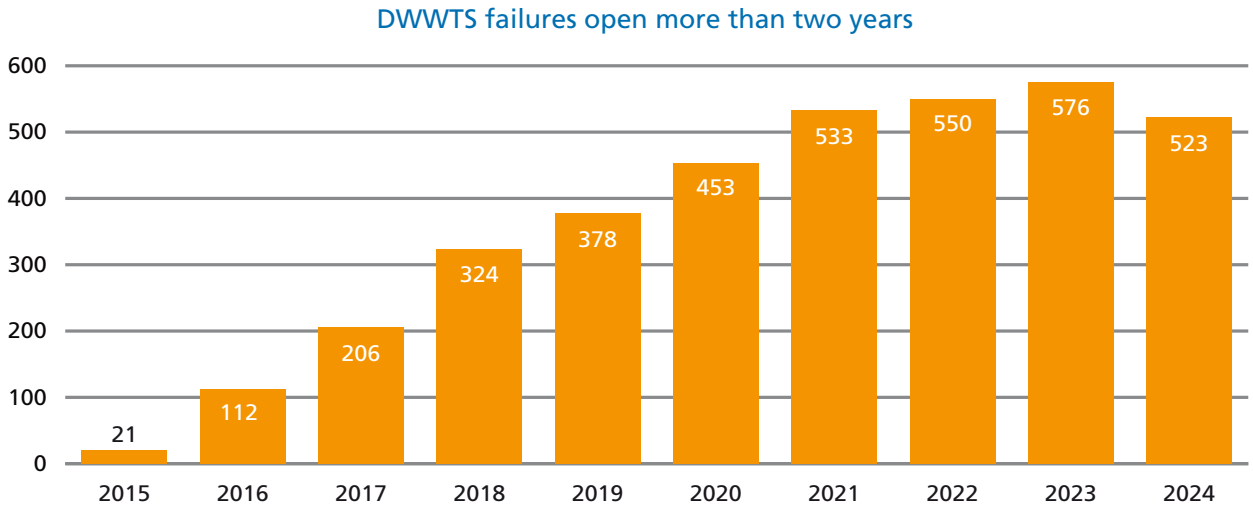


Figure 5. Domestic Waste Water Treatment System failures open more than two years at the end of each year, 2016 to 2024

Preventing Environmental Damage

Financial Provision for Environmental Liabilities

The EPA has identified priority industrial and waste activities that are obliged to secure and maintain sufficient financial provision to ensure that the necessary measures to return the site to a satisfactory state can be taken to avoid any risk of environmental pollution and, where pollution has been caused, to return the site to a satisfactory state. At the end of 2024, the amount of financial provision secured by the EPA exceeded €1.14 billion (Figure 6).

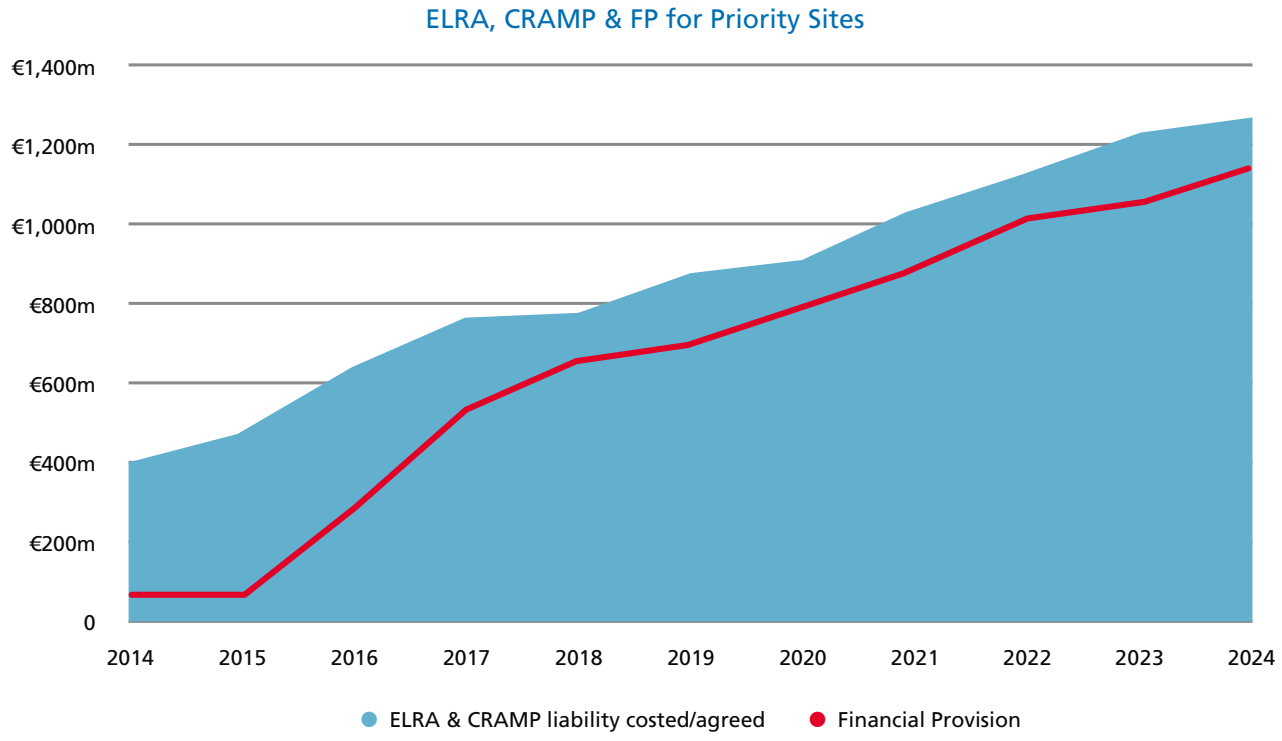


Figure 6. Financial provision for priority sites

Market Surveillance and Chemicals in the Environment

Solid Fuel Regulations

The revised Solid Fuel Regulations came into effect in October 2022. The EPA's role is to maintain a fuel register of producers who produce, treat or import solid fuel. A total of 90 solid fuel producers (importers, wholesale and retail suppliers) successfully registered in 2023–24, and a further 29 made initial responses but did not achieve full registration. For the September 2024 to August 2025 heating season, there are 106 registered producers to date.

Chemicals in the Environment and Persistent Organic Pollutants

The EPA has a regulatory remit for several areas covering hazardous substances in the environment and products. This includes chemicals such as Persistent Organic Pollutants (POPs) and some substances evaluated under the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regime.

One of the emerging chemical topics being covered by several teams across the EPA is per- and poly-fluoroalkylated substances (PFAs). The EPA's role in relation to PFAs is increasingly linked to programmes across the EPA. During 2024 there was engagement on various proposals at EU level for further restrictions of PFAs under REACH. Also, three specific PFA substances are now regulated as POPs under the UN Stockholm Convention. Work continued in 2024 to address the phase-out of PFOA, which is one of these POPs-restricted PFA chemicals. The focus of this work has been around the phase-out of their use in firefighting foams and to ensure that they are reported to the EPA and used, managed and disposed of appropriately: in 2024 approximately 145 tonnes was reported as responsibly disposed of and subsequently removed from the stockpile register.

The EPA collated and prepared update reports on activities for submission to international conventions covering POPs (UN Stockholm Convention) and mercury (UN Minamata Convention). One meeting of the National Persistent Organic Pollutants Forum was held in 2024, with the aim of supporting implementation of Ireland's obligations under the Stockholm Convention and EU POPs Regulation and assisting with ongoing work to update Ireland's POPs National Implementation Plan.

Market Surveillance

A key focus of EPA chemicals market surveillance work is surveillance of chemicals in products and follow-up on EU Safety Gate alerts. The EU Safety Gate rapid alert system notifies Members States, companies and consumers of products that do not comply with limits on certain hazardous substances that have been identified in the EU. During the year, 150 commercial premises (i.e. wholesalers/distributors/retailers etc.) were inspected in Ireland for 163 non-compliant products that were raised as alerts on the Safety Gate system. These inspections covered products, such as electronic gadgets, that were identified as not meeting chemical legislation under RoHS, POPs and REACH. Separately, the EPA searched for any online retailers that make the products available to Irish consumers. Overall, there was a low detection rate of suspect products being sold.

As in previous years, there was participation in relevant national committees that cover chemicals and market surveillance, including the National Market Surveillance Forum, and at European level with the RoHS Administrative Co-operation Group for Market Surveillance, the POPs Competent Authority Group meetings, and the EEA Eionet Chemicals Thematic Group. More recently the EPA has participated in ECHA Forum for Exchange of Information on Enforcement, a group that focuses on REACH and areas of market surveillance.

Producer Responsibility

The EPA has enforcement responsibilities under the Waste, Electrical and Electronic Equipment (WEEE), Batteries, Tyres and Single Use Plastics Regulations. A summary of activities undertaken in 2024 is outlined in Table 7. Enforcement efforts are focused on non-compliant producers. Producers are companies that either manufacture or import electronic products, batteries, tyres or relevant single use plastics (SUP) and make them available for sale for the first time in Ireland.

Audits of Business to Business (B2B) producers focused on producers who are reporting zero/low take-back of WEEE. Business to Customer (B2C) enforcement focused on retail sectors with low WEEE take-back and distance seller websites. During 2024, the EPA had substantial engagement with potential producers in the e-cigarette/vape and heat pump sectors. The EPA carried out inspections of 26 tyre/car importers to enforce their obligations under the tyres and batteries regulations.

The EPA engaged several online platforms, registered as businesses in Ireland, to enforce their extended producer responsibilities (EPR).

The EPA participated in a working group led by the DECC on the implementation of the new EU Batteries Regulation, which will substantially come into force in August 2025.

Table 7. Summary statistics on the 2024 producer responsibility enforcement campaigns

Task	Total number of activities
Business to Business Electrical and Electronic Equipment (EEE) Producer Waste Management Plans reviewed	247
Business to Business EEE Producer Waste Management Reports reviewed	629
Business to Business EEE Producer Audits	59
Business to Consumer EEE/battery distance-seller website inspections	80
Retail inspections in sectors with historical low take-back of WEEE	49
Advisory letters issued to potential producers in the heat pump sector	361
Guidance/Communication emails issued to B2B producers	7
Tyre Producer Inspections	26
Non-compliances under tyres regulations issued to tyre/car importers	29
Non-compliances under batteries regulations issued to tyre/car importers	78
Engagement with potential producers of prohibited single use plastic items	33

Ozone-Depleting Substances and Fluorinated Greenhouse Gases

New European ODS and F-gas Regulations were introduced in 2024, which substantially improve and strengthen the regulatory powers of EPA, driving the phase-out of more climate-harmful gases. In particular, Regulation (EU) 2024/573 subjects 23 additional F-gases to controls and strengthens rules on F-gas production, use, recovery, recycling and destruction, certification and training and also the import, export and placing on the market of F-gases, and equipment containing F-gases.

In 2024, the EPA investigated the use and maintenance of equipment containing ODS and F-gas on industrial licensed sites and developed guidance for licensees. This has led to better detection and correction of F-gas leaks at licensed sites.

The EPA issued 105 Prior Annual Notifications authorising ODS and F-gas service technicians to transport waste ODS and F-gases.

The EPA also processed 98 customs clearance queries in relation to ODS; 78 of these were for aircraft and aircraft parts.

Radiation Protection Inspections

The EPA carries out an annual programme of radiation protection inspections to assess compliance with legislation and authorisation conditions. These inspections allow the EPA to assess the standard of radiation protection at sites, to identify common or emerging issues across sites and to promote a strong radiation protection culture.

During 2024, radiation protection inspections were undertaken in several sectors (Table 8), including four security inspections carried out with the assistance of An Garda Síochána National Crime Prevention Unit.

Table 8. Radiation protection licensee categories and inspections undertaken during 2024

Licensed sector	Number of completed inspections
Hospital and medical facilities	29
Industrial and commercial (including four security inspections)	40
Other licensees (education and research, transport and distribution, vets, dentists and service companies)	23
Reactive (including two incident investigations at licensed sites)	3
Other site visits of unlicensed facilities (cave, lightning preventors and pre-licensing)	5
Total	**100**

The focus of inspections for 2024 included the implementation of the 2019 Ionising Radiation Regulations and associated EPA guidance (particularly the requirements on risk assessment, including workers categorisation; training; and Radiation Protection Officer (RPO)), and operational radiation protection in high-risk areas such as interventional radiology, cardiology and industrial site radiography. Site work with nuclear moisture density gauges was also added as an area for increased surveillance and will continue for the foreseeable future. Finally, a focused enforcement campaign in the dental sector was commenced in 2024 whereby 10% of the total inspections carried out were of that sector – these were both announced and unannounced, with a focus on the use of unauthorised handheld dental X-ray units.

Through a memorandum of understanding with the Health Information and Quality Authority (HIQA), it had been noted that both competent authorities were identifying a high number of findings during inspections of dental facilities. In October, the EPA and HIQA's Medical Exposure to Ionising Radiation unit hosted a joint webinar for dental practices using X-ray units. The webinar, attended by some 500 participants, aimed to assist this sector in improving compliance, by guiding participants through the main regulatory requirements of providing a dental X-ray and/or cone beam computed tomography (CBCT) service, and to address the most common inspection findings. Topics included the authorisation process; roles and responsibilities of relevant staff or persons involved in the service; staff training; equipment requirements; and the inspection process and reports. Time was assigned after the webinar for participants to engage directly with EPA and HIQA inspectors in a live question-and-answers session. A recording of the webinar and a 'frequently asked questions' document were subsequently published to both the EPA and HIQA websites.

During 2024, 20 reportable incidents and four reportable doses were notified to the EPA. Short-lived radioactive medical waste was detected at a municipal waste facility requiring the RPR team to attend and investigate. This incident coupled with previous detection of an orphan radium-226 source highlights the need for a national framework for the management of radioactive waste in Ireland.

The findings of the 2024 inspection programme identified the following:

- Improvements in risk assessments were noted in the medical sector, but some issues remain around dose estimations, dose sharing requirements and workers' categorisation. Other sectors in general still lag behind the medical sector in this area of compliance.
- Radiation safety training remains an issue, in particular a lack of mechanisms to monitor and record training, especially in the medical sector.
- Challenges remain in relation to the implementation of RPO arrangements.
- Unlicensed, or insufficient justification to use, handheld dental X-ray units.

Local Authority Statutory Performance

The Local Authority Environmental Enforcement Performance Report 2023 was published by the EPA in December 2024. The report showed overall progress while highlighting improvements needed in delivering water quality and air quality.

- Eight local authorities achieved a Strong or Excellent score in 17 or more of the 20 National Enforcement Priorities (NEPs).
- Six local authorities failed to achieve a Strong or Excellent score in 10 or more of the 20 NEPs.

The report outlines the following actions that local authorities need to focus on:

- Prioritise and resource the delivery of the NEPs to improve air and water quality and increase waste recycling.
- Carry out more farm inspections and follow-up enforcement to reach the National Agricultural Inspection Programme (NAIP) target of 4,500 in 2025, to drive compliance and improve water quality.
- Maintain the inspection campaign of solid fuel producers and retailers, to make sure only approved solid fuels are available for sale and to protect public health from harmful air pollutants.
- Fully implement their Noise Action Plans to reduce people's exposure to transport noise.
- Target waste enforcement actions to drive compliance with the new national by-product criteria for greenfield soil, stone and waste recovery levy regulations, to reduce construction and demolition (C&D) waste.

Ten statutory performance audits were completed in 2024, and these audit reports are available on the EPA website.

National Agricultural Inspection Programme

The EPA's NAIP issued target inspection rates for all local authorities for 2023 and 2024 to achieve the Water Action Plan target farm inspection rate of 4,500 in 2025. The EPA provided support and guidance to local authority inspectors employed to undertake farm inspections. The EPA completed an Article 29(2) Progress Report for the Minister for Housing, Local Government and Heritage on the Implementation of the European Union (Good Agricultural Practice for the Protection of Waters) Regulations 2022, as amended. review of the Nitrates Action Programme and associated Good Agricultural Practice Regulations in accordance with Article 29(2) of the Nitrates regulations.

In 2024, the local authorities carried out 2,598 initial inspections under the Good Agricultural Practice for the Protection of Waters Regulations, which is more than double the number of inspections completed in 2023 (1,137). The rate of non-compliance for initial Good Agricultural Practice inspections increased from 37% in 2023 to 42% in 2024, which highlights the need for improved compliance by farmers with the Good Agricultural Practice Regulations.

Prosecutions

Seven cases were concluded in the District Court and one case in the Circuit Court in 2024 (compared to 22 in 2023), which resulted in:

- five convictions;
- three defendants being given the benefit of the Probation Act.

A Director of Public Prosecutions (DPP) case concluded in 2024 at Tralee Circuit Court, with a waste company convicted for illegal waste management activities, and fines totalling €500,000 were imposed.

In total, during 2024 fines of €29,500 and total costs of €145,300 were awarded to the EPA.

Environmental outcomes from the cases taken included improved compliance, significant investment and process changes to rectify compliance issues. Following the conviction of a food and drink company, their Supervisory Control and Data Acquisition (SCADA) system was upgraded, and works were undertaken to improve surface water discharges including the installation of new interceptors. In the case of a licensed waste facility, process improvements have led to a reduction in odours and complaints from the public following the initiation of legal action.

3.3 Monitoring and Assessment

Air Quality

The EPA is responsible for the assessment of ambient air quality in Ireland. The National Ambient Air Quality Monitoring Network (Figure 7) is operated in collaboration with local authorities and other bodies.

Data from the network is available to the public through the airquality.ie website and reported in compliance with the requirements of the EU Clean Air for Europe Directive (CAFE) and 4th Daughter Directive. Data is assessed against European legal limit values and the revised (2021) World Health Organization (WHO) guideline values.

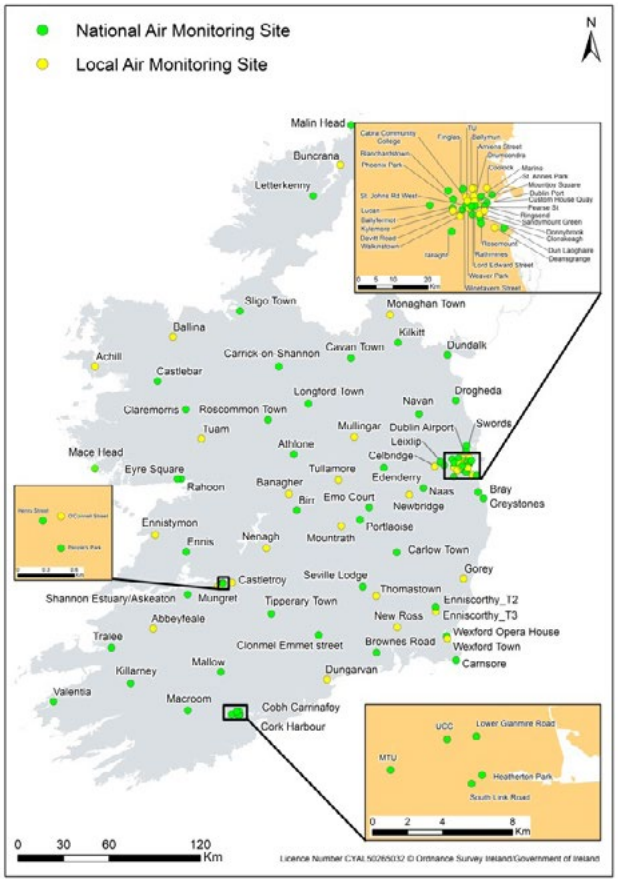


Figure 7. National Ambient Air Quality Monitoring Network

The EPA published *Air Quality in Ireland 2023* in September. The report concluded that while air quality in Ireland is in compliance with current EU standards, Ireland is not on track to achieve its ambition, set out in the National Clean Air Strategy, to meet the health-based WHO air quality guideline limits in 2026. Achieving future targets will be very challenging. Poor air quality impacts people's health and the European Environment Agency (EEA) estimates that there are approximately 1,600 premature deaths in Ireland due to air pollution. There is an ever-growing body of research showing the clear links between poor air quality and premature deaths and also to life-limiting impacts such dementia and diabetes. Levels of particulate matter (fine particles) in air are of growing concern. Levels of this pollutant are particularly high during the winter months, as shown in Figure 8, when people's use of solid fuels such as coal, peat and wet wood negatively impacts air quality – especially in small towns and villages. Any movement along the spectrum of home heating choices and solid fuel choices towards cleaner modes (Figure 9) will bring about an improvement in air quality. Similarly, the health impact from transport emissions can be mitigated by making the right transport choices.

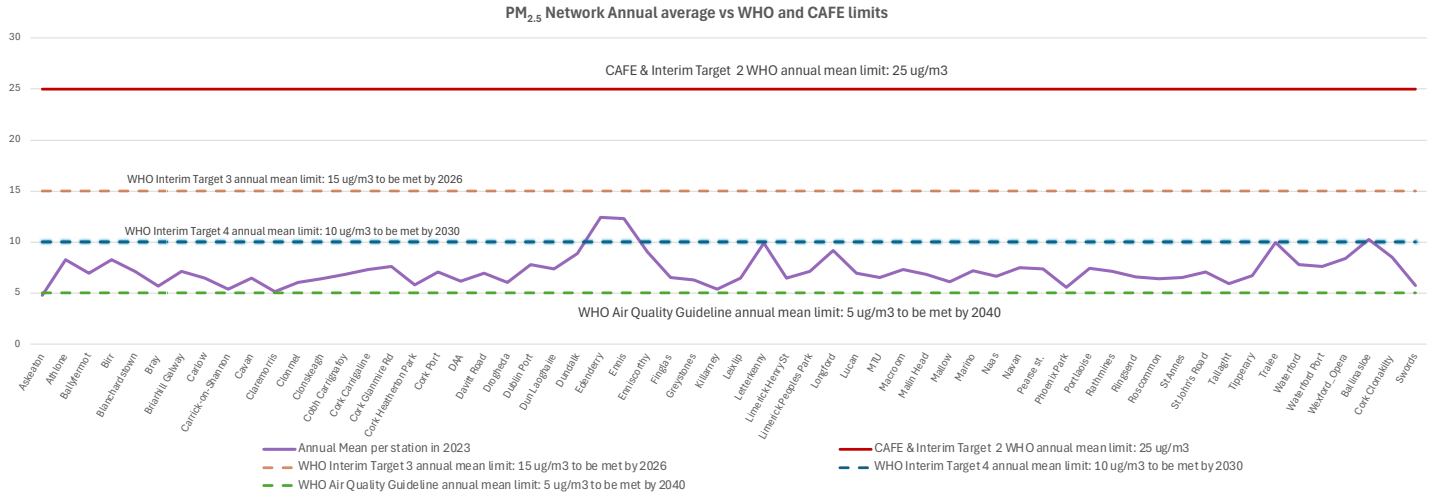


Figure 8. Average $PM_{2.5}$ per month for selected stations

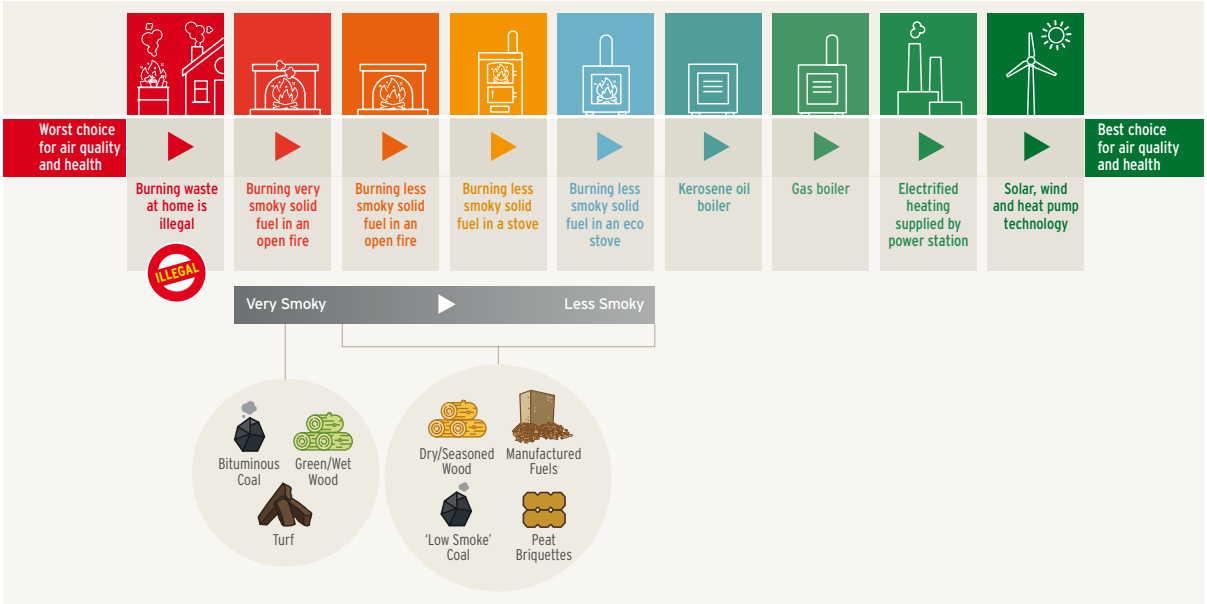


Figure 9. Air quality and health aspects of home heating choices

Air Pollutant Emission Inventories and Projections

In 2024, the EPA published its assessment of 2022 emissions of five key air pollutants: ammonia (NH_3), non-methane volatile organic compounds (NMVOCs), sulphur dioxide (SO_2), nitrogen oxides (NO_x) and fine particulate matter ($PM_{2.5}$). These pollutants impact air quality, health and the environment and are subject to reduction commitments under the EU National Emission Reduction Commitments (NEC) Directive. In addition, emissions projections for these air pollutants to 2030 were submitted to the United Nations Economic Commission for Europe (UNECE), under the Convention on Long-range Transboundary Air Pollution (CLRTAP).

The report shows that Ireland complied with the non-methane volatile organic compounds, sulphur dioxide, nitrogen oxides and particulate matter emission reduction commitments for 2022 and did not comply with its emission reduction commitments for ammonia.

NH_3 emissions decreased by 1.1% compared to 2021. Increased use of low-emission slurry spreading to 59.0% of all cattle slurry and increased use of inhibited urea fertiliser by 52.3% compared to 2021 levels have reduced emissions but not to the point of compliance. Ireland has not complied with EU National Emission Reduction Commitments for 10 of the past 11 years for NH_3 emissions, which cause significant environmental damage to valuable ecosystems and can also impact local air quality and human health. Emissions of NH_3 in 2022 were 3.0% above 2005 levels. As a result of Ireland's non-compliance with the 2020 emission reduction commitment for ammonia emissions, the European Commission served Ireland with a reasoned opinion for non-compliance with the National Emission Ceilings Directive (2016/2284) in November 2023. Compliance with the 2030 Reduction Commitment will only be achieved through comprehensive implementation of the full suite of abatement measures such as low-emission slurry spreading and widespread use of inhibited urea fertiliser products.

Emissions of NMVOCs decreased by 1.0% in 2022 compared to 2021, largely due to reduced coal and peat use in the residential sector. Ireland used the permissible legislative flexibility mechanism to meet the 2022 EU Emissions Reduction commitment. However, effective abatement measures for emissions associated with spirit production in the food and drink industry are needed if future emissions reduction targets are to be met.

Sulphur dioxide (SO_2) emission was decreased by 26.0% in 2022 compared to 2021 as a result of a reduction of coal and peat use in power stations and residential heating. SO_2 emissions reduced by 87% in the period 2005-2022 and they continue to be well below the required EU emission reduction commitments.

Nitrogen oxide (NO_x) emissions decreased by 4.1% in 2022, driven by a decrease in the use of fuel oil and coal in electricity generation following an increase in the use of these fuels in 2021. The use of cleaner vehicles meant that transport NO_x emissions remained similar to 2022 despite a continued increase in activity following the lifting of pandemic restrictions.

$PM_{2.5}$ emissions reduced by 42.6% compared to a 2005 baseline level and continue to meet the emission reduction commitment.

Water Quality

The EPA is responsible for coordinating and implementing the national water quality monitoring programme, undertaking technical and scientific assessments to understand the pressures impacting on water, and helping to inform the measures that need to be taken to protect and improve water quality. This information is also required for reporting to the EU on the Water Framework Directive (WFD) and other water-related activities.

The national surface water and groundwater monitoring programme was substantially completed during 2024 and included the following:

- Analysis of 12,823 water samples from rivers, lakes and estuaries
- Ecological surveys and chemical sampling from over 2,349 waterbodies including rivers, lakes, groundwater, estuaries and coastal water bodies

In June 2024, the EPA published the Water Quality in 2023 Indicators Report. The key findings of the report showed that there was no significant change in the biological quality of our rivers or lakes in 2023. Nitrate concentrations were found to be too high in 42% of rivers and 17% of estuaries nationally (Figure 10). Elevated nitrate levels are found mainly in the south and southeast and are too high to support good water quality in our estuaries. This is primarily attributable to intensive agricultural activities on freely draining soils in these areas. Phosphate concentrations are too high in 27% of rivers and 35% of lakes, which impacts on their biological quality. Phosphate primarily comes from wastewater discharges and from agricultural run-off in areas with poorly draining soils.

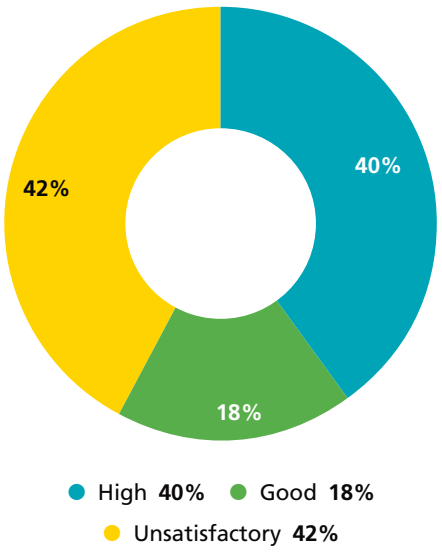


Figure 10. River nitrate quality 2021-2023

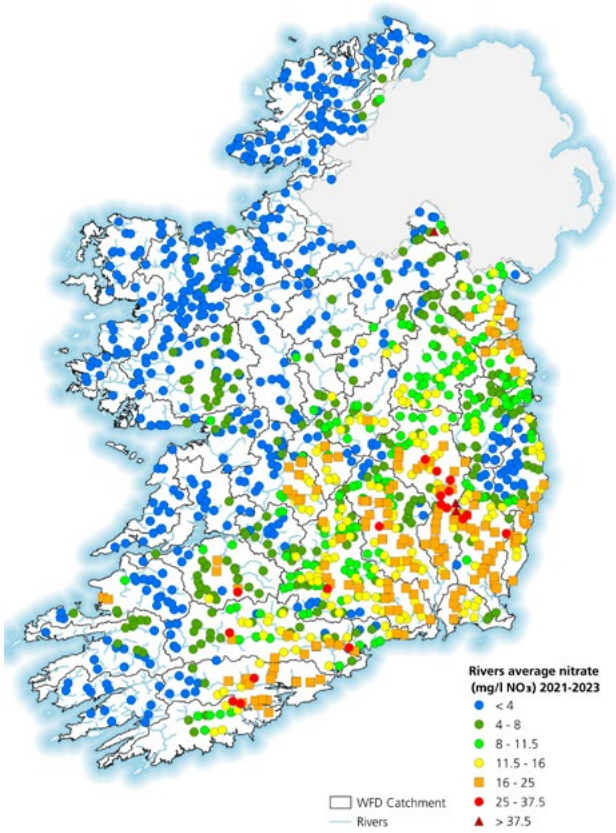


Figure 11. River nitrate concentration 2021-2023

Evidence and Assessment Tools

During 2024, the EPA published several water quality reports that will help drive further action to reduce excess nutrients in waters. These included the annual report on Nitrate and Phosphorus Concentrations in Irish Waters in 2023, and the Nitrates Directive Article 10 report. In addition, for the first time the EPA published Early Insights into Nitrogen Concentrations in Major Rivers in Ireland for the first six months of 2024. All reports generated significant public interest.

The EPA also published an updated evidence base on the pressures impacting on waters. This included a series of reports on the most significant pressures impacting on the water environment, and 46 catchment assessments highlighting where and what the water quality issues are locally. An analysis of the gap to achieving water quality objectives was published in September 2024 and was used to inform the national Water Action Plan 2024 that was published by the Department of Housing, Local Government and Heritage (DHLGH).

Hydrometric Programme

The EPA continues to provide hydrometric data to support national and international reporting obligations, water resource planning and management, flood risk management, infrastructure design and a variety of other activities.

During 2024, the EPA carried out 991 assessments of groundwater levels and surface water levels and/or flow at sites throughout the country. These assessments primarily focused on the EPA/local authority network of sites but also included targeted flow measurements where data was needed for specific purposes. The data is available for download via the EPA's HydroNet web tool.

The EPA continues to maintain the National Abstraction Registration portal. In December 2024, 3102 individual abstraction points were registered with the EPA. The abstraction register is now publicly available for download on the EPA website.

Bathing Water Quality

In May 2024, the EPA published the annual bathing water report, which assessed results for the 2023 bathing season. Details of the 2023 assessments are summarised in Figure 12. The report found that 97% of bathing waters (143 of 148) in 2023 met or exceeded the minimum required standard.

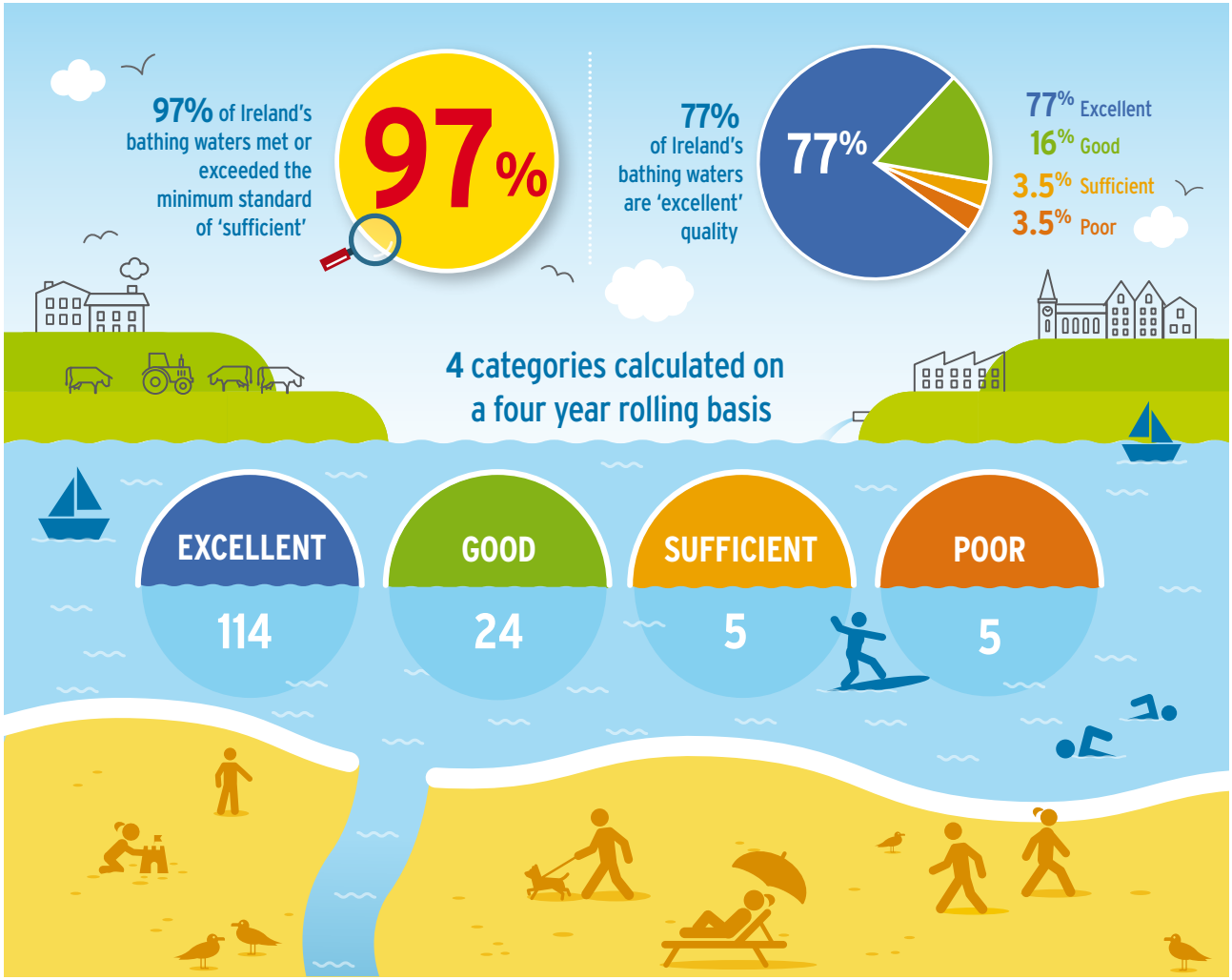


Figure 12. Bathing water quality in 2023

Water Laboratories

The EPA laboratories in Castlebar, Dublin, Kilkenny and Monaghan undertake water quality monitoring to support the regulation of EPA-licensed facilities, and the implementation of the WFD to protect and restore Irish waters. Monitoring activities include analysis of samples from rivers, lakes, groundwaters and transitional and coastal waters as well as sampling, analysis and auditing at industrial, waste and wastewater facilities.

During 2024, the laboratories carried out a range of analyses on 13,446 WFD samples from rivers (7,594), lakes (2,516), estuaries (2,715) and groundwaters (621). This is a 4% reduction on the 13,978 samples analysed in 2023 due to efficiencies gained by annual reviews of the WFD monitoring programme. A breakdown of the sample numbers analysed in 2024 is provided in Figure 13.

In 2024, the laboratories also carried out compliance checking on 1,257 samples from EPA-licensed (IPC, IED, waste and landfill) sites and on 97 samples from urban wastewater sites. This involved sampling and analysis of discharges for a range of physical and chemical parameters such as pH, ammonia, biological oxygen demand and heavy metals. Laboratory staff also conducted audits at drinking water treatment plants in support of the EPA Drinking Water Enforcement Programme.

Following an annual audit by the Irish National Accreditation Board (INAB) in October 2024, 17025:2017 accreditation was maintained in the air, radiation and water laboratories.

In 2024 the EPA Water and Radiation Monitoring Laboratories were awarded *My Green Lab* certification in recognition of their commitment to sustainability and the reduction of the environmental impact of laboratories in the key areas of energy, water, waste and chemicals.

Each laboratory undertook a waste audit to get data on the waste categories being generated. From that, the labs targeted reductions in plastics use, in particular swapping out with glass items where suitable and switching to recyclable nitrile gloves. Energy conservation measures were also developed, lining up equipment operating times with periods of use and displaying information on energy conservation on relevant equipment. Chemical wastes were targeted for recycling or donation where still viable for research purposes. Green procurement is now also standard for laboratory equipment and consumables. EVs are in routine use for fieldwork.

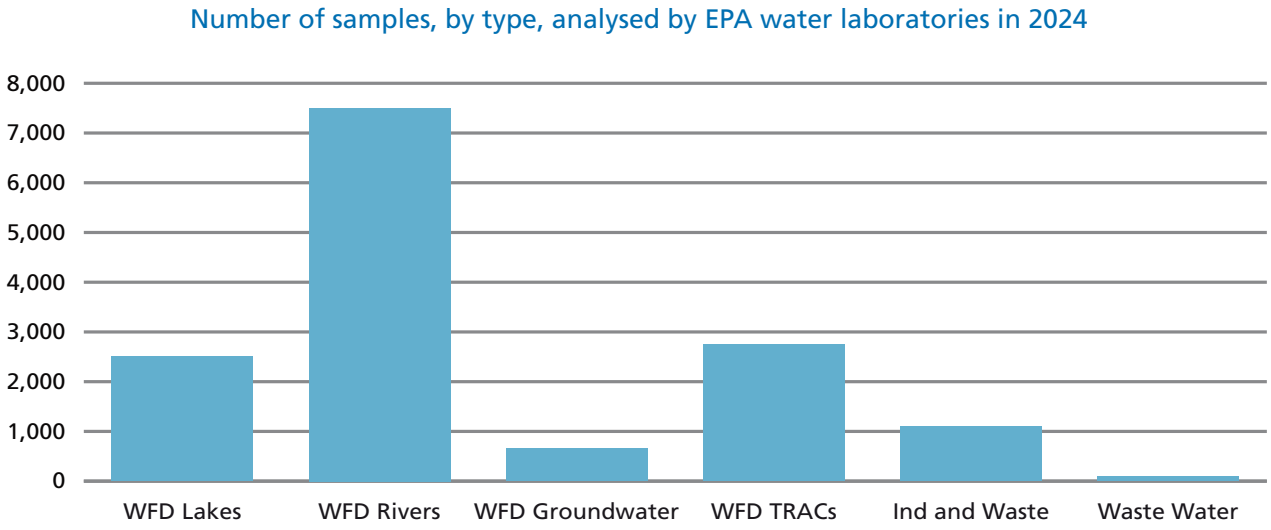


Figure 13. Number of samples, by type, analysed by EPA water laboratories in 2024

EPA laboratories' sustainability measures to achieve My Green Lab certification

Radiation Monitoring

Instrument Calibration

The EPA provides an ISO 17025:2017 accredited instrument calibration service for a range of radiation protection instruments including survey meters, contamination monitors and electronic personal dosimeters. This service supports radiation safety and the monitoring of radiation levels in the workplace for licensees and stakeholders in industry, medicine, defence, research, regulation and emergency response. In 2024, 394 instruments were calibrated by the service.

Radioanalytical

The EPA measures radioactivity in a wide range of foodstuffs, drinking water and environmental samples. This work is undertaken both in support of the EPA's environmental radioactivity monitoring programmes and on a contract basis for external clients.

The contract radioanalytical services provided during 2024 included:

- Testing Irish produce for compliance with the requirements of importing countries as well as imported animal-feed grains from third countries.
- Testing drinking and bottled water for compliance with the requirements of National Regulations.
- Analysis of wipe-tests to check the integrity of sealed radioactive sources.
- Testing dredged samples for compliance with the requirements of the Dumping at Sea Act 1996, as amended.

The EPA provides an assessment of radioactivity in Irish foodstuffs. This assessment provides the basis for certifying radioactivity in produce for export. The number of product certificates issued in 2024 was 2,550.

The 2024 radiation monitoring programme involved sampling and testing for radioactivity in air, drinking and bottled water, precipitation, seawater, seaweed, sediments, fish, shellfish, mixed diet and other foodstuffs as well as the continuous measurement of the ambient gamma dose rate at fixed monitoring stations around the country. A total of 400 environmental samples were analysed for various monitoring programmes during the year. The findings of this monitoring showed that although the levels of artificial radioactivity in the Irish environment remain detectable, they are low and do not pose a significant risk to human health.

National Radiation Monitoring Network

The EPA maintains the National Radiation Monitoring Network to constantly monitor radiation levels in the environment and to fulfil the EPA's responsibilities under the EURATOM Treaty and the National Plan for Nuclear and Radiological Emergency Exposures. In the event of an overseas nuclear or radiological accident, the Network would detect if there were any enhanced levels of ambient radiation in Ireland.

An upgrade of this Network has been completed, with the total number of monitoring stations increased from 15 to 26. Ambient gamma radiation data from the new instruments is now being automatically transferred to the European Commission on an hourly basis and is available on the EPA's website.

As well as monitoring ambient gamma radiation levels, the Network also includes instruments to measure radioactivity concentrations in air. Some of these perform in situ measurements while others contain aerosol filters that are collected by the EPA and Met Éireann staff and sent to the EPA's Radiation Monitoring Laboratory for analysis. In addition, the Network has precipitation samplers which continuously gather precipitation samples for analysis in the EPA.

National Radon Control Strategy

The National Radon Control Strategy (NRCS) is a cross-government strategy that aims to reduce the number of radon-related lung cancers in Ireland. The strategy contains recommendations on a broad range of measures aimed at reducing exposure to this radioactive gas. To measure progress towards this goal, the strategy has a range of metrics to track effectiveness of its measures over time. In 2024, the EPA undertook a survey to update the national average indoor radon concentration in Ireland. As part of this survey, approximately 1800 randomly selected homes were tested for radon. Results of the survey will be available in 2025.

In 2024, the EPA engaged with the Mount Lucas National Construction Training Centre (NCTC) on the provision of radon training courses. A two-day training course on radon remediation was delivered in the Mount Lucas NCTC to NZEB (net or nearly zero energy buildings) Centre of Excellence trainers, and work has begun on developing course material to be delivered through the NCTC.

Raising awareness of the risk from radon gas continued in 2024, with the EPA marking European Radon Day 2024 on 7 November with a week-long campaign that highlighted the importance of radon testing and remediation through a series of radio advertisements in English and Irish and a social media campaign. The EPA continues to recommend that all homeowners test their homes for radon and take action if the levels are high.

In 2024, there was a further expansion of the EPA's library loan scheme of digital radon monitors, with the scheme now available in libraries in County Wicklow. In County Wexford, the EPA in collaboration with Wexford libraries promoted the loan scheme at a public meeting as part of Healthy Wexford's 'Healthy Homes' project.

Non-ionising Radiation

During 2024, the EPA rolled out a monitoring programme aimed at assessing non-ionising radiation (NIR) from major electricity infrastructure such as high-voltage overhead powerlines, underground cables and substations. A total of 52 locations throughout the country, where people live or work within 50 metres of this infrastructure, were measured as part of this monitoring programme. It is expected that the results of this work will be made publicly available in Q3 of 2025. This data will support any future EPA advice on NIR associated with electricity infrastructure.

Ecosystems Monitoring and Reporting

The EPA operates the National Ecosystems Monitoring Network, designed to monitor impacts of air pollution on sensitive ecosystems based on requirements set out in the National Emissions Reduction Commitments (NEC) Directive (2016/2284). The Network consists of a collection of sites that are representative of different habitats across the country. It is focused on providing evidence of the impacts of nitrogen deposition, including ammonia, on these habitats. The monitoring on the Network sites is being delivered by the EPA and other organisations including the National Parks and Wildlife Service, Met Éireann and the DAFM. During 2024, three atmospheric monitoring sites were added to the Network, bringing the total to 13. This work is developing a national dataset of long-term ecological survey data on habitats including raised bogs, calcareous grasslands and Molinia meadows, moss and soil analysis data, and atmospheric monitoring that is used to determine trends and impacts of air pollution on sensitive ecosystems.

Noise

The EPA continued to coordinate the national strategic environmental noise mapping and action planning that covers major transport sources under the Environmental Noise Directive. The Strategic Noise maps support the development of noise action plans, and these plans are key to reducing the impacts from environmental noise and protecting quiet areas. The strategic noise maps were used by the Local Authorities in 2024 to highlight areas that can be studied further and potentially addressed through their noise actions plans. The EPA, during 2024, provided advice and guidance to support the Local Authorities in developing their revised noise action plans. This guidance was developed in collaboration with noise mapping bodies and noise action planning authorities, and with the Department of Environment, Climate and Communications and the DHLGH. Most of the Round 4 noise action plans (NAPs), including those for the agglomerations and major airports, were successfully completed in 2024 and reported to the EEA by the January 2025 reporting deadline, but some NAPs for local authorities outside the agglomerations were being finalised at year end and their reporting will be delayed.

Local authorities are also required to report progress to the EPA annually on their action plans. The progress reports for 2023 were submitted in 2024. These were assessed by the EPA and a Summary Review of Noise Action Plan Annual Reports for 2023 was made available on the EPA website.

Land Use

The EPA delivered Phase 1 of the Land Use Review in 2023, which provided an evidence base to determine the environmental, ecological and economic characteristics of land types across Ireland. Phase 2 of the Land Use Review seeks to build on the outputs from Phase 1 to propose a framework to inform and support policymakers in decisions relating to land use, and is being co-led by the DECC, DAFM and DHLGH. The EPA is supporting Phase 2 through participation in the Oversight Group, Technical Working Group and Citizen Engagement Group and through the delivery of relevant research projects. The EPA also led the development of a pilot Land Use Map in 2024 to inform the technical approach to developing of a future National Land Use Map.

A provisional GHG inventory data for 2023, published in July 2024, showed that the Land Use, Land Use Change and Forestry (LULUCF) sector, made up of six land use categories (Forest Land, Cropland, Grassland, Wetlands, Settlements, and Other Land) and Harvested Wood Products, accounted for 9.3% of national total emissions in 2023.

The LULUCF sector has been a net source of CO_2eq emissions in all years 1990-2023 and, as identified by the EPA Greenhouse Gas Emissions Projections 2023-2050 published in May 2024, emissions in this sector are projected to increase up to 2030 as our forestry reaches harvesting age and changes from a carbon sink to a carbon source. Planned policies and measures for the sector, such as increased afforestation, water table management on agricultural organic soils and peatland rehabilitation, are projected to reduce the extent of the emissions increase.

4 Climate Action

We use our knowledge to drive climate action.

We drive the transition to climate neutrality and resilience through our evidence and engagement work.

We lead by example by reducing our greenhouse gas emissions.

4. CLIMATE ACTION

The EPA's role in addressing Ireland's climate change challenges includes: preparing greenhouse gas (GHG) inventories and projections; incentivising decarbonisation through implementation of the EU Emissions Trading System; supporting climate science research and climate-related observations; supporting climate adaptation action and behavioural change and facilitating the National Dialogue on Climate Action.

4.1 Inventories and Projections

Emission Inventories

The EPA Provisional Greenhouse Gas Inventory for 1990-2023 was published in July 2024. This will be followed up with an updated final publication in March 2025. Key findings were that overall GHG emissions decreased by 6.8% compared to 2022, driven by substantial decreases in electricity generation and residential and agriculture sector emissions. This is the lowest that national GHG emissions have been in over 30 years and below the 1990 baseline. The data show the largest single year reductions in the energy and agriculture sectors and the lowest level of residential emissions since 1990.

Excluding emissions from Land Use, Land Use Change and Forestry (LULUCF), 55.0 million tonnes of carbon dioxide equivalent (Mt CO_2eq) was emitted in 2023. The report highlights that 64% of Ireland's Carbon Budget for 2021-2025 has been used in the first three years. An extremely challenging annual reduction of 8.3% is now required for each of the remaining years if Ireland is to stay within the Budget.

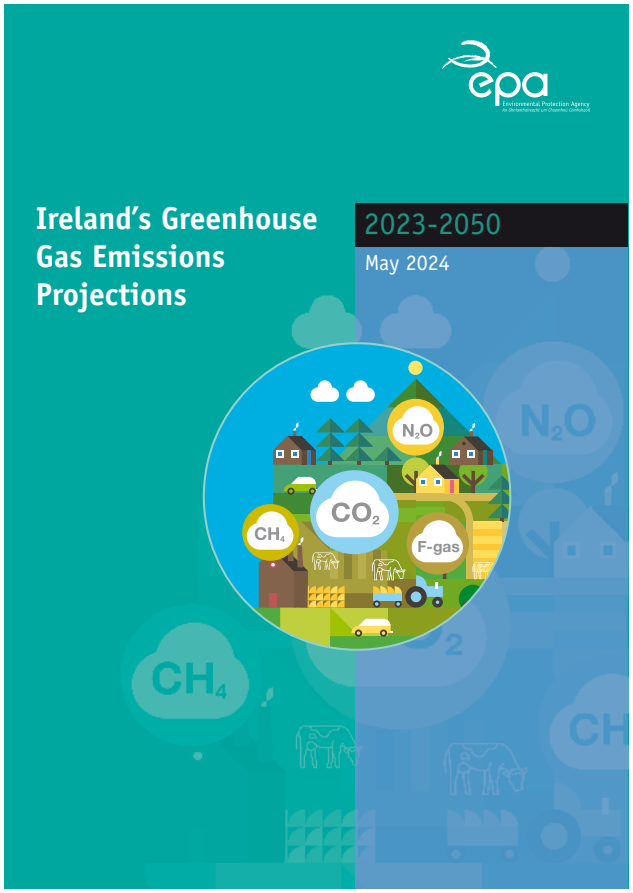
The provisional estimates of GHG emissions indicate that, using the ETS flexibility, Ireland can meet compliance with the Effort Sharing Resolution for 2021-2023. The data shows that Ireland will exceed its 2023 annual limit, without the use of flexibilities, set under the EU's Effort Sharing Regulation (ESR - EU 2018/842) by 2.27 Mt CO_2eq.

Key sectoral changes in GHG emissions in 2023 compared to 2022

Emissions Projections

EPA Greenhouse Gas Emissions Projections 2023-2050, published in May 2024, indicated that already implemented ('existing') measures would achieve an 11% reduction in emissions in 2030 compared to 2018, while additional measures in the 2024 Climate Action Plan would achieve a 29% reduction. The report highlighted that Ireland is not on track to meet the national 51% emissions reduction target (by 2030 compared to 2018) based on these projections, which include most 2024 Climate Action Plan measures.

The report highlighted the need for faster implementation of known measures as well as greater clarity on how planned measures are expected to deliver, if a 51% reduction in overall GHG emissions by 2030 is to be achieved. It was also projected that Ireland will not meet the 42% European Union emission reduction target by 2030 (compared to 2005) and that achieving this target will require full and rapid implementation of Climate Action Plan 2024 measures plus further measures to be implemented.



4.2 Adaptation and Climate Services

The EPA works to progress climate adaptation at a national level through the provision of risk assessment, climate services, evidence and knowledge, and internally across relevant EPA programmes.

The EPA commenced the National Climate Change Risk Assessment (NCCRA) process in January 2024. The National Climate Change Risk Assessment Methodology report was published in 2024, along with Technical Guidance for Sectoral Risk Assessments. The NCCRA is due for publication in Q2 2025.

In 2024, the EPA continued to support climate adaptation and resilience planning through delivery of Climate Ireland, the national adaptation platform, and the coordination of the Climate Ireland Adaptation Network. The network now has over 350 members and provides an information-sharing forum to build adaptation expertise at practitioner level across sectors in Ireland. The second annual Climate Ireland Adaptation Network seminar, hosted by the EPA, was held in Dublin in October 2024.

4.3 Behavioural Change

The EPA's Climate Change in the Irish Mind study is now established as an important periodic census of climate change beliefs, risk perceptions and policy support in Ireland. Outputs from the second wave of Climate Change in the Irish Mind were published in 2024, including the Main Report, a report on Climate Change's Four Irelands, and updated interactive Climate Opinion Maps.

The findings of Wave 2 of Climate Change in the Irish Mind were disseminated via multiple channels in 2024, including OECD Expert Meetings, the Advancement of Socio-Economics annual conference, the Advisory Group on Social and Behavioural Research, the EIONET Ireland Network Country Visit and the Psychology Society of Ireland Conference.

Three Behavioural Insights Reports were published in 2024 and are available on the EPA website:

- A Review of Climate Change Attitudes Using a Person-Centred Framework
- Gap Analysis on Behavioural Research Related to Climate Policy and Interventions
- Encouraging Cooperation in Climate Collective Action Problems.

4.4 Climate Science

The EPA continued its international engagement role throughout the year, representing Ireland on several European and international bodies, and facilitating the coordination of national climate observations.

The EPA attended plenary meetings of the Intergovernmental Panel on Climate Change (IPCC) in 2024 and played a key role in supporting the IPCC Chair in reaching agreement of the IPCC Work programme. In 2024, the EPA continued its important roles in the work of the UN Framework Convention on Climate Change (UNFCCC) and the Paris Agreement. Expert support was provided to the Ireland and EU delegations at the 60th meeting of the Subsidiary Bodies on Scientific and Technological Advice (SBSTA) and Implementation (SBI) in Bonn, Germany in June. EPA support for the national delegation led by the DECC included participation in various EU expert negotiations groups. The EPA also participated in the 29th Conference of Parties (COP29) meetings in Baku, Azerbaijan in November with a focus on science and earth observations, mitigation and reporting.

The work of the pan-European intergovernmental Joint Programming Initiative for Connecting Climate Knowledge for Europe (JPI Climate) continued to be supported by the EPA as vice Chair and a full member through 2024.

Through 2024, the EPA continued support for the provision of Irish data to international data centres under the Convention on Long Range Transport of Air Pollutants European Monitoring and Evaluation programme, including data on atmospheric measurements from strategic locations in Ireland.

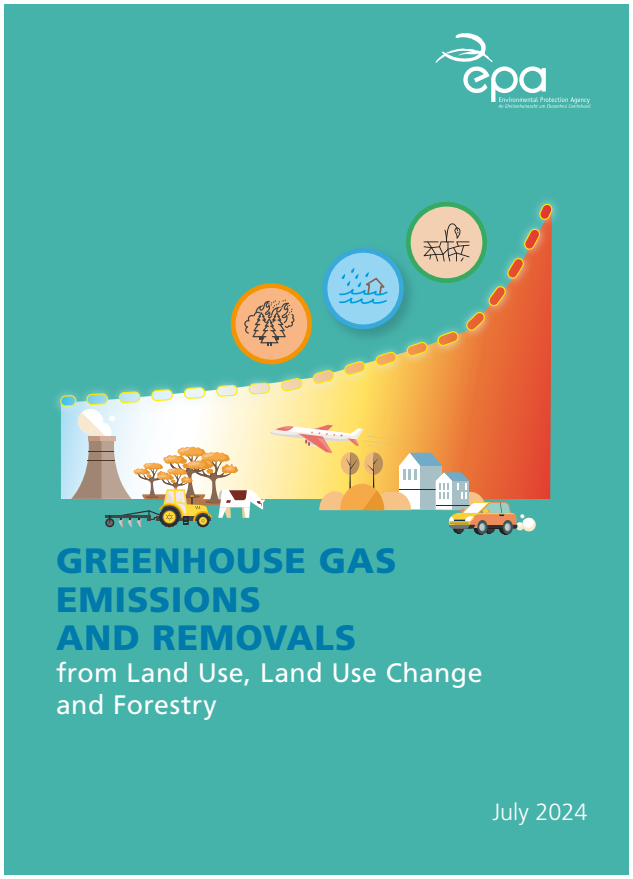
The EPA supported the national committee on national observation of Essential Climate Variables, chaired by Met Éireann, encompassing a range of climate-related observations across the atmosphere, ocean and terrestrial domains. This included observation of the main GHGs, which are managed at a European level under the Integrated Carbon Observation System (ICOS) European Research Infrastructure (ERIC). Following the gaining of full membership within ICOS, Ireland continued its commitment to gather high-quality, long-term observational data on GHGs across the three domains. The EPA is the focal point for ICOS-Ireland, coordinating national network activities, and represented Ireland at two meetings of the ICOS-ERIC General Assembly. Throughout 2024, the rigorous labelling process to gain ICOS accreditation was progressed across all 10 measurement stations to facilitate high-precision scientific analysis of carbon emissions and removals.

Ireland's Climate Change Assessment

The first Ireland's Climate Change Assessment (ICCA) Report, led by the EPA and undertaken by leading researchers, was launched in January 2024. The report provides an assessment of the state of knowledge of climate change in Ireland and comprises a Synthesis Report and four thematic volumes: (1) Fundamental science, 'Ireland in a changing world'; (2) Mitigation, 'Achievement of climate neutrality'; (3) Adaptation, 'Being prepared for Ireland's future climate'; and (4) 'Realising the benefits of transition and transformation'. The material is supporting government departments and state agencies to aid decision-making. The EPA held an ICCA Dialogue with policy makers in October on how science can better inform national policy responses to the challenges of climate change.

Climate Science and Policy Analysis

The EPA published a special topic bulletin on the subject of GHG emissions and removals from LULUCF. The bulletin brought together the latest emissions data from the National Inventory and Projections together with the latest evidence from climate science placed in an Irish context. It is the first in a new series that focuses on integrating topic-relevant data and research in a way that is accessible to policymakers and the public.



4.5 EPA's Environmental Management System

The EPA is committed to leading by example and incorporating good environmental management and practice in everyday activities. It operates and maintains an Environmental Management System (EMS) certified to the international standard ISO 14001:2015. This EMS has been essential in the delivery of the EPA's achievements to date in minimising the environmental impact of activities and drives continual environmental improvement to prevent pollution; measure and reduce GHG emissions; adapt to climate change; and encourage environmental awareness within the organisation. In compliance with Circular 1/2020, the EPA made the required payment to offset our 2024 emissions of 43.90 tonnes of CO_2 associated with business air travel. In addition, we reported our GHG emissions under the Greenhouse Gas Protocol Corporate Standard. Relevant data on energy consumption, heating, transport, water usage and waste management is collected across the organisation and converted to carbon metrics.

Greenhouse Gas Emissions

The Climate Action Mandate sets an energy-related GHG emission reduction target of 51% by 2030 for public bodies. The EPA's Strategic Plan 2022-2026 includes an interim GHG emission reduction target of at least 30% by 2026. In 2024, the EPA prepared our third report on the carbon emissions resulting from our activities as part of our commitment to achieve reductions in GHG emissions. The total carbon emissions arising from the EPA's activities in 2023 were 1,228 tonnes of CO_2 equivalent (tCO_2eq), which is 36% lower than the base period 2016-2018 (1,826 tCO_2eq) and 7% higher than 2022 (962 tCO_2eq).

When compared with the base period (average 2016-2018), the results for 2023 demonstrate fluctuations in Scope 1 emissions with a 36% reduction in fuel usage from the EPA-owned fleet, a 17% decrease in kerosene use, a 27% reduction in natural gas consumption, and an increase of 44% in wood chip use. The largest emissions were generated from Scope 3 activities, accounting for 40% of total emissions, with Scope 1 accounting for 18%.

Staffing levels have increased to 550 full-time-equivalent staff (an increase of 33% since 2010) as of 31 December 2023. This reflects a reduction in emissions of over 33% from the base period average when comparing the total emissions generated in 2023 per FTE EPA staff member.

Energy Usage

The EPA's energy demand is mainly heating, lighting, electrical power, hot water and transport. In 2024, the EPA's total energy consumption (Figure 14) amounted to 2,670 megawatt hours (MWh). There was an overall decrease of 1.2% from 2023 to 2024.

The EPA is committed to reducing energy demand by implementing sustainable solutions such as LED lighting upgrades, heating system upgrades and installation of solar PV, and moving to fully electric fleet vehicles.

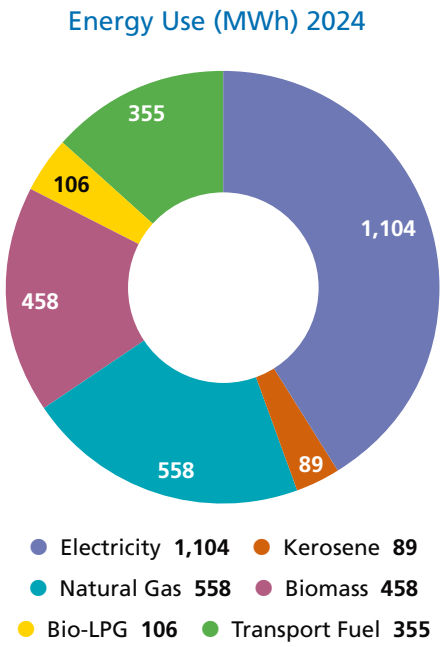


Figure 14. EPA energy usage in MWh, 2024

5 Sustainable Production and Consumption

We promote the transition to sustainable production and consumption.

Our evidence, engagement and regulatory activities foster and support the public and businesses to use less resources and make better choices for the environment.

5. SUSTAINABLE PRODUCTION AND CONSUMPTION

In a circular economy, less raw material is used, products are designed for long life and recyclability, shared, used for longer, repaired and reused. Material and products are recycled as much as possible and only the fraction that can't be recycled is disposed.

5.1 Circular Economy Programme

In 2024, the EPA's Circular Economy Programme delivered a diverse range of activities including producing national statistics, regulation for circularity (as competent authority for end-of-waste and by-products and waste sector licensing), supporting Green Public Procurement implementation, implementing a national food waste prevention programme, providing innovation and demonstration funding and delivering a behavioural insights and evidence programme. The EPA's annual circular economy conference was held in September.

5.2 Circular Economy Regulation

The EPA regulates for a circular economy through end-of-waste and by-product decision-making. These regulatory provisions support the move to a circular economy by preventing waste and reusing secondary materials, ensuring resources are in circulation for longer. This minimises the extraction of additional natural resources, serves to preserve embodied carbon in some circumstances, and avoids unnecessary waste generation. It also supports ambition for more green procurement as the purchase of secondary materials aligns with lower carbon impact.

In 2024, national by-product criteria for greenfield soil and stone were published. This brings to three the number of national criteria for construction-based material published by the EPA.

In addition to working on the national decisions, the EPA continued to assess individual files relating to by-product notifications and end-of-waste applications:

- There were 553 by-product notifications determined (467 determined as by-product, 31 determined as waste and 55 withdrawn), a significant proportion of which related to work undertaken to tackle the backlog of notifications on hand.
- Two single-case end-of-waste decisions were issued in 2024, relating to plastics and textiles.

The public availability of the By-product and End-of-Waste Registers will provide access to information that will support green procurement for relevant sectors.

The implementation of the National Hazardous Waste Management Plan 2021-2027 continued in 2024. While some progress has been achieved, the focus remains on the challenge areas, which include treatment capacity and infrastructure, farm hazardous waste collection, sheep dip management and establishing a collection system for household medicines.

5.3 Circular Economy and Waste Statistics

The EPA has statutory responsibility to collate, validate and report on national circular economy and waste statistics data. The EPA published data across several waste streams including household, municipal, construction and demolition, hazardous and food waste. In addition, the EPA now has responsibility to report on reuse activity in the economy and single-use plastics, which will help track Ireland's transition to a circular economy. Annual waste and circular economy data is published on the EPA website and in an annual data highlights report, which brings together key data from our reporting, overall generation and treatment rates and reports on Ireland's progress towards meeting EU recycling and recovery targets (Figure 15).

The EPA Circular Economy and Waste Statistics Highlights report, published in December, highlighted worrying trends. Ireland's recycling rate has not improved in a decade and too much waste is being generated. In 2022, Ireland generated 15.7 million tonnes of waste, equivalent to 8 kg per person every day. Ireland's annual waste generation has grown by over 20 per cent in the past decade and the municipal recycling rate remains stagnant at 41%, with no significant change in 10 years. With increasing waste generation and stagnating recycling levels, Ireland is now almost certain to miss EU municipal and packaging recycling targets for 2025.

The report also highlights that Ireland's capacity to collect and treat waste is vulnerable and underperforming, with an over-reliance on other countries to treat our recycling materials and general municipal waste. In 2022, 38% (1.2 million tonnes) of all municipal waste was exported for treatment. This included 369,000 tonnes of residual waste exported for energy recovery through incineration.

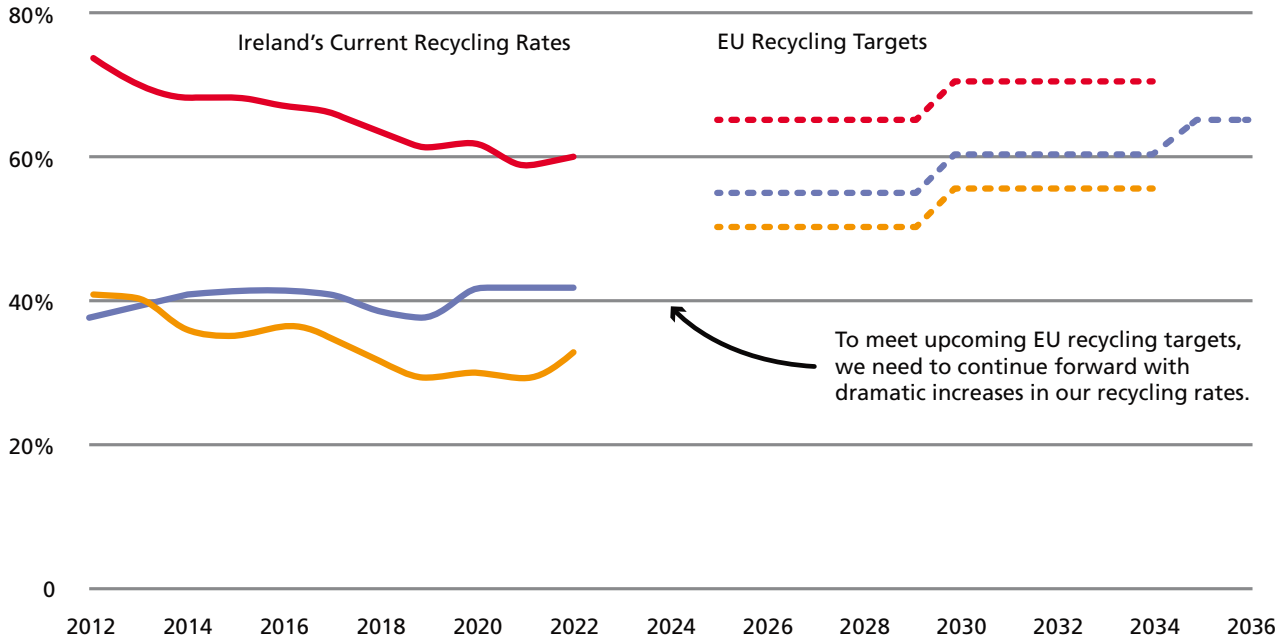


Figure 15. Recycling rates and future targets for municipal and packaging waste

Summary of data from the key sectors

Construction and demolition waste

- Half of all waste generated in Ireland is construction and demolition waste. Most of this (85%) is soil and stone waste. Construction and demolition waste decreased by 8% to 8.3 million tonnes, driven primarily by reductions in soil and stone waste.

Municipal waste

- The total amount of municipal waste is relatively static at 3.2 million tonnes. This is a 1% increase from 3.17 million tonnes in 2021, and the same level as recorded in 2020.
- 15% of municipal waste was disposed of to landfill in 2021. 43% of municipal waste was treated by energy recovery through incineration.
- 66% of Irish households had access to a brown bin for food and organic waste in 2022. This is a decrease of 3% from 2021. Regulatory changes in 2023 mean that waste collectors are now obliged to provide all households with a brown bin.

Packaging (including plastic packaging)

- Total packaging waste remained unchanged at 1.2 million tonnes in 2022.
- 32% of plastic packaging generated in Ireland in 2022 was recycled, up from 28% in 2021.

Single-use plastics

- 30,680 tonnes of single-use plastic bottles was placed on the market in 2022. A collection rate of 49% was achieved prior to the introduction of the new Deposit Return Scheme.

5.4 Circular Economy Implementation

A broad range of circular economy implementation activities took place during 2024.

Green Public Procurement

Under the Government's Green Public Procurement Strategy and Action Plan 'Buying Greener', the EPA is assigned responsibility to measure and report on Green Public Procurement (GPP) activity by Government Departments on an annual basis. In April, a report on GPP monitoring and reporting by Government Departments (2022 ref. year) (the third in the series) was published with a press release. The report detailed that out of the reported €922 million spend on contracts greater than €25,000 and signed in 2022, just 34% included green criteria. While it was encouraging to see an improvement compared to the previous year (10% in 2021, 34% in 2022), overall the use of green criteria is inconsistent across Government Departments and at a low level relative to total spend. This is a missed opportunity for the public sector to purchase more resource-efficient and less polluting goods, services and works within the marketplace.

Updated Green Public Procurement Guidance and nine national criteria sets were published in July, bringing them in line with policy and legislative changes since they were published in 2021. New national criteria for Furniture and Related Services were also published. A webinar for public sector organisations on the guidance and national criteria sets in November was attended by over 330 people across 70 organisations.

Food Waste Prevention

The EPA has a statutory role in leading Ireland's food waste prevention efforts, which is focused on Ireland's commitment to halve food waste by 2030 (UN Sustainable Development Goal 12.3) and linked to climate action (up to 10% of global GHG emissions are linked to food waste).

The EPA urged companies and organisations in the food supply chain to sign up to the Food Waste Charter and pledge to measure, set targets and take action to reduce food waste. The Charter is a voluntary government–industry agreement. At year end there were 65 Charter members with over 65,000 employees (compared to 24 at start of the year). Guidance on food waste prevention in the brewery and distillery sectors was published to support food waste measurement according to a standardised methodology, adding to the bank of supporting resources for Charter members. The Food Waste Charter Implementation report June 2023 to June 2024 on the first year of implementation of the Charter was published in December. This highlighted that businesses are at different stages of food waste prevention activity, and stronger focus is needed on evidence-led actions in targeted areas, informed by consistent measurement.

The Public Sector Climate Action Mandate 2024 expanded obligations on public bodies, including food waste measurement and monitoring activities to support food waste prevention. To assist public sector bodies to meet these obligations, the EPA developed a guidance document on Food Waste Prevention for Public Sector Offices.

Food Waste Prevention for Public Sector Offices

Stop Food Waste is the consumer-facing national food waste prevention programme. The theme for communications in 2024 centred around meal planning and the foods we waste the most (leftovers, bread, fruit and veg). National Stop Food Waste Day was marked on 1 March with a regional press release and campaign that ran from 1 to 7 March with the focus to 'Take the Stop Food Waste Challenge' and emphasising the importance of knowing the food you waste in order to take targeted action to reduce it. Stakeholder toolkits were shared with 129 organisations to amplify the reach of the campaign.

Stop Food Waste – Meal Planning and Most Waste Foods Communication 2024

Understanding Our Attitudes and Behaviours

The Circular Economy Programme's behavioural insights work is informing policy and supporting evidence-based national communication campaigns. In 2024, reports on behaviours and attitudes to single-use packaging, reuse and food were published and research on attitudes and behaviours related to textiles, construction waste and repair was undertaken.

A Circular Insights report, 'Examining how single-use packaging used in the sale of fruit and vegetables can be reduced', and a linked behavioural research study, 'Usages and attitudes to single-use packaging for fruit and vegetables', were published in July. These outputs showcase potential policy interventions that could support the implementation of the obligations under the EU Packaging and Packaging Waste Regulation.

The results of qualitative research on household food waste generation were published in July. The outputs provided a deeper understanding of what people do (rather than what they say they do) in terms of food waste behaviours at home, and has provided insights for the development of Stop Food Waste campaigns and 'call to action' behavioural interventions around purchasing and planning.

Textiles

Textiles is a priority sector for the Circular Economy Programme, and activities in 2024 included:

- Completing behavioural insights research (quantitative and qualitative) to inform national policy with fieldwork and findings finalised. Public outputs will be published in 2025.
- Leading a national sub-work group which examined barriers and opportunities to enable circularity in the retail and consumer sectors as part of the work of the national textile advisory group.
- Inputting into the draft National Policy Statement on Textiles.
- Supporting DECC's national awareness campaign on reducing consumption of textiles, which launched in October.

Delivering through Partnerships

Reuse and Repair

A National Reuse and Repair Network was established in 2024. The focus of the network is to facilitate knowledge sharing and engagement. At year end there was representation from 16 organisations, across central and local government, state agencies, the social enterprise sector, representative organisations and producer compliance schemes.

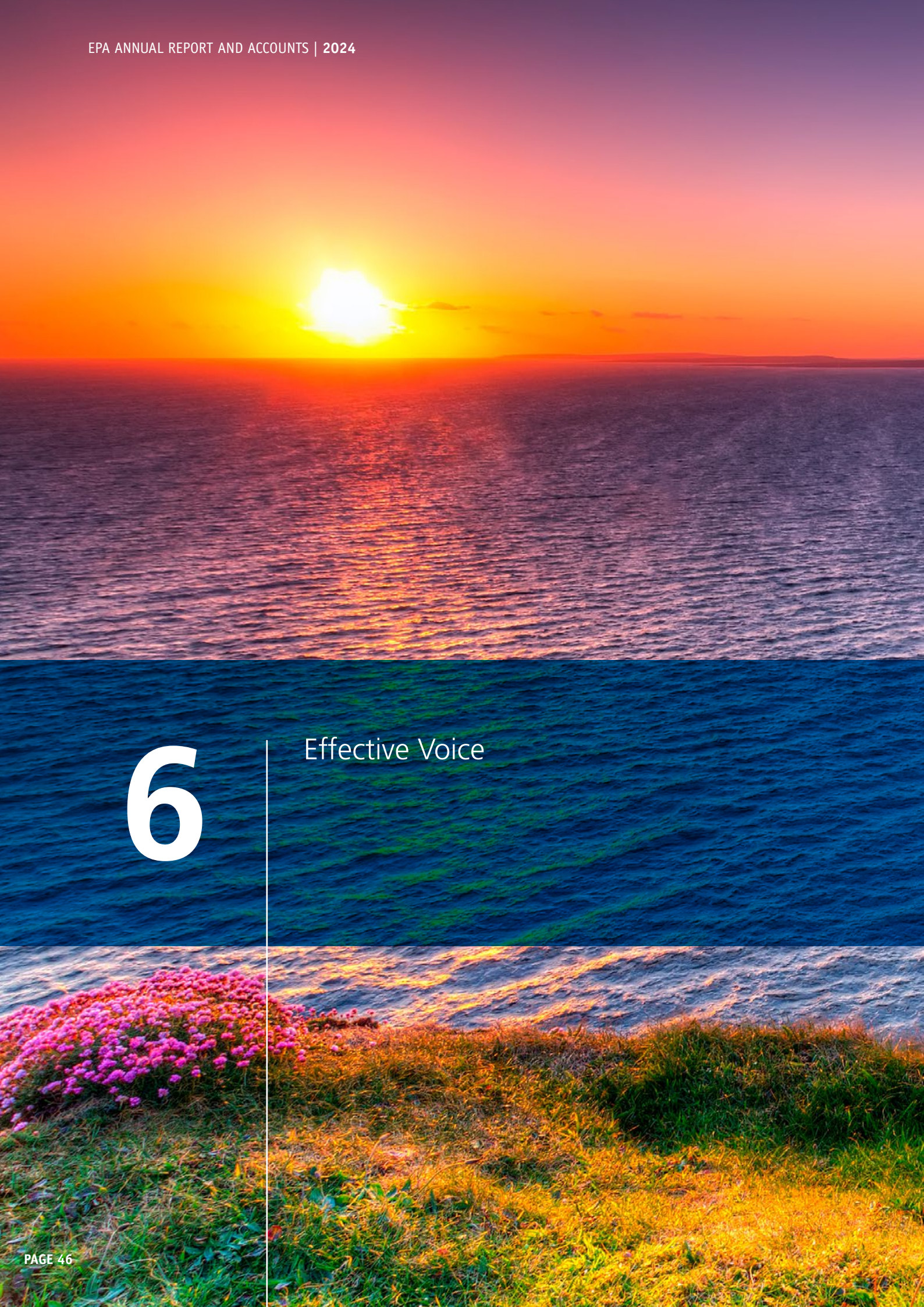
The Circular Economy Programme provided grant-aid funding to Monaghan County Council (in support of www.repairmystuff.ie, a national online directory of repairers) to support and scale reuse and repair activities, which are central to delivering a circular economy.

Innovation Funding

Two competitive funding calls for local authorities issued in 2024:

- A call was launched for projects implementing the Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction and Demolition Projects.
- A call was launched for projects supporting national strategic priorities regarding reuse and repair communications and outreach.

To support communities to engage with circular economy activities, the EPA sponsored a Special Award for Circular Economy under the SuperValu Tidy Towns Competition and an Environmental Education and Community Initiative as part of the Pakman Awards.



6 Effective Voice

We are an effective voice for Ireland's environment.

We are trusted as an independent and transparent source of environmental evidence and information.

We improve the environment through working with others and proactively influencing policy, legislation and behavioural change.

6. EFFECTIVE VOICE

6.1 Partnering and Networking

Memoranda of Understanding/ Service Level Agreements

The EPA has adopted 14 Memoranda of Understanding (MoUs) in addition to Service Level Agreements (SLAs) with various organisations that involve or contribute to matters relating to the environment. MoUs are published on the EPA website when agreed with the other party.

European Environment Agency

The European Environment Agency (EEA) provides timely, targeted, relevant and reliable information to policymaking agents and the public across a wide range of environmental topics. Its country network, called the European Environment Information and Observation Network (EIONET), is Europe's leading network for policy-relevant environmental and climate knowledge. The EPA is responsible for coordinating Ireland's participation in the Network.

The network underwent an extensive modernisation process with a formal relaunch in 2023. Since then, there has been very positive engagement by Irish participants, with 120 experts currently participating in the network, 70 of whom were not previously involved. There has been a substantial broadening of participation with experts representing 23 organisations across Government Departments, state agencies and third-level institutes, and with eight organisations new to EIONET in 2024.

The EPA hosted a country visit by the EEA of EIONET Ireland network members in October 2024.

To demonstrate progress against agreed environmental data reporting criteria (timeliness and data quality), the EEA released its ranking of core data flows for 2023 during 2024. Ireland managed to achieve a data flow score of 94%, against a European median score of 88%. The EEA notes that a score of 100% indicates the provision of timely and high-quality data across all covered data flows.

EIONET Ireland Network with representatives from the EEA

Citizen Science

The EPA continued to work with partner organisations on several citizen science projects.

The GLOBE Programme, funded by the EPA and delivered by the Environmental Education Unit of An Taisce, continued with its expanded suite of citizen science campaigns in primary and secondary schools across the country. The An Taisce GLOBE team coordinated five campaigns in 2024 with an approximate reach of 6,000 students. Campaigns included:

1. Air Quality campaign – NO_2
2. Rainfall and Flooding Resilience – How Spongy Is Your School?
3. Surface Temperature, Landcover and Climate Resilience – How Cool Is Your School?

4 River Ecosystem – How Healthy Is Your Local River?

The GLOBE team also delivered 25 online events (webinars, training events) throughout 2024 and provided training to 168 teachers.

Launch of Clean Air Together, Limerick City

In 2024, there was a continuation of the large-scale citizen-based nitrogen dioxide monitoring project 'Clean Air Together', with completion of the Clean Air Together Galway city campaign in early 2024 and roll-out of Clean Air Together Limerick city in August 2024 in cooperation with Limerick City and County Council. Over 400 participants – citizens, businesses and community groups – signed up to take part in the project. These citizen-based projects provide detailed local-level data, which is used for air quality modelling and forecasting work completed by the EPA. The EPA also launched a pilot citizen science project in three Limerick secondary schools in December to assess particulate matter using low-cost air quality sensors. The pilot was developed and is being run in cooperation with An Taisce, Limerick City and County Council and University College Cork. The objective is to provide opportunities for students to engage with measurements of air pollutants (PM_{10}, $PM_{2.5}$ and nitrogen dioxide) and weather in their local environment and use this science investigation to build data literacy and analysis skills and perform an assessment of air quality in their local school area.

The EPA continued to work in partnership with the National Biodiversity Data Centre (NBDC) on the Dragonfly Ireland (2019-2024) project. Over 3000 records of dragonflies and damselflies had been submitted by December 2024 and records have now been received from 90% of Ireland's spatial area.

The EPA also worked with the NBDC on the Explore Your Shore survey, with the objective of empowering and supporting volunteer citizen scientists to survey and record intertidal and coastal marine species. By end of 2024, 7950 records of marine species had been submitted to the NBDC, representing a 16% increase in marine species records on 2023.

Strategic Environmental Assessment

The EPA promotes sectoral engagement in Strategic Environmental Assessment (SEA) and the application of good SEA practice across all public authorities. A total of 143 SEA submissions were made in 2024 (including 27 at Draft Plan stage). Significant plans included the First Revision to the National Planning Framework, Water Services Strategic Plan 2025-2050, South Coast Designated Maritime Area Plan, Climate Action Plan 2024, Hen Harrier Threat Response Plan 2023-2027 and the Cycle Connects – Ireland's Cycle Network. Submissions on key plans/programmes are published on the submissions section of the EPA website following their adoption.

SEA Guidance entitled 'Good practice guidance on SEA and Integration' was progressed to advanced stages in 2024 and is due for publication in January 2025, which will add to the EPA's existing suite of SEA sectoral guidance notes. In addition, research reports were published on Public Participation and Key Performance Indicators in SEA.

The EPA continued to coordinate and provide secretarial support to the National SEA Forum, which facilitates information sharing and collaboration between national SEA authorities and key Plan/Programme makers.

Environmental Policy Assessment Consultations

The EPA's Environmental Policy Assessment and Coordination work area manages the preparation of EPA submissions to consultations. Key submissions made in 2024 included *inter alia* submissions on: the National Biomethane Strategy, Moving Together (Transport System), the National Energy and Climate Plan, the National Energy Demand Strategy and the National Risk Assessment. These submissions are available on the submissions section of the EPA website.

NIECE

The Network for Ireland's Environmental Compliance and Enforcement (NIECE) provides a forum that encourages and supports organisations and individuals to work together to deliver improvements in priority environmental areas. Network membership, for the most part, includes Local Authorities, state agencies and Government Departments involved in the enforcement of environmental legislation, engagement and promotion.

The NIECE network remained very active throughout 2024, with activities across 13 networks and working groups. There were six national enforcement events covering waste, solid fuel, solvents, agriculture, noise and inspection planning. Local authority staff also participated in the National Air, the Circular Economy and the National Water conferences.

Ireland's Interdepartmental Consultative Committee on Antimicrobial Resistance

The EPA continued its participation in the Interdepartmental Consultative Committee on Antimicrobial Resistance (AMR) as well as the iNAP2 Animal Health Implementation Committee subgroup in 2024, attending meetings and providing progress updates on EPA actions and activities. As part of its actions under iNAP2, the EPA continued to monitor for specific antibiotics in surface waters under the WFD watchlist monitoring programme. The EPA and Health Service Executive (HSE) co-funded research project 'Antimicrobial Resistance and the Environment – Sources, Persistence, Transmission and Risk Management' (AREST) was finalised and published in 2024. Under the EEA Eionet Working Group on AMR, the EPA, in partnership with University of Galway, completed sampling campaigns in Irish waste waters and surface waters in 2024.

Water Quality Expert Groups

The EPA is actively engaged in several expert working groups led by DHLGH. The EPA participates in the Bathing Water Expert Group on implementation of the Bathing Water Regulations; the Drinking Water Expert Group, which is supporting DHLGH to implement the recast Drinking Water Directive and develop guidance for the protection of drinking water catchments; the Nitrates Expert Group, which is assisting the DHLGH and the DAFM in the scientific aspects of the development of the Nitrates Action Programme; and the Hydromorphology Expert Group, which is supporting the DHLGH in the implementation of the National Hydromorphology work programme.

The EPA chairs the National Technical Implementation Group, a multi-stakeholder group focusing on the technical implementation of water quality measures and participates fully in the water governance structures established under the River Basin Management Plan.

Air Quality Expert Groups

In 2024, the Air Quality Health Information working group, chaired and facilitated by the EPA, provided a forum, to support: enhanced communication of accessible real-time information on air quality and health – linked to expansion of the monitoring network – modelling, including LIFE Emerald; and citizen science activities including Clean Air Together. This group includes stakeholders in environment and health such as the HSE, the Health Protection Surveillance Centre (HPSC), the DECC and Met Éireann. This enables discussion on air quality-related health topics.

Nuclear Safety

The EPA monitors developments relating to nuclear safety abroad to keep relevant state organisations informed of any implications for Ireland. The EPA also takes an active role in national and international committees on nuclear safety. Representatives from the EPA and DECC regularly meet with representatives from the UK Department of Energy Security and Net Zero, the UK's Office for Nuclear Regulation and the UK Environment Agency to keep up to date on the status of decommissioning of legacy waste storage and management facilities at Sellafield.

Heads of the European Radiological Protection Competent Authorities

The Heads of the European Radiological Protection Competent Authorities (HERCA) is an association of the radiation safety authorities in Europe and aims to facilitate practical and harmonised solutions on important regulatory issues in radiation protection. HERCA provides an important forum for national authorities to share information and experience on the implementation of European legislation and international standards. In 2024, the EPA played an active role in this work, with representatives on the HERCA Board of Heads as well as the Working Groups on natural radioactivity, emergencies, medical applications, industrial, veterinary applications, and education and training.

European Nuclear Safety Regulators Group

The EPA is actively involved in the European Nuclear Safety Regulators Group (ENSREG) and its working groups on Nuclear Safety and International Cooperation and Transparency and Communications. During 2024, in addition to the ENSREG plenary meetings scheduled, the EPA attended working group meetings reviewing fire protection at nuclear installations within Europe and ensured stakeholders and members of the public were kept up to date on the work of ENSREG.

Bilateral meetings with the UK Regulators on Radiological and Nuclear Matters

During 2024, the EPA attended two UK–Ireland Contact Group on Radiological Matters meetings in London and Dublin. Discussions included UK energy policy, updates on new nuclear build at Hinkley Point C in the UK, nuclear decommissioning of UK nuclear facilities, geological disposal of nuclear waste and an in-depth review of the transport of nuclear waste in the UK and in the Irish Sea as well as general regulatory updates.

The EPA also met with the UK Environment Agency and the UK's Office for Nuclear Regulation, to discuss radiological and nuclear issues. These discussions centred on activities at Sellafield, the new nuclear power plant under construction at Hinkley Point C, and developments in relation to other potential new nuclear power plants (both large-scale nuclear power plants and small modular reactors).

International Obligations on Nuclear Safety and Radioactive Waste Management

The Joint Convention on the Safety of Spent Nuclear Fuel and on the Safety of Radioactive Waste Management is aimed at achieving and maintaining a high level of safety in spent fuel and radioactive waste management through a peer review process, which takes place every three years. The Joint Convention is relevant to countries with nuclear power programmes and countries, like Ireland, that do not have nuclear power but use radiation sources in sectors including medicine, industry and third-level education. Ireland must demonstrate compliance with the Convention and undergo a peer review by the other contracting parties.

Ireland's Eighth National Report under the terms of the Convention was prepared in 2024 and will be presented at a meeting of contracting parties at International Atomic Energy Agency (IAEA) buildings in Vienna in March 2025.

Ireland's Fourth National report on the implementation of Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community Framework for the Responsible and Safe Management of Spent Fuel and Radioactive Waste was also prepared and submitted in Q4 2024.

Emergency Planning

In 2024, the EPA worked on addressing the recommendations from Ireland's National nuclear exercise that took place in 2022. The EPA established a subgroup on nuclear and radiological emergencies in conjunction with DECC, the Department of Health and the Health Services Executive. This subgroup developed public health messages to be used in the early stages of a nuclear or radiological emergency. This work will inform the revision of the national plan and communications subplan that are in development by DECC.

The EPA also hosted two international emergency exercises. The first exercise, organised in conjunction with the Nuclear Energy Agency, focused on health impacts and food safety after a nuclear accident and involved relevant representatives from the Health and Food sectors. The second exercise was organised in conjunction with the European Commission and tested the notification arrangements across Europe through a simulated radiological emergency in Ireland.

The EPA also participated in other international nuclear and radiological emergency exercises, including one that tested the arrangements under the UK–Ireland bilateral agreement on early notification of a nuclear accident or incident of radiological significance.

The EPA is an active participant in the Government Task Force on Emergency Planning and its subgroups. The EPA continued to support the Nuclear Energy Agency and the IAEA by participating in technical working groups and consultancy meetings and contributing to conferences.

The EPA and South East Technological University (SETU) renewed the Service Level Agreement between the two organisations. This agreement is very important in supporting cooperation in areas of mutual interest, particularly in monitoring radioactivity in the Irish environment. It supports the delivery of the EPA's responsibilities under the National Plan for Nuclear and Radiological Emergency Exposures and contributes to the development of the next generation of physicists to work in this field by providing academic leadership for the gamma spectroscopy laboratory through academic staff from SETU's Department of Science, as well as facilitating undergraduate and postgraduate work.

EPA and SETU representatives at the signing of a renewed Service Level Agreement between the two organisations (photo taken by George Goulding, SETU)

6.2 Effective Voice

State of the Environment Report

The EPA launched Ireland's State of the Environment Report 2024 in October 2024. The report provided a comprehensive assessment of the current state of Ireland's environment, highlighting key trends, challenges and actions required across various environmental domains. The report emphasised the critical importance of protecting Ireland's environment for health, wellbeing and economic prosperity. It highlighted that there has been good progress in areas like air and water quality and waste management. However, it stressed that current efforts are insufficient and called for transformational change to address climate change, air and water quality, biodiversity loss and the transition to a circular economy. The report called for scaled-up investment in water, energy, transport and waste management infrastructure to protect the environment now and into the future.

The EPA hosted a State of the Environment Conference in Dublin on 16 October 2024, which covered the main messages from the report and was attended by 128 persons. The audience included representatives from Government Departments and State Agencies, NGOs, business representatives, academics and the EPA. Leena Ylä-Mononen, Executive Director of the European Environment Agency, was the keynote speaker and set out the challenges Europe faces in moving towards a sustainable Europe. The 14 conference presenters provided a comprehensive assessment of the state of and outlook for Ireland's environment, looking at the environment both thematically and sectorally and at the implementation of national plans and programmes to achieve national and EU environmental targets. Presentations are available on the EPA You Tube Channel: State of the Environment Conference 2024 – YouTube

The State of the Environment Report team pictured with Laura Burke, DG EPA and Leena Ylä-Mononen, Executive Director of the European Environment Agency

6.3 Timely, Targeted Data and Information

The EPA provides independent, evidence-based information, in an open and transparent manner to inform decision making by a broad range of stakeholders including government, NGOs, state agencies, industry and the public. Data and information are provided in a timely and accessible manner, principally through online resources.

Licensing and Permitting

As part of the EPA's policy of openness and transparency and in accordance with the Access to Information on the Environmental Regulations and various licensing/permit regulations, licensing files are available for public inspection.

Information on Industrial Emissions (IE) and Integrated Pollution Control (IPC) applications, received since December 2004, and all inspectors' reports and licences issued to date are available. Since December 2017, all applications are received online and interactions with the applicants and the public are electronic and published on the EPA website, including the receipt of submissions and objections.

During 2024, there were over 430,000 views of the IE/IPC licence search web pages.

Enforcement information

The EPA's LEAP (Licence and Enforcement Access Portal) provides public access to the formal enforcement-related correspondence between the EPA and its regulated operators. This new service allows the public to view, on the EPA website, site visits and monitoring reports, details of incidents and non-compliances at regulated sites, operator updates and requests plus Compliance Investigations. LEAP Online has removed the requirement for people to visit an EPA office to view this information.

EPA continued to update the National Priority Sites (NPS) list of industrial and waste licensed sites with the poorest environmental performance and compliance. The NPS identifies sites that are failing in their licensed obligations and need to make substantial efforts to achieve improvements in their environmental compliance. The NPS list, along with other enforcement trends, was published on the EPA website quarterly. The Industrial and Waste Licence Enforcement Summary 2023 was published in March 2024.

leap
Licence & Enforcement Access Portal

My Local Environment

The EPA's My Local Environment webtool gives members of the public access to environmental information from a local context. Users can search using an Eircode or address and the information returned is centred on that location. My Local Environment is fully integrated with the EPA's LEAP Online system, enabling users to access online enforcement records for EPA authorised facilities within a search area.

Air Quality

In 2024, the EPA's air quality webpages were a valuable resource for the public, allowing easy access to real-time air quality information from the substantially expanded national monitoring network. This web resource provides a station-based Air Quality Index for Health (AQIH) that translates measured data into a colour-coded scale from green (Good) to purple (Very Poor), indicating how good, poor or very poor the air quality is. The scale is linked to health advice for the public (Figure 16) and those vulnerable to poor air quality.

As well as the website, the X (formerly Twitter) feed, @EPAAirQuality, also kept the public up to date with air quality in their AQIH region. Real-time data for selected air pollutants continued to be provided hourly to the EEA for display on European air quality maps.

Emissions Inventories and Projections

GHG and air pollutant emissions data is made available on the EPA website. Along with detailed reports, graphs and tables, there are a series of frequently asked questions and answers, in addition to infographics that communicate clear messages about the country's performance on climate action. In 2024, the EPA started publishing Quarterly Greenhouse Gas emissions indicators reports on the website. Figure 17 shows estimated GHG emissions by sector on a quarterly time scale since 2018 (from the latest report). These reports respond to an ongoing need for more timely and frequent data on Ireland's GHGs. Ireland joins a small number of countries worldwide to carry out this type of assessment, which will provide valuable early and frequent indicator data for the monitoring and governance of Ireland's climate action. The series will complement the national GHG inventory and projections prepared annually by the EPA.

		Accompanying health messages for at-risk groups and the general population	
Band	**Index**	**At-Risk Individuals**	**General Population**
Good	**1** **2** **3**	Enjoy your usual outdoor activities.	Enjoy your usual outdoor activities.
Fair	**4** **5** **6**	Adults and children with lung problems, and adults with heart problems, who experience symptoms, should consider reducing strenuous physical activity, particularly outdoors.	Enjoy your usual outdoor activities.
Poor	**7** **8** **9**	Adults and children with lung problems, and adults with heart problems, should reduce strenuous physical activity, particularly outdoors, and particularly if they experience symptoms. People with asthma may find they need to use their reliever inhaler more often. Older people should also reduce physical exertion.	Anyone experiencing discomfort such as sore eyes, cough or sore throat should consider reducing activity, particularly outdoors.
Very Poor	**10**	Adults and children with lung problems, adults with heart problems, and older people, should avoid strenuous physical activity. People with asthma may find they need to use their reliever inhaler more often.	Reduce physical exertion, particularly outdoors, especially if you experience symptoms such as cough or sore throat.

Figure 16. The AQIH and its linked health advice

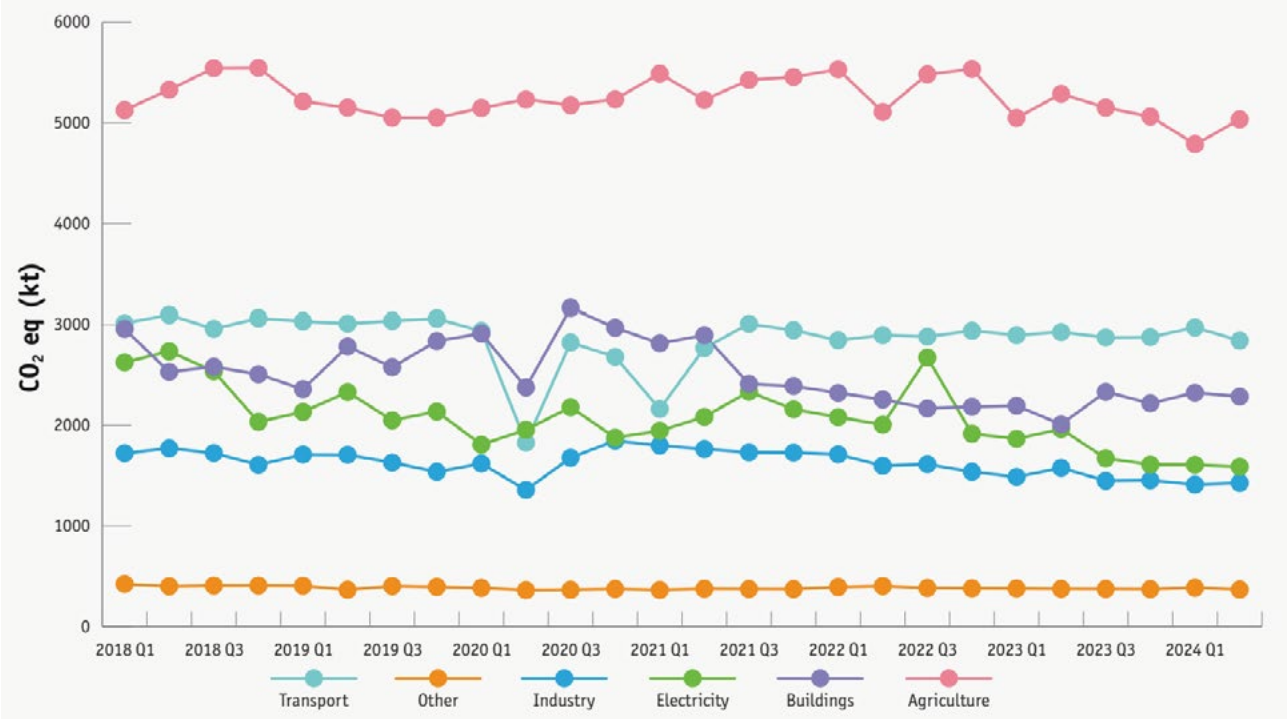


Figure 17. Quarterly movement in GHG emissions across Climate Action Plan Sectors from Q1 2018 to Q2 2024

National Waste Statistics

The EPA's National Waste Statistics web resource continues to provide the most recent available waste data to view and download. During 2024, online data releases were published for a range of waste streams including municipal, household, packaging, hazardous, composting, WEEE, end-of-life vehicles, tyres and construction and demolition waste. The resource also includes national statistics on reuse and a waste statistics data archive. The EPA Circular Economy and Waste Statistics team has been compiling data for statutory European and international reporting obligations for over 20 years. The Waste Statistics Data Archive is compiled from previous annual reports published by the EPA and data that has previously been available on our webpage.

Interesting Fact:

18 million tonnes

is the all-time high for annual Construction and Demolition waste generated. This happened in 2007, which corresponds to the end of a period of economic growth in Ireland, often called the Celtic Tiger.

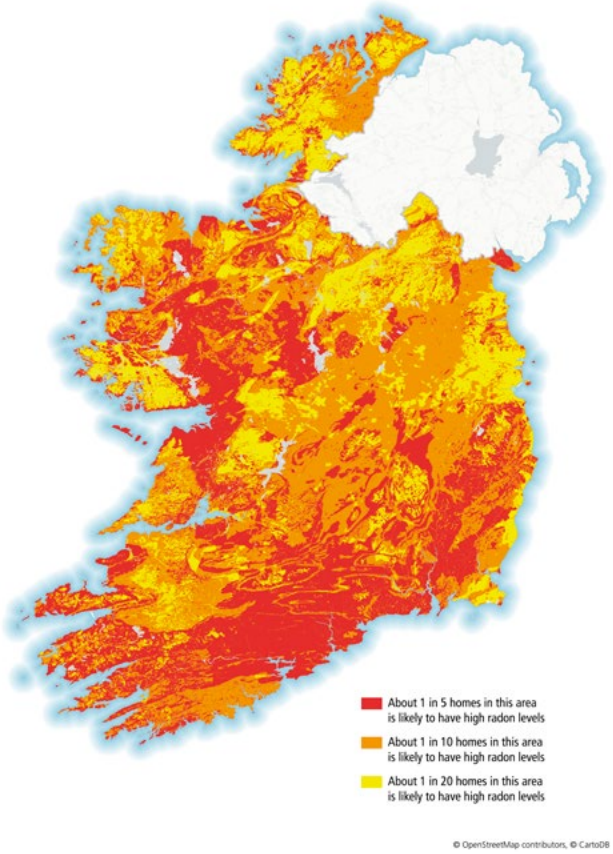


Figure 18. Radon Risk Map of Ireland

Radon

The EPA is the main provider of information and guidance to stakeholders in relation to radon gas. The radon webpages provide advice on radon testing and remediation for householders, businesses and building professionals. In total, radon webpages were viewed more than 116,000 times during 2024. The EPA continues to provide a freephone radon advice number 24 hours a day, seven days a week.

In 2024, the EPA in conjunction with HIQA published an updated dose report outlining the average radiation doses received by the Irish population. The Ionising Radiation – National Dose Report assessed the radiation exposure over the past five years received via the air we breathe, medical exposures, our diet and exposures to radiation in our environment. The assessment found that radon is still the most significant contributor to radiation exposure, accounting for nearly 60% of the dose, with the next most significant dose coming from medical exposures.

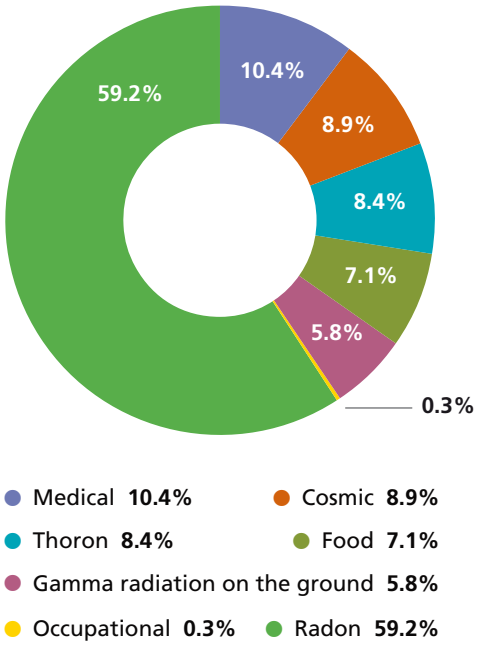


Figure 19. Distribution of average radiation dose in Ireland

Water Quality

The EPA manages, assesses and reports on the data generated from the Water Quality monitoring programme. The data is reported to the EEA (Water Information System for Europe) and data on transitional and coastal waters is reported under the *Convention for the Protection of the Marine Environment of the North-East Atlantic (also known as the OSPAR convention)*, which deals with protecting the marine environment from the adverse effects of human activities.

The shared public-facing website for the WFD (www.catchments.ie) continues to provide a single source of water quality data and catchment management information in Ireland. Maps, dashboards, trends and charts are publicly available for almost 5,000 water bodies, as well as reports, assessments and stories of actions carried out by local community groups. The EPA continues to provide the most recent available water quality data, including groundwater quality for Ireland. The data can be downloaded via the EPA Geoportal.

Water Levels and Flow

The EPA provides hydrometric data on river flows and lake and groundwater levels to support water resource and flood risk management and a variety of other activities. Data is available to view and download via the EPA's HydroNet web pages.

The EPA continues the publication of monthly National Hydrometric Bulletins. The bulletin provides a factual summary of river flows, lake levels and groundwater levels for a sample of surface water and groundwater hydrometric stations across Ireland. The bulletin also contains maps that show how flows and levels at stations across the country compare to the average for the month.

Drinking Water

The EPA's Remedial Action List (RAL) is a list of the public water supplies with the most serious problems. Action must be taken at these supplies to reduce the risk to the water quality. The RAL is updated twice per year and gives the location of each supply, the reason the supply is on the RAL and the planned completion date for the remedial works.

Waste Water

The EPA has identified the priority areas where UÉ should direct resources to protect the environment from the harmful effects of wastewater discharges. The priority areas section of the EPA website identifies each of the priority areas and provides information on the issues that must be addressed, UÉ's proposed action plans and the estimated dates to complete the action plans.

The interactive Sewage Treatment Map provides information on all urban wastewater treatment works in the country, including the size of the agglomeration, the capacity of the treatment plant, the type of treatment provided and the location of discharges.

Beaches

The www.beaches.ie website provides information about bathing water quality at Ireland's beaches and lakes, including the recent bathing water quality at each beach, any swim restrictions that are in place, and weather and tide information. A bathing water profile is also available for every beach that sets out the facilities, the known pressures and any management plans that are in place. The website also publishes out-of-season monitoring data where available. This data is collected voluntarily by some local authorities. The site is regularly updated during the summer as results of monitoring become available from local authorities. Details of pollution incidents and remedial actions are also made available on a dedicated X (formerly Twitter) feed (@EPABeaches).

National Radiation Monitoring Network

The EPA operates a National Radiation Monitoring Network consisting of equipment, located throughout the country, that continuously monitors ambient radiation levels and can detect radioactivity in Ireland, if any, following a major incident at an overseas nuclear facility. In September 2024, trace amounts of caesium-137 originating from a forest fire in the Chornobyl Exclusion Zone were detected in high-volume air samples as well as samples of rainwater and milk. These detections were of no radiological significance for Ireland. Live data from the gamma dose rate network is publicly available on the EPA, European and the International Atomic Energy Agency websites.

Open Data

The Open Data Directive is an EU Directive that encourages EU member states to make as much public sector information available for reuse as possible in an Open Data format. Open Data is data that can be freely used, reused and redistributed by anyone – subject only, at most, to the requirement to attribute and share alike. The Directive introduces the concept of high-value datasets, defined as documents whose reuse is associated with essential benefits for society and the economy. Under the Directive, the EPA reports datasets to Europe under three of the six high-value dataset thematic categories of Geospatial, Earth Observation and Environmental.

In 2024, the EPA conducted a data audit under the three thematic categories to develop a high-value dataset catalogue and publication plan. The Open Data Directive identified 32 relevant EU Directives, covering various environmental domains such as air and noise, with the EPA responsible for 27 of these Directives. Data held by the EPA under these 27 Directives will be published in the coming years through the Ireland Open Data Portal.

Currently the EPA has 440 datasets publicly available on the Irish Open Data Portal under several thematic categories, with 22 of these being published in 2024. This makes the EPA the seventh highest contributor to this portal. Collectively these datasets have had over 128,000 views to date. The growing number of views over the years demonstrates the increase in demand for publicly available datasets.

In addition, the EPA has 146 APIs (Application Programming Interfaces) published on its Open Data Website, data.epa.ie, to facilitate the reuse of its data by researchers, developers and other stakeholders.

INSPIRE

The INSPIRE Directive establishes an infrastructure for spatial information across Europe to support community environmental policies, and policies or activities that may have an impact on the environment. The EPA is fully compliant with the current requirements of the Directive and all 35 of its INSPIRE-identified datasets are now accessible through the Irish Spatial Data Infrastructure and made available on the larger European INSPIRE network. The EPA participated in two data harvests during 2024 where its datasets were uploaded to the European INSPIRE portal.

Environmental Data Analytics

The EPA uses data science and earth observation techniques to generate new insights from environmental data. In 2024, data analytics and statistical techniques were used to support EPA work in a variety of areas including indoor radon level surveys, development of Microsoft Power BI solutions to automate reporting and data analysis, creation of data visualisations for the EPA State of the Environment Report 2024 and preparing selected EPA datasets for Irish Statistical System Code of Practice (ISSCOP) certification.

European Pollutant Release and Transfer Register

The EPA collected the Pollutant Release and Transfer Register (PRTR) data for 2023 and submitted it to the European Commission in advance of the annual 30 November deadline. The data can be viewed online on the national PRTR register at EPA Maps.

6.4 Communications and Outreach

Communicating key messages

Digital media

The EPA's website is the principal communication channel for disseminating information to the public, with over 1,200,000 visits during 2024. Peaks in activity during the year corresponded to publication of reports and media coverage of environmental issues. High volumes of traffic to the website related to the retrieval of information on EPA-licensed sites; downloading publications; accessing information on licensing and enforcement; careers in the EPA; and accessing information on environmental thematic areas including radon, climate change, air, water, waste.

In 2024, there was continued growth and innovation in how the work of the EPA engages with its audience across social media platforms. The EPA continued to build new audiences by delivering content in varied formats.

Media Relations

The EPA provides a 24-hour service to the media and during 2024 handled 592 media queries and issued 32 press releases. Media coverage of the Agency increased significantly for the fifth year in a row.

Environmental Queries

The EPA provides an Environmental Queries Service to its stakeholders including the public, students, Local Authorities and Government Departments. The Environmental Queries Service operates in accordance with the commitments set out in the EPA Customer Charter. The service handled 2,356 queries during 2024. The main areas of interest to the public were waste, wastewater, air quality, climate change and drinking water quality.

Outreach Activities

The EPA has continued to play an important role in raising levels of awareness and supporting initiatives that increase public engagement with environmental issues and those that particularly target younger audiences.

Science Week encourages people of all ages and from all walks of life to be informed, inspired and involved in STEM events and the EPA participated in a variety of events in 2024, once again delivering the EPA's climate change lesson as part of its partnership with Junior Achievement Ireland.

In 2024, the EPA again supported the **10 Things to Know About** … TV series, which aired on RTÉ. In this, the tenth season, seven episodes highlighted the outstanding work of Irish scientific researchers across a range of disciplines, including EPA-funded researchers discussing nature-based solutions, plastics, PFAS and using eDNA to monitor for the rare Arctic char fish in Ireland. The series has been viewed over one million times and is available on the RTÉ Player.

As part of the EPA's corporate sponsorship commitments, many local initiatives were supported to raise awareness about environmental issues or the work of the EPA. The EPA also partnered with, and supported, several other diverse outreach initiatives including:

- Partnering with Engineers Ireland on its STEPS programme, which aims to foster STEM skills development in Ireland.
- Partnering with ECO UNESCO, supporting the Young Environmentalist Awards and other initiatives.
- Sponsoring the Environmental Award at the BT Young Scientist competition.
- Sponsoring the Environmental Journalism Award at the National Student Media Awards.
- Supporting communities to engage with circular economy activities, including sponsoring a Special Award for Circular Economy under the SuperValu Tidy Towns Competition and an Environmental Education and Community Initiative at the Pakman Awards.

Junior Achievement Ireland Programme

The EPA's partnership with Junior Achievement Ireland (JAI) marked its eighth year in 2024, with 30 staff delivering a selection of JAI programmes to 899 students in 28 schools across the country. One of these programmes was the EPA *Climate Change and You* lesson, which was delivered by EPA staff during Science Week. The EPA's climate change lesson was also delivered by volunteers from other organisations, with 33 business volunteers, from 29 different organisations, delivering to 649 students. Support provided by the EPA positively impacted 1,548 students across Ireland as part of this partnership, delivering key environmental messages and knowledge along with reinforcing messages about the value of education.

Exhibition Outreach

The EPA again exhibited at the BT Young Scientist and Technology Exhibition (where it also presented a Special Environmental Award) and participated in the 93rd National Ploughing Championships. These events provided an ideal opportunity to raise awareness of, and engage the public's support in, environmental issues.

EPA Conferences

Outlined below are key conferences and events held during 2024.

EPA National Climate Conference

The EPA Annual Climate Change Conference was held on 15 May in Dublin Castle. The theme of the conference was 'Ireland Living in a Changed Climate', with a keynote address from the Governor of the Central Bank of Ireland, Gabriel Makhlouf. The conference set out the data, evidence and emerging research on climate adaptation and resilience in Ireland from scientific, policy and practical perspectives. Speakers brought diverse perspectives and insights on adaptation and resilience policies, including the European Climate Risk Assessment, integrated planning and community-led action. The event was opened by Oonagh Buckley, Secretary General in the DECC. A recording of the Climate Conference can be viewed online.

Climate Change Lecture Series

The successful EPA Climate Lecture series continued in 2024 with Professor Lea Berrang Ford, Deputy Director at the UK Health Security Agency, delivering a lecture on 'Climate change and Health: from Paralysis to Pragmatism' on 23 April 2024. The event was moderated by TV and radio presenter Lara Dungan and a recording of the lecture can be viewed online.

EPA Circular Economy Conference

The Circular Economy Programme (CEP) hosted the 2024 EPA Circular Economy conference, which was held in the Aviva Stadium on 25 September. Topics covered included textiles, ce policy, circular economy and climate. Speakers included international circular economy experts from the EU Commission, the EEA and University College London. National leaders in Ireland's transition to a circular economy presented in our 'circular solutions' slots, showcasing startups and SMEs with innovative circular business models.

EPA Water Conference

The EPA held its Annual National Water Conference in Galway in June as a hybrid event. Speakers shared their knowledge on how to protect and improve water quality and highlighted case studies from around Ireland. Topics included the latest on policy, agriculture, health, emerging issues and the future of water. Presentations from the conference are available on the EPA's YouTube channel.

National Air Event

The theme for this year's annual National Air Event, held in Kilkenny on 6 November, was 'Open Air CAFE'. The event was opened by Laura Burke, Director General of the EPA. Speakers included Thomas Henrichs from the European Commission, Mark Murphy from the Irish Heart Foundation and Irene Cadogan from DECC. There were other speakers from the EPA, and university researchers, among others. Presentations from the National Air Event are available on the EPA's YouTube channel.

Environment Health and Wellbeing Conference

The EPA, in partnership with the HSE and the Economic and Social Research Institute (ESRI), held the annual Environment, Health and Wellbeing conference in the Royal College of Physicians on 29 May. The theme of the conference was 'Shaping Our Environment to Promote Health for All'. The conference explored a broad range of topics and included sessions focused on fostering wellbeing for all people of all ages, climate resilient and equitable societies, restoring nature for people and planet. A number of national case study examples were also presented around the topic of 'Creating Healthy Environments for All'. Presentations from the conference can be viewed on the EPA's YouTube channel.

Environment and Law Conference 2024

The EPA and the Irish Centre for European Law (ICEL) held a joint environmental law conference on 29 November 2024 in Dublin Castle. The conference was convened by Margaret Gray SC KC and Dr Tom Ryan, Director Office of Environmental Enforcement, EPA. Laura Burke, Director General EPA and Anthony Collins SC, President of the ICEL, provided opening remarks. Speakers included the Hon. Mr Justice Maurice Collins; the Hon. Mr Justice Michael Humphries; Catherine Pierse, the Director of Public Prosecutions; and Fintan Valentine SC, among many others. There was also a panel of PhD researchers who explored current environmental threats and pressures. Themes included environmental law enforcement and emerging issues in environmental law research.

6.5 Research

The EPA manages a responsive and agile research programme that delivers scientific evidence to support policy development and broader decision making. This reflects the vision of EPA Research 2030 | Environmental Protection Agency of *'putting science and innovation at the centre of environmental protection in Ireland through the development and proactive transfer of knowledge'*.

EPA Research is delivered with a thematic structure comprising four interconnected hubs (Figure 20):

- Addressing climate change evidence needs,
- Facilitating a green and circular economy,
- Delivering a healthy environment, and
- Protecting and restoring our natural environment.

Figure 20. The EPA research programme is structured around four interconnected research hubs

In 2024, the EPA carried out a detailed consultation to identify key research areas and actions, including emerging challenges and knowledge requirements. A refreshed set of EPA Thematic Research Priorities for 2024-2026 was published in 2024 and will inform the strategic direction of the EPA Research Programme over the coming years.

At the end of 2024, the EPA was managing a portfolio of more than 210 live projects.

New Research Awards in 2024

The EPA made 48 new research awards in 2024, representing a total commitment of €18.5 million. These included:

- 25 awards to the value of €14.5 million under the EPA Research Call 2024.
- 18 awards to the value of €2.2 million under national and international strategic partnership.
- One award supporting a Secondment Fellowship to the EPA Climate Programme (€167k).
- One award for Phase V of the EPA–ESRI Research Programme on Environmental Socio-Economics (€1.2 million)
- Two awards under the EPA Event Support scheme (€6k).
- One award from the 2023 EPA Research Call that issued in 2024 (€435k).

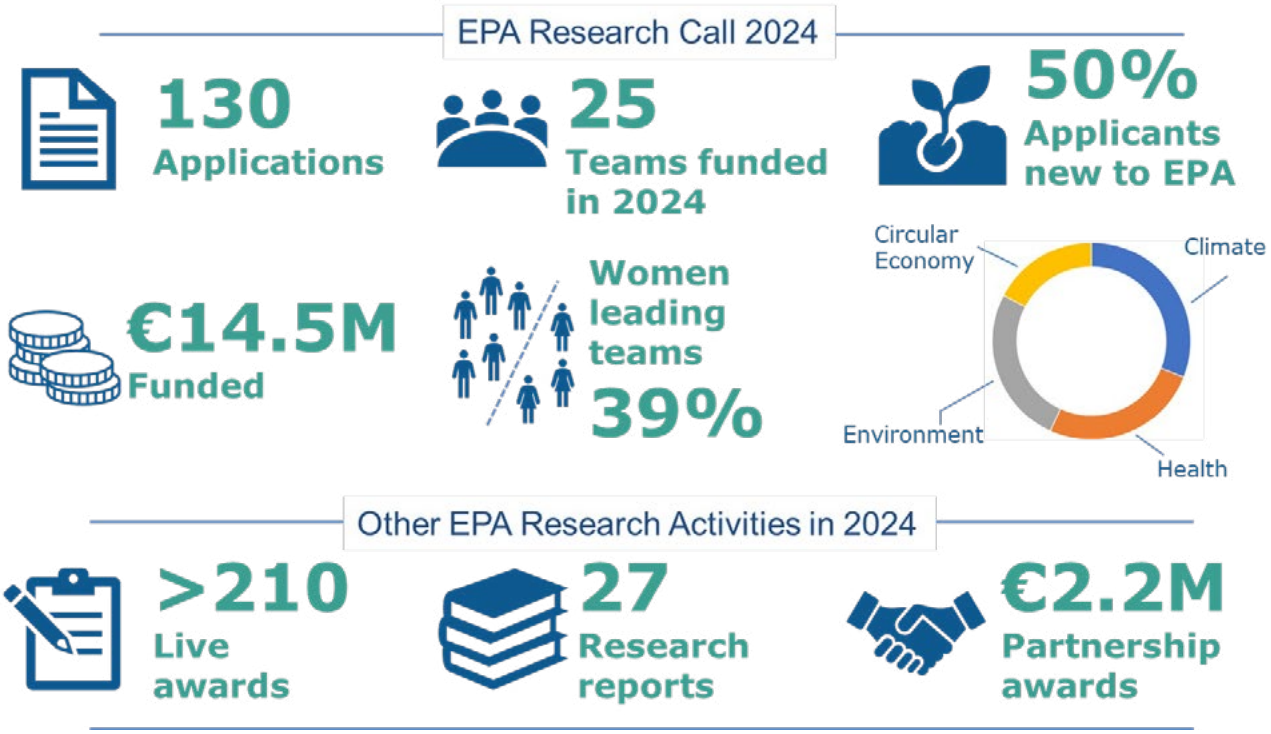
The 2024 EPA Research Call garnered significant interest, with an increase in application numbers of approximately 80%. Notably, 50% of lead researcher applicants in 2024 were new to the EPA Research Programme, a welcome and positive trend that indicates a broadening of the research base relevant to environmental and climate issues. Further details on the 2024 EPA research awards are available on the EPA Research Database.

National Strategic Partnerships

One award was made as part of the 2023/2024 Fulbright–EPA awards, and eight scholarships were awarded under the 2023/2024 EPA–Research Ireland (formerly Irish Research Council) Postgraduate Scheme.

The tri-agency DOROTHY Research Fellowship programme (involving Research Ireland, the Health Research Board and EPA, and co-funded by the European Commission) appointed a second cohort of 10 Fellows under the programme to conduct research on the multifaceted causes and impacts of public health crises.

A further phase of the EPA–ESRI Research Framework on Environmental Socioeconomics commenced in 2024 to conduct an integrated programme of research on climate, health and regulation.



International Strategic Partnerships

Under Horizon Europe Cluster-6 (Food, Bioeconomy, Natural Resources, Agriculture and Environment), the EPA is the National Contact Point for environmental opportunities, working closely with the other Cluster 6 national contact points (Enterprise Ireland, the Marine Institute and the DAFM), as well as participating in the National Horizon Europe High-Level Group, led by the Department of Further and Higher Education, Research, Innovation and Science. By the end of 2024, the Irish research community had signed a total of 185 grants to the value of €125 million under all Horizon Europe Cluster 6 calls to date.

The second Joint Transnational Call under the European Partnership Water4All closed in 2024, with a focus on aquatic ecosystem services. Two proposals with Irish partners were recommended for funding under this call, to the value of €299k. The third Joint Transnational Call under Water4All launched in September 2024 on the theme of water for the circular economy. In addition, the third Joint Transnational Call under the European Partnership Biodiversa+ closed in 2024 with a focus on nature-based solutions. Three projects with Irish partners were recommended for funding to the amount of €629k. The EPA's co-funding of these Joint Transnational Calls permits the Irish research community to participate in the calls and supports valuable international collaboration.

The EPA is also a partner in the European Partnership PARC (Partnership for the Assessment of Risks from Chemicals) and the European Partnership PianoForte for radiation protection research.

The EPA continued to have a chairing role in the Climate Joint Programming Initiative as Vice Chair for the Equinox process, which aims to accelerate the development and transfer of knowledge from science to policy and action in Europe. This is supported by the Horizon Europe MAGICA project, in which the EPA is a partner.

Research Coordination

The EPA chairs the National Environmental Research Coordination Group (NERCG), which provides a national forum for the strategic coordination of environmental research in Ireland. It brings together key public bodies including research funding organisations, policymakers and implementing agencies. The NERCG met twice in 2024. Data collection and analysis for the *Climate Research in Ireland 2023* report was completed, with the report published in December 2024.

National Cooperation

The EPA participates in the National Implementation Forum for Impact 2030 (the National Research and Innovation Strategy), the National Research Integrity Forum and the National Open Research Forum (NORF). Through NORF, the EPA is involved in initiatives to build national capacity and infrastructure for open research, including as a partner in the SCOIR Project (Secondary rights, Copyright, Open access, Institutional policies and Rights retention).

In 2024, the DECC published its Research and Innovation Strategy. The EPA engaged closely in the strategy consultation process and is supporting the delivery of specific strategic actions.

EPA Research is working with the DECC, as the national focal point for the IPCC, to support the participation of researchers from Ireland in IPCC working groups and volumes. In 2024, four researchers from Ireland were selected to contribute to the IPCC Methodology Report on Short-lived Climate Forcers and the IPPC Special Report on Climate Change and Cities, and to scoping of the 7th IPCC Assessment Report.

Research Communication and Knowledge Transfer

The EPA published 27 new research reports and accompanying highlights videos in 2024, along with two research-related Guidance Notes and one Toolkit. All reports are available on the Research Publications section of the EPA website.

In 2024, new approaches to communicating and publicising EPA research were developed. Research publications are now actively promoted using more engaging language with simplified messaging, providing short videos from researchers and targeted engagement with key stakeholders at the time of publication. Details of all EPA-funded research projects are included in the EPA's online searchable database; this allows users to search, filter and export data on projects of interest.

The EPA is committed to proactive knowledge transfer to support the uptake and achievement of positive impact from publicly funded research. In 2024 the EPA IMPACT project continued to capture, organise, assess and transmit knowledge outputs from EPA-funded research into the policy system.

Analysis and Transfer

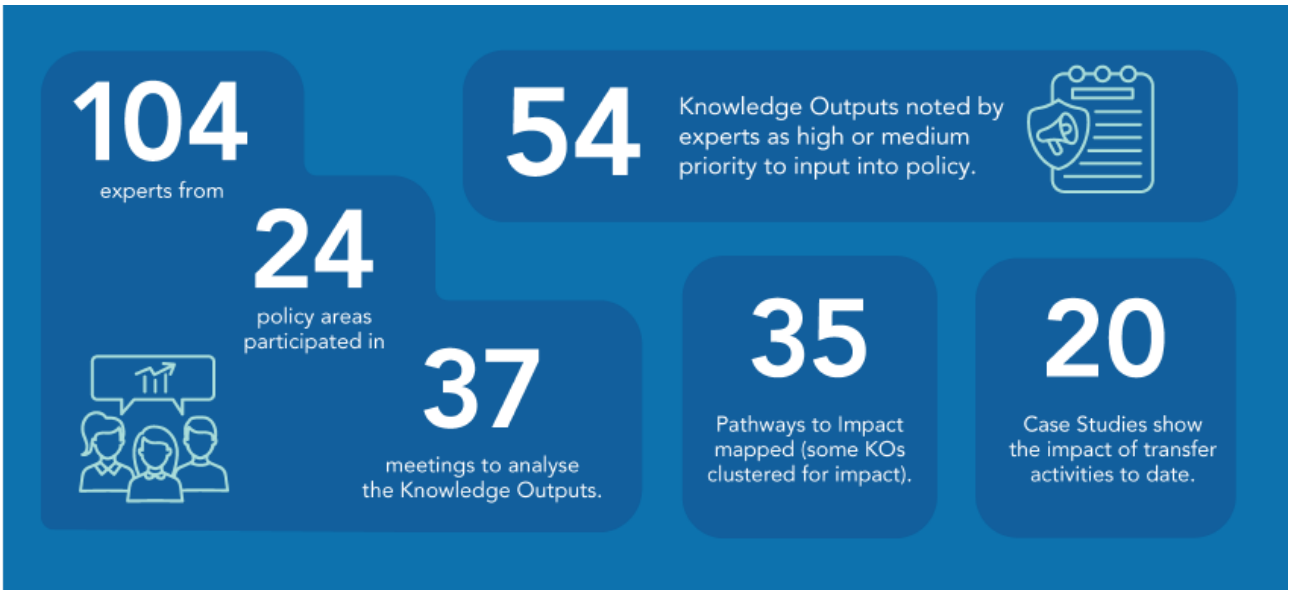


Figure 21. Summary of knowledge transfer activities undertaken as part of the EPA-IMPACT initiative (source: Erinn Innovation Ltd)

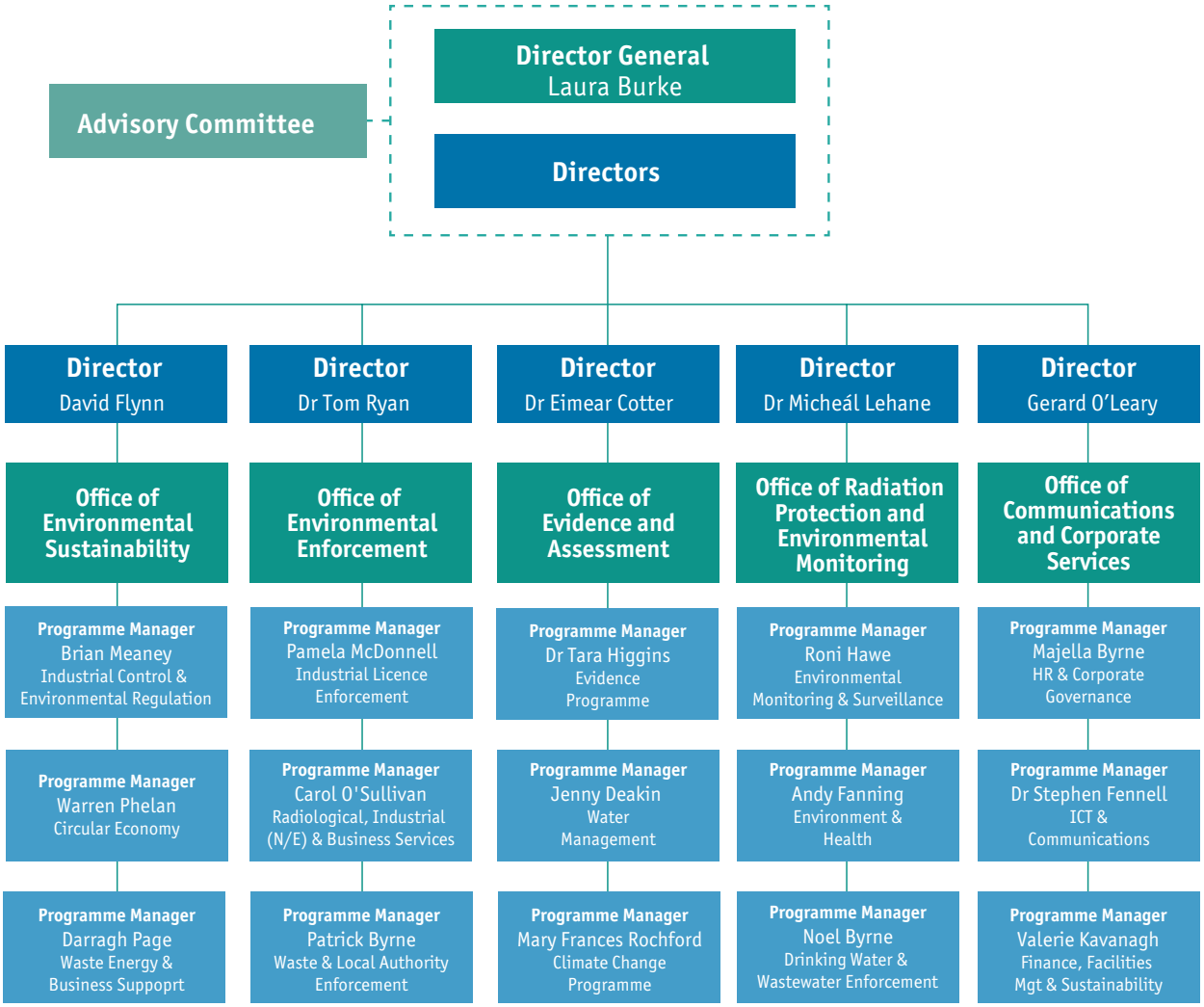
7 Culture of Excellence

We create a culture of excellence where people are supported and can give their best.

We live our values and behaviours in a supportive, inclusive and flexible workplace, to deliver public value and our vision.

7. CULTURE OF EXCELLENCE

7.1 Organisation Structure



Board of Directors

Pictured (left to right): Dr Eimear Cotter (Director, Office of Evidence and Assessment), Mr Gerard O'Leary (Director, Office of Communications and Corporate Services), Dr Micheál Lehane (Director, Office of Radiation Protection and Environmental Monitoring), Ms Laura Burke (Director General), Dr Tom Ryan (Director, Office of Environmental Enforcement) and Mr David Flynn (Director, Office of Environmental Sustainability).

Board Meetings

The EPA Board comprises six full-time Executive Directors. A total of 45 Board meetings were held in 2024: 13 general meetings, at which corporate policy, governance, strategy, finance and planning issues were addressed, and 32 technical meetings, at which licence applications, prosecutions and operational issues were decided upon.

EPA Advisory Committee

The EPA is assisted by an Advisory Committee with a term of office of three years. The 12 members are nominated by prescribed organisations and appointed by the Minister for the Environment, Climate and Communications. The Advisory Committee has a wide range of advisory functions including making recommendations to the EPA and/or the Minister. The Director General of the EPA is, ex officio, a member and Chairperson of the Committee. Professor Frances Lucy was reappointed as a committee member for a two-year term, effective from 21 May 2024.

Appointees from Prescribed Bodies

Professor Frances Lucy (nominated by the Environmental Science Association of Ireland)

Dr Niamh Lynam Lennon
(nominated by Irish Radiation Research Society)

Ms Aleesha Wiegandt
(nominated by the National Youth Council/YMCA)

Dr Cathal Gallagher
(nominated by the Inland Fisheries Ireland)

Mr Jerry MacEvilly
(nominated by The Irish Environmental Network)

Ms Geraldine O'Sullivan
(nominated by the Irish Farmers Association)

Mr Mark Christal (nominated by Enterprise Ireland)

Ministerial Selection

Ms Ali Sheridan

Mr Conor Talbot

Ms Aisling Ryan

Ms Aebhín Cawley

Chairperson

Ms Laura Burke, Director General, EPA

7.2 Human Resources

Recruitment

During 2024, the EPA received sanction for an additional 30 posts, bringing its approved staff complement at the end of the year to 550. The EPA has 226 staff located at its headquarters in Wexford, with the remainder strategically located in the five Regional Inspectorates and Hydrometric Offices throughout the country.

Internships and Placements

The EPA continued to engage with a wide range of third-level educational institutions under the Internship Programme to ensure that the student intake is of the highest calibre and that students are afforded an opportunity to work in a highly effective and complex public service organisation. A total of 29 paid internships were offered and filled during 2024. In addition, the summer student placement programme continued in 2024 with 26 third-level students provided with an opportunity to put into practice and enhance the theory and skills they have learned during their coursework in a relevant workplace setting, while adding value to the organisation.

Learning and Development

Maintaining our expertise, knowledge and technical skills is an ongoing investment. During 2024 the EPA continued investment in technical specialist training and in external training and attending conferences. Leadership and management development was also a focus in 2024 through formal Leadership Training, Mentoring Programmes and our Management and Leadership Network.

Strong Leadership

The Senior Management Network (SMN), comprising Directors, Programme Managers and Regional Managers, has been in place since 2014. The SMN meets in plenary sessions five times each year and subgroups meet on an ongoing basis. In 2024 it expanded to 26 members and updated its purpose and principles. The purpose of the SMN is to foster connectivity and support, be the guardian of culture and values, drive strategy and organisational excellence, lead by example and be a hub of learning and reflection. Members work by having open conversations, pushing boundaries, working together, taking a 360° view, and cascading and embedding these principles.

In 2024, the SMN also reviewed and updated the current EPA strategy.

The Management and Leadership Network, for middle managers in the EPA, was also active in 2024, running regular leadership seminars such as Challenges Facing Managers, Management vs Leadership and Motivation. The annual conference was held in in November.

Board Subcommittees

The Board has established two subcommittees, on Information and Communications Technology and People and Culture. The former oversees the governance and strategic direction of Information and Communications Technology (ICT)-enabled change, and the latter supports the Human Resources and Development function.

EPA Staff at Agency Day, 2024

Senior Management Network purpose and principles

Partnership

During 2024, the EPA's Partnership Committee celebrated the 25th anniversary of its renaming as Meitheal at Agency Day in May, as well as celebrating the 20th anniversary of the EPA's Green Team and associated initiatives. Throughout 2024, Meitheal continued to implement innovative projects, such as an ongoing partnership with JAI under the direction of a new committee since December 2023.

Safety, Health and Welfare at Work

The EPA recognises that safety, health and welfare are essential requirements of its operations. In this regard, it is EPA policy to conduct its business in a manner that protects the safety, health and welfare of staff, visitors, contractors and members of the public who may be involved in EPA activities.

The EPA provides, in so far as is reasonably practicable, a safe place of work and a safe system of work for its staff in accordance with the Safety, Health and Welfare at Work Act 2005 and associated regulations.

Human Rights and Equality

The EPA is committed to upholding its obligations under Section 42 of the Irish Human Rights and Equality Commission Act 2014. We continue to integrate equality and human rights considerations into our policies, practices and decision-making processes, thereby maintaining compliance with our statutory obligations. We remain dedicated to fostering a culture of dignity, fairness and non-discrimination in all aspects of our operations and will continue to enhance our efforts in the coming year.

7.3 Information and Communications Technology

The EPA uses its Information and Communications Technology (ICT) services to support reform and innovation across the organisation. These services are key to delivering timely and targeted data and information to meet its stakeholder needs, as set out in its corporate strategy. The key priorities for ICT investment are in areas such as information provision, data management, online and shared services, security, disaster recovery, leading-edge technologies and building internal ICT capabilities.

Information Security

Information is a key asset of the EPA and the protection of the EPA's information, technologies and applications, is critical to ensuring the EPA can continue to carry out its functions. The EPA's information security practices encompass three main elements: confidentiality, integrity and availability. Accordingly, the EPA has introduced policies and technologies in the last few years to assist in the protection of its assets, and to meet the growing demands in the information security space which are periodically reviewed.

Throughout 2024, focus was again given to raising awareness around cybersecurity, for staff and anyone who uses EPA systems, with regular phishing exercises and security training carried out as well as other awareness raising initiatives.

In 2024, the EPA completed an external audit against the National Cyber Security Centre Baseline Standards, which aim to improve the resilience and security of public sector ICT systems. The assessment identified several areas that required attention, the majority of which were addressed in 2024 with the remaining planned for 2025.

New ICT Systems and Technologies

Information and communications technologies are constantly changing and improving. The EPA endeavours to keep up to date with best practice in ICT to maximise use of new technology, and to deliver value for money in ICT investments.

Foundational work continued for the EPA's new Cloud environment to enable the use of Cloud tools for developing new applications in the future. As the EPA moves more of its applications to the Cloud in the coming years, it will be able to offer improved, more secure and more resilient services to teams across the organisation.

7.4 Governance

Corporate Governance

Corporate governance is vitally important for the EPA in effectively discharging its statutory remit. It provides a framework of structures and processes to allow Board members to assess management and corporate performance while ensuring that members also meet their own governance responsibilities objectively and effectively. It is the policy of the EPA to comply fully with governance and accountability obligations and to follow best practice in so doing.

The Code of Practice for the Governance of State Bodies 2016 (the Code) is mandatory for all State Bodies and came into effect on 1 September 2016. During 2024, the EPA continued to implement governance requirements and maintained compliance with the Code. A Corporate Governance Unit is in place with responsibility for overseeing and reporting on the implementation of and compliance with the Code.

Requirements arising from the Annex to the Code, on Gender Balance, Diversity and Inclusion, recommend that State Boards achieve 40% representation of women and of men. On 31 December 2024, the EPA Board had a gender balance of 33% female and 67% male.

Oversight Agreement

In line with requirements of the Code of Practice for the Governance of State Bodies, a written Oversight Agreement that defines the relationship between the parent Department and the EPA is in place with the DECC. The Oversight Agreement recognises that the DHLGH has responsibility for several areas of direct relevance to the EPA's remit and defines the EPA's relationship with the DHLGH.

A Performance Delivery Agreement forms part of the Oversight Agreement and focuses on the key priorities and objectives of the EPA. The agreement defines service ownership and accountability in relation to the roles and responsibilities of each party, with a view to ensuring that the statutory functions of the EPA are discharged in an efficient and effective manner.

Oireachtas Committees

The EPA welcomes the opportunity to engage with and inform Joint and Select Committees of the Oireachtas in their legislative and administrative oversight functions. During 2024, the EPA attended or provided submissions to the Joint Oireachtas Committee on Environment and Climate Action on the topic of circular economy (topics covered included food, the built environment and consumer durables); the Joint Oireachtas Committee on Agriculture, Food and the Marine regarding water quality, the nitrates derogation and the National Agricultural Inspection Programme; and the Joint Oireachtas Committee on Environment and Climate Action regarding Ireland's Citizen's Assembly on Biodiversity Loss Report.

Risk Management

The EPA is committed to managing its risks and has a risk management framework in place that complies with the provisions of the Code of Practice for the Governance of State Bodies.

An Audit and Risk Committee (ARC) is in place with membership comprising six external members and one EPA senior manager. An Executive Risk Committee (ERC) (chaired by the Chief Risk Officer) supports the work of the ARC and comprises two Directors and five Programme Managers. The ARC together with the ERC provide assurance to the EPA Board and advise on risk management (Figure 21). During 2024 the ARC held five meetings while the ERC met on four occasions. Risk Management is a standing item at the ARC meetings.

The ERC undertook a comprehensive risk assessment of the EPA's Strategic Plan 2022-2026 and also proposed changes to the Risk Management Policy during 2024. The Corporate Risk Register is dynamic and continues to identify the key risks facing the EPA. The Register details the controls and actions needed to mitigate risks and assigns responsibility for the operation of such controls to specific staff. The Corporate Risk Register is monitored, maintained and reported on by the ERC, and reviewed by the ARC, prior to submission to the EPA Board for consideration.

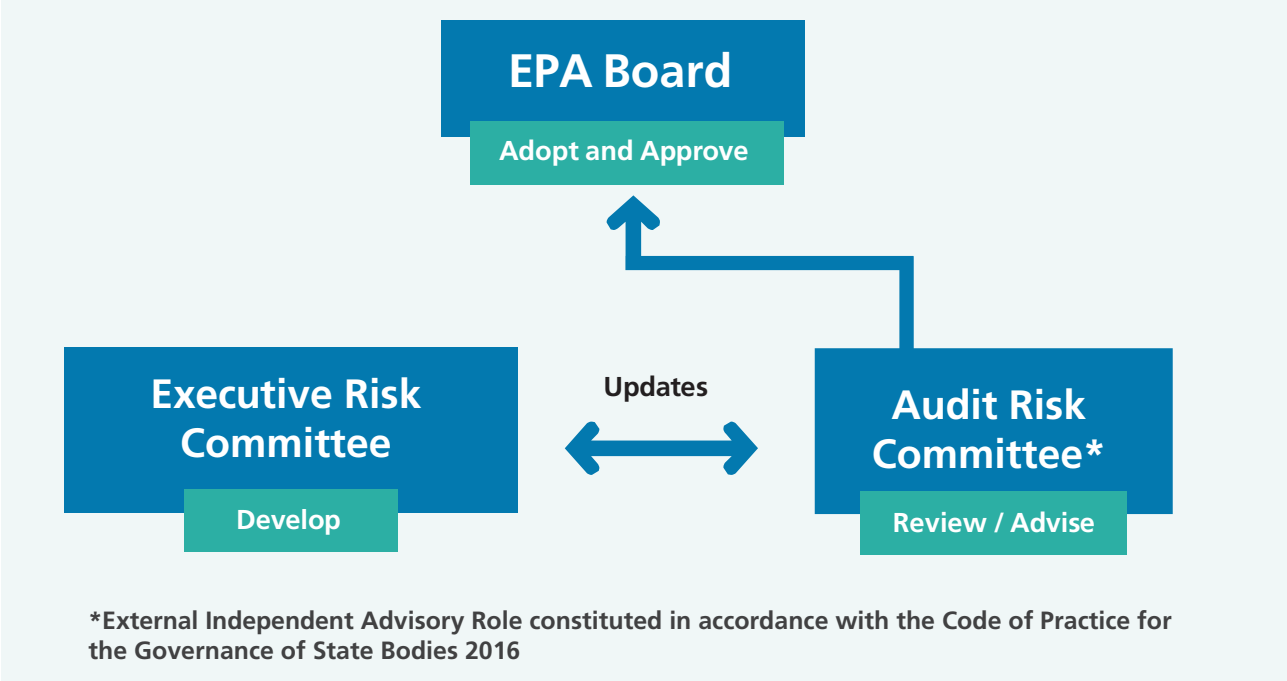


Figure 22. Relationship between the Executive Risk Committee, the Audit and Risk Committee, and the EPA Board

The EPA carried out an assessment of the EPA's risks using the processes outlined in its Risk Management Policy. The key risks managed by EPA in 2024 are summarised in the table below.

No.	Risks Managed	Response
1	Risk of loss of ICT systems or critical data due to cybersecurity-related incident (including human error).	The EPA continues to implement the recommendations of the cybersecurity internal audit conducted in accordance with the National Cyber Security Centre Baseline Standards. This includes the implementation of a new ICT Disaster Recovery Framework and involves a recent review of all EPA ICT Security Policies. There has been a notable increase in the security culture among staff, facilitated by monthly awareness training and phishing simulations.
2	Risk of serious injury to staff member(s) due to working in high-risk environments.	The EPA has continued to implement a Health and Safety Management System. A renewed emphasis was placed on the management of driving for work, as part of the national 'Be Winter Ready' campaign. Annual Facility Audits were conducted at each EPA location by the Local Safety Manager.
3	Risk of a failure to respond appropriately to an international nuclear incident.	The EPA organises periodic National Nuclear Exercises in collaboration with the DECC and articipates in international exercises annually. The EPA also participates in international committees, including the European Nuclear Safety Regulators Group (ENSREG), the Western Europe Nuclear Regulators Association and the Heads of Radiological Protection Competent Authorities (HERCA). It is also a member of the UK–Ireland Contact Group on Radiological Matters and holds annual bilateral meetings with UK nuclear regulatory authorities. The EPA began the process of preparing for the International Atomic Energy Agency (IAEA) Integrated Regulatory Review Service (IRRS) Mission in January 2026. The purpose of this Mission is to review Ireland's regulatory framework for nuclear and radiation safety against IAEA safety standards.
4	Risk of failing to recruit and retain staff with the necessary skills and experience due to an increasingly competitive labour market.	The EPA has implemented various initiatives aimed at enhancing its recruitment processes, including the use of social media, to attract highly skilled and experienced candidates. The Agency provides professional development opportunities that promote skill enhancement and offers blended working arrangements. A lateral mobility programme is also in place to provide staff with opportunities to develop their skills and gain experience across various business units. Furthermore, the Employee Engagement Survey undertaken in 2024 showed that the EPA performed positively when compared with other public and private sector bodies.

Internal Audit

During 2024, the internal audit programme was actively progressed and recommendations from previous audits were implemented. In accordance with the Code, a review of the effectiveness of the ARC was carried out in 2024.

Strategic Plan

The EPA's five-year Strategic Plan 2022-2026 sets out what it intends to achieve over the coming five years in delivering its mandate and its purpose to protect, improve and restore Ireland's environment through regulation, scientific knowledge and working with others. The Plan identifies five Strategic Outcomes that inform the EPA's work programmes:

- We are an effective voice for Ireland's environment.
- We use our knowledge to drive climate action.
- We deliver a protected and healthy environment.
- We promote the transition to sustainable production and consumption.
- We create a culture of excellence where people are supported and can give their best.

A midterm review of the strategic plan was undertaken by the Senior Management Network in 2024. The plan was updated to reflect changes to the EPA's role and the key environmental priorities identified in the State of the Environment Report 2024.

The Senior Management Network provides oversight of the implementation of the Plan on an ongoing basis.

Access to Information

The EPA is committed to being an open and accessible organisation. The Freedom of Information (FOI) Act 2014, as amended, and the Access to Information on the Environment (AIE) Regulations are two methods of accessing information for members of the public who have not been able to access the information they require under alternative routes. The EPA publishes as much information as possible in an open and accessible manner on a routine basis outside FOI, having regard to the principles of openness, transparency and accountability. This allows for the publication or giving of records outside of FOI, provided that such publication or giving of access is not prohibited by law.

During 2024, the EPA received 67 FOI requests and a further two were carried over from 2023. Under the AIE Regulations, the EPA received 108 requests and five were carried over from 2023. Figure 23 illustrates the decisions issued on the requests processed during 2024. Where requests were refused, the information refused: was personal; was confidential, could prejudice functions; was not held by the EPA; could prejudice a prosecution; was legally privileged, was material in the course of completion; was financially or commercially sensitive; did not exist; or the requests were voluminous or manifestly unreasonable.

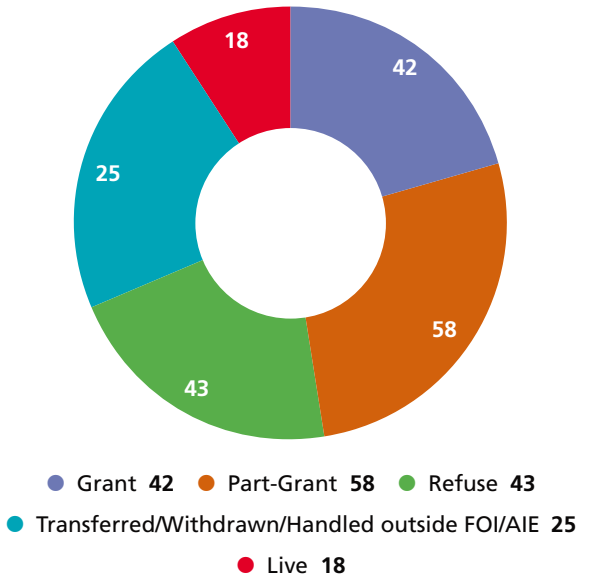


Figure 23. FOI and AIE decisions, January to December 2024

Protected Disclosures

Section 22 of the Protected Disclosures Act 2014, as amended, requires the publication of an Annual Report each year relating to the number of protected disclosures made in the preceding year and any actions taken in response to such disclosures. A copy of this report is available to view or download in the Protected Disclosures section of the EPA's website.

The EPA confirms that no disclosures were made to it as an employer under Section 6 of the Act in 2024.

Pursuant to Statutory Instrument No. 339 of 2014, the Director General of the EPA is prescribed to be the recipient of disclosures of relevant wrongdoings in relation to all matters relating to the protection of the environment in the State. In the context of her role as a Prescribed Person, the Director General received 12 disclosures from parties external to the EPA during 2024.

8 APPENDICES

8. APPENDICES

8.1 Prompt Payment of Accounts Act, 1997

The Environmental Protection Agency comes under the remit of the Prompt Payment of Accounts Act,1997 and the European Communities (Late Payment in Commercial Transactions) Regulations 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.

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

There were no late payments with a value in excess of €3I7 during 2024.

Laura Burke
Director General EPA

Date: 27 May 2025

8.2 Consultants and Advisers Engaged

Acustica Ltd	Fieldfisher
AECOM Ireland Ltd	Greenville
Arup Consulting	Gartner Ireland Ltd
CBEC Eco-engineering	Geosyntec Consultants Ltd
CDM Smith	Go West
RPS Group	Ipsos B&A
APEM Ltd	Integrated Risk Solutions
Wallingford Hydro Solutions	KPMG Ireland
ByrneWallace	Mabbett
Camp Dresser & McKee (Ireland) Ltd	McCarthy, Keville & O'Sullivan
Carr Communications Ltd	MKO Water Ltd
Centre for Ecology and Hydrology, UK	M-CO
CERC (GBP)	Morrow Communications
Clean Technology Centre	Ove Arup
Clevercat Design Ltd.	ReidyBrophy Ltd
Compass Informatics	Ryan Hanley
Conference Partners Ireland Ltd	Qualcom
Dataworks	Ricardo
Digital Training Institute	Sweco Ireland Ltd
ERINN Innovation Ltd	Think HR
Eir Evo	VITO (Flemish Institute for Technological Research)
Ergo	SLR Consulting
Evelyn Partners	Woodrow Environmental Consultants (APEM Group)

EPA Publications 2024

Air

The following air reports are published on the EPA website:

- Air Quality in Ireland 2023
- Annual Air Quality Bulletin 2024

Corporate

The following corporate reports are published on the EPA website:

- EPA Greenhouse Gas Emissions Report 2023
- EPA Customer Charter
- EPA Climate Action Roadmap 2024
- EPA Annual Report and Accounts 2023
- Tuarascáil Bhliantúil agus Cuntais 2023
- EPA Year in Review 2023
- Athbhreithniú ar 2023
- Gender Pay Gap Review 2024

State of the Environment Report 2024

Public Authority

The following public authority enforcement report is published on the EPA website:

- Local Authority Environmental Enforcement Performance Report 2023

Circular Economy

The following circular economy reports are published on the EPA website:

- Circular Economy Programme Annual Report 2023
- Green Public Procurement: Monitoring and Reporting by Government Departments (2022 reference year)
- Circular Insights Series: Examining How Single-Use Packaging Used in the Sale of Fruit and Vegetables Can Be Reduced
- Behavioural Insights Research Report: National Reuse Survey 2023
- Behavioural Insights Research Report: Food Waste – Ethnographic Digital Diary Research 2023
- Behavioural Insights Research Report: Single-Use Packaging For Fruit and Vegetables – National Survey on Usage and Attitudes 2024
- 2023 Annual Report on the National Hazardous Waste Management Plan 2021-2027
- Guidelines for the Identification and Proper Management of Hazardous Fractions in Construction and Demolition Waste
- Guidance on the Safe Storage of Lithium-Ion Batteries at Waste Handling Facilities

Water Quality

The following water quality reports are published on the EPA website, or on www.catchments.ie where indicated:

- Water Quality in 2023: An Indicators Report
- Bathing Water Quality in Ireland in 2023
- Water Quality Monitoring Report on Nitrogen and Phosphorus Concentrations in Irish Waters 2023
- Update on Pressures Impacting on Water Quality 2024 (www.catchments.ie)
- Updated Cycle 3 Catchment Reports – 46 Catchment Assessments (www.catchments.ie)

- Assigning Ecological Status to Unmonitored Water Bodies in 2016-2021
- Nitrate Directive Article 10 Report for Ireland for the Period 2023-2023
- Targeting Measures for Water Quality Outcomes – Analysis of the Gap to Achieving Water Framework Directive environmental objectives.
- Early Insight Indicator Report: Nitrogen Concentrations in Selected Major Rivers January–June 2024
- 12 monthly publications of the *Hydrology Summary Bulletin* (January 2024 to December 2024)
- Marine Monitoring – Assessing Seagrass – EPA fact sheet
- EPA Water Abstraction Register – December 2024
- Register of Hydrometric Stations in Ireland 2023

Drinking Water

The following drinking water reports are published on the EPA website:

- Drinking Water Quality in Public Supplies 2023
- Drinking Water Quality in Private Group Schemes and Small Private Supplies 2023
- Drinking Water Quality in Private Group Schemes and Small Private Supplies 2022

Wastewater

The following wastewater reports are published on the EPA website:

- Domestic Waste Water Treatment Systems (DWWTS) Inspections 2023
- Urban Waste Water Treatment in 2023

Climate Change

The following climate change reports are published on the EPA website:

- Climate Change in the Irish Mind Wave 2 Main Report
- Climate Change's Four Irelands: An Audience Segmentation Analysis, Wave 2
- Climate Change in the Irish Mind Wave 1 Insight Report 3
- Climate Change in the Irish Mind Wave 1 Insight Report 4
- A Review of Climate Change Attitudes Using a Person-Centred Framework, Behavioural Insights Series No. 1
- Gap Analysis on Behavioural Research Related to Climate Policy and Interventions, Behavioural Insights Series No. 2
- Encouraging Cooperation in Climate Collective Action Problems, Behavioural Insights Series No. 3
- Climate Risk Assessment Approaches in the Financial and Commercial Sectors
- Implementation of Climate Adaptation Indicators: Lessons Learned from the Transport Sector
- National Climate Change Risk Assessment Method Report
- National Climate Change Risk Assessment: Technical Guidance for Sectoral Risk Assessment
- Ireland's Provisional Greenhouse Gas Emissions 1990-2023
- Ireland's Greenhouse Gas Emissions Projections 2023-2050
- Ireland's Air Pollutant Emissions 2022 (1990-2030)
- Ireland's Final Greenhouse Gas Emissions 1990-2022
- Quarterly Greenhouse Gas Emissions Indicator Report 2024 Quarter 1
- Quarterly Greenhouse Gas Emissions Indicator Report 2024 Quarter 2

Waste

The following waste reports are published on the EPA website:

- Circular Economy and Waste Statistics Highlights Report 2022
- ELV Infographic 2022
- Guidelines for the Identification and Proper Management of Hazardous Fractions in Construction and Demolition Waste

Radiation

The following radiation reports are published on the EPA website:

- Ionising Radiation National Dose Report | Environmental Protection Agency

Environmental Research Reports

The following research reports were published in 2024 and are available on the EPA website:

Addressing Climate Change Evidence Needs

- Research 446: CROSSDRO – Cross-sectoral Impact Assessment of Droughts in Complex European Basins
- Research 449: Transboundary Climate Risks for Island of Ireland (TCRII)
- Research 450: Infrastructure Climate Change Risk Considering Interdependencies and Cascading Hazards (INFRALINC)
- Research 453: HydroPredict: Ensemble River Flow Scenarios for Climate Change Adaptation
- Research 454: Farm-Carbon: Hedgerows and Non-forest Woodland (Hedgerow Carbon Project)
- Research 457: Towards a Climate Neutral Land Sector by 2050
- Research 459: Roadside Emissions in Dublin: Measurements and Projections (REDMAP)
- Research 460: Soil Moisture Estimates from Satellite-Based Earth Observations (SoMoSAT)
- Research 464: ClimAg: Multifactorial Causes of Fodder Crises in Ireland and Risks Due to Climate Change
- Research 465: Diversification of Dairy and Beef Production for Climate Smart Agriculture
- Research 471: Updated High-Resolution Climate Projections for Ireland

Delivering a Healthy Environment

- Research 452: Public Exposure to Non-ionising Radiation from Major Electricity Infrastructure in Ireland
- Research 469: Public Health Impact of Exposure to Antibiotic Resistance in Recreational Waters (PIER)

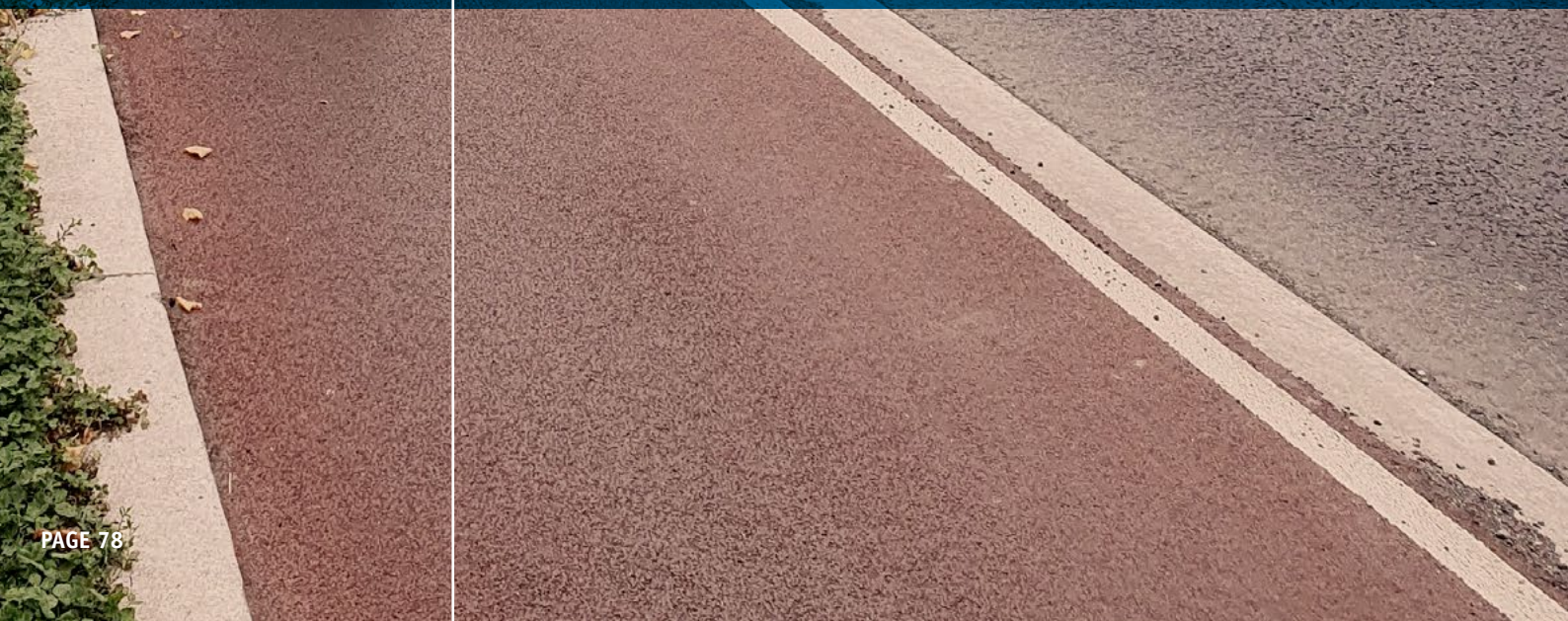
Facilitating a Green and Circular Economy

- Research 448: Antimicrobial Resistance and the Environment – Sources, Persistence, Transmission and Risk Management (AREST)
- Research 451: Environmental and Techno-economic Assessment of Edible Packaging
- Research 458: A Critical Analysis of Ireland's Circular Material Use Rate
- Research 462: Sustainable and Holistic Management of Irish Ports (SHIP)
- Research 463: Identifying the Source and Scale of Plastic in Compost Derived from Household and Commercial Food Waste
- Research 466: Forecasting WEEE Arising for Electric Vehicle Batteries and Photovoltaic Panels in Ireland
- Research 467: Raising Awareness of and Educating Consumers about Reusable Sanitary Products: Developing Strategies for the Promotion of Reusable Nappies, Wipes and Menstrual Items
- Research 470: FoodPath – Investigating Behavioural Interventions to Reduce Food Waste in Irish Households

Protecting and Restoring Our Natural Environment

- Research 447: Macroalgal Blooms in Transitional and Coastal Waters; Management – Pressures, Policy and Solutions (MACRO-MAN)
- Research 455: Innovative Monitoring to Prioritise Contaminants of Emerging Concern for Ireland
- Research 456: Roadway Runoff and Nutrient-Loss Reduction
- Research 461: Reframe Landscape Character Assessment
- Research 468: Managing the Small Stream Network for Improved Water Quality, and Biodiversity and Ecosystem Services
- Research 472: Public Participation and Performance Criteria in Strategic Environmental Assessment: The Way Forward to Advancing Practice

9 Financial Statements



9. FINANCIAL STATEMENTS

9.1 Governance Statement and Directors' Report 2024

Governance

The Environmental Protection Agency (EPA) is an independent public body established under the Environmental Protection Agency Act, 1992, as amended (the Act). The EPA is under the aegis of the Department of Environment, Climate and Communications (DECC). The Department of Housing, Local Government and Heritage (DHLGH) also has responsibility for a number of areas of direct relevance to the EPA's remit.

The EPA is managed by a full-time Executive Board (the Board) consisting of a Director General and five Directors. The Director General is the Chair of the Board and operational Chief Executive of the EPA. The Board fulfils both governance (Board) and management (Executive) functions and performs these tasks by setting strategic objectives and targets and taking strategic decisions on all key business issues. In accordance with the Act, it is the function of the Director General to ensure the efficient discharge of the business of the EPA. The activities of the EPA are organised into five Offices, with each Director having operational responsibility for an Office.

The Director General and Directors are appointed by the Government in accordance with Sections 21 and 24 of the Act. The Director General and the Directors are accountable to the Minister for the Environment, Climate and Communications (DECC). The Director General is accountable to the Oireachtas through the Public Accounts Committee.

Board Responsibilities

The EPA has been granted a wide range of powers and duties under the Environmental Protection Agency Act, 1992, as amended and other relevant environmental and radiation protection legislation.

In addition to the responsibilities set out in the Code of Practice for the Governance of State Bodies (the Code) and in the Act, the EPA's Board holds specific governance and management responsibilities as the Board of a State body which include:

- to ensure that the body carries out its responsibilities as set out by statute or by ministerial order;
- to provide leadership, vision and direction for the body;
- to define the mission of the body, decide its strategic goals and develop the policies required to achieve those goals;
- to ensure good management, to monitor the achievements of management and to ensure that a proper balance is achieved between the respective roles of board and management;
- to set performance targets, including key financial targets and, in particular, to agree and closely monitor the budget;
- to ensure that the body behaves ethically and in a manner that accords with the core values of the body;
- to define and promote the body's role in the community by developing mechanisms for gathering the views of customers and stakeholders and by keeping people informed in an open, accountable and responsible way.

Legislatively, the Board has responsibility for the management of the EPA, but for practical purposes it is empowered to delegate responsibility to other staff for operational purposes. Section 25(6) of the Act provides that the EPA may perform or exercise any of its functions through or by any director or other person or body who has been duly authorised by the EPA in that behalf.

Since the establishment of the EPA, the Board has delegated discretionary powers to various levels in the EPA. The delegation of powers continues to grow as the EPA acquires further legislative functions over time.

The EPA's Strategic Plan 2022-2026 sets out the priority actions that the EPA will take to deliver on our purpose of protecting, improving and restoring our environment. A midterm review of the EPA's Strategic Plan 2022-2026 was completed in 2024.

The work and responsibilities of the EPA are set out in: the EPA Strategic Plan; the EPA Work Programme; and the Oversight Agreement with the Department of Environment, Climate and Communications and the Department of Housing, Local Government and Heritage.

Each month, the Board has a dedicated meeting on governance and management issues which include but not limited to:

- Declaration of interests
- Progress reports from individual Offices
- Financial management
- Implementation of the Strategy
- Communications management

- Corporate Governance issues (including Internal Audit and Risk Management)
- HR and staffing issues

Section 50 of the Environmental Protection Act, 1992, as amended requires the EPA to keep, in such form as may be approved by the Minister for the Environment, Climate and Communications with consent of the Minister for Public Expenditure NDP Delivery and Reform, all proper and usual accounts of all money received and expended by it.

In preparing these financial statements, the EPA is required to:

- select suitable accounting policies and 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 it will continue in operation;
- state whether applicable accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements.

The EPA is responsible for keeping adequate accounting records which disclose, with reasonable accuracy at any time, its financial position and enables it to ensure that the financial statements comply with Section 50 of the Act. The maintenance and integrity of the corporate and financial information is the responsibility of the Director General and Directors.

The Board is responsible for approving the annual plan and budget. The performance of the EPA is monitored on a monthly basis through the submission to the Board of progress reports on the EPA's Strategic and Interim Outcomes. A year-end evaluation of the 2024 EPA Work Programme Activities was completed, and the 2024 year-end Financial Management Report was submitted to the Board in February 2025.

The EPA is also responsible for safeguarding its assets and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Board considers that the financial statements of the EPA give a true and fair view of the financial performance and the financial position of the EPA at 31 December 2024.

Board Structure

The Board consists of a Director General and five Directors, one of whom acts as Deputy Director General, all of whom are appointed by the Government. The Director General is appointed for a period of seven years and the other Directors are appointed for a period of five years. The Director General and Directors respectively may be reappointed by the Government for a second or subsequent term of office.

Requirements arising from the Annex to the Code of Practice for the Governance of State Bodies 2016, on Gender Balance, Diversity and Inclusion recommends that State Boards achieve 40% representation of women and of men on State Boards. The procedures for the appointment of the Director General and Directors of the EPA are laid down in Sections 21 and 24 of the EPA Act respectively. The EPA Director General and the Directors are selected by a committee as prescribed in the EPA Act and appointed by the Government via an open recruitment process. In selecting Directors, the committee has regard to knowledge and experience, including relevant experience in environmental matters or radiological protection matters. At 31 December 2024 the EPA Board included a gender balance of 33% female and 67% male.

The Board met for General Board meetings on thirteen occasions in 2024. The table below details the appointment date for Board members who served during 2024.

Board Member	Role	Date Appointed
Ms Laura Burke	Director General	8 November 2011*
Mr Gerard O'Leary	Deputy Director General	8 May 2012**
Dr Micheál Lehane	Director	1 May 2016*
Dr Eimear Cotter	Director	1 September 2017*
Dr Tom Ryan	Director	25 August 2018*
Mr David Flynn	Director	23 October 2023

* *Second term* ** *Third term*

Audit and Risk Committee

The EPA has established an Audit and Risk Committee (ARC) that comprises six external members and one member from EPA Senior Management. The role of the ARC is to support the Board in relation to its responsibilities for issues of risk, control and governance and associated assurance. The ARC is independent from the financial management of the organisation. In particular, the ARC ensures that the internal control systems including audit activities are monitored actively and independently. The Chairperson of the ARC meets regularly with the Director General and reports at least annually to the Board on the performance of the ARC.

There were 5 meetings of the ARC in 2024. The membership of the ARC at the end of 2024 is set out in the following table:

ARC Member	Role	Date Appointed
Ms Caroline Bocquel	(Outgoing Chairperson) *	28 November 2017**
Prof Áine Ryall	Member	20 October 2020**
Mr Raymond Smith	Member	20 October 2020**
Mr Harvey Bradshaw	Member	1 March 2022
Mr David Owens	Member	13 December 2022
Mr Damian Allen	Member and incoming Chairperson***	1 October 2023
Ms Colette Byrne	Member	1 October 2023

** Completed term as Chairperson on 28 November 2024 on 29 November 2024* *** Second term* **** Appointed Chairperson*

Board Sub Committees

The Board has established two Board Sub Committees.

1. **ICT Board Sub-Committee:** comprises two Board members and is supported by two Programme Managers and the senior ICT team. The Board members of this committee are: Dr Micheál Lehane (Chairperson) and Mr Gerard O'Leary. There were 6 meetings of the ICT Board Sub-Committee in 2024.
2. **People and Culture Board Sub-Committee:** comprises three Board members. The role of the People and Culture Board Sub-Committee is to provide strategic HR oversight so that the EPA achieves the strategic outcome of "a culture of excellence where people give their best". The Board members of this committee are: Mr Gerard O'Leary (Chairperson), Dr Tom Ryan and Dr Eimear Cotter. 5 meetings were held during 2024.

External Advisory/Consultative Committees

The Board is also advised by the following key external committees, each of which was established under legislation:

- EPA Advisory Committee
- Dumping at Sea Advisory Committee
- Genetically Modified Organisms (GMO) Advisory Committee
- Health Advisory Committee
- Radiological Protection Advisory Committee

Schedule of Attendance, Fees and Expenses

There were 13 General Board meetings in 2024. A schedule of attendance at the General Board meetings for 2024 is set out below. 10 of the 13 General Board Meetings were held in EPA Headquarters and 3 General Board Meetings was held in the EPA Inspectorate, Dublin.

Number of meetings	Board Attended/ Out of Possible	Fees 2024 €	Expenses 2024 €
Ms Laura Burke	**13/13**	**0**	**579**
Mr Gerard O'Leary	**10/13**	**0**	**425**
Dr Micheál Lehane	**12/13**	**0**	**176**
Dr Eimear Cotter	**10/13**	**0**	**891**
Dr Tom Ryan	**12/13**	**0**	**1,726**
Mr David Flynn	**12/13**	**0**	**870**
Total		**0**	**4,667**

A schedule of attendance at the ARC meetings for 2024 is set out below including the fees and expenses received by each member:

Number of meetings	Audit and Risk Committee Attended/Out of Possible	Fees 2024 €	Expenses 2024 €
Ms Caroline Bocquel (Chairperson)	**5/5**	**0**	**769**
Prof Áine Ryall	**3/5**	**0**	**216**
Mr Raymond Smith	**5/5**	**0**	**1,058**
Mr Harvey Bradshaw	**5/5**	**0**	**0**
Mr David Owens	**3/5**	**0**	**572**
Mr Damian Allen	**5/5**	**0**	**320**
Ms Colette Byrne	**5/5**	**0**	**375**
Total			**2,252**

Disclosures Required by Code of Practice for the Governance of State Bodies (2016)

The Board is responsible for ensuring that the EPA has complied with the requirements of the Code, as published by the Department of Public Expenditure and Reform in August 2016. The following disclosures are required by the Code:

Employee Short-Term Benefits Breakdown

Employees' short-term benefits in excess of €60,000 are set out in Note 8 (c) of the financial statements.

Consultancy Costs

Consultancy costs include the cost of external advice to management and exclude outsourced 'business-as-usual' functions and staff training and development providers.

	2024 €	2023 €
Legal Advice, including Financial Provision of Licensed Activities	1,099,307	1,560,938
Pension Scheme Actuarial Valuation	5,351	5,166
HR Consultancies	27,531	14,590
Public Relations	173,342	153,693
Internal Audit and Corporate Governance	96,617	90,606
Procurement Consultancy and Advice	43,364	40,152
Strategy and Board Consultancy	41,451	26,265
Total Consultancy Costs	**1,486,963**	**1,891,410**

Legal Costs and Settlements

The table below provides a breakdown of amounts recognised as expenditure in the reporting period in relation to legal costs, settlements and conciliation and arbitration proceedings relating to contracts with third parties. This does not include expenditure incurred in relation to general legal advice received by the EPA which is disclosed in Consultancy costs above.

	2024 €	2023 €
Legal fees – legal proceedings	272,237	408,490
Conciliation and arbitration payments	0	0
Settlements	0	0
Total	**272,237**	**408,490**

Travel and Subsistence Expenditure

Travel and subsistence expenditure is categorised as follows:

	2024 €	2023 €
Domestic		
- Board	63,241	63,019
- Employees	1,373,073	1,232,343
International		
- Board	28,639	17,350
- Employees	170,749	171,243
Total	**1,635,702**	**1,483,955**

Hospitality Expenditure

The Income and Expenditure Account includes the following hospitality expenditure:

	2024 €	2023 €
Staff hospitality*	19,076	12,094
Other hospitality	0	0
Total	**19,076**	**12,094**

* *Includes Employee Assistance programme and contributions to Staff Sports and Social Clubs.*

Statement of Compliance

The Board has adopted and has put procedures in place to ensure compliance with the Code of Practice for the Governance of State Bodies (2016). The EPA was in compliance with the Code of Practice for the Governance of State Bodies for 2024.

Signed on behalf of the Board.

Laura Burke
Director General EPA

27 May 2025

9.2 Statement on the System of Internal Control 2024

1. Scope of Responsibility

On behalf of the Environmental Protection Agency (EPA) I acknowledge the Directors' collective responsibility for ensuring that an effective system of internal control is maintained and operated, for preparing the accounts of the EPA and for complying with all statutory obligations applicable to the EPA. This responsibility takes account of the requirements of the Code of Practice for the Governance of State Bodies (2016).

2. Purpose of the System of Internal Control

The system of internal control is designed to manage risk to a tolerable level rather than to eliminate it. The system can therefore only provide reasonable and not absolute assurance that assets are safeguarded, transactions authorised and properly recorded, and that material errors or irregularities are either prevented or detected in a timely way. While the effectiveness of an internal control system can change over time, the EPA reviews and updates such systems as required.

The system of internal control, which accords with guidance issued by the Department of Public Expenditure NDP Delivery and Reform, has been in place in the EPA for the year ended 31 December 2024 and up to the date of approval of the financial statements.

3. Key Control Procedures to Provide Effective Internal Control

i) Annual Review of the Effectiveness of Control

The Executive Board (the Board) conducted an annual review of the effectiveness of the internal controls which concluded in February 2025. In undertaking this review the Directors considered the following:

- Details of the system of internal controls in 2024 including Risk Management, Financial Management, Internal Audit, Ethics, Information Systems, Business Planning and Reporting,
- ICT Compliance Report 2024,
- Annual Report on Compliance with Corporate Legislation 2024,
- Safety, Health and Welfare Compliance Report 2024,
- Risk Management Assurance Statements 2024, and
- Audit and Risk Committee (ARC) Chairperson's Report 2024.

Annual Assurance Statements in relation to Budgetary Responsibilities for 2024 were submitted to the EPA Board at their meeting in January 2025 and have been presented to and signed by the Director General, in line with the provisions of the EPA Finance Manual.

ii) Breaches in Control

There were no reported breaches in control in 2024.

iii) Material Losses or Frauds

There were no reported material losses or frauds in 2024.

iv) Review of Statement on Internal Control

This Statement on the System of Internal Control 2024 was reviewed by the EPA's Audit and Risk Committee (ARC) and the Directors in February 2025 to ensure that it accurately reflects the control system in place during 2024.

v) Steps Taken to Ensure an Appropriate Control Environment

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

- Publishing and implementing the EPA Strategic Plan 2022-2026. This strategy, the EPA's sixth, was published in May 2022 and sets out what we intend to achieve over the next five years in delivering our mandate and our purpose to protect, improve and restore our environment through regulation, scientific knowledge and working with others. A midterm review of the Strategic Plan was conducted in 2024 to evaluate progress toward the Strategic Outcomes and to revise the proposed actions as necessary.
- Agreeing a detailed work programme each year and monitoring and evaluating progress against that 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 Human Resource matters.
- Maintaining and implementing an EPA Finance Manual and a set of financial policies and procedures to control the significant financial elements of the EPA's business.

- Adhering to a Corporate Governance Framework that provides a clear and comprehensive summary of the principal aspects of Corporate Governance for the Directors and Senior Managers.
- Maintaining a comprehensive schedule of insurances to protect the EPA's interests.
- Establishing and maintaining an Audit and Risk Committee (ARC). (see Section 3(ix) Monitoring Effectiveness of the System of Internal Control).
- Implementing a Risk Management Policy and Framework, appointing an Executive Risk Committee (ERC) and a Chief Risk Officer. (see Section 3(vi) Risk and Control Framework).
- Monitoring and assessing compliance with corporate legislation in accordance with EPA Policy.
- 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 and 38 of the EPA Act 1992, relating to the Declaration and Disclosure of Interests.
- Establishing mechanisms for ensuring the adequacy of the security of its information and communication technology (ICT) systems which include;
    - the establishment of appropriate policies and control procedures,
    - effective organisational structures including segregation of duties and
    - the delegation to the internal audit unit of the responsibility for specific reviews and evaluations of ICT systems through the process of Annual Internal Audit Plans.

Legislatively, the Board has responsibility for the management of the EPA, but it is empowered to delegate responsibility to other staff for operational purposes. Section 25(6) of the EPA Act provides that the EPA may perform or exercise any of its functions through or by any Director or other person or body who has been duly authorised by the EPA in that behalf. The Programme Managers in charge of various functions are delegated operational responsibility for carrying out the work of the EPA.

Since the establishment of the EPA, the Board of the Agency has delegated discretionary powers to various levels in the EPA. The delegation of powers continues to grow as the EPA is assigned further statutory responsibilities over time. The EPA maintains a comprehensive register of relevant environmental legislation, a register of powers delegated by the Board and Board Reserved Functions. These registers are reviewed and approved by the Board as required.

vi) Risk and Control Framework

The EPA has implemented a risk management system which identifies and reports key risks and the management actions being taken to address and, to the extent possible, to mitigate those risks.

In 2022, the EPA published its revised Risk Management Policy following a review of its risk management processes. The review process resulted in amendments to both the Office Risk Registers and the Corporate Risk Register resulting in a risk management process which is more dynamic and better meets the needs of the EPA. In 2023 the Executive Risk Committee conducted a comprehensive risk assessment of the EPA's Strategic Plan 2022-2026, with the aim of identifying any significant risks to achieving our Strategy and included them onto the Corporate Risk Register. In 2024, the EPA updated the Risk Management Policy with the inclusion of its Risk Appetite Statement. This Statement aims to ensure that risk-taking activities are conducted within acceptable boundaries. The EPA's Risk Management Policy and Structures continue to be in compliance with the Code of Practice for the Governance of State Bodies 2016.

The Corporate Risk Register identifies the key risks facing the EPA and details the controls and actions needed to mitigate risks and the responsibility for the operation of controls assigned to specific staff. The Corporate Risk Register is developed and managed by the Executive Risk Committee, reviewed by the Audit and Risk Committee and presented to the EPA Board for approval. Additionally, risk assessments of critical services have been carried out as part of a Business Continuity Project.

Each Director provides bi-annual 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.

I can therefore confirm that a control environment containing the following elements is in place:

- procedures for key business processes have been documented,
- financial responsibilities have been assigned at management level with corresponding accountability,
- there is an appropriate budgeting system with an annual budget which is kept under review by senior management,
- there are systems aimed at ensuring the security of the information and communication technology systems,
- there are systems in place to safeguard the assets, and
- a system for the control of programme expenditure including procedures for the approval and payment of grants and processes to monitor the progress towards achieving the objectives.

vii) Financial and Budgetary Information

The system of internal 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. The budgeting system also includes the preparation of two formal revised budgets in June and September, both of which are submitted to the Board for approval.
- The assignment of budgets and budgetary authority and responsibility for specific functions to selected managers.
- Arrangements for all purchasing to be conducted and controlled through the EPA's financial management system and procedures.
- Monthly reviews by the Board of financial management reports.
- Adoption of an annual Corporate Procurement Plan and the appointment of a Procurement Officer.

The inbuilt controls in the Financial Systems have continued to operate as normal during 2024.

viii) Procedures for Addressing Financial Implications of Major Business Risks

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.

ix) Monitoring Effectiveness of the System of Internal Control

The EPA has established and maintained an Audit and Risk Committee, comprising six external members, one of whom is the Chairperson, and one EPA senior manager, 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.

The EPA has established an internal audit function which is adequately resourced and conducts a programme of work agreed with the ARC. The EPA engages external expertise to conduct internal audits.

The EPA Internal Audit Plan 2024-2025 was progressed during the year with progress on the implementation of the actions required arising from each audit reviewed regularly and reported to the Audit and Risk Committee at each ARC meeting and the Board.

The Internal Audit Plan 2025-2026 was developed during 2024 and reflects the corporate risks identified for the EPA by the Executive Risk Committee, audits identified by EPA Management and the Audit and Risk Committee and developments and issues in relation to Corporate Governance that have arisen in the Public Sector in general. This Internal Audit Plan was reviewed by the Audit and Risk Committee and approved by the EPA Board in November 2024.

4. Procurement

I confirm that the EPA has procedures in place to ensure compliance with current procurement rules and guidelines. There were no instances of non-compliant procurement in 2024.

5. Research Funding

The Department of Public Expenditure NDP Delivery and Reform Circular 13/2014 Management of and Accountability of Grants from Exchequer Sources (the Circular) outlines the public financial management principles, procedures and additional reporting requirements to be followed in the management of grant funding provided from public money.

The EPA is compliant with this Circular and has procedures for the approval and payment of grants and processes to monitor the progress towards achieving the research objectives.

Annually, the Department of the Environment, Climate and Communications informs the EPA that it can continue to operate the existing pre-funding arrangements under the EPA's Research Programme pending receipt of formal Department of Public Expenditure NDP Delivery and Reform approval.

6. Review of Effectiveness

I confirm that the EPA has procedures to monitor the effectiveness of its risk management and control procedures. The EPA's monitoring and review of the effectiveness of the system of internal control is informed by the work of the internal and external auditors, the Audit and Risk Committee, and the senior management within the EPA responsible for the development and maintenance of the internal control framework.

I confirm that the Directors conducted an annual review of the effectiveness of the internal controls for 2024 in both January and February 2025 and are satisfied that the system of internal control is sound.

In 2024, the EPA undertook an Internal Audit of the Review of the Effectiveness of Internal Financial Controls. This audit undertook a thorough and detailed analysis of the EPA financial governance arrangements. The results indicate that substantial assurance can be placed on the adequacy and operating effectiveness of controls to mitigate and/or manage financial risks.

7. Internal Control Issues

No breaches to internal controls were identified in relation to 2024 that require disclosure in the financial statements.

Signed on behalf of the Board.

Laura Burke
Director General EPA

27 May 2025

9.3 Comptroller and Auditor's General Report for presentation to the Houses of the Oireachtas

Opinion on the financial statements

I have audited the financial statements of the Environmental Protection Agency for the year ended 31 December 2024 as required under the provisions of section 50 of the Environmental Protection Agency Act 1992. The financial statements comprise

- the statement of income and expenditure and retained revenue reserves
- the statement of comprehensive income
- the statement of financial position
- the statement of cash flows, and
- the related notes, including a summary of significant accounting policies.

In my opinion, the financial statements give a true and fair view of the assets, liabilities and financial position of the Environmental Protection Agency at 31 December 2024 and of its income and expenditure for 2024 in accordance with Financial Reporting Standard (FRS) 102 — *The Financial Reporting Standard applicable in the UK and the Republic of Ireland*.

Basis of opinion

I conducted my audit of the financial statements in accordance with the International Standards on Auditing (ISAs) as promulgated by the International Organisation of Supreme Audit Institutions. My responsibilities under those standards are described in the appendix to this report. I am independent of the Environmental Protection Agency and have fulfilled my other ethical responsibilities in accordance with the standards.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Report on information other than the financial statements, and on other matters

The Environmental Protection Agency has presented certain other information together with the financial statements. This comprises the annual report, the governance statement and Directors' report, and the statement on internal control. My responsibilities to report in relation to such information, and on certain other matters upon which I report by exception, are described in the appendix to this report.

I have nothing to report in that regard.

Colette Drinan
For and on behalf of the Comptroller and Auditor General

3 June 2025

Responsibilities of Directors

As detailed in the governance statement and Directors' report, the directors are responsible for

- the preparation of annual financial statements in the form prescribed under section 50 of the Environmental Protection Agency Act 1992
- ensuring that the financial statements give a true and fair view in accordance with FRS 102
- ensuring the regularity of transactions
- assessing whether the use of the going concern basis of accounting is appropriate, and
- such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Responsibilities of the Comptroller and Auditor General

I am required under section 50 of the Environmental Protection Agency Act 1992 to audit the financial statements of the Environmental Protection Agency and to report thereon to the Houses of the Oireachtas.

My objective in carrying out the audit is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement due to fraud or error. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with the ISAs, I exercise professional judgment and maintain professional scepticism throughout the audit. In doing so,

- I identify and assess the risks of material misstatement of the financial statements whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- I obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal controls.
- I evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures.
- I conclude on the appropriateness of the use of the going concern basis of accounting and, based on the audit evidence obtained, on whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Environmental Protection Agency's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my report. However, future events or conditions may cause the Environmental Protection Agency to cease to continue as a going concern.
- I evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I report by exception if, in my opinion,

- I have not received all the information and explanations I required for my audit, or
- the accounting records were not sufficient to permit the financial statements to be readily and properly audited, or
- the financial statements are not in agreement with the accounting records.

Information other than the financial statements

My opinion on the financial statements does not cover the other information presented with those statements, and I do not express any form of assurance conclusion thereon.

In connection with my audit of the financial statements, I am required under the ISAs to read the other information presented and, in doing so, consider whether the other information is materially inconsistent with the financial statements or with knowledge obtained during the audit, or if it otherwise appears to be materially misstated. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact.

Reporting on other matters

My audit is conducted by reference to the special considerations which attach to State bodies in relation to their management and operation. I report if I identify material matters relating to the manner in which public business has been conducted.

I seek to obtain evidence about the regularity of financial transactions in the course of audit. I report if I identify any material instance where public money has not been applied for the purposes intended or where transactions did not conform to the authorities governing them.

9.4 Statement of Income and Expenditure and Retained Revenue Reserves

For the year ended 31 December 2024

	Note	2024 €'000	2023 €'000
Income			
Oireachtas Grants – DECC	**2(a)**	57,260	56,048
Circular Economy Fund Grants	**2(b)**	1,500	0
Oireachtas Grants – DHLGH	**2(b)**	7,099	7,418
Emissions Trading Costs Recovered	**3**	2,446	1,813
Income from Radiological Activities	**4**	903	792
Licensing Activities	**5**	710	766
Enforcement Activities	**6**	12,049	10,602
Sundry Receipts	**7**	831	628
Net Deferred Retirement Benefit Funding	**23(c)**	10,774	10,523
Total Income		**93,572**	**88,590**
Expenditure			
Remuneration	**8**	36,392	32,687
Retirement Benefit Costs	**23(a)**	13,666	13,723
Travelling Expenses	**9**	1,794	1,619
Laboratory and Field Costs	**10**	1,730	1,687
Accommodation Costs	**11**	2,585	2,350
Administration Costs	**12**	11,347	11,473
Consultants	**13**	410	421
Grants, Contractors and External Service Providers	**14**	9,417	9,438
Environmental Research Programme Payments	**15**	10,838	10,574
Depreciation	**16**	5,572	5,614
Total Expenditure		**93,751**	**89,586**
(Deficit)/Surplus for the Year before Appropriations		**(179)**	**(996)**
Transfer from/(to) the Capital Account	**17**	108	(82)
(Deficit)/Surplus on Disposals of Fixed Assets		(106)	(4)
(Deficit)/Surplus for the Year after Appropriations		**(177)**	**(1,082)**
Surplus at 1 January		2,160	3,242
Surplus at 31 December		**1,983**	**2,160**

All income and expenditure for the year relate to continuing activities at the reporting date.

The Statement of Cash Flows and notes 1 to 27 form part of these financial statements.

On behalf of the Board of the Environmental Protection Agency:

Laura Burke
Director General EPA

Dr Eimear Cotter
Director

29 May 2025

9.5 Statement of Comprehensive Income

For the year ended 31 December 2024

	Note	2024 €'000	2023 €'000
(Deficit)/Surplus after appropriations		**(177)**	**(1,082)**
Experience gains/(losses) on retirement benefit obligations	**23(d)**	(2,316)	4,182
Changes in assumptions underlying the present value of retirement benefit obligations		25,913	(6,934)
Actuarial (Loss)/Gain in the year		**23,597**	**(2,752)**
Adjustment to deferred retirement benefits funding		(23,597)	2,752
Other Comprehensive Income for the year		**(177)**	**(1,082)**

The Statement of Cash Flows and notes 1 to 27 form part of these financial statements.

On behalf of the Board of the Environmental Protection Agency:

Laura Burke
Director General EPA

Dr Eimear Cotter
Director

29 May 2025

9.6 Statement of Financial Position

As at 31 December 2024

	Note	2024 €'000	2023 €'000
Fixed Assets – Property, Plant and Equipment	**19**	**37,714**	**37,822**
Current Assets			
Receivables	**20**	4,526	4,144
Cash and cash equivalents	**21**	8,362	8,676
		12,888	**12,820**
Current Liabilities (amounts falling due within one year)			
Payables	**22**	(10,911)	(10,666)
Net Current Assets		**1,977**	**2,154**
Total Assets less Current Liabilities before Retirement Benefits		**39,691**	**39,976**
Retirement Benefits			
Retirement benefit obligations	**23(b)**	**(234,291)**	**(247,114)**
Deferred retirement benefit funding asset	**23(c)**	**234,291**	**247,114**
		0	**0**
Total Net Assets		**39,691**	**39,976**
Representing			
Capital account	**17**	**37,708**	**37,816**
Retained revenue reserves		**1,983**	**2,160**
		39,691	**39,976**

The Statement of Cash Flows and notes 1 to 27 form part of these financial statements.

On behalf of the Board of the Environmental Protection Agency:

Laura Burke
Director General EPA

Dr Eimear Cotter
Director

29 May 2025

9.7 Statement of Cash Flows

For the year ended 31 December 2024

	2024 €'000	2023 €'000
Net Cash Flows from Operating Activities		
(Deficit)/Surplus of Income over Expenditure	(177)	(1,082)
Depreciation and Impairment of Fixed Assets	5,572	5,614
(Increase) in Receivables	(382)	(461)
Increase/(Decrease) in Payables	245	1,757
Interest Paid	0	0
Deficit/(Surplus) on Disposal of Fixed Assets	106	4
Transfer (from)/to Capital Account	(108)	82
Net Cash Inflow from Operating Activities	**5,256**	**5,914**
Cash Flows from Investing Activities		
Payments to acquire Property, Plant and Equipment	(5,570)	(5,702)
Proceeds on disposal of fixed assets	0	2
Net Cash Flows from Investing Activities	**(5,570)**	**(5,700)**
Cash Flows from Financing Activities		
Bank Interest Paid	0	0
Net Cash Flows from Financing Activities	**0**	**0**
Net Increase/(Decrease) in Cash and Cash Equivalents	(314)	214
Cash and cash equivalents at 1 January	8,676	8,462
Cash and Cash Equivalents at 31 December	**8,362**	**8,676**

9.8 Notes to the Financial Statements

For the Year Ended 31 December 2024

1. Accounting Policies

The basis of accounting and significant accounting policies adopted by the Environmental Protection Agency are set out below. They have all been applied consistently throughout the year and for the preceding year.

a) General Information

The Environmental Protection Agency was set up under the Environmental Protection Agency Act, 1992, with its headquarters at Johnstown Castle Estate, County Wexford.

Primary Objectives – the description of EPA's operations and principal activities is set out in the Annual Report which accompanies these Financial Statements.

The Environmental Protection Agency is a Public Benefit Entity (PBE).

b) Statement of Compliance

The financial statements of the Environmental Protection Agency for the year ended 31 December 2024 have been prepared in accordance with FRS 102, the financial reporting standard applicable in the UK and Ireland issued by the Financial Reporting Council (FRC).

c) Basis of Preparation

The financial statements have been prepared under the historic cost convention and in the form approved by the Minister for the Environment, Climate and Communications, with the concurrence of the Minister for Public Expenditure NDP Delivery and Reform under Section 50 of the Environmental Protection Agency Act, 1992. The following accounting policies have been applied consistently in dealing with items which are considered material.

d) Revenue

State Grants

Revenue is generally recognised on an accruals basis; one exception to this is in the case of State Grants which are recognised on a cash receipts basis.

Licensing Activity Income

Applicants for environmental licences/permits are required to pay the full application fee at the time of making the application. The amounts received are apportioned to the Statement of Income and Expenditure and Retained Revenue Reserves for the two main licensing activities on completion of the following stages of the licensing/permitting process:

Industrial Emissions Directive, Integrated Pollution 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%

Other Revenue

Other revenue is recognised on an accruals basis.

e) Emissions Trading Unit

The Emissions Trading Unit (ETU) was established within the Environmental Protection Agency in 2003. The costs of administering the emissions trading scheme are reimbursed to the EPA by the Department of the Environment, Climate and Communications, from the proceeds of the sale of allowances, which are paid directly to the Department.

f) 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 which are 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.

g) Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation, adjusted for any provision for impairment. Depreciation is provided on all property, plant and equipment at rates estimated to write off the cost less the estimated residual value of each asset on a straight line basis over their estimated useful lives, as follows:

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

Leasehold improvements are depreciated over the life of the lease.

Residual value represents the estimated amount which would currently be obtained from disposal of an asset, after deducting estimated costs of disposal, if the asset were already of an age and in the condition expected at the end of its useful life.

h) Capitalisation of Internally Developed Software

The external costs of software developed for internal use are capitalised where it can be separately identified as software for use by tha Agency and where it is expected to convey business benefits for a number of future years. The salary costs of software development staff are also capitalised.

i) 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.

j) Inventory

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

k) Receivables

Receivables are initially measured at transaction price and are subsequently carried at this amount, less a provision for doubtful debts. The provision for doubtful debts is established when there is objective evidence that the Environmental Protection Agency will not be able to collect all amounts owed to it. All movements in the provision for doubtful debts are recognised in the Statement of Income and Expenditure and Retained Revenue Reserves.

l) Operating Leases

Rental expenditure under operating leases is recognised in the Statement of Income and Expenditure and Retained Reserves over the life of the lease. Expenditure is recognised on a straight-line basis over the lease period, except where there are rental increases linked to the expected rate of inflation, in which case these increases are recognised when incured.

Any lease incentives received are recognised over the life of the lease.

m) Employee Benefits

Short-term Benefits

Short-term benefits such as holiday pay are recognised in the year, and benefits that are accrued at year end are included in the Payables figure in the Statement of Financial Position.

Retirement Benefits

The Environmental Protection Agency previously established its own 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, Climate and Communications, and from contributions deducted from staff and members' salaries. The Environmental Protection Agency also operates the Single Public Services Pension Scheme ("Single Scheme"), which is a defined benefit scheme for pensionable public servants appointed on or after 1 January 2013. Single Scheme members' contributions are paid over to the Department of Public Expenditure and Reform (DPER).

Pension costs reflect pension benefits earned by employees and are shown net of staff pension contributions from employees. 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 on scheme liabilities are reflected in the Statement of Comprehensive Income, and a corresponding adjustment is recognised in the amount recoverable from the Department of the Environment, Climate and Communications.

The financial statements reflect, at fair value, the assets and liabilities arising from the Environmental Protection Agency's pension obligations and any related funding, and recognises the costs of providing pension benefits in the accounting periods in which they are earned by employees. Retirement benefit scheme liabilities are measured on an actuarial basis using the projected unit credit method.

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, Climate and Communications.

n) Critical Accounting Judgements and Estimates

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the amounts reported for assets and liabilities as at the date of the Statement of Financial Position and the amounts reported for revenues and expenses during the year. However, the nature of estimation means that the actual outcomes could differ from those estimates. The following judgements have had the most significant effect on amounts recognised in the financial statements.

Retirement Benefit Obligation

The assumptions underlying the actuarial valuations for which the amounts recognised in the financial statements are determined (including discount rates, rates of increase in the future of compensation levels, mortality rates and healthcare cost trend rates) are updated annually based on current economic conditions, and for any relevant changes to the terms and conditions of the pension and post-retirement plans.

The assumptions can be affected by:

i) the discount rate, changes in the rate of return on high-quality corporate bonds.

ii) future compensation levels, future labour market conditions.

Retirement Benefit Obligation

The assumptions can be affected by:

i) the discount rate, changes in the rate of return on high-quality corporate bonds.

ii) future compensation levels, future labour market conditions.

2. State Grants

		2024 €'000	2023 €'000
Grants from the Department of the Environment, Climate and Communications:			
(a) Oireachtas Grant – Grants from the Department's Vote:			
Current	Subhead – A3 and A4	39,642	38,622
Capital	Subhead – A3 and A4	16,518	16,404
Other Programmes	Subhead – A3 and A4	1,100	1,022
Total DECC Oireachtas Grants		**57,260**	**56,048**

The Current grant shown is net of single scheme employee contributions of €640K (2023: €481K) remitted to DPENDPDR.

		2024 €'000	2023 €'000
(b) Circular Economy Fund Grants:			
Grants from the Environment Fund	Other Programmes	1,500	0
Total Circular Economy Fund Grants		**1,500**	**0**

		2024 €'000	2023 €'000
Grants from the Department of Housing, Local Government and Heritage:			
(b) Oireachtas Grant – Grants from the Department's Vote:			
Current	Subhead – B3	6,058	5,901
Capital	Subhead – B3	1,041	1,517
Total DHLGH Oireachtas Grants		**7,099**	**7,418**
Total State Grants		**65,859**	**63,466**

Research Funding of €12.1M (2023 €12.1M) provided by the Department of the Environment, Climate and Communications is a specific allocation to meet the cost of environmental research. €13.169M was expended on these research activities in 2024 (2023 €13.25M). See Note 15.

3. Emissions Trading Unit (ETU) Activities

	2024 €'000	2023 €'000
Costs of Emissions Trading Unit recovered from Auction Funds, etc.	2,446	1,813
Total Funding of ETU Costs	**2,446**	**1,813**

4. Income from Radiological Activities

	2024 €'000	2023 €'000
Calibration Service	41	31
Radiation Monitoring Service	243	182
Radiological Licensing and Enforcement	619	563
Miscellaneous	0	16
Total Income from Radiological Activities	**903**	**792**

5. Licensing Activities – IED and IPC, Waste and WWD

	2024 €'000	2023 €'000
Licence Fees prepaid at 1 January	1,940	1,765
Fees Received	628	953
Less Refunds Paid	(25)	(12)
Licence Fees prepaid at 31 December (see Note 22)	(1,833)	(1,940)
Amount credited to the Statement of Income and Expenditure and Retained Revenue Reserves	**710**	**766**

Licensing: Industrial Emissions Directive (IED), Integrated Pollution Control (IPC) 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 enterprises.

Licensing: Waste Water Discharges (WWD)

The Waste Water Discharge (Authorisation) Regulations 2007 provide for the licensing of urban waste water discharges. Discharges from areas that serve over 500 population equivalent require a licence from the EPA. Areas that serve less than 500 population equivalent are required to be certified by the EPA. The EPA's licensing income arises from fees charged in respect of processing such licensing applications.

6. Enforcement Activities – IED and IPC, Waste, WWD and Drinking Water

	2024 €'000	2023 €'000
Enforcement Charges Invoiced	11,833	10,310
Enforcement Income from Prosecutions	216	292
Total Income from Enforcement Activities	**12,049**	**10,602**

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.

Under the Waste Water Discharge (Authorisation) Regulations 2007 the EPA is responsible for the regulation of waste water discharges. Under the European Union (Drinking Water) Regulations 2014 the EPA may charge for monitoring the quality of water supplies intended for human consumption. The EPA's enforcement income arises from fees charged in respect of this enforcement work.

7. Sundry Receipts

	2024 €'000	2023 €'000
WEEE Fees and income	163	98
LIFE Programme Income	169	337
Laboratory Intercalibration Service	77	82
Solid Fuel Registration Fees	19	14
Settlement of Legal Case	286	0
Sundry Income	117	97
	831	**628**

8. Remuneration

a) Aggregate Employee Benefits

	2024 €'000	2023 €'000
Staff short-term benefits	33,279	29,633
Termination benefits	0	0
Employer's contribution to social welfare PRSI	3,339	3,129
Total Salary Costs	**36,618**	**32,762**
IT Development Salary costs capitalised	(226)	(75)
Salary Costs charged to the Statement of Income and Expenditure and Retained Revenue Reserves	**36,392**	**32,687**

The total Salary cost of €36.6M includes an accrual of €1,084,000 (2023 €1,057,000) in respect of accumulated staff annual leave entitlements. €640,000 (2023 €481,000) of Single scheme members pension contributions has been deducted and paid over to the Department of Public Expenditure and Reform. The total number of Single Scheme members at year end was 267 (2023: 217).

In 2024, €1,117,000 of Additional Superannuation Contribution (2023 €1,117,000) has been deducted from staff and paid to the Department of the Environment, Climate and Communications.

b) Analysis of Staff by Location:

	2024	2023
Headquarters	226	205
Regional Inspectorate Castlebar	34	29
Regional Inspectorate Cork	71	64
Regional Inspectorate Dublin	150	138
Regional Inspectorate Kilkenny	28	22
Regional Inspectorate Monaghan	16	16
Regional Offices	1	2
	526	**476**

A further 24 sanctioned posts will be assigned to EPA locations in 2025.

c) Analysis of Staff Salary Costs in Excess of €60,000:

The number of employees whose employee benefits fell within each band of €10,000 from €60,000 upwards is as follows:

	2024	2023
€60,000 to €70,000	83	106
€70,000 to €80,000	95	57
€80,000 to €90,000	49	26
€90,000 to €100,000	17	29
€100,000 to €110,000	19	4
€110,000 to €120,000	6	8
€120,000 to €130,000	3	2
€150,000 to €160,000	0	3
€160,000 to €170,000	4	1
€170,000 to €180,000	1	0
€190,000 to €200,000	1	1

The total number of staff employed (WTE) at year end was 508.4 (2023: 460.5).

d) Staff Short-Term Benefits

	2024 €'000	2023 €'000
Basic Pay	33,215	29,571
Allowances	64	62
	33,279	**29,633**

e) Key Management Personnel

Key management personnel in the Environmental Protection Agency consists of the Director General and the 5 members of the Board of Directors. The Directors of the Environmental Protection Agency are full-time executive Directors. They are paid an inclusive salary and consequently no Directors or Board fees are paid. The total value of employee benefits for key management personnel is set out below:

	2024 €'000	2023 €'000
Salary	1,013	886
Allowances	14	14
	1,027	**900**

This does not include the value of retirement benefits earned in the period. The key management personnel are members of the Environmental Protection Agency (Director General and Director) staff pension scheme and their entitlements in that regard do not extend beyond the terms of the model public service pension scheme.

f) Director General Salary and Benefits

The Director General remuneration package for the financial period was as follows:

	2024 €'000	2023 €'000
Salary	**199**	**191**

This does not include the value of retirement benefits earned in the period. The Director General is a member of the Environmental Protection Agency (Director General and Director) staff pension scheme and her entitlements in that regard do not extend beyond the terms of the model public service pension scheme.

9. Travelling Expenses

	2024 €'000	2023 €'000
Travel and Subsistence	1,636	1,484
Motor Vehicle Expenses	158	135
	1,794	**1,619**

This includes Executive Board travel expenditure of €91,880 (2023 €80,369). Travel and Subsistence expenses incurred are reimbursed at the standard rates approved by DPENDPDR for the Civil Service.

10. Laboratory and Field Costs

	2024 €'000	2023 €'000
Laboratory and Field Expenses	953	940
Equipment Repairs and Maintenance	710	685
Protective Clothing	67	62
	1,730	**1,687**

11. Accommodation Costs

	2024 €'000	2023 €'000
Rent and Rates	663	690
Power, Light and Heat, Cleaning	811	912
Repairs, Maintenance, Security	1,111	748
	2,585	**2,350**

12. Administration Costs

	2024 €'000	2023 €'000
Telephone and Postage	487	496
Printing of Publications and Stationery Supplies	502	459
Insurance	234	228
ICT Expenditure	5,858	5,379
Audit Fees	30	29
Corporate Governance and Internal Audit Costs	97	101
Legal fees, advice and related costs	1,371	1,969
Meeting, External Committee and Guest Speaker Expenses	488	530
Staff Appointment and other related costs	203	260
Bank Interest and Charges	15	13
Books, Periodicals, and Library	105	103
Staff Development and Training Costs	585	475
Advertising	66	89
Communications	1,094	1,168
Sundries	212	174
	11,347	**11,473**

13. Consultancy Costs

	2024 €'000	2023 €'000
Consultants	410	421
	410	**421**

The EPA Offices which made use of these consultancies were:	€'000	€'000
Office of Communications and Corporate Services	108	67
Office of Evidence and Assessment	201	261
Office of Radiation Protection and Environmental Monitoring	55	67
Office of the Director General/Cross Office	46	26
	410	**421**

14. Grants, Contractors and External Service Providers

	2024 €'000	2023 €'000
Contractors and External Service Providers	8,074	7,956
Grants	1,343	1,482
	9,417	**9,438**

The EPA Offices which incurred costs under this heading were:	€'000	€'000
Office of Communications and Corporate Services	691	677
Office of Environmental Sustainability	2,130	2,028
Office of Evidence and Assessment	3,823	4,148
Office of Environmental Enforcement	1,014	665
Office of Radiation Protection and Environmental Monitoring	1,759	1,920
	9,417	**9,438**

15. Environmental Research

		2024 €'000	2023 €'000
EPA Research Programme	Grant Payments	11,599	12,123
EPA Research Programme	Grant Refunds	(188)	(199)
Co-Funding Research Income		(573)	(1,350)
Research Programme Payments		**10,838**	**10,574**

The current EPA environmental research programme was launched in 2021. It is being funded through a combination of Exchequer funding and co-funding provided by other research funding organisations. The EPA Research Programme aims to put science and innovation at the centre of environmental protection in Ireland through the development and proactive transfer of knowledge.

Research Co-Funding

	2024 €'000	2023 €'000
In addition to the funding provided by DECC, the following research co-funding was recognised:		
Department of Agriculture, Food and the Marine	177	364
Met Eireann/Department of Housing, Local Government and Heritage	192	245
National Parks and Wildlife Service	0	170
Agence Nationale de la Recherche	11	160
The Marine Institute	6	139
JPI Climate	0	71
Health Service Executive	4	66
The Office of Public Works	0	36
Geological Survey of Ireland	18	35
Sustainable Energy Authority of Ireland	64	26
Department of Transport	48	17
Department of the Environment, Climate and Communications	24	0
Sundry/Other	29	21
Total Co-Funding	**573**	**1,350**

In 2024, EPA Research Programme expenditure was €13.169M, including Grant Payments of €11.599M as shown above and implementation and activity costs of €1,570K which are reported under the Travel, Lab and Field, Administration and Contractors cost headings.

In 2023, EPA Research Programme expenditure was €13.449M, including Grant Payments of €12.123M as shown above and implementation and activity costs of €1,326K which are reported under the Travel, Lab and Field, Administration and Contractors cost headings. A further €437K of grant payments (2023 €278K) to research projects is included in the Grants figure at Note 14.

At 31 December 2024, commitments entered into but not yet charged to the financial statements in respect of Research projects amounted to €42,021K (2023 €34,869K) with the following breakdown:

	2024 €'000	2023 €'000
Outstanding Grant Commitments at 1 January	34,869	28,868
Grants Approved during the year	20,315	19,151
Grants Decommitted during the year	(1,752)	(932)
Grant Payments made in the year	(11,599)	(12,417)
Refunds of Grant payments received in the year	188	199
Outstanding Commitments at 31 December	**42,021**	**34,869**

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

16. Depreciation of Fixed Assets

	2024	2023
	€'000	€'000
Depreciation of Property, Plant and Equipment (Note 19)	5,572	5,614
	5,572	**5,614**

17. Capital Account

		€'000	€'000
At 1 January 2024			**37,816**
Transfer from Income and Expenditure Account:			
Income Allocated for Capital purposes	– Fixed Asset Additions	5,570	
Less:			
Disposals at cost		(2,803)	
Less prior depreciation on disposals		2,697	
		(106)	
Depreciation charge for year		(5,572)	
Net Transfer (to)/from Income and Expenditure Account			(108)
At 31 December 2024			**37,708**

At 31 December 2024 the Capital Account balance includes €0 (2023 – €14,175) in respect of prepayments for fixed assets (see Note 20 – Receivables).

18. 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.

19. Fixed Assets – Property, Plant and Equipment

	Total €'000	Buildings €'000	Furniture & Fittings €'000	IT & IS Equipment €'000	Lab & Field Equipment €'000	Motor Vehicles €'000
Cost						
At 1 January 2024	102,576	46,796	7,220	32,897	14,408	1,255
Additions	5,570	1,193	680	2,961	321	415
Disposals	(2,803)	(785)	(586)	(497)	(883)	(52)
At 31 December 2024	**105,343**	**47,204**	**7,314**	**35,361**	**13,846**	**1,618**
Depreciation						
At 1 January 2024	64,754	17,860	5,951	28,893	10,857	1,193
Charge for Year	5,572	924	658	2,765	1,114	111
On Disposals	(2,697)	(684)	(583)	(497)	(881)	(52)
At 31 December 2024	**67,629**	**18,100**	**6,026**	**31,161**	**11,090**	**1,252**
Net Book Value						
At 31 December 2024	37,714	29,104	1,288	4,200	2,756	366
At 31 December 2023	37,822	28,936	1,269	4,004	3,551	62

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 Chief State Solicitors Office.

In 2024, the EPA capitalised €2.476M (2023 – €2.5M) in respect of the external cost and €226K (2023 – €75K) in respect of the internal salary cost of software development for internal use. This is in line with our Accounting Policy for Capitalisation of Internally Developed Software. A further €5.858M (2023 €5.379M) of ICT operating ependiture was incurred and is included under Administration Costs at 12 above.

20. Receivables

	2024 €'000	2023 €'000
Debtors	2,617	2,011
Prepayments	1,909	2,119
Prepayments for Fixed Assets	0	14
	4,526	**4,144**

21. Cash and Cash Equivalents

	2024 €'000	2023 €'000
Cash and Bank Balances	8,362	8,676

22. Payables

	2024 €'000	2023 €'000
Amounts falling due within one year:		
Licence Fees Prepaid	1,833	1,940
Other Deferred Income	482	376
Trade and Other Expenses	8,596	8,350
	10,911	**10,666**

Included in Trade and Other Expense above are the following amounts due to the Revenue Commissioners:

	2024 €'000	2023 €'000
Professional Service Witholding Tax	295	364
PAYE/PRSI/USC	1,055	926
VAT	210	318
Relevant Contract Tax	7	9
	1,567	**1,617**

23. Retirement Benefit Costs

a) Analysis of Total Retirement Benefit Costs Charged to the Statement of Income and Expenditure and Retained Revenue Reserves:

	2024 €'000	2023 €'000
Current Service Cost	7,687	6,935
Interest on retirement benefit scheme liabilities	7,699	8,326
Employee Contributions	(1,720)	(1,538)
	13,666	**13,723**

b) Movement in Net Retirement Benefit Obligations during the Financial Year

	2024 €'000	2023 €'000
Net retirement benefit obligation at 1 January	247,114	233,839
Current service costs	7,687	6,935
Interest costs	7,699	8,326
Actuarial (gain)/loss	(23,597)	2,752
Pensions paid in the year	(4,612)	(4,738)
Net retirement benefit obligation at 31 December	**234,291**	**247,114**

c) Deferred Funding for Retirement Benefits

The EPA recognises these amounts as an asset corresponding to the unfunded deferred liability for retirement benefits on the basis of the set of assumptions described below and a number of past events. These events include the statutory basis for the establishment of the retirement benefit 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 retirement benefits recognised in the Statement of Income and Expenditure and Retained Revenue Reserves was as follows:

	2024 €'000	2023 €'000
Funding recoverable in respect of current year retirement benefit costs	15,386	15,261
Resources applied to pay retirement benefits	(4,612)	(4,738)
	10,774	**10,523**

The deferred funding asset for retirement benefits at 31 December 2024 amounted to €234.3M (2023 €247.1M).

d) History of Defined Benefit Obligations

	2024 €M	2023 €M	2022 €M	2021 €M	2020 €M
Defined benefit obligations	234	247	234	335	307
Experience gains/(losses) on defined benefit scheme liabilities:					
Amount (€M)	(2.316)	4.182	(5.489)	3.143	3.606
Percentage of Scheme Liabilities	-1.0%	1.7%	-2.3%	0.9%	1.2%

The cumulative actuarial loss recognised in the Statement of Comprehensive Income amounts to **€67.3M (2023 €90.9M).**

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 (being 1/80 per year of service), a gratuity or lump sum (being 3/80 per year of service) and spouse's and children's pensions. Normal Retirement Age is a member's 65th birthday, and pre 2004 members have an entitlement to retire without actuarial reduction from age 60. The schemes provide Board members with a pension (being 1/48 per year of service), a gratuity or lump sum (being 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) normally increase in line with general public sector salary inflation.

The valuation used for FRS 102 disclosures has been based on a full actuarial valuation performed on 26th March by a qualified independent actuary, taking account of the requirements of the FRS in order to assess the scheme liabilities at 31 December 2024.

The principal actuarial assumptions were as follows:

	2024	2023
Future salary increases	3.30%	3.30%
Future retirement benefit increases	2.80%	2.80%
Future state pension increases	2.30%	2.30%
Discount rate	3.15%	3.15%
Future inflation	2.30%	2.30%
Revaluation in deferment	2.80%	2.80%

Mortality Pre Retirement

100% S4PMA with CMI 2023 improvements with a long term rate of 1.25% p.a. with initial addition of 0.5% (males).
100% S4PFA with CMI 2023 improvements with a long term rate of 1.25% p.a. with initial addition of 0.5% (females).

Mortality Post Retirement

100% S4PMA with CMI 2023 improvements with a long term rate of 1.25% p.a. with initial addition of 0.5% (males).
100% S4PFA with CMI 2023 improvements with a long term rate of 1.25% p.a. with initial addition of 0.5% (females).

Life Expectancy

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 2024 and 2044.

Year of attaining age 65	2024	2023
Life expectancy – male	**86.7**	**88.0**
Life expectancy – female	**89.1**	**90.5**

24. Lease Commitments

At 31 December 2024 the Environmental Protection Agency had the following future minimum lease payments under non-cancellable operating leases for each of the following periods:

	2024 €'000	2023 €'000
Payable within one year	661	660
Payable within two to five years	1,261	1,651
Payable after five years	1,176	1,225

Operating lease payments recognised as an expense were €654K, (2023 €682K).

25. Related Party Disclosures

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.

Key management personnel in the EPA consist of the Director General and the members of the Board of Directors. Total compensation paid to key management personnel, including Directors salaries, vouched expenses and the Director General's remuneration amounted to €1,119K (2023 €980K).

In the normal course of business the Agency may approve grants and may also enter into other contractual arrangements with undertakings in which EPA Key management personnel have an interest.

The following transactions were carried out with related parties:

	2024 €'000	2023 €'000
Other Related Parties	0	4
	0	**4**

	€'000	€'000
Payable to Related Parties:		
Other Related Parties	0	0
	0	**0**

These payables arise from purchase transactions.

In cases of potential conflict of interest, Board members absent themselves and do not participate in discussions regarding these matters.

26. Comparative Figures

Some changes have been made to the presentation of items in the financial statements and the comparative figures have been reclassified where necessary on a basis consistent with the current year presentation.

27. Approval of Financial Statements

The Financial Statements were approved by the Board of Directors on 27 May 2025

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