

Draft Cork Wastewater Strategy

(Cork Metropolitan Area)

Consultation 2

Cork Wastewater Strategy

The Draft Cork Wastewater Strategy assesses the existing wastewater treatment and network infrastructure in the Cork Metropolitan Area including 26 wastewater treatment plants, 193 pumping stations, 225 storm water overflows, and 1,300 km of wastewater network—to determine the investments needed to support sustainable growth, climate resilience, and environmental protection through to 2080.

The strategy identifies preferred solutions to improve treatment capacity and network performance, with investments prioritised across three planning horizons: short-term (2030), medium-term (2055), and long-term (2080).

What is the Cork Metropolitan Area?

The Cork Metropolitan Area is a major regional metropolitan area in County Cork, identified as such in the National Planning Framework and in the Regional Spatial and Economic Strategy 2020-2032.

Challenges for wastewater collection and treatment in the Cork Metropolitan Area include:

- Environmental Protection
- Population Growth and Economic Development
- Regulatory Compliance
- Ageing Infrastructure
- Climate Change Resilience

Draft Cork Wastewater Strategy

The economic success of the Cork Metropolitan Area has led to very significant growth in Cork City and surrounding areas. As a result of this growth, the wastewater drainage infrastructure is challenged to keep pace with the increased demand for new serviced land needed for housing, commercial developments, and industry.

Current Challenges Facing Cork

- Environmental Protection
- Population Growth and Economic Development
- Regulatory Compliance
- Ageing Infrastructure
- Climate Change Resilience

What is a Wastewater Strategy?

The purpose of a Wastewater Strategy is to assess wastewater treatment and network infrastructure in a defined geographic area to identify what future investment will be required in the medium and long term. Having adequate wastewater infrastructure is essential to facilitate housing provision and commercial development and to support sustainable growth and protecting the environment.

The Study Area

The Study Area encompasses Cork Harbour and the Port of Cork and contains over 25 towns and villages in addition to the urban core of Cork City.

What is the Cork Metropolitan Area?

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How was the strategy developed?

The Draft Cork Wastewater Strategy includes:

1. Assessment of the existing wastewater infrastructure along with data gathering.
2. Population and economic growth assessments.
3. Strategic environmental assessment.
4. Consultation with stakeholders and the public.

When will we Consult?

Consultation:

The first round of consultation took place in 2024 and sought feedback and comments on the Issues Paper, Strategic Environmental Assessment Scoping and Appropriate Assessment Screening Report.

Feedback from consultation 1 was considered in the development of the draft Cork Wastewater Strategy which is published for consultation along with the associated environmental reports.

Where can I get more information?

Email: CWS@water.ie

Website: www.water.ie/cws



How the Strategy Was Developed?

The draft Cork Wastewater Strategy was developed on a clear, step-by-step process that follows national and international best practices. It included:

- Assessing current wastewater infrastructure to identify areas requiring improvement.
- Projecting future wastewater needs for the Cork Metropolitan Area for 2030, 2055, and 2080.
- Using advanced wastewater network modelling to understand how the wastewater system performs and how it affects the environment.
- Assessing environmental impacts and making sure all plans meet legal requirements.
- Identification of a number of potential solutions to develop a series of recommendations.

The Cork Wastewater Strategy identified 11 strategic wastewater sub catchments, based on infrastructure performance and characteristics including locations, within the Cork Metropolitan Area. This allowed us to take a more targeted approach, enabling us to plan effectively and address the specific needs, pressures, and challenges unique to each sub-catchment.

Following this, we examined how the 26 Wastewater Treatment Plants across the area operate within their respective sub-catchments. This analysis focused on identifying opportunities for optimisation.

Figure 1: Wastewater Treatment Plants - Cork Metropolitan Area



Figure 2: Sub Catchments CMA

Sub Catchment	Wastewater Treatment Plant
Sub Catchment 1	Blarney Wastewater Treatment Plant
	Courtbrack Wastewater Treatment Plant
	Dripsey Wastewater Treatment Plant
	Inniscarra Wastewater Treatment Plant
Sub Catchment 2	Kileens Wastewater Treatment Plant
Sub Catchment 3	Carrignavar Wastewater Treatment Plant
	Grenagh Wastewater Treatment Plant
	Whitechurch Wastewater Treatment Plant
Sub Catchment 4	Knockraha Wastewater Treatment Plant
	Watergrasshill Wastewater Treatment Plant
Sub Catchment 5	Carrigrennan Wastewater Treatment Plant
Sub Catchment 6	Ballygarvan Wastewater Treatment Plant
	Halfway Wastewater Treatment Plant
	Minane Bridge (River Valley) Wastewater Treatment Plant
Sub Catchment 7	Ballincollig Wastewater Treatment Plant
	Killumney Wastewater Treatment Plant
Sub Catchment 8	Cork Lower Harbour Wastewater Treatment Plant
Sub Catchment 9	Carrigtwohill Wastewater Treatment Plant
	Midleton Wastewater Treatment Plant
Sub Catchment 10	Cloyne Wastewater Treatment Plant
	North Cobh Wastewater Treatment Plant
	Saleen Wastewater Treatment Plant
	Whitegate – Aghada Wastewater Treatment Plant
Sub Catchment 11	Ballincurrig Wastewater Treatment Plant
	Lisgoold South Wastewater Treatment Plant
	Lisgoold North Wastewater Treatment Plant

Experts from different fields, engineering, ecology, hydrology, and more, worked together through workshops and ongoing discussions to explore all the options.

This collaborative effort formed the foundation of the **Optioneering and Strategy Development process**, to identify the most effective drainage and treatment solutions for Cork across three key planning horizons: **2030 (short-term), 2055 (medium-term), and 2080 (long-term)**.

The process followed a structured five-stage methodology:

- 1. Identify site-specific needs**
- 2. Generate a comprehensive set of options**
- 3. Screen options for technical and environmental feasibility**
- 4. Assess shortlisted options using Multi-Criteria Assessment**
- 5. Identify the preferred strategy based on modelling and stakeholder input**

This rigorous approach led to the creation of the **recommended approach** — a strategic framework that integrates the most suitable solutions for the Cork Metropolitan Area as a whole. It identifies preferred measures to enhance **treatment capacity, drainage efficiency, and overall network performance**.

The draft strategy recommends **decommissioning 16 smaller wastewater treatment plants**, with wastewater redirected to larger, centralised facilities. This approach will enhance operational efficiency, improve environmental outcomes, and strengthen system resilience by consolidating resources and infrastructure. The recommended solutions will be advanced as individual projects and prioritised across the three planning horizons. Each project will undergo its own environmental assessment, where necessary, which may include **Environmental Impact Assessment (EIA)** and Appropriate **Assessment (AA)**, ensuring compliance with environmental regulations and alignment with sustainability goals.

Recommended Approach

Wastewater Treatment Plant (WwTP) Decommissions & Transfers

- Blarney WwTP:** Decommission; wastewater to transfer to Carrigrennan WwTP via new pumping station and pipeline.
- Inniscarra WwTP:** Decommission; wastewater to transfer to Blarney WwTP.
- Carrignavar & Grenagh WwTPs:** Decommission; wastewater to transfer to Whitechurch WwTP.
- Whitechurch WwTP:** Decommission; wastewater to transfer to Carrigrennan WwTP via new pumping station and pipeline connection to the Cork City Network.

- **Knockraha WwTP:** Decommission; wastewater to transfer to Glanmire Bridge Pumping Station and treated in Carrigrennan WwTP.
- **Ballincurrig & Lisgoold North WwTPs:** Decommission; wastewater to transfer to new Lisgoold South WwTP.
- **Saleen WwTP:** Decommission; wastewater to transfer to Cloyne WwTP.
- **Killumney WwTP:** Decommission; wastewater to transfer to Ballincollig WwTP.
- **Ballygarvan, Minane Bridge & Halfway WwTPs:** Decommission; wastewater to transfer to Cork Lower Harbour WwTP.
- **Kileens WwTP:** Decommission; wastewater to transfer to Carrigrennan WwTP.
- **North Cobh WwTP:** Decommission; wastewater to transfer to Cork Lower Harbour WwTP.
- **Watergrasshill WwTP:** Decommission; wastewater to transfer to Carrigrennan WwTP.

Wastewater Treatment Plant Upgrades

Capacity upgrade at the following Wastewater Treatment Plants. Population Equivalent (PE) is a unit that represents the average amount of biodegradable organic matter produced by one person in a day, used to design and size wastewater treatment systems:

- Courtbrack with a design capacity of 850PE by 2080
- Dripsey with a design capacity of 850PE by 2080
- Cloyne with a design capacity of 5,500PE by 2080
- Whitegate-Aghada with a design capacity of 4,500PE by 2080
- Lisgoold South with a design capacity of 2,400PE by 2080
- Cork Lower Harbour with a design capacity of 98,000PE by 2080
- Carrigrennan with a design capacity of 558,000PE by 2080
- Midleton with a design capacity of 22,500PE by 2080
- Upgrade Carrigtwohill WwTP: With a design capacity of 47,000PE by 2080. Includes new outfall extension to Lough Mahon.
- New Ballincollig WwTP: Constructed to replace existing facility with a design capacity of 72,000PE. A new outfall will be constructed for the new WwTP, however the discharge location of the outfall will remain the same as the existing WwTP.

More information is provided in section 12 of the draft strategy.

Water Quality Modelling

As part of the development of the Draft Cork Wastewater Strategy, we undertook a water quality impact assessment of Cork's four principal river waterbodies (Glashaboy, Owenboy, Owencurra, and the multi-branch Lee system) and the marine waterbodies that make up the natural Cork Harbour system (including Lee and Owenacurra Estuaries, Lough Mahon, North Channel and Cork Harbour). These studies included consideration of the Water Framework Directive Objectives for each waterbody, designated protected areas and conservation objectives of protected habitats.

The findings of this assessment were used to propose treatment standards at each of the wastewater treatment plants and to prioritise investments in upgrades to protect water quality through to 2080. More information on this assessment can be found in Section 9 of the draft Strategy.

Wastewater Treatment Plant Performance

We conducted an assessment of the wastewater treatment plants in the Cork Metropolitan Area, evaluating capacity, treatment processes, regulatory compliance, operational issues, and future upgrade plans. A review of the wastewater treatment plants within the Study Area has identified a number of projects that may need to be initiated by 2030 in order to maintain compliance and capacity at a number of wastewater treatment plants. The project details are subject to annual review in terms of both capacity and compliance.

Environmental Assessment:

As part of the draft Cork Wastewater Strategy, we've carried out detailed environmental assessments to ensure our plans protect nature and support sustainable growth. The Strategic Environmental Assessment (SEA) Environmental Report looks at how the strategy could affect the environment, including water quality, biodiversity, climate change resilience, recreation and health.

This helped us identify potential risks early and ensures environmental considerations are part of every decision. The Natura Impact Statement (NIS) assessed the potential for the draft strategy to impact on Natura 2000 sites, designated special areas that protect rare habitats and species under the European law. Where we identified any potential risk, we included measures to avoid or reduce those potential risks, safeguarding Cork's natural heritage. By assessing potential environmental impacts now, we can deliver a wastewater strategy that supports Cork's growth while protecting the biodiversity and environment of the area.

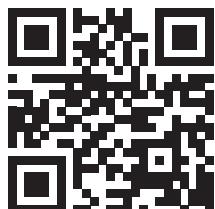
Figure 3: Cork Wastewater Strategy Infographic



Consultation

Public consultation will be undertaken for eight weeks weeks commencing in January 2026.

The draft Cork Wastewater Strategy and accompanying Environmental reports can be viewed and downloaded at: www.water.ie/cws.



We will host an **in-person** event and a **webinar** during the consultation period. For dates and details please visit the website.

On our website you can access:

- **The Draft Cork Wastewater Strategy** - This details the long-term plan developed by Uisce Éireann to guide the sustainable management of wastewater infrastructure in the Cork Metropolitan Area up to 2080.
- **Non-Technical Summary of the Draft Cork Wastewater Strategy** - This summary provides a clear, accessible overview of the full strategy.
- **Strategic Environmental Assessment - Environmental Report** - The Strategic Environmental Assessment Environmental Report evaluates the likely environmental effects of implementing the Cork Wastewater Strategy
- **Natura Impact Statement** - The NIS assesses whether the strategy could significantly affect Natura 2000 sites, protected habitats and species under the EU Habitats and Birds Directives.
- Details of all **consultation events** and how to register.

How to make a submission:

Email: CWS@water.ie

Post: Cork Wastewater Strategy, Uisce Éireann, PO Box 860, South City Delivery Office, Cork City

All stakeholder feedback will be reviewed and considered as we finalise the Cork Wastewater Strategy.

Consultation questions

1. We've identified the need to decommission 16 Wastewater Treatment Plants, upgrade 9 and relocate 1 as part of the recommended approach. Do you have any feedback on the methodology used to determine this approach?
2. Section 10 of the draft Cork Wastewater Strategy outlines the methodology

used to identify and evaluate potential options for strategic drainage and wastewater treatment solutions in the Cork Metropolitan Area. We invite your feedback on this approach. Do you feel the methodology is robust, transparent, and appropriate for identifying the most feasible and effective solutions?

- 3.** Is there anything additional information you feel that Uisce Éireann should consider in development the Draft Strategy?
- 4.** Section 12 of the draft Cork Wastewater Strategy outlines the Recommended Approach for the Cork Metropolitan Area, including proposals for its implementation. We welcome your views on these proposals. Do you have any comments or suggestions regarding how the strategy is planned to be delivered?
- 5.** Do you have any comments on the Strategic Environmental Assessment (SEA) Environmental Report and Natura Impact Statement (NIS) which accompany the draft Cork Wastewater Strategy?
- 6.** Are there any additional comments you would like to share regarding the draft Cork Wastewater Strategy?

How will the Cork Wastewater Strategy be implemented?

- The Cork Wastewater Strategy will be delivered in phases, aligned with Uisce Éireann's capital investment plans and regulatory oversight by the CRU and EPA. Given the scale and complexity, implementation will span several investment cycles.
- Each recommendation set out in this Strategy will be considered in detail and prioritised based on need, feasibility, environmental requirements and available funding. Its inclusion in the Strategy does not guarantee that it will be progressed or delivered. Rather, it indicates that the recommendation merits further examination as part of Uisce Éireann's future planning and investment cycles, where decisions on implementation will be made in line with organisational priorities and regulatory obligations.
- Projects will undergo assessment in accordance with national investment governance procedures as required to ensure value for money, environmental compliance, and alignment with long-term sustainability goals and this strategy. The CWS outlines a broad strategy horizon for implementing the Recommended Approach, recognising the full lifecycle of individual project delivery, encompassing appraisal, planning, procurement, construction, and operation phases.
- To maximise efficiency, the strategy emphasises coordination across projects. Projects will be carefully timed to work together. Projects advancing

from the Cork Wastewater Strategy will undergo individual environmental assessments, potentially including Environmental Impact Assessment and Appropriate Assessment.

- This integrated, long-term approach ensures efficient delivery from planning through to operation, supporting Cork's water quality and environmental goals.

Figure 4: Consultation Roadmap.

