

National Wastewater and Drainage Plan

Proposed Approach and Strategic Context



Safeguarding our water for our future

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Executive Summary

This Proposed Approach and Strategic Context document represents the first stage in the preparation of Uisce Éireann's National Wastewater and Drainage Plan (NWWDP) and has been developed to support the Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) processes. This document is the first stage in developing Uisce Éireann's National Wastewater and Drainage Plan. It explains why the Plan is needed and presents the proposed scope, principles, proposed approach and performance indicators for consultation.

Why a National Wastewater and Drainage Plan is Needed

Uisce Éireann, as Ireland's national public water services provider, collects and treats more than 1.2 billion litres of wastewater every day before it is safely returned to the environment. Providing safe, secure and sustainable wastewater services is essential to protect public health, support housing and economic growth, and safeguard Ireland's water environment and natural resources.

The public wastewater system operates within an increasingly complex environment.

Population growth, housing delivery, economic development and climate change are placing additional demands on wastewater infrastructure and increasing the risks associated with flooding, pollution and environmental degradation. At the same time, new legislative and policy requirements, including the recast Urban Wastewater Treatment Directive, are introducing more ambitious obligations relating to wastewater treatment, environmental protection, urban runoff, storm water management and integrated wastewater planning.

These challenges require a strategic, long-term and nationally consistent approach to planning. The National Wastewater and Drainage Plan is intended to provide that framework by establishing a transparent and evidence-based approach to understanding the current performance of the public wastewater systems in Ireland, assessing future risks and identifying future investment and planning needs. The Plan will support adaptive, long-term decision-making to ensure wastewater services continue to meet the needs of communities, the economy and the environment.

A Framework for Long-Term Planning

The NWWDP will establish the strategic foundations for wastewater and drainage planning in the period to 2055. Its overarching purpose is to support the delivery

of safe, sustainable and resilient wastewater services while protecting and enhancing the environment on which communities, ecosystems and water services depend. It will define a consistent national methodology for assessing risk, need and opportunity; establish the performance indicators and assessment processes that will be applied nationally; and provide a framework for linking national objectives with regional and local forward planning priorities.

Rather than focusing on individual projects, the Plan will focus on how decisions are made. It will create a structured and repeatable approach to planning that can be applied consistently across all public wastewater services in Ireland and updated over time as new information, technologies, legislation and environmental requirements emerge. This approach will support consideration of both system performance and environmental factors, including the sensitivity of receiving waters, proximity to drinking water abstractions, designated conservation sites, protected areas and other environmentally sensitive receptors.

Recognising the uncertainty associated with long-term planning, the methodology will incorporate adaptive planning principles. Different future scenarios could relate for example to growth, climate change, regulation and environmental pressures which will be considered to ensure that future decisions remain flexible, resilient and responsive to changing circumstances.

Performance Indicators at the Heart of the Approach

A fundamental component of the proposed methodology is the use of Performance Indicators as the primary means of assessing current system performance, future vulnerability and investment need.

The proposed performance indicators cover a range of themes, including:

- Sewer flooding and drainage performance;

- Storm water overflow performance;
- Wastewater treatment capacity and compliance;
- Waterbody quality and environmental objectives;
- Pollution incidents and environmental protection;
- Energy neutrality; and
- Wastewater biosolids.

These indicators are intended to provide a consistent framework for assessing risk and performance across Uisce Éireann's wastewater systems and to support transparent prioritisation of future interventions. The NWWDP will use the best available evidence, recognising that data coverage and maturity vary across Performance Indicators, assets and locations. Data confidence will be reflected transparently in the assessment, and identified data gaps will help direct future monitoring, modelling and data improvement, progressively strengthening the evidence base over successive plan cycles. Through this consultation, Uisce Éireann is seeking views on whether the proposed performance indicators are appropriate and whether additional performance indicators or refinements should be considered.

Best Value and Long-Term Decision Making

The Proposed Approach and Strategic Context proposes a Best Value Framework to support future planning and investment decisions. This approach recognises that decisions should not be based solely on cost but should also consider the wider benefits delivered to customers, communities, the environment and the economy.

The proposed framework will assess whole-life costs and benefits, including capital, operational and carbon impacts, alongside wider environmental and social outcomes. This includes consideration of water quality improvements, nature-based solutions, sustainable drainage approaches, biodiversity enhancement, climate resilience and opportunities to create multiple benefits through integrated interventions.

By adopting a Best Value approach, future planning cycles of the NWWDP will seek to identify solutions that deliver the greatest overall benefit while meeting statutory obligations and supporting long-term sustainability.

Integrated Planning and Partnership Working

Consistent with the National Planning Framework and Regional Spatial and Economic Strategies, the NWWDP will support a plan-led approach to growth by helping to identify where sustainable public wastewater services can be provided to serve existing and future communities. Through long-term investment planning and evidence-based decision-making, the Plan will seek to support compact growth, sustainable development and environmental protection while ensuring that wastewater infrastructure is developed in a coordinated and efficient manner.

The Proposed Approach and Strategic Context also recognises that many of the challenges facing wastewater and drainage services cannot be addressed by Uisce Éireann acting alone.

Wastewater and drainage systems are interconnected with wider environmental, planning and infrastructure systems. Effective management of wastewater, surface water, rivers, lakes, groundwater and coastal waters requires collaboration between Uisce Éireann, local authorities, Government departments, regulators, environmental bodies, infrastructure providers, community groups and other stakeholders.

The Proposed Approach and Strategic Context recognises that responsibility for managing wastewater, surface water, drainage and the wider water environment is shared across a number of organisations. Reflecting this shared responsibility, the Plan will provide a framework for a more integrated approach to wastewater and drainage planning that supports coordinated decision-making and responds to emerging legislative requirements. By improving understanding of how public wastewater systems interact with surface water, receiving waters and wider drainage systems, the Plan will help identify opportunities for collaboration, support better environmental outcomes and enable more effective long-term planning and investment.

The Proposed Approach and Strategic Context also recognises the important role of customers and communities. Customer behaviour can influence wastewater system performance, environmental compliance and drainage outcomes. The Plan therefore will promote a shared responsibility approach that supports education, awareness and collaboration to help protect wastewater and drainage systems and the receiving environment.

Environmental Assessment and Consultation

Environmental considerations are being integrated into the development of the Plan from the outset through the Strategic Environmental Assessment and Appropriate Assessment processes.

The SEA Scoping process provides an opportunity to confirm that the key environmental issues and pressures have been appropriately identified, to agree the scope of future environmental assessment, and to ensure that the proposed methodology supports the protection of water quality, biodiversity, human health and climate resilience.

This consultation represents the first formal stage of engagement on the National Wastewater and Drainage Plan. Stakeholders are invited to provide views on:

- the challenges and opportunities facing wastewater and drainage services;
- the proposed planning methodology and principles;

- the proposed performance indicators;
- the scope of the Strategic Environmental Assessment; and
- the overall approach to long-term wastewater and drainage planning.

Feedback received during this consultation will inform the preparation of the Draft National Wastewater and Drainage Plan and its accompanying environmental assessments. Through this process, Uisce Éireann aims to ensure that the Plan is informed by a broad range of perspectives and establishes a robust, transparent and evidence-based framework for wastewater and drainage planning in Ireland over the next 25 years.



1. Introduction

This Proposed Approach and Strategic Context document represents the first stage in the preparation of Uisce Éireann's National Wastewater and Drainage Plan (NWWDP) and has been developed to support the Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) processes. This document is the first stage in developing Uisce Éireann's National Wastewater and Drainage Plan. It explains why the Plan is needed and presents the proposed scope, principles, proposed approach and performance indicators for consultation.

This Proposed Approach and Strategic Context document sets out how we intend to build our NWWDP for 2030-2055. It explains why a NWWDP is needed, outlines the challenges and opportunities that will influence the future of wastewater and drainage services, sets out the proposed planning and assessment approach, and seeks feedback on the key issues that should inform the Plan and its environmental assessment. There are appendices at the end of the document that explain terms (see Appendix A Glossary) and acronyms (See Appendix B Acronyms) used in the document.

The development of the NWWDP will be supported through an ongoing programme of stakeholder engagement and public consultation. In this first phase of consultation, Uisce Éireann is seeking views on the key challenges and opportunities facing wastewater and drainage services, the proposed planning methodology and the performance indicators that will be used to assess risk and performance. Feedback received will help ensure that the planning framework reflects a broad range of perspectives and that the issues most important to stakeholders are considered as the NWWDP is developed.

1.1 What we do

Uisce Éireann's role, as Ireland's national public water services provider, includes provision of public wastewater services throughout the country. Our objective is to ensure that all our customers have their wastewater collected, appropriately treated and returned safely to the environment.

For the purposes of the NWWDP, wastewater refers to the collection, conveyance, treatment and discharge of wastewater through Uisce Éireann's public wastewater infrastructure. Drainage refers to the management of rainfall and surface water where it interacts with or influences the performance of public wastewater systems, including the effects of storm water entering combined or wastewater

networks. While Uisce Éireann is responsible for public wastewater infrastructure, responsibility for wider drainage and surface water systems is shared across a number of organisations, including local authorities and other infrastructure providers. The NWWDP therefore focuses on public wastewater services while recognising the need for coordinated planning and collaboration across the wider drainage system.

In order to collect wastewater, Uisce Éireann operates and maintains over 2,200 pumping stations and an estimated 26,000km of sewers. Approximately 1.2 billion litres of wastewater is treated per day at over 1,000 wastewater treatment plants with discharge of the treated effluent to the water environment. The total volume of liquid sludge produced from our wastewater treatment plants is c.1,000,000m³ per year which is then transported to c.35 intermediate satellite dewatering centres prior to transfer to c.17 bioresource centres for final stabilisation and treatment before beneficial reuse in agriculture.

We support Ireland's social and economic growth in a sustainable manner through appropriate investment in water services and strive to protect the environment in all our activities. Our vision is of a sustainable Ireland where water is respected and protected, for the planet and all the lives it supports. Over €2bn has been invested since 2020 in urban wastewater infrastructure, reflecting our commitment to environmental compliance and public health. Numerous wastewater treatment plant (WWTP) upgrades and new WWTPs were commissioned between 2014 to 2026, including major works at Ringsend, Arklow and Enfield.

1.2 Background

Uisce Éireann, as Ireland's national public water services provider, collects and treats more than 1.2 billion litres of wastewater every day before it is safely returned to the environment. Providing safe, secure and sustainable wastewater services

is essential to protect public health, support housing and economic growth, and safeguard Ireland's water environment and natural resources. Protecting and enhancing water quality, aquatic ecosystems and environmentally sensitive receptors will therefore be a fundamental consideration of the National Wastewater and Drainage Plan.

The public wastewater system operates within an increasingly complex environment. Population growth, housing delivery, economic development and climate change are placing additional demands on wastewater infrastructure and increasing the risks associated with flooding, pollution and environmental degradation. At the same time, new legislative and policy requirements, including the recast Urban Wastewater Treatment Directive, are introducing more ambitious obligations relating to wastewater treatment, environmental protection, energy efficiency, urban runoff, storm water management and integrated urban wastewater planning.

The pressures of an ever-changing world, and the increasing impact that human activity has on the environment, make it more important than ever that wastewater and drainage services are planned strategically over the long term. Forecast population growth, housing delivery and economic development are expected to result in increasing volumes of wastewater requiring collection, treatment and discharge. Climate change is expected to place additional pressure on both wastewater and drainage systems through more frequent extreme rainfall events, changing hydrological conditions and increased demand for resilient infrastructure. At the same time, emerging legislation will require the adoption of new approaches, need innovation and technologies to meet higher environmental standards, remove a broader range of pollutants, progressively reduce greenhouse gas (GHG) emissions and improve the energy performance of wastewater treatment activities.

In the first cycle of the River Basin Management Plan, wastewater was identified as the second most significant pressure on receiving waters; in the most recent River Basin Management Plan, urban wastewater has reduced to the fourth most significant pressure (in terms of the number of water bodies impacted), and we have plans to continue this downward trend in our next investment cycle. Urban wastewater is currently identified as a significant pressure on 197 'at risk' water bodies which represents less than 4% of all water bodies.

These challenges require a more strategic, long-term and nationally consistent approach to planning. The National Wastewater and Drainage Plan is intended to provide that, enabling Uisce Éireann to integrate Government policy, legislative requirements, environmental objectives and external drivers, including climate

change, into the future planning and operation of its wastewater asset base. Through a transparent and evidence-based approach, the Plan will establish a consistent methodology for understanding current performance, assessing future risks and identifying future needs across Ireland's wastewater and drainage systems. In doing so, it will support informed decision-making, adaptive planning and the development of wastewater and drainage services capable of meeting the needs of communities, the economy and the environment over the coming decades.

1.3 What is the National Wastewater and Drainage Plan?

The National Wastewater and Drainage Plan (NWWDP) is a long-term plan for how Uisce Éireann will manage and develop Ireland's wastewater systems to meet current and future demands. Development of the plan is a strategic aim contained within our published *Water Services Strategic Plan 2050* and also a recommendation by our economic regulator, the Commission for Regulation of Utilities, in their Final Determination for Revenue Control period 4 (2025-2029). The plan, which will be the first national strategic level plan for all public wastewater systems in Ireland, will be evidence-based with robust assessments of wastewater system performance and environmental impacts and capacity including future trend impacts such as climate change and population and development growth.

The health of people and the environment is at the heart of the NWWDP. A current and future view of risk will be established using a systemised methodology that is repeatable for performance indicators that are either directly or indirectly associated with wastewater.

The NWWDP will be a 25-year plan, taking us up to a 2055 planning horizon and will consider different futures and the sensitivity of those for each performance indicator. The cost and benefit of high-level solutions¹ for the future design horizon will be developed by considering options and their wider community benefits to work out the best value. As part of the plan, we will be developing an adaptive pathway approach to help forecast and phase the need for planned development and investment.

¹ The NWWDP is a high-level, long-term strategic plan, and is not an asset-level design plan. More detailed analysis, including engineering design, cost assessment and environmental studies, will be undertaken at local and project level as more detailed data becomes available.

We believe the NWWDP will align well with what's important to you in the following ways:

- **Supporting growth** – The NWWDP will help planning authorities, developers and regulators understand where our wastewater system has sufficient capacity.
- **Improving and protecting water quality** – By assessing the impacts from our activities we can deliver solutions that protect our water bodies.
- **Protecting environmentally sensitive sites** – By undertaking an Appropriate Assessment and Strategic Environmental Assessment in respect of our NWWDP, we can ensure we protect sensitive sites.

- **Reducing flood risk** – We can work together with drainage stakeholders on climate-resilient, nature-based solutions to manage rainfall and reduce flooding.
- **Making the most of resources** – By developing integrated drainage solutions through collaboration, costs and disruption can be minimised for communities.

Our wastewater systems interact with assets and systems managed by other stakeholders including for example Local Authorities. We will proactively engage with these stakeholders to consider potential impacts on performance and potential options for solutions.



2. Our Regulatory and Policy Framework

This section provides an overview of the key relevant legislative and policy drivers for the NWWDP.

2.1 Consenting and Regulatory Environment

The Water Services Acts 2007 as amended set out *inter alia* Uisce Éireann's functions and powers in relation to the delivery of water services. In discharging our role as the national water services utility, responsible for water services operations and investment, Uisce Éireann is primarily regulated by:

- The economic regulator, the Commission for Regulation of Utilities (CRU); and
- The environmental regulator, the Environmental Protection Agency (EPA).

Uisce Éireann is also regulated, in the normal course of its business, by other regulatory bodies such as the Data Protection Commission and the Health and Safety Authority. The Department of Housing, Local Government and Heritage has a policy and oversight role of the water sector.

Economic Regulation

The Commission for Regulation of Utilities (CRU) is charged with protecting the interests of the customer, while approving an appropriate funding requirement sufficient to enable Uisce Éireann to deliver the required services to specified standards in an efficient manner. This means the CRU decides the budgets and level of investment by Uisce Éireann; and examines disputes between Uisce Éireann and its customers.

Uisce Éireann's regulatory revenue control period runs in 5-year cycles. The Capital Investment Plan is prepared within the regulatory framework which is set out in legislation and consists of our proposed operational and investment spending in revenue funding cycles. Our proposed Capital Investment Plan is subject to a statutory stakeholder engagement process, undertaken by Uisce Éireann, and a public consultation process is undertaken by the CRU. The current investment plan relates to the funding cycle referred to as "Revenue Control 4" (RC4) and covers the period from 2025-2029.

We believe that the development of the NWWDP is aligned to these recommendations. It is our intention that the NWWDP will inform Uisce Éireann's future planning and investment cycles, where decisions on implementation will be made in line with organisational priorities and regulatory obligations.

*In the CRU's **Revenue Control 4 Final Determination**, capital delivery recommendations were identified for wastewater and drainage planning as follows:*

- 14.2 The CRU recommend that UÉ take a similarly strategic approach as to managing Uisce Éireann's wastewater and drainage networks across wider catchments, to seek optimised and collaborative solutions that deliver wider benefits to the catchment and bring capex and opex efficiencies.*
- 14.3 The CRU recommend that Uisce Éireann also draw on a similar approach recently implemented across England, with Drainage and Wastewater Management Plans allowing holistic planning at scale.*
- 14.4 The CRU recommend that this is phased as Uisce Éireann continues to gain understanding of its assets and develop short-, medium- and long-term wastewater and drainage plans.*

Environmental Regulation

As our environmental regulator, the Environmental Protection Agency (EPA) sets standards and enforces compliance with European Union (EU) and National Regulations for wastewater discharges to the aquatic environment from wastewater works owned, managed and operated by Uisce Éireann. These obligations include compliance with the Urban Wastewater Treatment Directive (UWWTD), which is a basic measure under the Water Framework Directive (WFD), and higher treatment standards which can be required to achieve the WFD environmental objectives. Full compliance with the requirements of the UWWTD is a priority for Uisce Éireann in line with Government policy, as set out in the *Water Services Policy Statement 2024 - 2030*, including closing out existing infringement proceedings. Further priorities are to improve compliance at sites on the EPA's Priority Areas List and to address urban wastewater significant pressures under the Water Action Plan 2024.

Wastewater works must be either licensed or certified by the EPA depending on the population served in accordance with the relevant regulations.

2.2 Key Legislation

2.2.1 Water Framework Directive

The Water Framework Directive (WFD) establishes a catchment-based approach to the protection, restoration and sustainable use of rivers, lakes, transitional waters (estuaries), coastal waters and groundwater. It adopts the ‘polluter pays’ principle and integrates the requirements of a number of other EU directives for the protection of the water environment. It seeks to develop a holistic approach to sustainable water use, balancing social and economic factors with the need to protect and improve our aquatic environment.

2.2.2 Urban Wastewater Treatment Directive

The original Urban Wastewater Treatment Directive ([91/271/EEC](#)) has been the main legislative driver for investment in wastewater collection and treatment systems as well as preventing pollution from industrial discharges. It has driven huge improvements in water quality across Europe since its enactment over 30 years ago. The revised (recast) Urban Wastewater Treatment Directive ([2024/3019/EU](#)), which came into force on 01/01/2025, builds on this legacy and addresses remaining pollution and new challenges in urban wastewater management including sustainability, public health and increased transparency. Member states are legally required to transpose this legislation into national law by July 2027. Further detail on the recast UWWTD and its impact on the NWWDP is discussed in section 5 Future Trends.

2.2.3 Habitats Directive

The Habitats Directive ([92/43/EEC](#)) placed an obligation on all Member States of the EU to establish the Natura 2000 network and requires the protection of defined habitats and species. The network is made up of Special Areas of Conservation (SAC) and Special Protection Areas (SPA) established under the EU Birds Directive ([2009/147/EC](#)). The Directives were transposed into Irish national regulations by the European Communities (Birds and Natural Habitats) Regulations 2011 ([S.I. No. 477/2011](#)), as amended.

SACs are designated for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (animal and plant species of community interest other than birds). SPAs are designated for the conservation of Annex I birds under the Birds Directive and other regularly occurring migratory birds and their habitats. A number of these habitats and species, particularly those that are water dependent, can be impacted by wastewater

discharges. Article 6 of the Habitats Directive requires member states to establish necessary conservation measures corresponding to the ecological requirements of Annex I habitats and Annex II species present on the sites and to take appropriate steps to avoid the deterioration of (or restore) natural habitats and the habitats of species, as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of the Habitats Directive.

As a public authority, UÉ has duties under these regulations to “take the appropriate steps to avoid, in European Sites, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated in so far as such disturbance could be significant in relation to the objectives of the Habitats Directive.”

The NWWDP will be subjected to Appropriate Assessment Screening, and subsequently to Appropriate Assessment, in line with the Habitats Directive and relevant Regulations, to ascertain whether it is likely to have significant effects (either alone or in combination with other plans or projects) on the integrity of European Sites having regard to their conservation objectives, and subsequently, whether it will have adverse effects (either alone or in combination with other plans or projects) on the integrity of European Sites, having regard to their conservation objectives.

2.2.4 SEA Directive

The SEA Directive ([2001/42/EC](#)) sets out a process for the environmental assessment of plans and programmes and aims to provide for a high level of protection of the environment and to promote sustainable development. It also sets out specific requirements with respect to the Habitats Directive and Birds Directive.

The SEA Directive is implemented in Ireland via the European Communities (EC) (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 ([S.I. No. 435/2004](#)) (as amended) (the ‘SEA Regulations’). Under these regulations, qualifying plans such as the NWWDP are required to be subject to SEA screening as a first step to determine if SEA is required. A screening review has been undertaken following the Environmental Protection Agency’s (EPA) 2021 screening guidance and this confirmed that the Plan requires a mandatory SEA (the Screening Statement is provided in the SEA Scoping Report Appendix A). The subsequent stages include scoping, assessment, public consultation on the draft Plan and Environmental Report, and monitoring plan implementation. The current stage is scoping.

The aim is that the SEA process should influence and improve the plan. The process involves assessing the likely significant effects on the environment of implementing the plan and considering reasonable alternatives for achieving plan objectives. Combined, cumulative effects and transboundary effects, of the plan as a whole and with other plans and programmes are also included as part of the assessment.

The SEA Regulations set out specific requirements for consultation with Environmental Authorities and transboundary environmental authorities at the scoping stage and for public consultation on the draft plan and SEA Environmental Report. The SEA Environmental Report and consultation responses are also required to be taken into account in finalisation of the plan and for implementation monitoring.

2.2.5 Sewage Sludge Directive

The Sewage Sludge Directive (86/278/EEC) allows the use of treated sludge and biosolids in agriculture subject to specified technical requirements, without the need for a specific waste authorisation. The Directive sets out limit values for heavy metals and nutrients application to land.

2.3 Key Policies and Implementation Plans

2.3.1 Water Services Policy Statement

The Water Services Policy Statement (WSPS) sets out the priorities of Government regarding the provision of water services during the period specified in the statement. The Water Services Policy Statement 2024 – 2030 was published in February 2024. Priorities relating to Uisce Éireann’s role in wastewater services include bringing wastewater services to full compliance with the UWWTD and wastewater discharge authorisation requirements, providing capacity to support housing and economic development in line with growth priorities set out in the National Planning Framework (NPF), and enhanced collaboration with local authorities to develop Integrated Urban Wastewater Management Plans (IUWwMP).

2.3.2 Water Action Plan 2024 (3rd Cycle River Basin Management Plan)

The WFD is implemented through River Basin Management Plans (RBMPs) which assess the current status of inland and coastal water bodies and set out plans

and Programme of Measures to achieve at least 'Good' status or 'Good Ecological Potential', as appropriate and the objectives set for each water body. The Water Action Plan 2024 is Ireland’s 3rd cycle RBMP, covering the period 2022-2027. The 4th cycle RBMP (2028-2033) is expected to be published in draft format in late 2026, for adoption by the end of 2027.

The Water Action Plan 2024 identified 197 ‘at risk’ water bodies where urban wastewater has been identified as a significant pressure. UÉ has taken action to address many of these and has committed to assess each of the remaining significant pressures by 2027. The number of significant pressures will be updated in late 2026, based on an ongoing characterisation refresh being undertaken by the EPA.

The Water Action Plan 2024 contains appendices specific to urban wastewater, as shown below in **Figure 1:**

Appendix 6: Urban Wastewater Project List	Appendix 7: List of 197 water bodies	Appendix 8: Improvement Works to Storm Water Overflows	Appendix 9: Uisce Éireann Revenue Control 3 Project List
List of ongoing projects (wastewater below ground and wastewater above ground), estimated completion dates and whether they are "protect" or "restore" measures.	List of 197 water bodies where urban wastewater is a significant pressure and what projects will address them (water body plan).	List of projects with number of expected improvements in storm water overflow.	List of standalone projects (spend > €100k in Revenue Control 3).

Figure 1: Urban Wastewater Appendices, The Water Action Plan, 2024.

UÉ’s key objectives in relation to the WFD are the implementation of measures to reduce the impact of our wastewater discharges and abstractions. Where an urban wastewater discharge is the sole significant pressure impacting on a water body, compliance with the respective wastewater discharge authorisation requirements should ensure that the water body achieves its assigned environmental objectives. UÉ’s approach to addressing the requirements of the Water Action Plan 2024, as well as progress against the actions, are set out in our Sectoral Action Work Plans (SAWPs)². UÉ also reports on actions taken at a water body scale (generally WWTP and network upgrades) to the EPA, for incorporation into their Catchment Action Tracker, due to be launched in 2026.

² <https://www.water.ie/projects/strategic-plans/sectoral-action-work-plans>

2.3.3 Energy, Climate, Wastewater Sludge and Bioresources

With an increasing focus on climate change and a drive to reduce GHG emissions and achieve net zero at EU and National level and across the Water Industry, the following National Government plans are critical for us to work towards contributing to meeting the National targets:

- **National Energy and Climate Plan (NECP) 2021-2030** brings together the policies, targets, tools and associated material relating to Ireland's climate and energy obligations under various EU Regulations and Directives from across government bodies and departments into one document and reflects the ambitions set out in the **Climate Action Plan (CAP) 2025** which aims to achieve a target of reducing GHG emissions by 51% (from a 2018 baseline) by 2030, and to get to net-zero emissions by 2050. The CAP specifically sets a national biomethane production target of 5.7TWh by 2030.
- **National Adaptation Framework** guides the government's approach to climate adaptation and the need for a sectoral adaptation plan for water infrastructure and services.
- **National Biomethane Strategy and Bioeconomy Action Plan 2023-2025** has a key focus on sustainability, circularity, and enhanced natural resources. The strategy, co-developed by the Department of the Climate, Energy and the Environment (DCEE) and the Department of Agriculture, Food and Marine (DAFM), outlines measures to support the development of the Anaerobic Digestion (AD) and Biomethane Industry.
- **Code of Good Practice for the use of Biosolids in Agriculture** (1999) provides detailed information on good practice for treatment, reuse and monitoring.

2.3.4 Storm Water and Integrated Drainage Planning

The Water Services Act sets out that whereas the provision, operation and maintenance of foul and combined sewer systems is assigned to Uisce Éireann, the Local Authorities remain responsible for the provision, operation and maintenance of storm water sewers.

In many areas such as those only served by a combined sewer system, rainwater is a very significant input to wastewater systems. Rainfall from hardstanding areas (roofs, roads) can cause significant inflows of surface water to wastewater systems which, in addition to using valuable capacity that could otherwise be used to accommodate growth related flows, can result in environmental and customer impacts as a consequence of overflows and flooding, as well as additional pumping and treatment costs. An example of the extent of impermeable area contributing to wastewater systems in Ireland is provided in **Figure 2**.

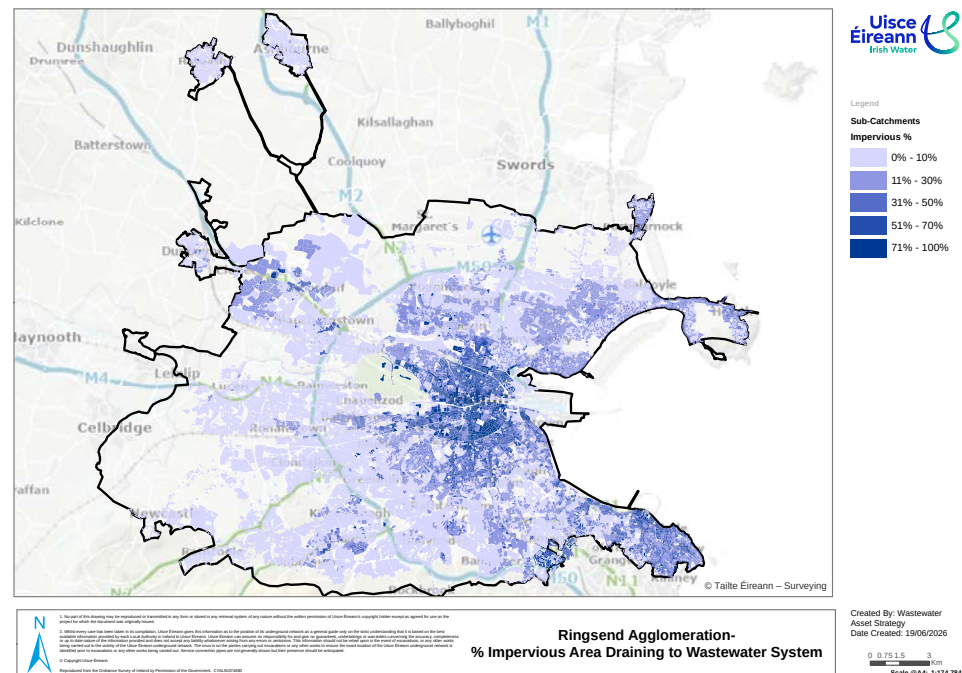


Figure 2: An example of Hardstanding Surfaces Contributing to Wastewater System (Ringsend Agglomeration – estimated over 3,400ha. Source: UÉ Hydraulic Models).

We have recognised the need to incorporate the approach of 'Integrated Drainage Planning', whereby the performance of all drainage systems – foul, combined and storm water - in the urban environment are included for assessment and planning, in the NWWDP in accordance with governmental policy objectives and key legislative requirements as summarised below:

- **Water Services Policy Statement 2024-2030, Department of Housing, Local Government and Heritage (DHLGH): Objective 3:** Sustainability sets Integrated Drainage Planning as proposed in the recast Urban Wastewater Treatment Directive as a priority recognising that enhanced collaboration will be required in the near future between Uisce Éireann and Local Authorities to develop IUWwMPs.
- **Urban Wastewater Treatment Directive (recast):** Article 5 and Annex 5 require that IUWwMP (including wastewater and urban runoff systems) are established for agglomerations greater than 100,000PE by 2033 and for 'risk' agglomerations between 10,000 and 100,000PE by 2039.

- National Planning Framework:** Objective 81 is *Support the implementation by Uisce Éireann, Local Authorities and other parties with drainage responsibilities of Integrated Wastewater and Drainage Management Plans on a prioritised risk basis in accordance with the requirements of the RBMP and EU Water Directives.*
- Water Action Plan 2024 (3rd Cycle RBMP), DHLGH:** Urban Runoff Measure 8: Engagement between DHLGH, some Local Authorities, Uisce Éireann (as lead) and CRU to agree in principle a collaborative approach and roadmap and guidance documents for the development of integrated urban drainage management plans.
- Nature Based Management of Urban Rainwater and Urban Surface Water Discharges: A National Strategy, DHLGH,2024:** Target for Uisce Éireann to develop the methodology for IUWwMP by the end of 2027.

2.4 Strategic Plans and Objectives

A key requirement of the NWWDP will be alignment, where necessary, and consideration of other internal and external strategies and plans.

2.4.1 Water Services Strategic Plan 2050

The Water Services Strategic Plan 2050 (WSSP 2050) is Uisce Éireann’s long-term strategic plan as required under the Water Services No. 2 Act 2013. It sets out our objectives and how we aim to achieve them in the context of the significant challenges we are likely to face over the next 25 years.

The National Wastewater and Drainage Plan is being developed to support the delivery of the Water Services Strategic Plan 2050 (WSSP 2050). While the development of a national wastewater strategic framework is identified specifically under Strategic Aim 7, Protecting our Water Environment, the NWWDP also contributes more broadly to the WSSP objectives of supporting customers, communities and the economy, protecting and restoring the environment, and delivering sustainable services fit for the future. Through a consistent, evidence-based and adaptive planning framework, the NWWDP provides a mechanism for translating these strategic ambitions into long-term wastewater and drainage planning and investment decisions. An overview of the NWWDP contribution is summarised in **Table 1** below.

Table 1: WSSP and NWWDP Alignment

WSSP 2050 Strategic Objective	Relevant Strategic Aims	How the NWWDP Contributes
Strategic Objective 2: Support our Customers, Communities and the Economy	Aim 5: Engaging with Communities Aim 6: Providing for Growth	Supports stakeholder and community engagement, transparent decision-making and long-term planning for housing, population growth and economic development.
Strategic Objective 3: Protect and Restore our Environment	Aim 7: Protecting our Water Environment Aim 8: Playing our Part under the Water Framework Directive Aim 9: Contributing to Positive Biodiversity	Provides a national approach for assessing environmental performance, water quality outcomes, ecological status, biodiversity opportunities and wider environmental benefits. Provides a national approach for assessing environmental performance, water quality outcomes, biodiversity opportunities and wider environmental benefits.
Strategic Objective 4: Sustainable Services Fit for the Future	Aim 10: Achieving Net Zero Carbon Aim 11: Adopting Circular Approaches Aim 12: Managing our Assets Aim 13: Gaining Value from Innovation Aim 14: Securing Long-Term Funding	Applies adaptive planning, resilience assessment, whole-life cost and carbon assessment, Best Value decision-making and long-term investment planning to support sustainable wastewater and drainage services.

The WSSP 2050, a Tier 1 plan as illustrated in **Figure 3**, outlines our strategic direction and the actions we will implement to ensure sustainable public water services for Ireland. The NWWDP will sit within Tier 2 as a 'Strategic Plan'.

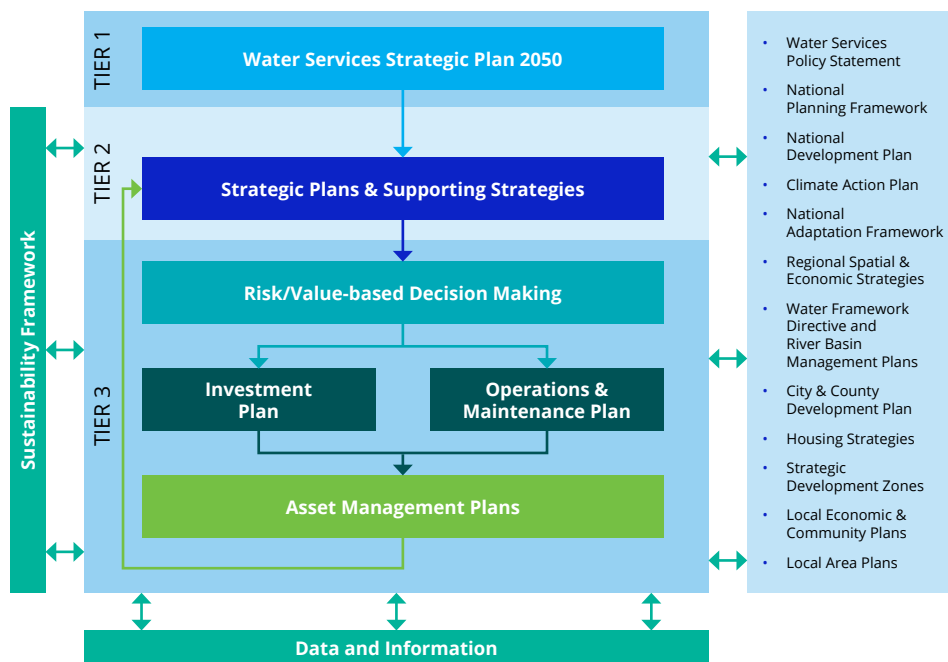


Figure 3: Relationship of Tier 1 WSSP to Tier 2 Strategic Plans, Supporting Strategies and more detailed implementation plans and their relationship to national and local policies and strategies.³

The development of the NWWDP is a requirement of the WSSP under Strategic Aim 7 and is identified as "Action 3.1 Work with regulators and stakeholders to develop a Wastewater Strategic Framework."

2.4.2 Sustainability Framework

Our Sustainability Framework outlines our sustainability ambitions such as net zero carbon by 2040, biodiversity net gain by 2030, GHG emissions reduction, and to ensure circular solutions are considered in all capital projects by 2026.

³ [Water Services Strategic Plan 2050](#)

Our Sustainability Framework outlines our sustainability commitments with four pillars; as shown below, and six key ambitions supporting initiatives which are embedded across the business and our supply chain.



Figure 4: Uisce Éireann's Sustainability Framework.

2.4.3 Aligning with other Strategic Plans

We recognise that stakeholders own and maintain a diverse range of plans and strategies and we will consider and aim to align with these in the development of our NWWDP. In addition, we will align with Uisce Éireann strategies and initiatives as well as broader infrastructure plans of the study area. This alignment will ensure wastewater management infrastructure is integrated within broader planning efforts to support economic growth and environmental sustainability.

A non-exhaustive list of plans and strategies that will be taken into consideration as part of the development of the NWWDP are identified in **Figure 5** below.



Figure 5: Plans and Strategies.

2.4.4 Aligning with Ongoing Capital Maintenance Initiatives

Uisce Éireann has a number of initiatives underway to strengthen the understanding, planning and delivery of sustainable levels of capital maintenance across its wastewater assets. These initiatives focus on improving how wastewater treatment plants and associated infrastructure are managed and supported, helping to deliver more reliable services, maintain compliance, and protect the environment. By enhancing asset management practices, strengthening operational support, and improving visibility of asset condition, this work is enabling more effective long-term maintenance planning, better prioritisation of investment, and earlier identification of emerging risks. Collectively, these measures support a more proactive approach to asset maintenance and help reduce operational and compliance risks across the wastewater network.

This work is underway across the organisation and is helping us move towards a more proactive way of working, identifying issues earlier, improving performance, and building confidence in how we deliver for customers and regulators.

To ensure wastewater treatment and networks continue to meet the needs of communities, the economy and the environment, our assets must be appropriately maintained. The Asset Management approach aims to maintain serviceability (the capacity to maintain desired level of service) through the normal life cycle of an asset. This approach manages risk, protects assets from accelerated deterioration and reduces whole life cost by extending asset life.



3. Our Approach to NWWDP Development

This section sets out our proposed approach to the development of the NWWDP by describing the relevant phases of the plan, discussing some general approaches as described in the WSSP and noting its relationship with future investment planning.

3.1 Key Phases of the NWWDP

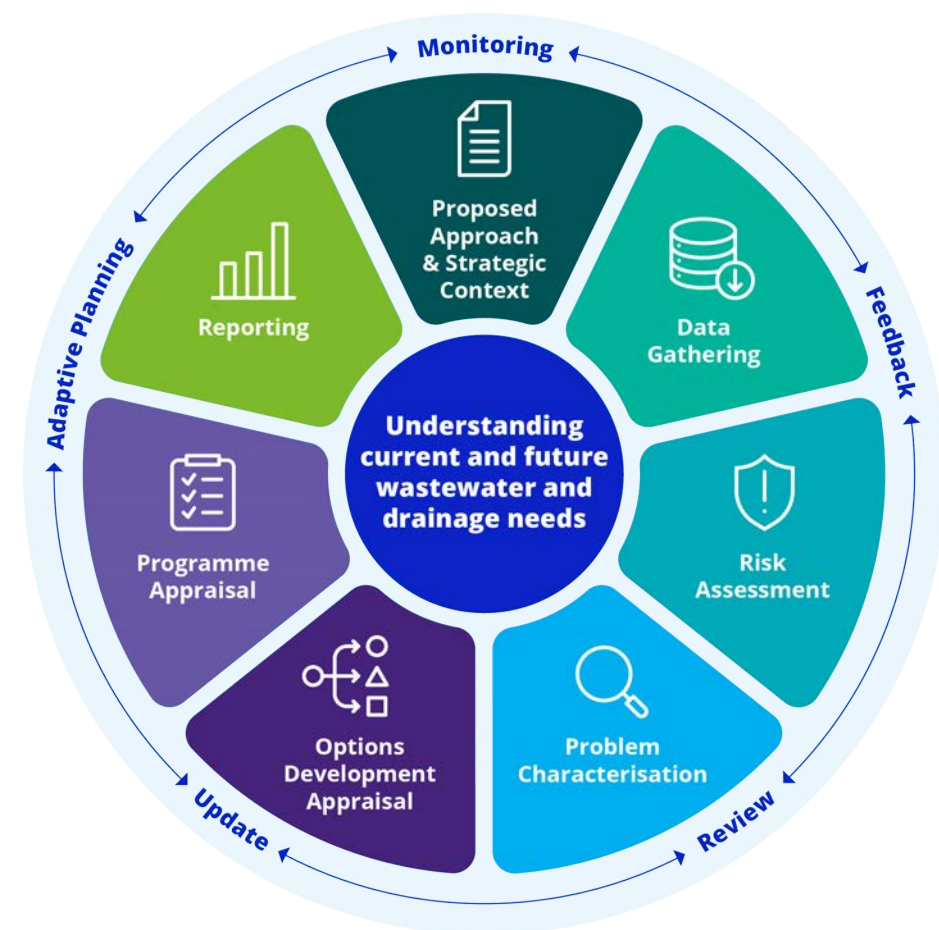


Figure 6: Understanding current and future wastewater and drainage needs.

The principal phases that we will use to develop our NWWDP are as follows:



Proposed Approach and Strategic Context *(this document)*

This first phase establishes the foundations for developing the NWWDP. It:

- explains why a national, long-term approach to wastewater and drainage planning is needed;
- sets out the relevant policy, legislative, regulatory and environmental context;
- identifies the principal challenges, opportunities and future trends that will influence wastewater and drainage services;
- presents the proposed scope, principles and approach for developing the Plan;
- proposes the Performance Indicators that will be used to assess current and future system performance; and
- seeks stakeholder feedback to inform the Draft NWWDP and its associated environmental assessments.

This document also supports the scoping stages of the Strategic Environmental Assessment and Appropriate Assessment processes.



Data Gathering

This phase involves collecting information on the performance of public wastewater systems across Ireland as follows:

- Data will be gathered from a range of sources, including Uisce Éireann, the Environmental Protection Agency and other relevant organisations.
- This will include wastewater capacity registers, waterbody pressure registers,

asset databases, sewer operational datasets, pollution incident databases and network models as well as previously developed wastewater regional and agglomeration plans including Drainage Area Plans⁴.

- The information will be used to understand how wastewater systems are performing today, identify areas of risk or vulnerability and support evidence-based and risk-based planning for the future.
- As part of this process, the coverage and confidence of the available data will be considered to ensure that assessments are proportionate, transparent and capable of being strengthened as improved data becomes available.
- To understand the recent performance of our wastewater system, an assessment of several performance areas, using the best available information, will be undertaken including WWTP capacity and compliance, waterbody impact, network capacity (flooding, storm water overflows) and biosolids capacity. Available information about risk to assets (*Asset Health*) will also be assessed including:
 - the reliability of operation of wastewater treatment plants and the impact of asset failure;
 - the reliability of operation of network infrastructure, including pumping stations, and the impact of asset failure;
 - the reliability of operation of biosolids infrastructure and the impact of system failure;
 - network operational issues including collapses and blockages.



Risk Assessment

This phase assesses how future changes may affect wastewater services and the communities and environments they support. It is designed to:

- Understand how our wastewater systems perform today.
- Understand how our wastewater systems will cope with future challenges. Future pressures, such as population growth, housing development, climate change and changing environmental standards, could affect the ability of wastewater services to meet planning, service and environmental objectives.

- Identify wider resilience challenges that may affect wastewater services in the future, including risks arising from extreme weather, environmental sensitivities and other external factors.



Problem Characterisation

This phase refers to the process of identifying, analysing, and understanding the challenges or issues within a drainage and wastewater system. This step is crucial for developing an effective strategy to manage and improve the system's performance, ensuring resilience, sustainability, and compliance with regulatory requirements. Key elements of problem characterisation consist of:

- Risk Collation and Analysis:
 - Collating risk data on the current state of the drainage and wastewater system, including hydraulic performance, environmental impacts, and asset conditions.
 - Analysing historical data, such as flooding incidents, pollution events, and system failures.
- Identification of Issues:
 - Establishing areas of significant concern, such as capacity constraints, asset health, operational constraints, or environmental risks.
 - Highlighting areas prone to flooding, pollution, or other operational challenges.
- Agglomeration Risk Overview:
 - Assessing the likelihood and impact of identified problems on the system and the surrounding environment.
 - Considering future risks, such as climate change, population growth, and urbanisation.

⁴ Uisce Éireann's Drainage Area Plan (DAP) Programme is a national programme that assesses the performance of the wastewater network, identifies capacity and environmental risks, and defines the infrastructure needed to protect water quality and support growth. The programme builds detailed hydraulic models and evidence based options to address flooding risks, pollution risks and network constraints.



Options Development Appraisal

This phase considers the opportunities and options, and appraises them using a methodology that covers:

- The hierarchy of options for consideration.
- The development of, and criteria for movement between, unconstrained, constrained and feasible option lists. Each intervention will be assessed to determine the existing and future benefit forecasted against all performance indicators.
- SEA activities will ensure that natural capital benefits will be identified, to assist with the identification of a Best Value Plan undertaken within Programme Appraisal.
- AA activities will ensure that concerns regarding the possibility of adverse effects on European sites is given due regard during the options development phase.



Programme Appraisal

This phase includes the following key activities:

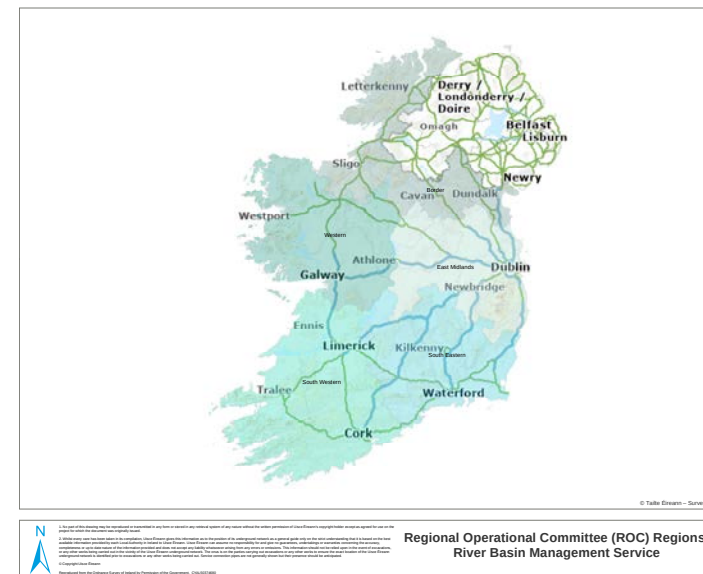
- A review of the suite of interventions identified within the Options Development Appraisal to form a 25 year Least Cost Plan and a Best Value Plan. Whole life-costs would be estimated based on capex and opex for a 25-year period.
- Identification of **Least Cost Plan** which will include prioritised list of interventions that are required to be undertaken to meet regulatory needs and minimum performance standards for a likely future scenario.
- The **Best Value Plan** which will identify a suite of solutions that will also meet regulatory needs but be formed based on cost benefit criteria. The Best Value Plan may identify a suite of solutions that exceeds the cost associated with the Least Cost Plan, however, the Best Value Plan will provide most future benefit against performance indicators for the forecasted cost. The definition of the Best Value Plan will also be steered by anticipated additional wider benefits associated with natural capital approaches and solutions that have greater resilience for a range of future scenarios (for example, the additional multiple benefits attributed to surface water removal for a range of future climate change scenarios). Overall Best Value Planning will enable Uisce Éireann and associated stakeholders to form Long Term Delivery Strategy and also initiate an adaptive planning approach.



Reporting

We will take a bottom-up approach to the development and reporting of the NWWDP, initially developing plans at agglomeration or sub-agglomeration level and then creating plans at a larger scale. In our NWWDP, we will report at four core scales:

- **Level 1 – National Level.** This covers all Uisce Éireann wastewater operations. It is primarily used for collating all of the Level 3 detailed plans into a company-wide report.
- **Level 2 – Strategic Planning Areas Level.** The primary focus of Level 2 is for establishing collaboration between organisations and for assessing the environmental condition of water bodies. Our Level 2 Plans, which again will comprise of a grouping of Level 3 agglomerations, will be aligned to individual Water Framework Directive (WFD) Catchments and can support communication and collaboration with the five regions of the River Basin Management Plan's Regional Operational Committee (ROC) which are part of the Water Framework Directive governance structure in Ireland (see **Figure 7**). These regions align with existing catchment partnerships allowing for better engagement with partners on water quality and environmental issues.



- **Level 3 – Agglomeration Level.** Our Level 3 agglomerations represent our wastewater treatment plants agglomerations and will be the foundation to developing our NWWDP and will inform the IUWwMPs. Each includes wastewater treatment plant(s) and the upstream public sewer network draining to them.
- **Level 4 – Sub-Agglomeration Level.** This level caters for reporting at sub-agglomeration level for larger agglomerations as required.

In addition, the structure of our NWWDP with its agglomeration level plans, will allow the development of City/Regional wastewater strategies at a scale aligned to the metropolitan areas of the National Planning Framework.

Review and Update

It is intended that the plan will be reviewed and updated on a cyclical basis aligned to the development of the next capital investment plan typically every 5 years to take account of new information, data, policies and laws. Each review cycle will provide an opportunity to incorporate improved datasets, updated models and monitoring evidence, progressively increasing the coverage and confidence of the Plan's assessments. We know things will change over the next 25 years therefore the plan will consider a range of possible futures, some more challenging than others. We have also committed to an ongoing process of monitoring and obtaining feedback for the plan. This will be integrated with the monitoring plan which is required as part of the SEA process. Our monitoring, review and updated approach will enable adaptive planning and means we are ready and flexible for whatever the future holds.

3.1.1 Data Availability and Limitations

The NWWDP will be developed using the best available wastewater datasets within UÉ's core operational, environmental and asset data systems. The availability, consistency and confidence of data vary across agglomerations and asset types. This is primarily due to different levels of survey coverage, model maturity, availability of historical operational data and the evolving maturity of enterprise data systems. These variations and data limitations will be recognised and actively managed through the strategic analytical approach applied within the NWWDP. This approach ensures that the NWWDP will remain grounded in an evidence-based assessment of available data and its associated limitations.

Data gaps identified will be used as key drivers for targeted data improvement programmes, standardisation initiatives, system integration and governance enhancements. The NWWDP will be developed in parallel with UÉ's transition towards ISO 55000-aligned asset lifecycle management, recognising that data maturity will continue to improve over the lifetime of the Plan and through successive Plan cycles.

3.2 Key Approaches of the NWWDP

In our Wastewater Services Strategic Plan, we set out a number of approaches required to meet our long-term challenges including Systems Thinking, Collaboration, and Adaptive Planning. We also identify an action to promote nature-based solutions.

3.2.1 Systems Thinking

We deliver services to our customers through the complex wastewater system. However, we are dependent on wider systems, for example the hydrological and ecological systems of the water environment which receive our wastewater discharges. In order for us to determine optimal solutions for wastewater services, it is therefore vital that we take a whole system view, rather than dealing only with one set of assets in a blinkered way. By embracing systems thinking, we will better understand the interdependencies within our water environment and across service sectors, leading to beneficial outcomes for all. A systems thinking approach could also empower collaboration with other stakeholders as sometimes our solutions can deliver multiple benefits, including for other stakeholders' objectives and vice versa.

3.2.2 Stakeholder Collaboration

Many of the challenges facing wastewater and drainage services are complex, interconnected and beyond the remit of any single organisation to address alone. Effective long-term planning requires collaboration across sectors and organisations with responsibilities for water quality, land use planning, environmental protection, drainage, flood management and infrastructure delivery.

To ensure that the NWWDP aligns with legislative requirements, national policy and Uisce Éireann's strategic objectives, its development will continue to be informed by ongoing engagement and collaboration with stakeholders across the water, environmental, planning and regulatory sectors. The Plan will build upon existing collaborative arrangements, governance structures and stakeholder forums through which Uisce Éireann already works with key partners on matters relating to wastewater services, water quality, catchment management, environmental protection and strategic planning.

Key collaborative arrangements that will continue to inform the development of the NWWDP include:

- Ongoing engagement with the Department of Housing, Local Government and Heritage (DHLGH), the Environmental Protection Agency (EPA) and the Commission for Regulation of Utilities (CRU);

- Participation in River Basin Management Plan governance structures, including the Regional Operational Committees, particularly in relation to water body status, water quality pressures and catchment management;
- Engagement through national bathing water and shellfish water forums and working groups;
- Participation in multi-stakeholder groups established by DHLGH to support the transposition and implementation of the recast Urban Wastewater Treatment Directive; and
- Ongoing collaboration with local authorities, the River Basin Management Services (RBMS) and other relevant stakeholders on matters relating to urban runoff, storm water management, integrated drainage planning and environmental protection;

The development of the NWWDP is also being supported by a wider programme of stakeholder and public engagement. Consultation and engagement activities will provide opportunities for communities, customers, public bodies, environmental organisations, industry representatives and other interested parties to contribute to the development of the Plan. Feedback received through these processes will help inform and refine the NWWDP as it progresses.

3.2.3 Adaptive Planning

Our NWWDP will plan for the future using an adaptive approach to allow us to respond to changing trends and needs and achieve sustainable outcomes. We face some critical uncertainties in the longer-term future including, for example, which scenario for climate change plays out and whether in an adverse scenario we could get unprecedented population growth due to climate migration. Adaptive planning is an approach which identifies possible future scenarios, tracks appropriate trend indicators and identifies trigger points in the indicators which would lead us to adapt our plan to the emerging likely scenario. While much of our planning and investments will be “no or low regret”, i.e., would be beneficial under whichever future scenario plays out, some of our planning will require us to be adaptive. We intend to develop a better understanding of future trend criticality based on uncertainty and impact levels relative to the performance indicators and adapt as appropriate in the options development appraisal phase.

3.2.4 Nature-based Solutions, including Green and Blue Infrastructure

In our Water Services Strategic Plan, we committed to promoting nature-based solutions (NBS) for the delivery of wastewater projects. NBS use nature and healthy ecosystem processes to deliver more sustainable solutions for society. In addition to the reduction of risks associated with wastewater management, NBS have many additional benefits, including a reduction in energy usage, carbon sequestration, biodiversity benefits, and amenity use for local communities. This aligns to the Water Action Plan 2024 goal to deliver integrated, multiple co-benefits for water, biodiversity and climate, wherever possible.

For the treatment of wastewater, we will continue to encourage and promote opportunities for the incorporation of constructed wetlands, sludge drying reed beds, and other NBS, as appropriate.

With the growing challenges posed by urbanisation and climate change, we are working with local authority stakeholders to adopt solutions to manage increased surface water runoff such as Sustainable Urban Drainage Systems (SuDS). These systems use natural features such as green roofs, permeable pavements, rain gardens, and constructed wetlands to intercept, store, and slowly release rainwater, reducing surface water runoff and minimising the risk of SWOs discharging into the environment. This not only reduces the burden on our infrastructure but also enhances urban resilience to flooding and improves water quality by filtering out pollutants.

3.3 Relationship with Capital Investment Cycles

The NWWDP will provide an overview of the magnitude of investment that is required over the next 25 years to meet future challenges. This will support regulatory control 5-year investment plans and will also allow phasing for investment throughout future cycles. This will also facilitate the inclusion of long-term interventions (i.e. reduction in surface water runoff and long-term infiltration reduction plans) that would provide best value over a number of regulatory control cycles. It is our intention that the NWWDP will inform Uisce Éireann’s future planning and investment cycles, where decisions on implementation will be made in line with organisational priorities and regulatory obligations.

4. What the NWWDP will Measure

We will assess recent, current and future performance of our wastewater system. In order to support an assessment of recent performance, we will undertake a large data gathering exercise that will incorporate a review of all relevant Uisce Éireann and external stakeholder data sources and studies. In order to understand how well our wastewater system performs today and how it will cope with future challenges we will use measures called Performance Indicators.

4.1 Performance Indicators

Figure 8 provides a visual representation of our proposed NWWDP performance indicators. These will help us to assess every wastewater agglomeration and provide an overall picture across the country.

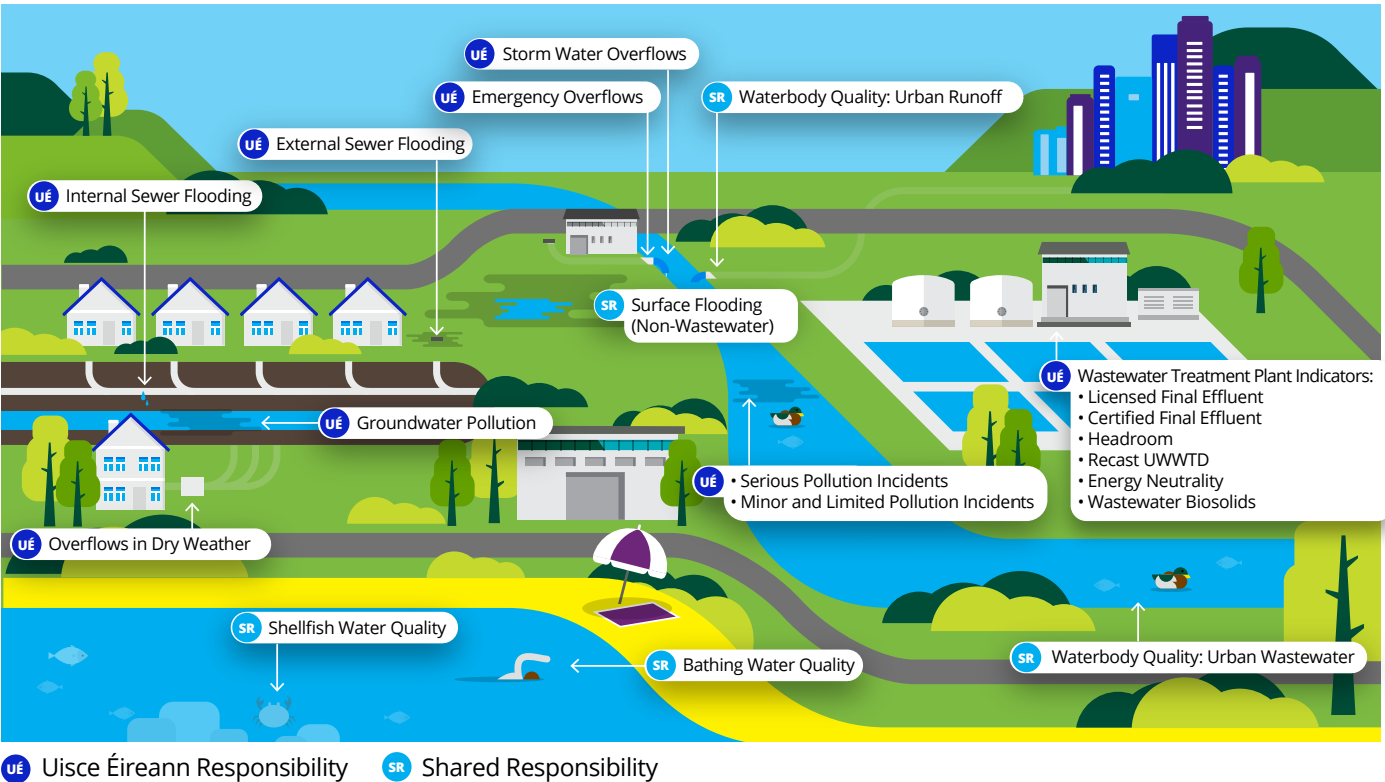


Figure 8: Performance Indicators.

Several of the proposed Performance Indicators are identified as shared indicators, recognising that the factors influencing wastewater and drainage performance often extend beyond infrastructure owned or operated by Uisce Éireann. Responsibilities for surface water flooding, urban runoff, waterbody status, bathing water quality and shellfish water quality can rest with multiple organisations, and the data used to monitor and assess these indicators is often collected, maintained and reported

by a range of agencies. These indicators reflect the interconnected nature of wastewater, drainage and the wider water environment and reinforce the need for integrated planning, data sharing and collaborative decision-making.

The Performance Indicators we will measure are set out in **Table 2** below.

Table 2: Performance Indicators.

Performance Indicator (PI)	Responsibility for PI	Description
Internal Sewer Flooding	UÉ	Annual number of properties at risk from internal flooding caused by the public wastewater network.
External Sewer Flooding	UÉ	Annual number of properties at risk from external flooding caused by the public wastewater network.
Surface Flooding (Non-Wastewater)	Shared	Annual number of properties at risk of Surface Flooding (Non-Wastewater) within wastewater agglomerations. This includes pluvial (surface water) and fluvial flooding. ⁵
Storm Water Overflows	UÉ	(i) Number of Storm Water Overflows (SWO) that are predicted to have unsatisfactory performance against applicable regulatory requirements. (ii) Agglomerations predicted to be at risk of not meeting the recast UWWTD SWO pollution load target.
Overflows in Dry Weather due to Infiltration	UÉ	Number of Storm Water Overflows that discharge or are predicted to discharge during dry weather caused by infiltration.
Emergency Overflows	UÉ	Number of Emergency Overflows due to operational issues, such as power failure or equipment breakdown.
Groundwater Pollution	UÉ	Length of sewer within groundwater protection zones where sewer condition may present a risk to groundwater quality from sewer exfiltration.
WWTP Licensed Final Effluent	UÉ	Number of Wastewater Treatment Plants predicted to fail to meet the emission limit values set out in the wastewater discharge licence.

⁵ Non-wastewater flooding is included because it represents an important outcome for communities and can be influenced by the interaction between drainage, surface water and wastewater systems. Responsibility for managing these systems is shared across a number of organisations. The NWWDP provides an opportunity to work with stakeholders to develop a common understanding of performance and support more integrated long-term planning.

Performance Indicator (PI)	Responsibility for PI	Description
WWTP Certified Final Effluent	UÉ	Number of Wastewater Treatment Plants at risk of failing to meet the requirements set out in the Certification of Authorisation environmental objectives.
WWTP Headroom	UÉ	Number of Wastewater Treatment Plants predicted to fail to meet capacity requirements.
WWTP Recast UWWTD	UÉ	Number of Wastewater Treatment Plants that require upgrading to meet the treatment requirements as set out in the recast UWWTD.
Waterbody Quality: Urban Wastewater	Shared	Number of waterbodies not achieving the Water Framework Directive environmental objectives where urban wastewater is identified as a significant pressure.
Waterbody Quality: Urban Runoff	Shared	Number of waterbodies not achieving the Water Framework Directive environmental objectives where urban runoff is identified as a significant pressure.
Bathing Water Quality	Shared	Number of current and future designated inland and coastal bathing waters where urban wastewater is deemed to be a significant pressure and has a negative impact on status.
Shellfish Water Quality	Shared	Number of current and future designated shellfish waters where discharges from wastewater assets pose a compliance risk with microbial standards.
Serious Pollution Incidents	UÉ	Number of category 3, category 4 and category 5 pollution incidents from wastewater assets taking account of reoccurrences.
Minor and Limited Pollution Incidents	UÉ	Number of category 1 and category 2 pollution incidents from wastewater assets taking account of reoccurrences.
Energy Neutrality	UÉ	Percentage Energy Neutrality achieved across the applicable national portfolio of wastewater treatment plants treating loads of 10,000PE and above, as per rUWWTD threshold.
Wastewater Biosolids	UÉ	Risk-based assessment of biosolids treatment, storage, transport and outlet capacity across sludge-active agglomerations.

Some performance indicators may not yet be supported by sufficient data or monitoring at a national scale. The NWWDP will identify opportunities to improve data collection and monitoring over time, allowing these indicators to be developed and incorporated into future planning and investment decisions as evidence becomes available. The NWWDP will record relevant data confidence and apply proportionate assessment approaches, allowing indicators to be refined as data improves.

In a number of areas, monitoring programmes have only recently commenced or are due to be expanded over the coming years. While these programmes will provide valuable insights for the current cycle of the NWWDP, their greatest benefit

will be realised in future planning cycles as longer-term, validated datasets become available. For example, recently introduced monitoring of Storm Water Overflows (SWOs) will, over time, provide a more comprehensive understanding of overflow performance and system behaviour. Similarly, the implementation of additional monitoring requirements, and Implementing Acts the European Commission may and shall make in relation to methodology, under the recast Urban Wastewater Treatment Directive, will further strengthen the evidence base available to support future planning and assessment.



5. Future Trends

In the period to 2055 we are likely to experience unprecedented changes. The delivery of safe, secure and sustainable wastewater services will be influenced by a range of interconnected factors, many of which are uncertain and evolving. These factors will create new demands on infrastructure, require adaptation to changing environmental and regulatory expectations and influence future investment priorities.

We have identified seven key areas of potential change –

1. population growth and development,
2. climate change,
3. statutory and regulatory changes,
4. progress to net zero carbon,
5. technology and innovation,
6. customer behaviour, and
7. increase in asset base.

5.1 Population Growth and Development

A growing population increases the volume of wastewater, placing additional pressure on infrastructure. Population growth is also frequently accompanied by rising levels of impermeable surface, a process known as “urban creep”, as gardens, green spaces, and permeable areas are replaced by hardstanding. Urban creep results in greater volumes of surface water runoff entering sewer networks. The combined effect of these changes places a higher demand on treatment plants and sewer networks, increasing the likelihood of treatment plant capacity constraints, sewer flooding and spills from storm water overflows. Increased sludge production presents an additional challenge.

NWWDP Action

We will align planning for population and development growth with the hierarchy of plans in the Irish planning system as follows:

- The **National Planning Framework**, First Revision (NPF), is Ireland's high-level spatial strategy guiding development, infrastructure investment, and sustainable population and housing growth to 2040. It identifies an increase in the population

of Ireland from a baseline population of 5.14M at Census 2022 to 5.7M by 2030 and 6.1M by 2040. It aims to achieve this growth in a way that is balanced across the three regions of Ireland, with a focus on compact growth in existing built-up areas, and in particular around Dublin, Cork, Waterford, Galway and Limerick, as well as some other regional centres.

- The **Regional Spatial and Economic Strategies**, provide a regional-level policy framework that supports the objectives of the NPF. The three RSES are currently under review, and updates are expected in Q4 of 2027.
- Planned growth at settlement level is reflected in the objectives of the **City or County Development Plans** which include land use zoning objectives. The revised NPF published in April 2025 provides population targets for cities and regions, with the associated Section 28 Guidelines published in July 2025 providing county level housing targets. To facilitate these new county level housing targets, variations to City or County Development Plans are being prepared by the Planning Authorities and UÉ has engaged extensively on these.

As part of the NWWDP we will assess the impact of Urban Creep using the latest Uisce Éireann wastewater modelling approach.



Uisce Éireann's wastewater infrastructure is exposed to a wide range of climate-related hazards that have the potential to significantly impact the operation and performance of wastewater treatment plants and networks, as illustrated in **Figure 9**. Changes in rainfall patterns, increasing temperatures, drought, more frequent extreme weather events and sea level rise have the potential to affect the performance, resilience and sustainability of wastewater infrastructure across Ireland.

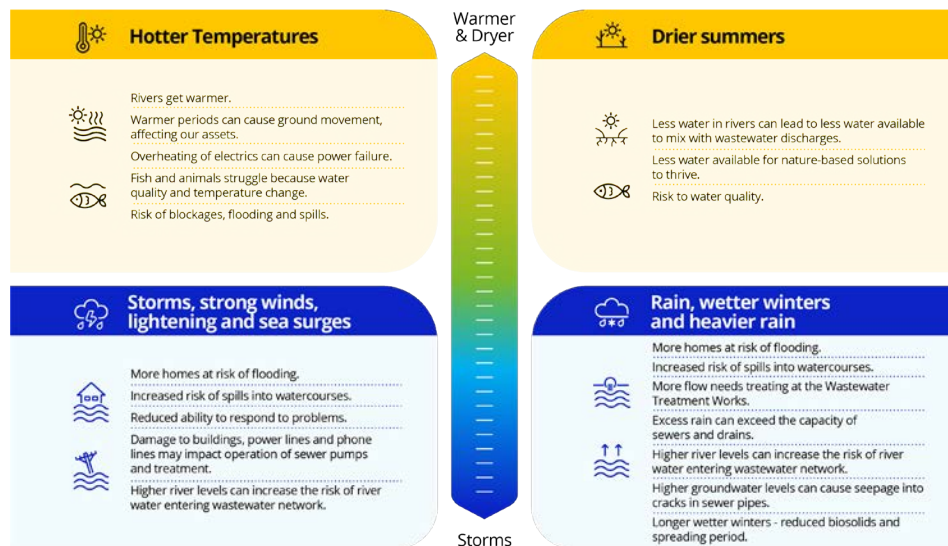


Figure 9: Climate Change Impacts for Wastewater and Drainage in Ireland.

NWWDP Action

The NWWDP will use the latest available climate science, including Met Éireann's **TRANSLATE climate projections** and other ongoing Met Éireann research into high intensity rainfall events ('pluvial' events), to inform risk assessment and future planning. These projections provide nationally consistent information on how climate conditions may change over time and will support an evidence-based assessment of potential impacts on wastewater and drainage systems. Climate projections will be considered alongside historical data and other relevant information to better understand future vulnerabilities and opportunities across the wastewater network.

Recognising the inherent uncertainty associated with long-term climate projections, the NWWDP will adopt an adaptive planning approach. Future risks will be assessed across a range of climate scenarios to understand how different climate pathways could affect wastewater and drainage infrastructure over time. This approach is consistent with Ireland's climate adaptation principle of planning for a range of possible futures and supports the identification of flexible and resilient long-term strategies.

The assessment of climate risk will consider a range of potential impacts, including changes in rainfall intensity and frequency, river and coastal flooding, groundwater conditions, sea level rise, temperature change and the operational implications of more frequent extreme weather events.

Where appropriate, climate projections and other national datasets will be used to support risk assessment, network modelling and future resilience planning. Whenever feasible, we will incorporate future projections for river and sea levels available from the Office of Public Works (OPW), the lead organisation for flood risk management in Ireland, including the Catchment Flood Risk and Management Plans (CFRAMs) and floodinfo.ie.

By embedding climate adaptation and resilience considerations within the NWWDP methodology, the Plan will help ensure that future wastewater and drainage planning takes account of changing climate conditions and supports sustainable, resilient and adaptable services for communities and the environment.

5.3 Statutory and Regulatory Changes

The legislative and regulatory framework governing wastewater and drainage services will continue to evolve over the lifetime of the National Wastewater and Drainage Plan. One of the most significant changes anticipated during this period is the transposition and implementation of the recast Urban Wastewater Treatment Directive, which introduces new requirements relating to treatment standards, removal of micropollutants, energy performance, transparency, storm water overflows, urban runoff and integrated urban wastewater management planning. Alongside ongoing implementation of the Water Framework Directive and other environmental legislation, these changes will shape future investment priorities, operational practices and environmental objectives across the wastewater sector.

5.3.1 Recast Urban Wastewater Treatment Directive

The original Urban Wastewater Treatment Directive (91/271/EEC) has been the main legislative driver for investment in wastewater collection and treatment systems as well as preventing pollution from industrial discharges. It has driven huge improvements in water quality across Europe since its enactment over 30 years ago. The revised (recast) Urban Wastewater Treatment Directive (2024/3019/EU) builds on this legacy and addresses remaining pollution and new challenges in urban wastewater management. The recast UWWTD came into force on 01/01/2025 and considerably widens the scope of the UWWTD to include sustainability, public health and increased transparency.

The recast UWWTD lays down rules on the collection, treatment and discharge of urban wastewater, to protect the environment and human health, in line with the One Health approach, and monitoring of GHG emissions. Key obligations and associated timelines are detailed below in **Figure 10**.

Secondary treatment - Requirement threshold reduced to 1,000pe WWTPs - Deadline for implementation varies, generally 2035	Tertiary treatment - Tighter nitrogen & phosphorus (N&P) discharge standards at plants >150,000pe (phased implementation 2033-2039) - Risk-base requirement for other plants (phased implementation 2033-2045)	Quaternary treatment - Discharge control of emerging contaminants (micropollutants) - Required on all plants >150,000pe by 2045 - Required on other plants on a risk basis
Collecting systems - Storm water overflow and urban runoff pollution reduction - Development of integrated urban wastewater management plans for all agglomerations of 100,000 PE and above	Monitoring increase - Increased parameters and monitoring frequency - Inclusion of public health parameters	Energy neutrality - Applies to plants > 10,000pe (phased targets to 2045) - Audits required
Resource reuse - Energy and heat recovery - Use of treated effluent	Transparency - information to public Information provided at agglomeration level (WWTP & SWO)	

Figure 10: Uisce Éireann’s key obligations under the Recast UWWTD.

Ireland must transpose the recast UWWTD into national law by July 2027. The Department of Housing, Local Government and Heritage (DHLGH) is responsible for overseeing this process. The Minister has established a national expert group to assist with the transposition of the recast Directive.

NWWDP Action

The NWWDP will provide a framework for understanding and responding to these evolving statutory and regulatory requirements through a long-term, adaptive approach to planning.

UÉ is engaging with the DHLGH and stakeholders at a national level to support the recast UWWTD transposition process.

5.3.2 Other Regulatory and Policy Changes

Through the NWWDP we will also consider other regulatory and policy changes that may occur during the plan development period including:

- The designation of additional sensitive catchment areas for nutrients.
- Potential revisions to the Waste Water (Authorisation) Regulations
- Potential revisions to the Water Framework Directive
- The impact of emerging contaminants and nutrient management requirements could potentially restrict the current land availability for sustainable reuse. Revisions to the Sewage Sludge Directive and the Code of Good Practice for the use of Biosolids in Agriculture are expected, in combination with the introduction of the proposed EU Circular Economy Act. These legislative updates may result in changes to our approach to wastewater sludge and bioresources management.
- Planned changes to assessment criteria for storm water overflows (action UWW9 in the Water Action Plan 2024)
- Potential changes to the significant pressure lists in the Water Action Plan 2024 in preparation for the 4th cycle of the River Basin Management Plan
- Planning and Development Changes.

5.4 Progress to Net Zero Carbon

Our Sustainability Framework outlines our sustainability ambitions such as net zero carbon by 2040, biodiversity net gain by 2030, GHG emissions reduction, and to ensure circular solutions are considered in all capital projects by 2026.

NWWDP Action

Net zero objectives will be considered throughout the development of the NWWDP and in the assessment of future investment needs and potential solutions. The Plan will take account of Uisce Éireann's evolving policies, strategies and targets relating to carbon reduction, energy efficiency, biodiversity enhancement, nature-based solutions and environmental sustainability to help ensure that future wastewater services support the transition to a low-carbon and climate-resilient future.

Uisce Éireann are investing in renewable energy generation and optimisation. Efficient energy generation and use is key, and we recognise the opportunity for optimising our biogas generation to fully realise its potential as a renewable energy resource. We have initiated the biogas optimisation programme with the aim to improve and optimise biogas production and usage, and to address common challenges across digestion plants for example, ensure biogas usage, data and reporting on biogas quantities and quality (including methane emissions monitoring and control), biogas cleaning and implementation of innovative biogas technologies where appropriate.

5.5 Technologies and Innovation

The long term delivery of resilient, sustainable wastewater and drainage services will rely on innovation and technology as enablers of improved system understanding and informed decision making. Innovative technologies could significantly transform many aspects of how we manage our wastewater and drainage systems including:

- **Wastewater system regulatory compliance requirements** - Innovation will play an important role in preparing for evolving regulatory requirements, including those arising from the recast Urban Wastewater Treatment Directive (rUWWTD). This includes the development and testing of approaches to emissions monitoring, energy efficiency and protection of receiving waters. Early innovation activity can help inform proportionate responses and reduce the risk of reactive or high cost interventions later in the planning period.
- **Wastewater Treatment Capacity and Operational Optimisation** - Innovation in wastewater treatment processes and operational practices can support better

use of existing infrastructure. Improved process performance and optimisation techniques can help unlock additional capacity where needed and improve effluent quality, supporting population growth and tighter environmental standards while maximising the value of existing assets.

- **Net zero & circular economy** - Innovation will be required to support the transition to lower carbon wastewater and drainage services. This includes exploring low carbon construction and retrofit approaches, as well as opportunities for circular economy outcomes.
- **Digital & data intelligence** - Digital and data led innovation will support improved visibility of network and treatment system performance and provide better evidence to inform operational and investment decisions.

NWWDP Action

Our focus is on building capabilities and adaptive pathways, rather than prescribing specific solutions, to support effective responses to regulatory change, growth pressures and environmental challenges over time. We will assess how innovative technologies may evolve and using the Best Value Framework this will influence the solution proposed during the Options Development Appraisal phase.

5.6 Customer Behaviour

Uisce Éireann's Water Services Strategic Plan 2050 recognises that sustainable water services depend on active participation by customers and communities. It commits to supporting customers to play their part in protecting water as a precious resource and to delivering education and engagement programmes to raise awareness of water services and their value.

Customer behaviour influences wastewater services in several key ways:

- **Wastewater generation and demand** - Household and commercial water use patterns drive the volume and timing of wastewater flows, contributing to network loading, peak flows and treatment requirements.
- **Pollutant loading and source control** - The disposal of fats, oils, grease, wet wipes, chemicals and other materials into drains and sewers affects:
 - Blockages and network performance
 - Treatment process efficiency
 - Compliance with environmental standards.

- Misconnections - Household and commercial customer behaviours such as misconnections of wastewater to storm water systems, surface water entry to foul networks, and poor awareness of drainage systems can exacerbate:
 - Inflow and infiltration
 - Storm water overflow operation
 - Flooding and environmental risk.

NWWDP Action

We will assess how customer behaviour is expected to evolve and reflect this in the Performance Indicators (particularly for pollution incidents). We will identify in the Options phase customer side measures and demand management measures that can help manage risk, improve resilience, and support the delivery of long-term service and environmental outcomes.

We will work with our National Water Resources Plan team to **help reduce water use** and support ongoing Uisce Éireann information platforms to conserve water (<https://www.water.ie/conservation>). Using less water not only saves this precious resource but also means less wastewater entering the sewer system, reducing pressure on the wastewater network.

We will work with our Customer and Communications teams to help reduce sewer misuse. Items like wet wipes, sanitary products, and fats, oils, and greases (FOG) can cause serious blockages, sometimes leading to pollution. Tips on how to dispose of fats, oil and grease can be found here: <https://www.water.ie/business/trade-effluent/fats-oils-and-grease>.

5.7 Increase in Asset Base

It is anticipated that some developer-provided wastewater infrastructure may transfer into the public wastewater system over the lifetime of the NWWDP. As information relating to these assets continues to be reviewed and refined, the implications for future service delivery, asset management and investment planning will be considered as part of the Plan.

NWWDP Action

The NWWDP will take account of emerging information on developer-provided wastewater infrastructure that may transfer to Uisce Éireann over the lifetime of the Plan. As understanding of these assets develops, their potential implications for future risk assessments, service provision, asset management and investment planning will be considered within the NWWDP framework.



6. Delivering Value

6.1 Measuring the value

Best Value Framework

We recognise that improving Ireland's wastewater systems requires sustained investment, and it is essential to maintain high performance now and for future generations. Our objective is to ensure every euro spent delivers the greatest benefit and best value, aligned with policy and regulatory requirements.

Many interventions can deliver environmental and social benefits beyond core service outcomes. For example, SuDS such as swales, rain gardens and permeable paving can reduce flood risk, improve water quality, enhance biodiversity and create better places. Similarly, nature-based solutions for wastewater treatment can have many added benefits such as enhanced biodiversity when compared to standard solutions. We will consider the full cost to deliver solutions—including capital, operational and carbon costs. We will align with the ongoing collaborations between Uisce Éireann and Natural Capital Ireland to embed natural capital into project-level decision-making.

Our Best Value Framework provides a structured approach which would consider developing:

- whole life costs and benefits for a range of options (capex, opex and carbon).
- “Value Metrics” for relevant benefits across the six capitals (human, social, natural, intellectual, manufactured and financial).
- a multi criteria assessment for benefits ensuring they are still reflected in decision making.

By assessing whole life costs and benefits, we build delivery plans that create the greatest value for customers, the environment and wider society. Applying these value metrics enables us to compare options consistently and transparently and to prioritise the interventions that deliver the best overall outcomes for the resources invested.

We will evaluate each decision based on the lifetime balance of costs and benefits and identify the option that provides the strongest value-for-money case.

This assessment will cover a broad portfolio of interventions and will be balanced within a long term plan (e.g., a 25 year outlook) to ensure sustained, resilient service for communities. In some cases, where statutory obligations apply - such as compliance with wastewater discharge licence authorisations or meeting Irish and EU water quality requirements - we may implement solutions even if no cost beneficial option exists, clearly documenting the legal driver and the chosen least regret pathway.

6.2 Options Development Appraisal

The Options Development Appraisal phase is strategic in nature. We will be developing a high-level options toolkit that will develop the best blend of solutions across agglomerations. It is important to note that the NWWDP will not identify localised interventions but instead aims to establish a holistic, forward-looking strategy to guide the long-term development of wastewater infrastructure.

Options Development Appraisal

We propose to develop a full range of intervention options including operations and maintenance, and asset health interventions⁶, to address current or future system performance risks. We will define the constraints and set out option cost-benefit models, including the wider benefits that the options can deliver such as community benefit and biodiversity benefit. We also endeavour to identify collaborative solutions that could be developed with stakeholder organisations.

Generic Options

We propose to develop a range of potential option types (Generic Options) for consideration across all aspects of drainage and wastewater planning in any geographic area. The options will include a range of operational and maintenance activities, asset improvements, green and blue infrastructure, land management, and customer side actions.

Options will be characterised into types to guide adaptive planning in the risk assessment and options development appraisal phase. These types are incremental options, modular options and one-off options. Incremental and modular options

⁶ The NWWDP will capture outputs from Project Assure and Project Sustain in the investigation of root causes for our performance indicators as part of the problem characterisation and options development appraisal phases.

are preferred when there is significant uncertainty in future requirements as they will give 'least regrets' investment. One-off options may be preferred when they will give the lowest net present cost, and potentially increase net present value, for all potential future scenarios.

Acceptable options

The list of generic options will be reduced by rejecting those that are not acceptable to the stakeholders, based on objective, repeatable and consistent appraisal criteria. Options may be rejected if they are not currently technically feasible, that they are not considered to be best value or they may have unacceptable impacts.

Constraints

For each of the generic options, a list of constraints will be derived to provide an initial filter on when it is appropriate to fully assess the use of an option in the options development appraisal phase.

Strategic Environmental Assessment and Appropriate Assessment

The SEA process contributes to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development. The SEA process will be developed to influence selection of preferred options. This will be based on SEA objectives applied to the WSSP 2050 and these embed support for environmental protection, water quality, nature recovery and the wider benefits identified below. Appropriate Assessment will specifically address the protection of European designated sites. These assessments will be built into to each stage of the options appraisal and the development and selection of the Best Value plan.

Cost Models

We may develop a high-level cost model to provide an initial estimate of cost based on available measures.

Wider benefits

The benefits that the implementation of options will bring to the defined performance indicators are assessed when the options are applied to a particular location. Some potential options, particularly blue-green infrastructure options such as sustainable drainage, bring inherent wider benefits; spatial targeting of these measures can maximise additional benefits. Wider benefits could include

biodiversity, flood risk management, carbon sequestration, enhanced community spaces, and aesthetic improvements.

We plan to review options against our best value framework. In order to undertake this task, we will consider the eight elements shown in Figure 10 in our cost benefit assessment.

6.3 Adaptive and Scenario Based Planning

Inclusion of the adaptive planning concept will establish which enhancement investments are needed now, and where decision points can be delayed until later in the timeline, when there is likely to be greater certainty about what is needed, including possibly technology changes. Adaptive planning can also help evaluate where and when to bring forward investment to create flexibility.

Under the adaptive planning approach, adaptive pathways set out how decisions will be made in the future, under different plausible circumstances. The pathways contain clear decision points, indicating when a decision needs to be taken about the right option to efficiently deliver long-term outcomes. At these points, pathways deviate from each other as different sets of options are chosen.



7. Stakeholder Engagement and Delivering in Partnership

7.1 Consultation Approach

The National Wastewater and Drainage Plan (NWWDP) will be developed through a multi-stage programme of engagement and consultation. Wastewater and drainage services operate within a complex and interconnected system that is influenced by many factors, including population growth, housing delivery, climate change, environmental protection, land use planning and evolving regulatory requirements. Many of these issues involve shared responsibilities and require collaboration between Uisce Éireann, local authorities, regulators, Government departments, infrastructure providers, community organisations and other stakeholders.

This first stage of public consultation seeks views on this proposed approach and strategic context document and feedback received will help inform the preparation of the Draft National Wastewater and Drainage Plan and its associated environmental assessments.

Uisce Éireann is seeking feedback on the Proposed Approach and Strategic Context and the Strategic Environmental Assessment (SEA) Scoping Report for the NWWDP. **The consultation will be open for eight weeks from 22nd October 2026 to 17th December, 2026.** Consultation documents can be viewed and downloaded at [Uisce Éireann's consultation portal](#).

Submissions can be made by email or post before **before 17th December**.

Email: nwwdp@water.ie

Post: National Wastewater and Drainage Plan (NWWDP),
Uisce Éireann,
PO Box 860,
South City Delivery Office,
Cork City.

To assist stakeholders in making a submission, Uisce Éireann welcomes feedback on the following topics. Responses are not limited to these areas and stakeholders are encouraged to provide any additional observations or suggestions that may assist in the development of the National Wastewater and Drainage Plan.

Future Challenges and Opportunities

Have we identified the key challenges, opportunities and future trends that should shape wastewater and drainage planning in Ireland to 2055?

Are there any significant issues that should receive greater consideration?

Proposed Planning Approach

Do you have any comments on the proposed approach for developing the NWWDP, including the use of evidence-based decision-making, adaptive planning and long-term risk assessment?

Performance Indicators

Do you consider the proposed Performance Indicators to be:

- clear and understandable;
- meaningful and measurable; and
- appropriate for assessing long-term wastewater and drainage performance?

Additional Performance Indicators

Are there any additional Performance Indicators that you consider appropriate for assessing long-term wastewater and drainage performance?

Strategic Environmental Assessment

Do you have any comments on the proposed scope and methodology of the Strategic Environmental Assessment (SEA), including the environmental issues, pressures and sensitivities that should be considered?

Ongoing Engagement

How would you like Uisce Éireann to communicate and engage with stakeholders as the NWWDP progresses? Detailed questions are included in the Scoping Report.

8. Transition from Scoping to Draft Plan, and Final Plan

Following the conclusion of this consultation, Uisce Éireann will review and consider feedback received from stakeholders. All submissions made will be reviewed and relevant feedback incorporated into the environmental reports and the draft NWWDP as appropriate. Submissions from individuals will be reported anonymously and feedback from organisations will be attributed to them.

8.1 Timelines for our NWWDP

In 2027, the Draft NWWDP will be published, and an eight-week statutory public consultation will be undertaken, before being reviewed and finalised in 2028. **Figure 11** details the timeline for publication of the NWWDP and key pieces of work that will be shared during the development of the plan. After this, Uisce Éireann will undertake periodic reviews of the National Wastewater and Drainage Plan. This will ensure the actions and objectives of the Plan are fit for purpose in the short, medium and long term, and it provides an opportunity to make recommendations for new or updated approaches.



Figure 11: Timeline for delivery of the National Wastewater and Drainage Plan.

Appendix A Glossary

Term	Definition
Agglomeration	An area where the population expressed in population equivalent, combined or not with economic activities, is sufficiently concentrated for urban wastewater to be collected and conducted to one or more urban wastewater treatment plants or to one or more final discharge points.
Appropriate Assessment (AA)	An assessment of whether the plan or project concerned will have adverse effects (either alone or in combination with other plans or projects) on the integrity of European Sites having regard to their conservation objectives. This assessment is carried out pursuant to the Habitats Directive (92/43/EEC) and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011) as amended.
Asset	Infrastructure (e.g. buildings, treatment plants) and equipment (e.g. pumps, screens, treatment units, disinfection systems and control panels) controlled and operated by Uisce Éireann to deliver water and wastewater services. We divide these into Below Ground Assets such as pipework and valves and Above Ground Assets such as treatment plants.
Biodiversity	The variety of all living things.
Combined sewer	A single conduit that collects and conducts urban wastewater, including urban runoff.
Discharge	Treated effluent from a wastewater treatment plant which is returned to the water environment. This is usually from a pipe and outflow structure into a river or the sea.
Emergency Overflow (EO)	An emergency overflow typically provided at a pumping station, is designed to operate only in the event of operational failure at a pumping station (e.g. power, mechanical, electrical or control failure), rising main failure or blockage in the downstream sewer. The overflow may occur at the pumping station itself or at a chamber upstream on the incoming sewer.
Emission Limit Value (ELV)	The maximum allowable concentration or quantity of a pollutant that can be released into the environment from a specific source over a given period.
Load	The amount of organic biodegradable matter measured as BOD5 of any pollutant or nutrient, expressed in mass units per time.
Micropollutant	A substance as defined in Article 3(1) of Regulation (EC) No 1907/2006 of the European Parliament and of the Council, including its breakdown products, that is usually present in the aquatic environment, urban wastewater or sludge and that can be considered hazardous to the environment or human health on the basis of the relevant criteria set out in Parts 3 and 4 of Annex I to Regulation (EC) No 1272/2008, even in low concentrations.
Nature-based solutions	Solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions.
Network	The interconnection of pipes and pumping stations used for the distribution of treated water and the collection of wastewater.

Term	Definition
Quaternary Treatment	Treatment of urban wastewater by a process which reduces a broad spectrum of micropollutants in urban wastewater.
Population Equivalent	The term "PE" in the context of the Directive (EU) 2024/3019 refers to Population Equivalent, which is a standard unit used to describe the load a treatment plant must handle. One PE represents the average organic biodegradable load produced by one person per day, defined as 60 grams of biochemical oxygen demand (BOD) over five days.
Recast Urban Wastewater Treatment Directive	Directive (EU) 2024/3019. The recast UWWTD is an update on a European Union directive concerning urban wastewater collection, treatment and discharge of urban wastewater and the treatment and discharge of wastewater from certain industrial sectors.
Resilience	The ability of a wastewater system to withstand and quickly recover from disruptions and other stresses.
Secondary treatment	Treatment of urban wastewater by a process generally involving biological treatment with a secondary settlement or another process which reduces biodegradable organic matter from urban wastewater.
Sludge	Organic and inorganic residue resulting from the treatment of urban wastewater from an urban wastewater treatment plant, excluding grit, grease, other debris and any other screenings and residues from the pre-treatment step.
Strategic Environmental Assessment (SEA)	A report identifying, describing and evaluating the likely significant effect of implementing the plan or programme, or modification to a plan or programme, and reasonable alternatives taking account of the objectives and geographical scope of the plan or programme, or modification to a plan or programme.
Storm Water Overflow (SWO) [recast UWWTD]	Discharge of untreated urban wastewater into receiving waters from combined sewers caused by precipitation or system failures.
Storm Water Overflow (SWO) [WW Discharge Regulations]	A structure or device on a sewerage system designed and constructed for the purpose of relieving the system of excess flows that arise as a result of rain water or melting snow in the sewered catchment, the excess flow being discharged to receiving waters.
Tertiary treatment	Treatment of urban wastewater by a process which reduces nitrogen or phosphorus, or both, in urban wastewater.
Urban runoff	Precipitation in agglomerations collected by combined or separate sewers.
Urban wastewater	Urban wastewater means any of the following: (a) domestic wastewater; (b) the mixture of domestic wastewater and non-domestic wastewater; (c) the mixture of domestic wastewater and urban runoff; (d) the mixture of domestic wastewater, non-domestic wastewater and urban runoff.

Appendix B Acronyms

Acronyms	
AA	Appropriate Assessment
CAP	Climate Action Plan
CRU	Commission for Regulation of Utilities
ECJ	European Court of Justice
ELV	Emission Limit Value
EPA	Environmental Protection Agency
EU	European Union
GHG	Greenhouse Gas
IUWwMP	Integrated Urban Wastewater Management Plan
NBS	Nature-Based Solutions
NIS	Natura Impact Statement
NPF	National Planning Framework
PE	Population Equivalent
PI	Performance Indicator
RBMP	River Basin Management Plan
rUWWTD	Recast Urban Wastewater Treatment Directive
SEA	Strategic Environmental Assessment
SuDS	Sustainable Drainage Systems
SWO	Storm Water Overflow

Acronyms	
UÉ	Uisce Éireann
UWWTD	Urban Wastewater Treatment Directive
WFD	Water Framework Directive
WSSP	Water Services Strategic Plan
WW	Wastewater
WWTP	Wastewater Treatment Plant

