

Urban Waste Water Treatment in 2016



ENVIRONMENTAL PROTECTION AGENCY

The Environmental Protection Agency (EPA) is responsible for protecting and improving the environment as a valuable asset for the people of Ireland. We are committed to protecting people and the environment from the harmful effects of radiation and pollution.

The work of the EPA can be divided into three main areas:

Regulation: *We implement effective regulation and environmental compliance systems to deliver good environmental outcomes and target those who don't comply.*

Knowledge: *We provide high quality, targeted and timely environmental data, information and assessment to inform decision making at all levels.*

Advocacy: *We work with others to advocate for a clean, productive and well protected environment and for sustainable environmental behaviour.*

Our Responsibilities

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- waste facilities (e.g. landfills, incinerators, waste transfer stations);
- large scale industrial activities (e.g. pharmaceutical, cement manufacturing, power plants);
- intensive agriculture (e.g. pigs, poultry);
- the contained use and controlled release of Genetically Modified Organisms (GMOs);
- sources of ionising radiation (e.g. x-ray and radiotherapy equipment, industrial sources);
- large petrol storage facilities;
- waste water discharges;
- dumping at sea activities.

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- Conducting an annual programme of audits and inspections of EPA licensed facilities.
- Overseeing local authorities' environmental protection responsibilities.
- Supervising the supply of drinking water by public water suppliers.
- Working with local authorities and other agencies to tackle environmental crime by co-ordinating a national enforcement network, targeting offenders and overseeing remediation.
- Enforcing Regulations such as Waste Electrical and Electronic Equipment (WEEE), Restriction of Hazardous Substances (RoHS) and substances that deplete the ozone layer.
- Prosecuting those who flout environmental law and damage the environment.

Water Management

- Monitoring and reporting on the quality of rivers, lakes, transitional and coastal waters of Ireland and groundwaters; measuring water levels and river flows.
- National coordination and oversight of the Water Framework Directive.
- Monitoring and reporting on Bathing Water Quality.

Monitoring, Analysing and Reporting on the Environment

- Monitoring air quality and implementing the EU Clean Air for Europe (CAFE) Directive.
- Independent reporting to inform decision making by national and local government (e.g. *periodic reporting on the State of Ireland's Environment and Indicator Reports*).

Regulating Ireland's Greenhouse Gas Emissions

- Preparing Ireland's greenhouse gas inventories and projections.
- Implementing the Emissions Trading Directive, for over 100 of the largest producers of carbon dioxide in Ireland.

Environmental Research and Development

- Funding environmental research to identify pressures, inform policy and provide solutions in the areas of climate, water and sustainability.

Strategic Environmental Assessment

- Assessing the impact of proposed plans and programmes on the Irish environment (e.g. *major development plans*).

Radiological Protection

- Monitoring radiation levels, assessing exposure of people in Ireland to ionising radiation.
- Assisting in developing national plans for emergencies arising from nuclear accidents.
- Monitoring developments abroad relating to nuclear installations and radiological safety.
- Providing, or overseeing the provision of, specialist radiation protection services.

Guidance, Accessible Information and Education

- Providing advice and guidance to industry and the public on environmental and radiological protection topics.
- Providing timely and easily accessible environmental information to encourage public participation in environmental decision-making (e.g. *My Local Environment, Radon Maps*).
- Advising Government on matters relating to radiological safety and emergency response.
- Developing a National Hazardous Waste Management Plan to prevent and manage hazardous waste.

Awareness Raising and Behavioural Change

- Generating greater environmental awareness and influencing positive behavioural change by supporting businesses, communities and householders to become more resource efficient.
- Promoting radon testing in homes and workplaces and encouraging remediation where necessary.

Management and structure of the EPA

The EPA is managed by a full time Board, consisting of a Director General and five Directors. The work is carried out across five Offices:

- Office of Environmental Sustainability
- Office of Environmental Enforcement
- Office of Evidence and Assessment
- Office of Radiation Protection and Environmental Monitoring
- Office of Communications and Corporate Services

The EPA is assisted by an Advisory Committee of twelve members who meet regularly to discuss issues of concern and provide advice to the Board.

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Urban Waste Water Treatment in 2016

Published by the Environmental Protection Agency, Ireland

Environmental Protection Agency

An Ghníomhaireacht um Chaomhnú Comhshaoil

P.O. Box 3000, Johnstown Castle Estate, County Wexford, Ireland Y35 W821

Telephone: +353 53 9160600

Fax: +353 53 9160699

E-mail: info@epa.ie

Website: www.epa.ie

LoCall: 1890 335599

ISBN: 978-1-84095-738-9

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Key findings

Urban waste water treatment

- Waste water treatment at 50 of Ireland's 185 large urban areas did not meet European Union (EU) standards.
- The final deadline to comply with these standards was 2005.
- Ireland is being taken to the European Court of Justice for not treating waste water properly.

Raw sewage

- Raw sewage is released into the environment from 44 urban areas.
- Discharges of untreated waste water from five of these areas are expected to cease in 2017.
- Works to eliminate raw sewage from many areas are delayed by up to three years.

Waste water priorities

- Improvements are needed at 148 urban areas to address the priorities listed below.
- Comply with EU treatment standards, and eliminate discharges of raw sewage.
- Prevent pollution of rivers, lakes and bathing waters.
- Protect shellfish and pearl mussel habitats.

Action Required

- Significant capital investment to upgrade deficient waste water treatment systems, improve water quality and avoid financial penalties.
- Improve the operation and management of waste water systems to optimise performance.

1 Introduction

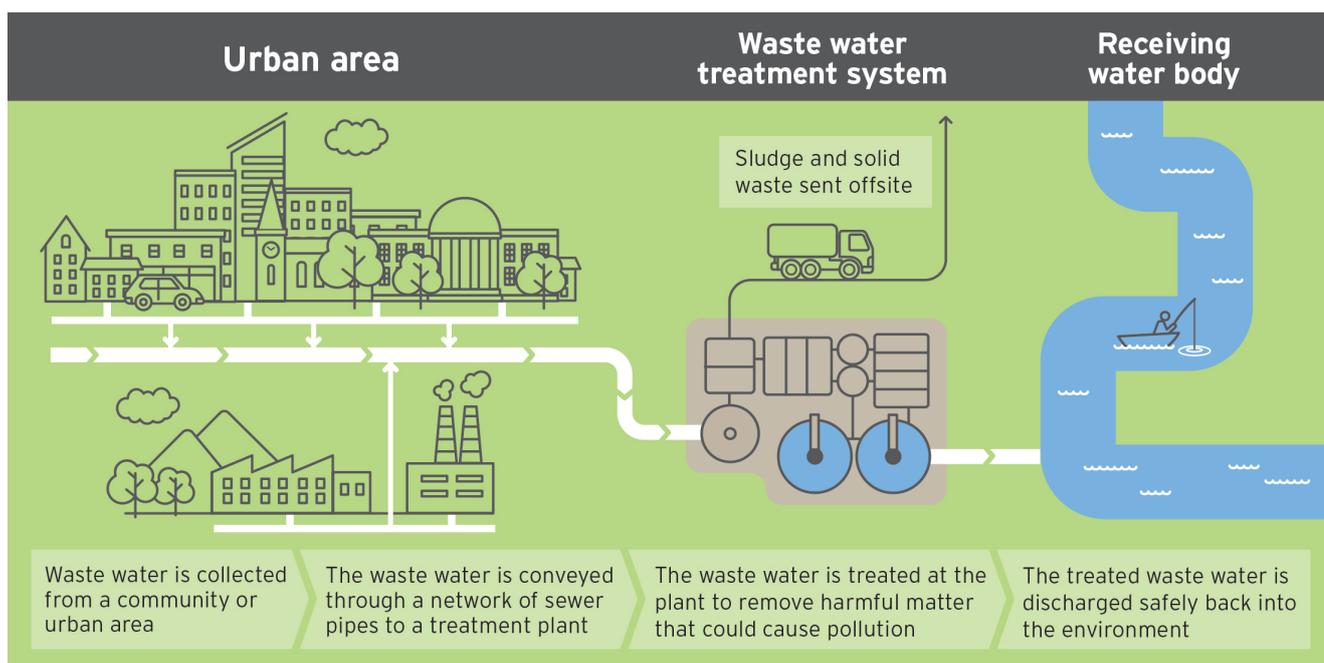
This report provides a summary of urban waste water treatment in 2016 and identifies the most important environmental issues that must be addressed. It is based on the EPA's assessment of monitoring information provided by Irish Water, and the enforcement activities carried out by the EPA.

Why treat waste water?

The objective of waste water treatment is to collect the waste water generated within our communities, remove the polluting material, and then release the treated water safely back into the environment. Without such treatment, the waste water we produce would pollute our waters and create a health risk.

Who does what?

- Irish Water is the national water utility, responsible for the collection, treatment and discharge of urban waste water.
- The Environmental Protection Agency (EPA) is the environmental regulator of Irish Water. The EPA issues and enforces authorisations for waste water discharges.
- The Commission for Energy Regulation is the economic regulator of Irish Water. It ensures that Irish Water's revenue is spent efficiently and effectively to improve services.



What are the environmental priorities?

By identifying environmental priorities, we can direct resources where they are most needed. The table below shows the priorities that must be addressed to protect our environment from the harmful effects of waste water. The 148 urban areas, listed in *Appendix A*, require improvements in the collection and treatment of waste water to resolve these issues.

Environmental priority	Action required
Collect and treat urban waste water to the standards required by the Urban Waste Water Treatment Directive.	Upgrade inadequate waste water collection and treatment systems. Improve the operation and management of waste water infrastructure to optimise performance.
Prevent pollution of rivers, lakes and bathing waters by inadequately treated waste water, and restore affected waters to good quality.	
Eliminate discharges of raw sewage.	Provide treatment for areas that are discharging raw sewage.
Protect freshwater pearl mussels at risk from waste water discharges.	Implement the improvements recommended for discharges to freshwater pearl mussel catchments.
Protect shellfish at risk from waste water discharges.	Complete assessments of the impacts of discharges on shellfish. Install disinfection systems, as necessary, based on the assessment findings.

2 Waste water treatment and effluent quality

In Ireland more than one billion litres of waste water is collected every day in approximately 30,000 kilometres of sewers. This is treated at 1,100 waste water treatment plants and then discharged into rivers, lakes and coastal waters. The table below shows the level of treatment provided for the national waste water load, before it is discharged back into the environment.

No treatment or preliminary treatment	Primary treatment	Secondary treatment	Secondary treatment & nutrient removal
3%	1%	69%	27%

You can find more information on technical terms used in this report, including a description of the levels of treatment, in the *Glossary and background information* on pages 21 to 23.

2.1 Compliance with European Union standards

The European Union's *Urban Waste Water Treatment Directive* sets standards for the collection, treatment and discharge of urban waste water from large urban areas. There are 185 large urban areas in Ireland and 135 of these complied with the legally binding standards in 2016.

The Directive specifies five standards, which are listed below. The first three apply to all 185 large urban areas. The final two standards apply to 41 urban centres which discharge to sensitive areas. The latter are necessary to reduce nutrients that could lead to the undesired growth of algae and plants in the sensitive areas.

1. A collection system must be provided to collect waste water.
2. The collected waste water must be conveyed (typically through a network of pipes) to a treatment plant and receive secondary treatment prior to discharge.
3. The treated water discharged back into the environment must comply with the effluent quality standards prescribed for secondary treatment.
4. The waste water must receive 'more stringent treatment', in addition to secondary treatment, in order to remove phosphorous and/or nitrogen.

5. The treated waste water must comply with the effluent quality standards for phosphorus and/or nitrogen.

The Directive was adopted in 1991 and the final legally binding deadline to ensure waste water from large urban areas is collected and treated to these standards was 2005. A total of 50 large urban areas failed the standards in 2016, including our two largest cities, Dublin and Cork. These 50 areas account for almost two thirds (64%) of the national waste water load collected in all large urban areas.

The non-compliant areas are shown on the map on page 7. There is further information on the standards that were breached at each of these areas in *Appendix B*.

The underlying cause of many failures is a lack of infrastructure, for example:

- the waste water collection systems serving 13 urban areas were inadequate;
- secondary treatment plants were not provided for the waste water collected from 10 large urban areas¹; and
- more stringent treatment to remove phosphorous and/or nitrogen was not provided at 13 large urban areas.



The collection and treatment of waste water at 50 large urban areas did not meet European Union standards.

Other failures were due to inadequate operation and management practices, and insufficient treatment plant capacity.

The scale of the non-compliances varied across the different urban areas. Some areas, such as Cobh, discharged raw sewage throughout the year. At other towns, such as Kinsale, just one or two of the effluent samples taken during the year failed the Directive's standards.

Meeting the standards in the Directive is a key step in protecting our environment from the adverse effects of waste water discharges. The European Commission is taking Ireland to the Court of Justice of the European Union because of the ongoing failure to ensure that waste water is adequately collected and treated. It is essential that Irish Water completes all

¹ This includes two areas where secondary treatment was provided for a portion of the collected load, but the remainder received just primary treatment.

2.2 Untreated waste water

There are 44 areas around Ireland where waste water is collected and released back into the environment without treatment. These are listed in *Appendix C* and shown on the map on page 9.

Untreated waste water, commonly referred to as raw sewage, can be contaminated with harmful bacteria and viruses. It can pose a threat to public health, aquatic ecosystems and the amenity value of our waters.

The EPA report on *Urban Waste Water Treatment in 2015* highlighted 43 areas that were discharging untreated waste water. Two of these, Kinvara in Galway and St Johnston in Donegal, have now been connected to new treatment plants, thereby ending the discharge of raw sewage from these villages.

Three areas, which Irish Water previously misreported as receiving primary treatment, were found to be discharging raw sewage in 2016. These are Glin and Foynes in Limerick and Newport in Mayo.

Five of the areas currently discharging untreated waste water are expected to be connected to treatment plants by the end of 2017. These areas are Youghal, Belmullet, Rush, Bundoran and Killybegs.

The largest discharge of untreated waste water in 2016 was from the Ringaskiddy-Crosshaven-Carrigaline area. Most of this area is now connected to a new treatment plant. This has significantly reduced the amount of raw sewage entering Cork Lower Harbour.

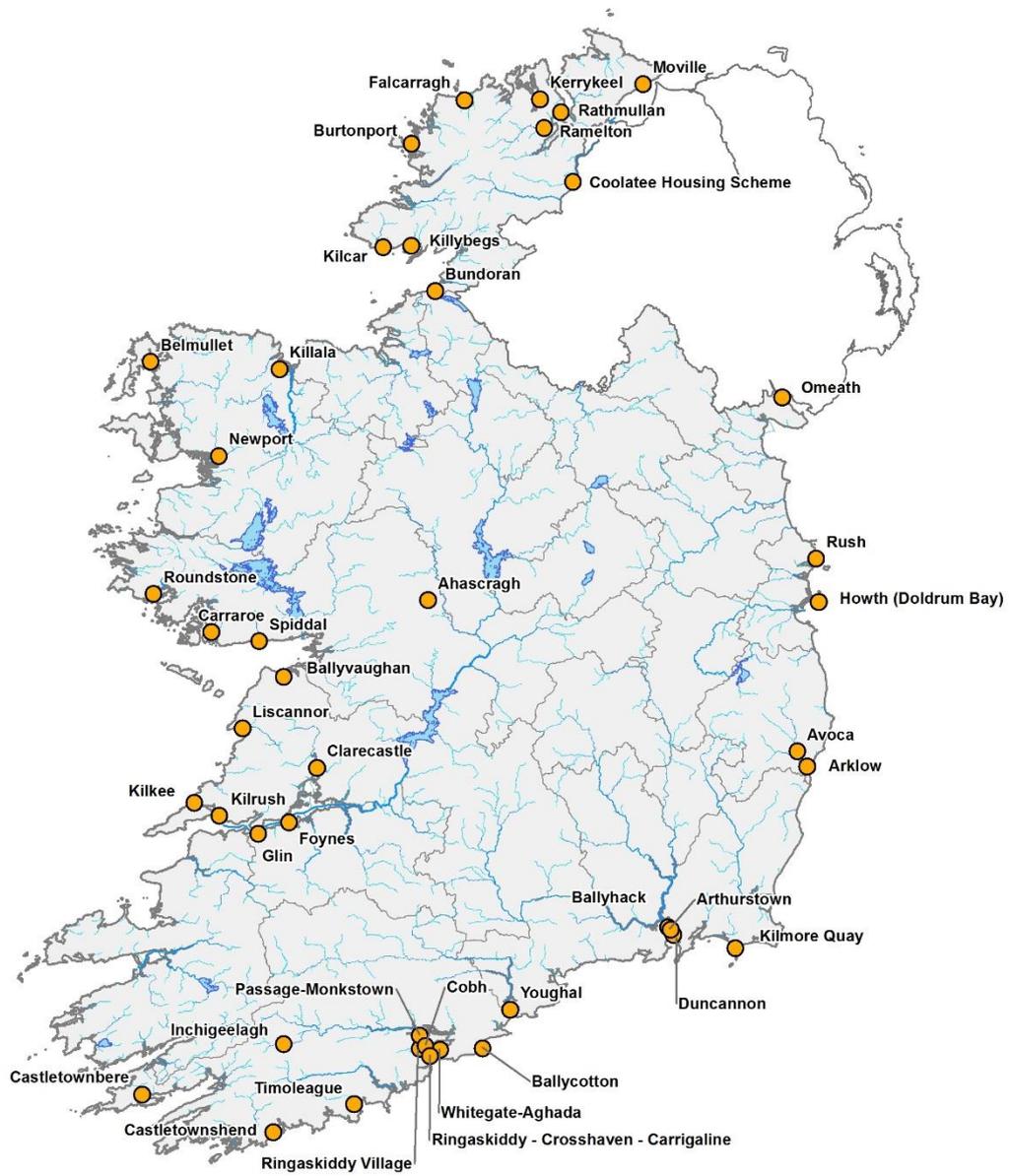
Despite the progress at some areas, there are still long delays in building many of the treatment plants needed to eliminate discharges of untreated waste water. These delays mean that 31 areas are likely to continue discharging raw sewage into 2021. Many of the projects to provide treatment are running three years behind schedule.

In response to the delays in carrying out this essential work, the EPA has started legal action against Irish Water for continuing to discharge untreated waste water into the environment.



Works to eliminate discharges of raw sewage are significantly delayed.

Areas Discharging Raw Sewage



0 25 50 100 Km

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3 Impacts on water

Waste water treatment is essential to protect our rivers, lakes and coastal waters. Aquatic ecosystems and human health can come under threat when waste water is not adequately collected and treated. Waste water continues to be one of the principal pressures on water quality in Ireland.

3.1 Rivers and lakes

Waste water from 59 areas is the sole threat to some of the water bodies at risk of not meeting environmental objectives required by the European Union's *Water Framework Directive*.

In accordance with the Water Framework Directive, our rivers and lakes must be protected and enhanced to meet the following environmental objectives:

- achieve at least good status; and
- prevent any deterioration in existing status.

Water bodies that are of good status support healthy ecosystems and a diverse range of plants and animals.

The EPA carried out detailed assessments of Ireland's 46 water 'catchments' and identified the water bodies at risk of not meeting their environmental objectives². The EPA, together with other public bodies, identified the key pollution pressures that put these water bodies at risk of not achieving their objectives.

Urban waste water is the second most common pollution pressure, after agriculture, and is a contributing factor to over one-fifth (22%) of the water bodies that are at risk. The pollution pressures from waste water can arise through discharges of inadequately treated effluent, as well as leaks, spills or overflows from collection systems.

Urban waste water is one of the main pollution pressures on our rivers and lakes.

² A catchment is an area of land contributing water to a water body, with all the water ultimately running off to a single outlet. Ireland's 46 catchments comprise over 4,800 individual water bodies.

Waste water from 59 areas is the sole pollution pressure threatening some of the water bodies at risk of not achieving good status. These are listed in *Appendix D*. Prioritising the corrective actions necessary to improve waste water discharges from these areas will protect the receiving water bodies and allow them to be restored to good status.

The corrective action may involve upgrading the collection and treatment systems, as well as improving the operation and management of these systems.

You can get involved and explore catchment management on the www.catchments.ie website. The website includes information on the status of local water bodies, and the environmental pressures which may be causing problems.

3.2 Bathing waters

Waste water discharges contributed to poor quality bathing waters at four beaches in 2016, down from six the previous year. These are listed in *Appendix E*, along with a summary of the changes since 2015. When bathing waters are classified as poor it means that there is a risk of periodic pollution, with the potential to cause illness such as skin rash and stomach upset.

While waste water still pollutes some areas from time to time, the overall quality of Ireland's bathing water remains very good, with 93% meeting the basic standards³. You can find out more about bathing water at Ireland's beaches and lakes on our website beaches.ie. The site includes information on recent water quality, as well as details of any swim restrictions in place.

³ EPA annual report on [Bathing Water Quality in Ireland in 2016](#).

4 Protecting pearl mussels and shellfish

Urban waste water can harm freshwater pearl mussel and shellfish habitats if it is released into these areas without receiving adequate treatment. Irish Water must conduct site specific assessments into the impacts of waste water discharges on freshwater pearl mussels and shellfish. The EPA reviews the findings of these assessments to determine where improvements in waste water collection and treatment are needed to protect these vulnerable species.

4.1 Freshwater pearl mussels

The freshwater pearl mussel is a critically endangered mollusc that requires clean, fast flowing, well oxygenated rivers with little nutrient or organic content and a clean river bed. The ongoing national decline in freshwater pearl mussels is attributed to habitat degradation, for example through sedimentation and nutrient enrichment. This has resulted in failure to produce new generations of mussels.

The EPA requires improvements to waste water discharges from 12 urban areas to protect freshwater pearl mussels. This is down from 16 areas at the end of 2015.

Appendix F lists the 12 areas where improvements are needed. It also identifies the changes since 2015 in the urban areas requiring improvements.

4.2 Shellfish

Waste water released into some coastal areas has the potential to contaminate filter feeding shellfish such as oysters, mussels, cockles and clams. Consumption of contaminated shellfish is a health risk, and can lead to vomiting, nausea and diarrhoea.

In some areas it is necessary to disinfect waste water during the treatment process, to safeguard shellfish habitats near the effluent discharge points. Disinfection is usually carried out using ultraviolet (often referred to as 'UV') lamps, which kill or inactivate most of the bugs and viruses in the waste water.

The EPA has identified three urban areas where upgrade works are needed to provide waste water disinfection systems. These are listed in *Appendix F*. Irish Water must finalise assessments of the impacts on shellfish of discharges from around 70 other urban areas. These assessments are essential to inform the need for disinfection of discharges from these areas.

5 Collection systems

Urban waste water must be collected before it can be treated. Approximately 30,000 kilometers of sewers collect the waste water from our homes, businesses and industries. In many areas, the sewers also collect surface water runoff from impermeable surfaces such as roads, footpaths and car parks. Collection systems must have sufficient capacity to retain the collected flow and convey it for treatment, under usual climatic conditions.

Sewers may contain spill points, referred to as storm water overflows, designed to relieve the system of excess flows that arise during situations such as unusually heavy rainfall. The spill points allow the excess flows to bypass the treatment plant and discharge to rivers, lakes and coastal waters. In the absence of such overflow mechanisms the treatment plant, as well as homes and streets, could be at risk of flooding during and after rainstorms. The untreated discharges from spill points are usually diluted with significant volumes of rainfall, but they still have the potential to cause pollution if they are not appropriately managed.

The collection systems serving 13 large urban areas, listed in *Appendix B*, have been identified as failing to comply with the Urban Waste Water Treatment Directive. There are unacceptable losses of waste water from the sewers in these areas, for example the spill points may overflow in the absence of heavy rainfall. The improvement works to bring these collection systems into compliance with the Directive are expected to be completed between 2018 and 2023.

Work to assess collection systems and plan sewer upgrades will continue for several years.

Spills and pollution incidents can arise due to various problems with collection systems, such as sewer collapses, blockages, leaks, inadequate capacity and infiltration of groundwater. A clear understanding of the condition and performance of each collection system is therefore essential to help identify the risks to the environment, and plan any sewer improvement works needed to mitigate these risks.

There is a significant lack of information on the performance of many collection systems. Some of the key work planned by Irish Water over the next four years to address these information gaps include:

- assessment of all storm water overflows by 2019;
- assessment of all collection systems serving areas with a population equivalent of up to 2,000 by 2021⁴; and
- 44 in-depth assessments of collection systems serving large urban areas to be completed by 2021.

Detailed assessments of the remaining large urban areas will be carried out after 2021. Work to improve the understanding of all collection systems, and then carry out improvements to mitigate risks to the environment, will take many years and require significant investment.

⁴ Approximately 80% of urban areas are in this category.

6 Improving infrastructure

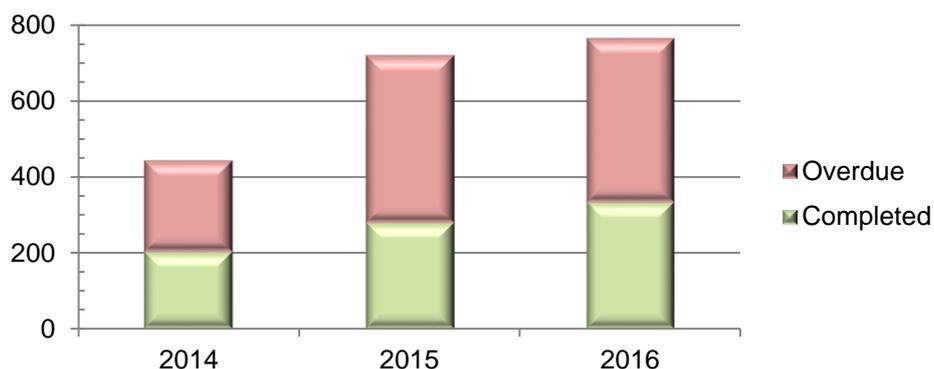
6.1 Progress update

The pace of improvements to waste water treatment infrastructure falls far short of EPA requirements. Less than half (44%) of improvement works due between 2009 and 2016 were reported as complete at the end of 2016. The EPA prosecuted Irish Water for not completing the infrastructural works needed to improve discharges into rivers from three priority areas. Further cases in relation to delays in providing essential infrastructure are before the courts. Section 8 of this report provides information on prosecutions.

The EPA identifies infrastructural improvements, which must be carried out within defined timeframes, to reduce environmental risks. All these improvement works must be completed, and Irish Water should prioritise those which will yield the greatest environmental benefit.

Notable improvements in 2016 include the commissioning of new treatment plants at Carrigtwohill, County Cork and Kilmacthomas, County Waterford. There were also major upgrades to increase the capacity of the treatment plants serving Courtown – Gorey in County Wexford and Galway City.

Cumulative infrastructural improvement works completed and overdue at the end of each year (2014 to 2016)



6.2 Financial investment

For many years Ireland has not invested enough in the infrastructure needed to collect and treat our waste water. Capital expenditure on waste water treatment infrastructure in 2016 was €172 million. This is nearly €100 million less than the average spent each year between 2000 and 2011.

Solving the deficiencies in Ireland's collection and treatment systems, and addressing the legacy of underinvestment, requires a substantial increase in investment over the coming years. This is essential to protect and improve the quality of our waters and to minimise the public health risks from inadequately treated sewage.

Ireland is at risk of substantial fines from the Court of Justice of the European Union if it does not provide the overdue infrastructure required by the Urban Waste Water Treatment Directive. Prompt investment in infrastructure now could avoid large financial penalties in the future.

In some cases, there are long delays in carrying out priority infrastructural improvements, despite revenue being available to carry out these works. For example, works to eliminate discharges of raw sewage from 16 areas, which were expected to be completed by the end of 2017, have been delayed by over three years. This highlights the need within Irish Water to improve efficiencies in the delivery of infrastructure projects.

7 Operation and maintenance

Some waste water treatment problems can be solved without capital investment. Operating and maintaining the existing treatment systems, to make the best use of them, can improve performance and effluent quality. The following are some of the operational issues identified by the EPA during 2016.

- At year end, 74 environmental incidents which were unresolved and likely to recur, were caused by operation and management issues at treatment plants⁵.
- EPA inspections at 24 treatment plants found there was no maintenance programme in place. Maintenance is key to minimising breakdowns and ensuring the correct operation of equipment.
- Discharges from 12 large urban areas failed the Directive's quality standards, despite these areas having sufficient treatment capacity. These include Portarlinton, where the EPA took legal action to resolve operational problems.

Maintenance should take a preventative or predictive approach, so that risks are identified and addressed before they can become a problem. This helps to keep equipment in the best condition. Treatment plant performance will also benefit from greater source control, for example through Irish Water's regulation of discharges into sewers.

Sewage sludge

Irish Water's treatment plants produced 56,018 tonnes of sewage sludge in 2016. Sludge management, including desludging at appropriate intervals, plays an important role in waste water treatment. *Appendix H* provides information on the reuse and disposal of sludge.

⁵ You can find out more information about incidents in *Appendix G* of this report.

8 Prosecutions

The EPA initiated five prosecutions against Irish Water in 2016 for breaches of waste water discharge authorisations. These prosecutions concluded in 2017 and Irish Water was convicted in each case.

Urban area	Main issue	Fines and costs (€)
Cork City	Discharge of untreated sewage from a pump station, which resulted in a fish kill.	13,647
Balbriggan-Skerries	Discharges of untreated sewage from pump stations, which caused a fish kill and a risk to bathing waters.	9,719
Athenry	Failure to carry out overdue upgrades to treatment infrastructure, resulting in inadequate treatment of waste water.	10,214
Boherbue		10,049
Dromcollagher		12,576
Total		56,205

The EPA initiated prosecutions in relation to a further seven urban areas by mid October 2017.

You can read about our enforcement policy on www.epa.ie.

9 Conclusions and recommendations

Urban waste water must be collected and treated to remove contaminants that would otherwise pollute our rivers, lakes and coastal waters, and create a public health risk.

This report sets out the most important issues to be addressed to protect our environment from the harmful effects of waste water. Resources must be directed at resolving these issues, so that improvements are prioritised where they are most needed.

Areas where improvements must be prioritised		
50 large areas where waste water was not treated to European Union standards <i>Appendix B</i>	44 areas discharging untreated waste water <i>Appendix C</i>	59 areas that are the sole threat to water bodies at risk of not achieving good status <i>Appendix D</i>
4 areas where discharges contributed to poor quality bathing waters <i>Appendix E</i>	12 areas where improvements are needed to protect freshwater pearl mussels <i>Appendix F</i>	3 areas where disinfection is required to safeguard shellfish habitats <i>Appendix F</i>

Resolving these priorities requires the following:

- capital investment must increase substantially to provide the outstanding infrastructure needed to collect and treat our waste water effectively;
- the delivery of infrastructure projects should become more efficient, so that there are no avoidable delays; and
- Irish Water must target improvements in the operation and maintenance of waste water systems, where this can improve performance and effluent quality.

The 148 areas across Ireland where improvements are needed to address waste water priorities are listed in *Appendix A*⁶.

⁶ There is more than one priority issue at some areas so the total number of priority issues to be resolved is greater than the number of priority urban areas.

Reliable information is essential to identify risks to the environment and plan improvement works needed to mitigate these risks. Irish Water must address the information gaps that still exist on the integrity and performance of waste water collection systems, and the impacts of discharges on shellfish. It is likely that this work will identify areas where significant investment will be required in the future, to upgrade collection systems and treatment plants.

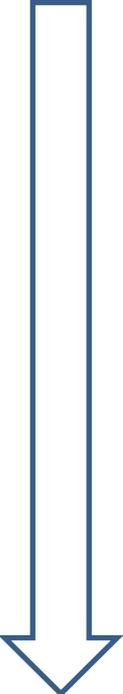


Dunmore East, County Waterford

Glossary and background information

<p>Directive</p>	<p>The Urban Waste Water Treatment Directive.</p> <p>The EPA assesses compliance with the Directive using discharge monitoring results, and information on waste water loads and treatment plants. Irish Water provides this data to the EPA and is responsible for ensuring its accuracy.</p>
<p>Effluent</p>	<p>The waste water that is discharged back into the environment from a waste water collection and treatment system.</p>
<p>Effluent quality standards</p>	<p>Effluent is regularly sampled and monitored to check that it is adequately treated and meets certain quality standards.</p> <p><u>Standards for secondary treatment.</u></p> <p>The Directive sets mandatory effluent quality standards for two parameters used to assess polluting potential, namely biochemical oxygen demand and chemical oxygen demand. These measure the amount of oxygen used up (demanded) as polluting matter in the effluent is broken down. If effluent does not meet these quality standards there is a risk it could lead to oxygen being consumed in the receiving waters. This could harm aquatic life and biodiversity. Effluent discharged from all 185 large urban areas is required to meet these standards.</p> <p><u>Standards for more stringent treatment.</u></p> <p>Effluent discharged to sensitive areas (see page 22) requires a higher level of treatment to reduce the nutrients which could lead to pollution. The main nutrients that drive pollution in sensitive areas are phosphorous and nitrogen. The Directive therefore sets limits on the concentration of phosphorus and nitrogen in effluent discharged to sensitive areas from urban centres with a population equivalent of at least 10,000. A total of 41 towns and cities were required to meet these standards in 2016.</p>

<p>Large urban area</p>	<p>Areas with a population equivalent of at least 2,000 discharging to freshwater or estuaries, and areas with a population equivalent of at least 10,000 discharging to coastal waters. Large urban areas must comply with certain requirements set in the Directive.</p> <p>The 185 large urban areas in this report account for 92% of the national waste water load served by Irish Water’s collection and treatment systems.</p>
<p>Population equivalent</p>	<p>A term used to measure the organic biodegradable load generated in an urban area. It takes into account the load generated by the resident population, the non-resident population (for example, tourists) and industries. A population equivalent of one is defined as the organic biodegradable load having a five day biochemical oxygen demand of 60g of oxygen per day.</p>
<p>Sensitive area</p>	<p>A water body is identified as sensitive if it is eutrophic; may become eutrophic if protective action is not taken; or is intended for abstraction of drinking water and contains more than 50mg/l of nitrates.</p> <p>Eutrophic refers to the enrichment of waters by nutrients, leading to an accelerated growth of algae and aquatic plants. This can cause a reduction in oxygen levels in the water and a loss of sensitive aquatic species. Eutrophication is the most significant pollution issue for surface waters in Ireland. Phosphorus enrichment tends to drive eutrophication in rivers and lakes, whereas nitrogen enrichment tends to drive eutrophication in coastal waters.</p> <p>Sensitive areas are listed in national legislation (see here).</p>
<p>Waste water discharge authorisation</p>	<p>A waste water discharge licence is required for discharges from areas with a population equivalent of 500 or more. A certificate of authorisation is required for discharges from areas with a population equivalent below 500.</p> <p>The EPA has issued over 1,050 waste water discharge authorisations. You can view all the waste water discharge authorisations, as well as</p>

	<p>annual environmental reports on the performance of each licenced site, at www.epa.ie.</p>	
<p>Waste water treatment levels</p>	<p>Preliminary treatment. This is a basic form of treatment designed to remove large solids, floating debris, grit, oils, fats and grease. Waste water should receive further treatment after the preliminary treatment stage.</p> <p>Primary treatment. A physical treatment process that involves the settling out and removal of a proportion of the suspended matter.</p> <p>Secondary treatment. A biological treatment process where bacteria break down and remove organic matter to significantly reduce the risk of pollution.</p> <p>Nutrient removal. This covers a variety of treatment processes aimed at minimising phosphorous and nitrogen in the waste water. The Directive refers to this type of treatment as ‘more stringent treatment’.</p> <p>Disinfection. A treatment system to kill or inactivate bugs and viruses in the waste water. It is often achieved by irradiating waste water with ultraviolet light.</p>	 <p>Effluent quality improves</p>
<p>Urban waste water</p>	<p>Domestic waste water, or the mixture of domestic waste water with industrial waste water and / or run-off rain water.</p> <ul style="list-style-type: none"> - Domestic waste water is waste water from residential settlements and services, which originate predominantly from human metabolism and from household activities. - Industrial waste water is the waste water discharged from premises used for carrying on any trade or industry. <p>Urban waste water is commonly referred to as ‘sewage’.</p>	

Appendix A: Priority areas.

This section lists the 148 urban areas where improvements are required to resolve environmental priorities.

Co. Carlow (2)	Kanturk	Ramelton
Nurney	Kealkill	Rathmullan
Tullow	Kinsale	Termon
	Lombardstown	
Co. Cavan (5)	Mallow	Co. Dublin (4)
Baileborough	Midleton	Balbriggan-Skerries
Ballyconnell	Millstreet	Ringsend
Blacklion	Mitchelstown	Malahide
Cavan	Passage-Monkstown	Rush
Mullagh	Rathcormac	
	Ringaskiddy-Crosshaven-	Co. Galway (14)
Co. Clare (9)	Carrigaline	Ahascragh
Ballyvaughan	Ringaskiddy village	Athenry
Clarecastle	Skibbereen	Ballymoe
Ennis North	Timoleague	Carraroe
Kilkee	Whitegate-Agada	Clifden
Kilmihil	Youghal	Galway City
Kilrush		Glenamaddy
Lahinch	Co. Donegal (20)	Gort
Liscannor	Ballintra	Loughrea
Shannon	Bridgend	Mountbellew
	Buncrana	Oughterard
Co. Cork (29)	Bundoran	Roundstone
Ballincollig	Burnfoot	Spiddal
Ballycotton	Burtonport	Woodford
Boherbue	Carndonagh - Malin	
Castletownbere	Convoy	Co. Kerry (4)
Castletownroche	Coolatee	Abbeydorney
Castletownshend	Falcarragh	Castleisland
Cecilstown	Kerrykeel	Kilgarvan
Cobh	Kilcar	Tralee
Cork City	Killybegs	
Crookstown	Kilmacrennan	Co. Kildare (1)
Dunmanway	Lifford	Osberstown
Fermoy	Milford	
Inchigeelagh	Moville	

Co. Kilkenny (3)

Freshford
Goresbridge
Johnstown

Co. Laois (4)

Ballyroan
Castletown
Portarlinton
Stradbally

Co. Leitrim (2)

Manorhamilton
Mohill

Co. Limerick (4)

Foynes
Glin
Herbertstown
Hospital

Co. Louth (8)

Ardee
Blackrock
Castlebellingham
Drogheda
Dundalk
Dunleer
Omeath
Tallanstown

Co. Mayo (4)

Belmullet
Claremorris
Killala
Newport

Co. Meath (2)

Kells
Stamullen

Co. Monaghan (2)

Carrickmacross
Castleblaney

Co. Offaly (2)

Kilcormac
Tullamore

Co. Roscommon (2)

Monksland
Roscommon

Co. Sligo (4)

Ballymote
Collooney
Grange
Tubbercurry

Co. Tipperary (3)

Mullinahone
Roscrea
Thurles

Co. Waterford (3)

Dungarvan
Kill
Portlaw

Co. Westmeath (4)

Athlone
Ballymore
Multyfarnham
Tyrellspass

Co. Wexford (9)

Arthurstown
Ballycanew
Ballyhack
Clonroche
Coolgreany
Duncannon
Enniscorthy
Ferns
Kilmore Quay

Co. Wicklow (4)

Arklow
Avoca
Kilcoole
Kilpedder

Appendix B: Urban Waste Water Treatment Directive non-compliance.

The table shows the 50 large urban areas that failed to meet the EU's legally binding standards for the collection, treatment and discharge of urban waste water.

County	Urban area	Non-compliant waste water collection system	Non-compliant with secondary treatment requirements	Non-compliant with more stringent treatment requirements
Carlow	Tullow		✓	
Cavan	Ballyconnell		✓	
Cavan	Cavan	✓	✓Note 1	✓ Note 1
Clare	Ennis North			✓Note 2
Clare	Lahinch		✓	
Clare	Shannon		✓	
Cork	Ballincollig	✓	✓Note 1	
Cork	Cobh		✓	✓
Cork	Cork City	✓	✓Note 1	✓
Cork	Dunmanway		✓	
Cork	Fermoy	✓	✓Note 1	✓ Note 1
Cork	Kinsale		✓	
Cork	Mallow	✓	✓Note 1	✓ Note 1
Cork	Midleton	✓	✓Note 1	✓ Note 1
Cork	Mitchelstown		✓	
Cork	Passage-Monkstown		✓	
Cork	Rathcormac		✓	
Cork	Ringaskiddy-Crosshaven-Carrigaline	✓	✓	✓
Cork	Skibbereen		✓	
Cork	Youghal		✓	✓
Donegal	Bunrana		✓	
Donegal	Killybegs		✓	✓
Donegal	Lifford		✓	

County	Urban area	Non-compliant waste water collection system	Non-compliant with secondary treatment requirements	Non-compliant with more stringent treatment requirements
Dublin	Ringsend		✓	✓
Dublin	Malahide			✓
Galway	Athenry		✓	
Galway	Gort		✓	
Galway	Oughterard		✓	
Kerry	Tralee			✓ Note 2
Kildare	Osberstown	✓	✓ Note 1	✓ Note 1
Laois	Portarlinton		✓	✓
Leitrim	Manorhamilton		✓	
Louth	Ardee		✓	
Louth	Drogheda			✓ Note 2
Louth	Dundalk			✓ Note 2
Mayo	Claremorris		✓	
Meath	Kells		✓	
Meath	Stamullen		✓	
Roscommon	Monksland		✓	
Roscommon	Roscommon	✓	✓ Note 1	
Sligo	Ballymote		✓	
Sligo	Collooney		✓	
Sligo	Tubbercurry		✓	
Tipperary	Roscrea	✓	✓ Note 1	✓ Note 1
Tipperary	Thurles	✓	✓ Note 1	✓ Note 1
Waterford	Portlaw		✓	
Westmeath	Athlone	✓	✓ Note 1	✓ Note 1
Wexford	Enniscorthy	✓	✓	✓
Wexford	Ferns		✓	
Wicklow	Arklow		✓	
Total	50	13	45	21

Note 1. The effluent discharged from the treatment plant met the relevant effluent quality standards. However, the collection system failed to meet the Directive's requirements. This means that some of the waste water is not conveyed to the

treatment plant. As all waste water is not treated, the area is deemed to fail the Directive's secondary treatment requirements and, where applicable, the more stringent treatment requirements.

Note 2. The effluent discharged from the treatment plant met the effluent quality standards. The treatment provided is reported as secondary treatment (with ultraviolet disinfection at Tralee). This does not meet the Directive's requirement for waste water to be subject to more stringent treatment than secondary treatment.

Rates of non-compliance

There are 185 large urban areas in Ireland which must comply with the collection system and secondary treatment standards in the Directive.

- The 13 areas with non-compliant collection systems account for 11% of the total waste water load collected in all 185 large urban areas.
- The 45 areas that were non-compliant with the secondary treatment requirements account for 60% of the total waste water load collected in all 185 large urban areas.

There are 41 urban areas which must comply with the more stringent treatment requirements in the Directive.

- The 21 areas that were non-compliant with the more stringent treatment requirements account for 84% of the waste water load collected in all 41 areas subject to these requirements.

Appendix C. Areas discharging untreated sewage.

County	Urban area
Six large urban areas, above the Directive's thresholds for the mandatory provision of secondary treatment ⁷ .	
Cork	Cobh
Cork	Passage West / Monkstown
Cork	Ringaskiddy / Crosshaven / Carrigaline ⁸
Cork	Youghal
Donegal	Killybegs
Wicklow	Arklow
38 smaller urban areas, below the Directive's thresholds for the mandatory provision of secondary treatment.	
Clare	Ballyvaughan
Clare	Clarecastle
Clare	Kilkee
Clare	Kilrush
Clare	Liscannor
Cork	Ballycotton
Cork	Castletownbere
Cork	Castletownshend
Cork	Inchigeelagh
Cork	Ringaskiddy village
Cork	Timoleague
Cork	Whitegate / Aghada
Donegal	Bundoran
Donegal	Burtonport
Donegal	Coolatee Housing Scheme
Donegal	Falcarragh
Donegal	Kerrykeel
Donegal	Kilcar

⁷ The thresholds are 2,000 p.e. for discharges to freshwater and estuaries and 10,000 p.e. for discharges to coastal waters.

⁸ Most of this area is now connected to a new treatment plant, but some raw sewage is still discharged.

County	Urban area
Donegal	Moville
Donegal	Ramelton
Donegal	Rathmullan
Dublin (Fingal)	Howth (Doldrum Bay) ⁹
Dublin (Fingal)	Rush
Galway	Ahascragh
Galway	Carraroe
Galway	Roundstone
Galway	Spiddal
Limerick	Foynes
Limerick	Glin
Louth	Omeath
Mayo	Belmullet
Mayo	Killala
Mayo	Newport
Wexford	Arthurstown
Wexford	Ballyhack
Wexford	Duncannon
Wexford	Kilmore Quay
Wicklow	Avoca

Changes since 2015

The *Urban Waste Water Treatment in 2015* report highlighted 43 areas discharging raw sewage. The following are the changes in the areas in this category since then.

- Two areas that were discharging raw sewage in 2015 have now been connected to new treatment plants. These are Kinvara in Galway and St Johnston in Donegal.
- Three areas which Irish Water previously misreported as receiving primary treatment were found to be discharging raw sewage in 2016. These are Glin and Foynes in Limerick and Newport in Mayo.

⁹ This is a secondary discharge within the area covered by the Ringsend waste water discharge licence. It caters for a population of approximately 120.

Appendix D. Pressures on water bodies.

The table shows 59 areas where waste water discharges are identified as the sole pressure on water bodies at risk of not meeting their environmental objectives.

County	Urban area	Water body name ¹⁰
Carlow	Nurney	Ballyboley Stream_010
Carlow	Tullow	Slaney_100
Cavan	Bailieborough	Blackwater (Kells)_020
Cavan	Blacklion	Macnean
Cavan	Mullagh	Mullagh Lough Stream_010
Clare	Kilmihil	Kilmihil Stream_010
Cork	Cork City	Lough Mahon
Cork	Crookstown	Bride (Lee)_020
Cork	Passage - Monkstown	Lough Mahon
Donegal	Ballintra	Ballintra 37_010
Donegal	Bridgend	Skeoge_010
Donegal	Burnfoot	Burnfoot_020
Donegal	Carndonagh - Malin	Donagh_030
Donegal	Convoy	Deele (Donegal)_030
Donegal	Kilmacrennan	Leannan_050
Donegal	Milford	Fern, Maggy's Burn_010
Donegal	Termon	Leannan_050
Dublin	Malahide	Malahide Bay
Dublin	Ringsend	Liffey Estuary Lower, Liffey Estuary Upper, Tolka Estuary
Galway	Athenry	Clarinbridge_030, Clarinbridge_040

¹⁰ The number at the end of each river water body name indicates where the water body is located along the main river channel. For example, the water body at the source of the Barrow is named Barrow_010. The next water body downstream is named Barrow_020. The final water body before the river becomes transitional (also referred to as estuarine) is Barrow_240. Transitional, coastal and lake water bodies do not have a number at the end of the water body name.

County	Urban area	Water body name
Galway	Ballymoe	Island_030
Galway	Glenamaddy	Gortgarrow Stream_010
Galway	Loughrea	Kilcolgan_020
Galway	Mountbellew	Castlegar_020
Galway	Woodford	Woodford (Galway)_020
Kerry	Abbeydorney	Brick_020
Kerry	Castleisland	Maine_020
Kerry	Tralee	Lee K Estuary
Kilkenny	Freshford	Nuenna_020
Kilkenny	Goresbridge	Barrow_220
Kilkenny	Johnstown	Goul_030
Laois	Portarlinton	Barrow_080
Laois	Stradbally	Stradbally (Laois)_030
Leitrim	Mohill	Rinn_010
Limerick	Herbertstown	Camoge_010
Limerick	Hospital	Mahore_020
Louth	Blackrock	Inner Dundalk Bay
Louth	Castlebellingham	Glyde_070
Louth	Dundalk	Castletown Estuary, Inner Dundalk Bay
Louth	Dunleer	White (Louth)_020
Louth	Tallanstown	Glyde_050
Monaghan	Carrickmacross	Proules_020
Monaghan	Castleblayney	Muckno
Offaly	Kilcormac	Silver (Kilcormac)_030
Offaly	Tullamore	Tullamore_040
Sligo	Collooney	Owenmore (Sligo)_080
Sligo	Grange	Grange (Sligo)_010
Sligo	Tubbercurry	Tubbercurry_010, Tubbercurry Stream_010
Tipperary	Mullinahone	Mullinahone Stream_010
Waterford	Dungarvan	Colligan Estuary
Waterford	Kill	Kilmurrin Cove Stream_010

County	Urban area	Water body name
Westmeath	Ballymore	Dungolman_030
Westmeath	Multyfarnham	Gaine_020
Westmeath	Tyrellspass	Brosna_050
Wexford	Ballycanew	Owenvorragh_050, Owenvorragh_060
Wexford	Clonroche	Boro_040
Wexford	Coolgreany	Clonough_010
Wicklow	Kilcoole	Kilcoole Stream_010, Newtownmountkennedy_020
Wicklow	Kilpedder	Kilcoole Stream_010

Appendix E. Waste water contributing to poor quality bathing water.

Waste water discharges were contributing factors to the poor quality of the following bathing waters in 2016.

County	Urban area	Bathing water
Dublin	Balbriggan - Skerries	Loughshinny Beach
Dublin	Dublin City (Ringsend)	Merrion Strand
Galway	Clifden	Clifden Beach
Galway	Galway City	Ballyloughane Beach

Changes since 2015

The *Urban Waste Water Treatment in 2015* report highlighted six areas contributing to poor quality bathing waters in 2015. The following are the changes in the areas in this category since then.

- The bathing water quality at Duncannon, Rush and Youghal improved from poor in 2015 to sufficient in 2016. While there has been an improvement in water quality, these areas must still be connected to treatment plants to manage the risks from waste water.
- Clifden was removed from the list of poor bathing waters in 2015, following improvements to the town's waste water treatment system. The bathing water quality at Clifden returned to poor status in 2016.

Appendix F. Protecting freshwater pearl mussels and shellfish.

Improvements to waste water discharges are required at the following 12 areas to protect **freshwater pearl mussels**.

County	Urban area
Cork	Boherbue
Cork	Castletownroche
Cork	Cecilstown
Cork	Inchigeelagh
Cork	Kanturk
Cork	Kealkill
Cork	Lombardstown
Cork	Mallow
Cork	Millstreet
Kerry	Kilgarvan
Laois	Ballyroan
Laois	Castletown

Changes since 2015

The *Urban Waste Water Treatment in 2015* report highlighted 16 areas where improvements in waste water treatment were required to protect freshwater pearl mussels. The following outlines changes in the areas in this category since then.

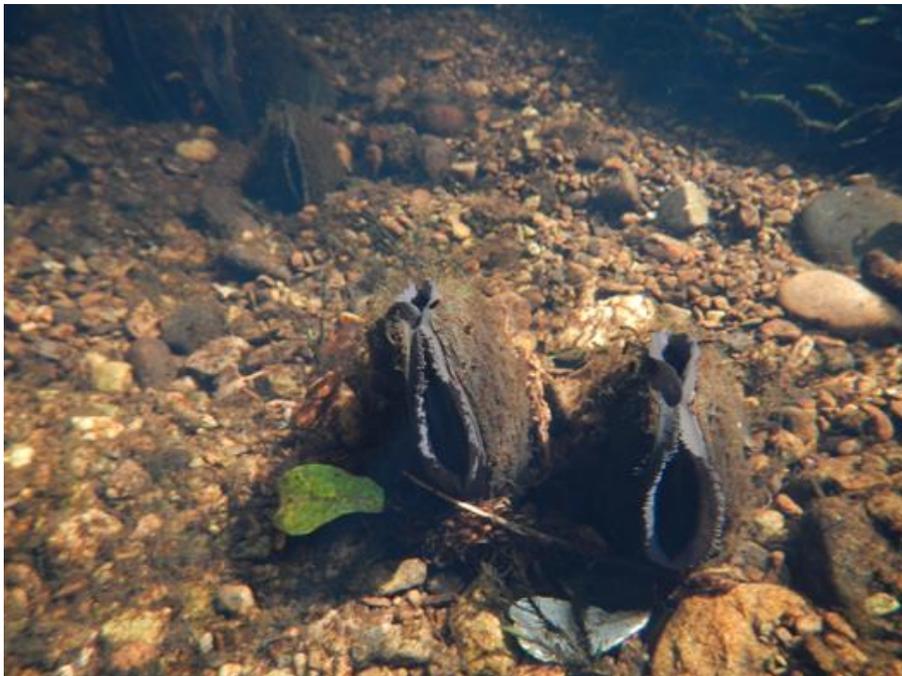
- Six areas highlighted for improvements in the 2015 report have now been resolved. These areas are Hacketstown, Tiknock, Ballyclough, Dromahane, Glenties and Aughrim.
- As part of the ongoing assessment of the impacts of discharges on freshwater pearl mussel habitats, the EPA identified two further areas where improvements are required. These areas are Ballyroan and Castletown.

Impact assessments have still to be carried out at some urban areas. When these assessments are complete, the EPA will determine if improvements in treatment are needed at any of these areas to safeguard freshwater pearl mussels.

Disinfection of waste water is required at the following areas to safeguard **shellfish**.

County	Urban area
Donegal	Rathmullan
Mayo	Belmullet
Mayo	Killala

Additional areas requiring disinfection may be identified when Irish Water completes all its assessments of the impacts of waste water discharges on shellfish.



Freshwater pearl mussels in County Cork

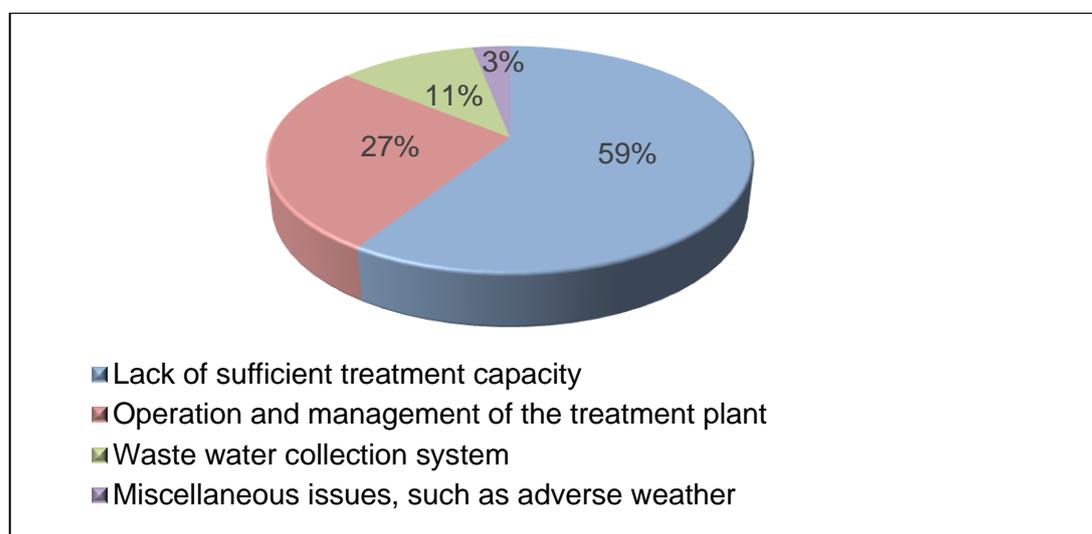
Appendix G: Incidents.

An incident is:

- any discharge that does not comply with the requirements of a waste water discharge licence; or
- any occurrence at a waste water works with the potential for environmental contamination, or requiring an emergency response.

At the end of 2016 there were **269** incidents which were either ongoing, or likely to recur, until the underlying cause is resolved. These are referred to as 'recurring incidents'.

The chart below summarises the causes of these recurring incidents.



There were also over 550 short term incidents during 2016, which were unlikely to recur. The underlying causes of half of the short term incidents were operation and management issues at treatment plants.

The EPA prosecuted Irish Water for two incidents, where uncontrolled discharges from the collection systems serving Cork City and Balbriggan - Skerries caused pollution in the receiving waters.

Appendix H: Sewage sludge.

Sewage sludge is solid matter left over after waste water is treated. It is rich in nutrients and organic matter. The table below shows the tonnage of sewage sludge produced in 2016, and the reuse and disposal routes. Sludge reused on agricultural land must be spread in a manner which ensures the nutrients can be effectively used for plant growth, or assimilated into the soil.

Sewage sludge reuse and disposal routes in 2016

Agriculture	Composting	Landfill	Other	Total
45,344	9,610	102	962	56,018

The quantity is measured as tonnes of dry solids. The category 'Other' includes the use of sludge in anaerobic digestion and cement production, and sludge in storage awaiting landspreading.

AN GHNÍOMHAIREACHT UM CHAOMHNÚ COMHSHAOIL

Tá an Gníomhaireacht um Chaomhnú Comhshaoil (GCC) freagrach as an gcomhshaoil a chaomhnú agus a fheabhsú mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaoil a chosaint ó éifeachtaí díobhálacha na radaíochta agus an truaillithe.

Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

Rialú: Déanaimid córais éifeachtacha rialaithe agus comhlionta comhshaoil a chur i bhfeidhm chun torthaí maithe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcloíonn leis na córais sin.

Eolas: Soláthraimid sonraí, faisnéis agus measúnú comhshaoil atá ar ardchaighdeán, spriocdhírithé agus tráthúil chun bonn eolais a chur faoin gcinnteoireacht ar gach leibhéal.

Tacaíocht: Bímid ag saothrú i gcomhar le grúpaí eile chun tacú le comhshaoil atá glan, táirgiúil agus cosanta go maith, agus le hiompar a chuirfidh le comhshaoil inbhuanaithe.

Ár bhFreagrachtaí

Ceadúnú

Déanaimid na gníomhaíochtaí seo a leanas a rialú ionas nach ndéanann siad dochar do shláinte an phobail ná don chomhshaoil:

- saoráidí dramháiola (*m.sh. láithreáin líonta talún, loisceoirí, stáisiúin aistrithe dramháiola*);
- gníomhaíochtaí tionsclaíoch ar scála mór (*m.sh. déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta*);
- an dionalmhaíocht (*m.sh. muca, éanlaith*);
- úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe (*OGM*);
- foinsí radaíochta ianúcháin (*m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíochta*);
- áiseanna móra stórála peitрил;
- scardadh dramhuisce;
- gníomhaíochtaí dumpála ar farraige.

Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil

- Clár náisiúnta iniúchtaí agus cigireachtaí a dhéanamh gach bliain ar shaoráidí a bhfuil ceadúnas ón nGníomhaireacht acu.
- Maoirseacht a dhéanamh ar fhreagrachtaí cosanta comhshaoil na n-údarás áitiúil.
- Caighdeán an uisce óil, arna sholáthar ag soláthraithe uisce phoiblí, a mhaoirsiú.
- Obair le húdarás áitiúla agus le gníomhaireachtaí eile chun dul i ngleic le coireanna comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, trí dhírú ar chiontóirí, agus trí mhaoirsiú a dhéanamh ar leasúchán.
- Cur i bhfeidhm rialachán ar nós na Rialachán um Dhramhthrealamh Leictreach agus Leictreonach (DTLL), um Shrian ar Shubstaintí Guaiseacha agus na Rialachán um rialú ar shubstaintí a ídíonn an ciseal ózón.
- An dlí a chur orthu siúd a bhreiseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaoil.

Bainistíocht Uisce

- Monatóireacht agus tuairiscí a dhéanamh ar cháilíocht aibhneacha, lochanna, uisce idirchriosacha agus cósta na hÉireann, agus screamhuiscí; leibhéil uisce agus sruthanna aibhneacha a thomhas.
- Comhordú náisiúnta agus maoirsiú a dhéanamh ar an gCreat-Treoir Uisce.
- Monatóireacht agus tuairiscí a dhéanamh ar Cháilíocht an Uisce Snámha.

Monatóireacht, Anailís agus Tuairiscí ar an gComhshaoil

- Monatóireacht a dhéanamh ar cháilíocht an aeir agus Treoir an AE maidir le hAer Glan don Eoraip (CAFÉ) a chur chun feidhme.
- Tuairiscí neamhspleách le cabhrú le cinnteoireacht an rialtais náisiúnta agus na n-údarás áitiúil (*m.sh. tuairiscíu tréimhsiúil ar staid Chomhshaoil na hÉireann agus Tuarascálacha ar Tháscairí*).

Rialú Astaíochtaí na nGás Ceaptha Teasa in Éirinn

- Fardail agus réamh-mheastacháin na hÉireann maidir le gáis cheaptha teasa a ullmhú.
- An Treoir maidir le Trádáil Astaíochtaí a chur chun feidhme i gcomhair breis agus 100 de na táirgeoirí dé-ocsaíde carbóin is mó in Éirinn.

Taighde agus Forbairt Comhshaoil

- Taighde comhshaoil a chistiú chun brúnna a shainaitheint, bonn eolais a chur faoi bheartais, agus réitigh a sholáthar i réimsí na haeraíde, an uisce agus na hinbhuanaitheachta.

Measúnacht Straitéiseach Timpeallachta

- Measúnacht a dhéanamh ar thionchar pleananna agus clár beartaithe ar an gcomhshaoil in Éirinn (*m.sh. mórphleananna forbartha*).

Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéil radaíochta, measúnacht a dhéanamh ar nochtadh mhuintir na hÉireann don radaíocht ianúcháin.
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha.
- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíochta.
- Sainseirbhísí cosanta ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

Treoir, Faisnéis Inrochtana agus Oideachas

- Comhairle agus treoir a chur ar fáil d'earnáil na tionsclaíochta agus don phobal maidir le hábhair a bhaineann le caomhnú an chomhshaoil agus leis an gcosaint raideolaíoch.
- Faisnéis thráthúil ar an gcomhshaoil ar a bhfuil fáil éasca a chur ar fáil chun rannpháirtíocht an phobail a spreagadh sa chinnteoireacht i ndáil leis an gcomhshaoil (*m.sh. Timpeall an Tí, léarscáileanna radóin*).
- Comhairle a chur ar fáil don Rialtas maidir le hábhair a bhaineann leis an tsábháilteacht raideolaíoch agus le cúrsaí práinnfhreagartha.
- Plean Náisiúnta Bainistíochta Dramháiola Guaisí a fhorbairt chun dramháil ghuaiseach a chosc agus a bhainistiú.

Múscailt Feasachta agus Athrú Iompraíochta

- Feasacht chomhshaoil níos fearr a ghiniúint agus dul i bhfeidhm ar athrú iompraíochta dearfach trí thacú le gnóthais, le pobail agus le teaghlaigh a bheith níos éifeachtúla ar acmhainní.
- Tástáil le haghaidh radóin a chur chun cinn i dtithe agus in ionaid oibre, agus gníomhartha leasúcháin a spreagadh nuair is gá.

Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil

Tá an gníomhaíocht á bainistiú ag Bord lánaimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóirí. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inmharthanacht Comhshaoil
- An Oifig Forfheidhmithe i leith cúrsaí Comhshaoil
- An Oifig um Fianaise is Measúnú
- Oifig um Chosaint Radaíochta agus Monatóireachta Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag comhaltaí air agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair inní agus le comhairle a chur ar an mBord.



Headquarters
PO Box 3000, Johnstown Castle Estate
County Wexford, Y35 W821, Ireland
Bosca Poist 3000, Eastát Chaisleán Bhaile Sheáin Contae Loch
Garman, Y35 W821, Éire

T: +353 53 9160600
F: +353 53 9160699
E: info@epa.ie
W: www.epa.ie
Lo Call: 1890 33 55 99

EPA Regional Inspectorate Dublin
McCumiskey House
Richview
Clonskeagh Road
Dublin 14
D14 YR62
Tel: 01-268 0100
Fax: 01-268 0199

EPA Regional Inspectorate Cork
Inniscarra
Co. Cork
P31 VX59
Tel: 021-4875540
Fax: 021-4875545

EPA Regional Inspectorate Castlebar
John Moore Road
Castlebar
Co. Mayo
F23 KT91
Tel: 094-9048400
Fax: 094-9021934

EPA Regional Inspectorate Kilkenny
Seville Lodge
Callan Road
Kilkenny
R95 ED28
Tel: 056-7796700
Fax: 056-7796798

EPA Regional Inspectorate Monaghan
The Glen
Monaghan
H18 YT02
Tel: 047-77600
Fax: 047-84987

E: info@epa.ie
W: www.epa.ie
LoCall: 1890 33 55 99

