



The long sea outfall during installation off the coast at Ballyferris, County Down.

**Strategic areas of focus**

Funding world class economic infrastructure

Efficient and affordable services

Sustainable growth

**Sustainable development goals**



**Principal threats/opportunities**



Page 84 Read more about principal threats and opportunities.

**Strategic performance indicators**

Economy	Unit of measurement	Target 2023/24	Actual 2023/24	Pass/Fail	Target 2024/25
Increase/(decrease) in customer tariffs*	%	13.4	13.4	Pass	4.7
Number of economic constraint areas eased (cumulative over 2021-27 period)	Number	0	0	Pass	2
Number of serious development restrictions eased (cumulative over 2021-27 period)	Number	4	8	Pass	12
Bathing water quality**	Excellent	Majority excellent or good***	18	Pass	Majority excellent or good***
	Good		6		
	Sufficient		1		
	Poor		1		

\* Non-domestic customers only.

\*\* Bathing water at 26 sites is monitored weekly from May to September each year.

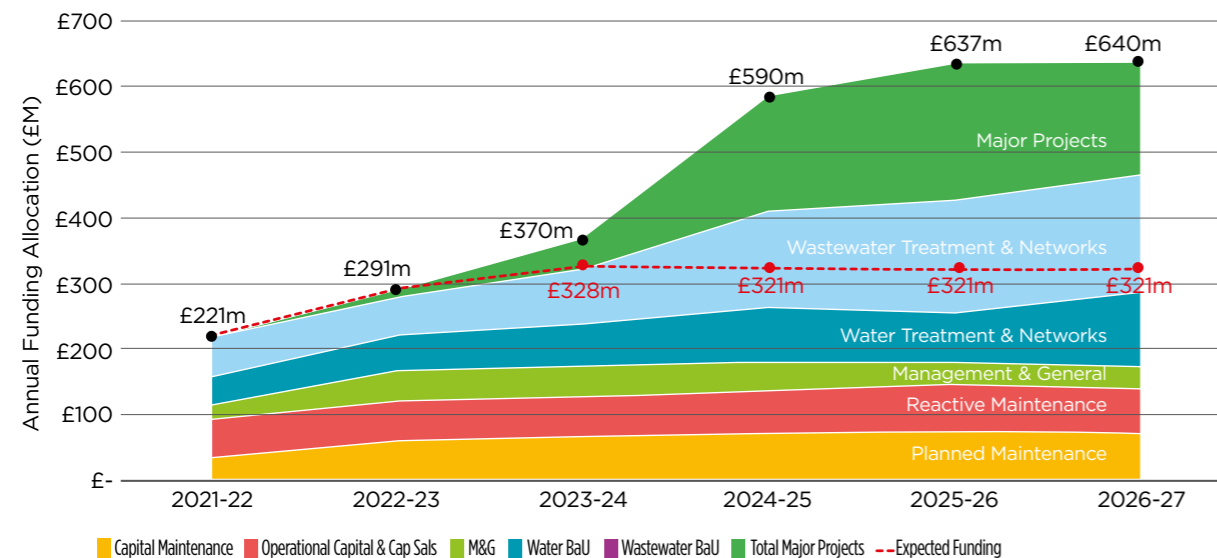
\*\*\* Other major contributors to bathing water quality include agriculture, wider industry, and consumer behaviour (flushing inappropriate items).



### Funding world class economic infrastructure

Largely unseen, our infrastructure is the foundation for all economic activity in Northern Ireland as almost every new home and business requires a connection to the public water and sewerage system. We share the government's ambition for Northern Ireland to have the infrastructure that enables everyone to lead a healthy, productive, and

fulfilling life; supports sustainable economic development; and protects our environment. But this ambition can only be realised if we can secure multi-year funding in line with that determined by the independent Utility Regulator, supported by a mechanism to deal with financial shocks.



### Unlocking development constraints

The public expenditure made available from Government for investment in wastewater services has not been able to keep pace with the investment required to provide increased capacity to facilitate growth or achieve water quality targets. Many of our sewerage networks and wastewater treatment plants are having to operate at or beyond their design capacity, limiting opportunities for new connections and constraining economic development in over 100 towns and cities across Northern Ireland, including Belfast and Derry/Londonderry. Our PC21 Business Plan sets out the investment required to start to address the wastewater capacity constraints. We anticipate that it will take a sustained increase in investment over the next 18 years plus to solve the problem of development constraints.

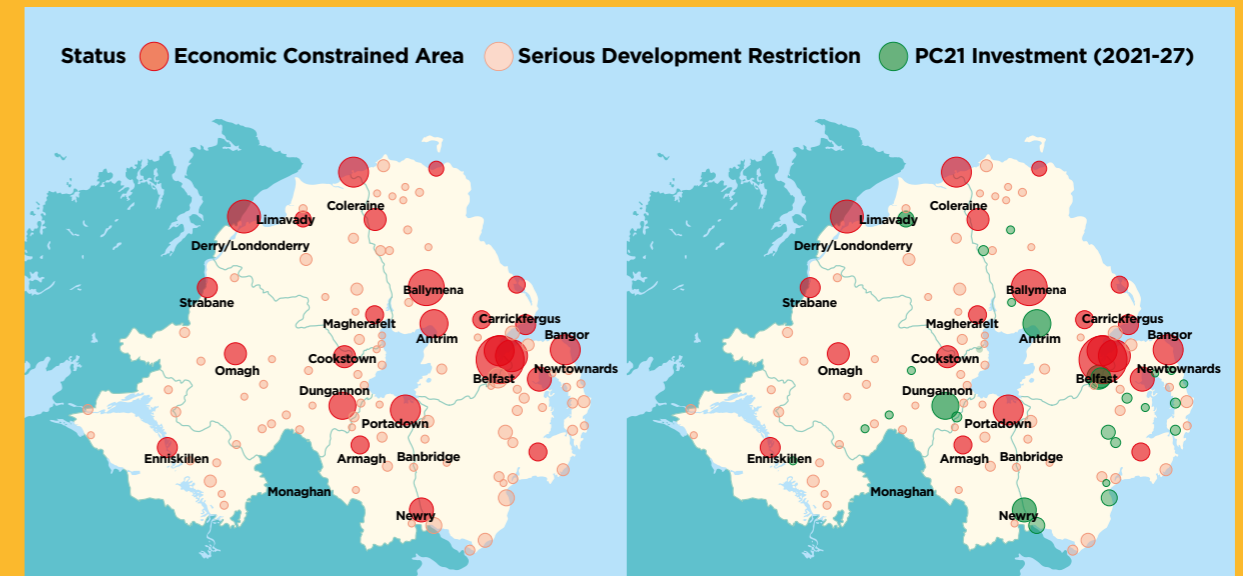
During 2023/24, we continued our engagement with local councils and other stakeholders on wastewater capacity constraints. We also revised wastewater system capacity information across all

Council areas and engaged with Council's local development planning teams. We are continuing to develop decision support tools such as Esri ArcGIS and Power BI to help prioritise and target investment on wastewater capacity constraints. One of the key strategies that NI Water has adopted is the introduction of a restructured pre-planning process to help mitigate where possible site restrictions and facilitate connections to our network.

We are identifying innovative wastewater technologies and optimising existing wastewater processes. This may result in some economic growth in the catchments served by wastewater treatment works across Northern Ireland, which are currently operating at or near their capacity. Going forward, we will conduct technology pilot trials at wastewater treatment works which are currently constrained as well as trialling new innovative approaches at a wastewater test bed facility at Ballykelly (North West).

Work is also continuing to develop more holistic capital interventions in drainage areas where potential developer delivered solutions are not possible, with several catchments

being used as Pilot Projects. Progression and delivery of these schemes will be dependent upon the availability of capital funding over the remainder of PC21.



Development constraints across Northern Ireland at the start of PC21 (2021/22).

Development constraints across Northern Ireland at the end of year three of PC21 (2023/24).

### Giving tourism a boost in Ballyferris

An extensive wastewater project aimed at improving the quality of bathing waters along part of the Ards Peninsula was completed by NI Water ahead of the 2023 summer tourist season. The £18m Ards North Wastewater Improvement Project got underway in May 2021 and included the construction of new wastewater pumping stations and pipelines to rationalise and upgrade the wastewater infrastructure in the Carrowdore, Ballywhiskin and Ballywalter catchments. At the heart of the project was a new state-of-the-art wastewater treatment works. The new treatment facility has been designed to treat all wastewater flows from the villages of Carrowdore, Ballywhiskin and Ballywalter - as well as local caravan parks - to strict environmental standards before discharging the treated effluent via a new sea outfall pipe.

To boost the sustainability of the treatment facility, 138 solar panels have been fitted to the roof of the new control building which will produce over 45,000 kWh per annum. This renewable energy could save NI Water up to £300k over 25 years. Charging points for NI Water's growing fleet of electric vehicles have also been installed at the new treatment works.



The long sea outfall during installation off the coast, adjacent to a caravan park at Ballyferris, County Down.



NI Water Staff with the Mayor of North and Ards Down Borough Council at the launch of Ards North wastewater treatment works, Ballywalter, County Down.



**Efficient and affordable service**

The Utility Regulator made provision for a Mid-Term Review (MTR) to be undertaken at the mid-point of the six-year PC21 period to allow both NI Water and the Utility Regulator the opportunity to review and, if necessary, adjust aspects of the PC21 determination to ensure it remained realistic and challenging. We made a written submission to the Utility Regulator at the end of September 2023. This submission set out our proposed changes to funding, price limit requirements and some output targets, which were largely driven by global economic volatility and the completion of further evaluation of 'scope uncertain' projects. Having considered NI Water's response to their Draft Determination – submitted in June 2024 – the Utility Regulator published their MTR Final Determination (FD) on 30 September 2024.

Amidst unprecedented levels of funding uncertainty, securing multi-year government commitment to fund the PC21 programme and provide NI Water with the ability to

manage financial shocks continues to be our highest priority. Commitment to the PC21 programme not only benefits our customers but also the wider supply chain, environment, and economy.

The NI Audit Office (NIAO) has concluded its review on the funding of NI Water's infrastructure Funding water infrastructure in Northern Ireland | Northern Ireland Audit Office (<https://www.niauditoffice.gov.uk/publications/funding-water-infrastructure-northern-ireland>). The report highlighted weaknesses in NI Water's current funding arrangements and the consequences which arise from these. The report also warns that these issues are likely to be exacerbated as a result of a continued and increasing funding shortfall going forward and calls for an independent comprehensive review of the alternative funding and governance arrangements led by suitably qualified experts.



*“This report highlights the challenges that decision-makers have faced in securing the finance and investment needed to meet water infrastructure requirements in the coming decades. A very real consequence of this underinvestment is that there are many areas in Northern Ireland where new development, including the construction of homes and other buildings, is restricted due to insufficient capacity to connect to sewage and wastewater services.”*

Dorinnia Carville – Comptroller and Auditor General



Find out more at <https://www.niauditoffice.gov.uk/publications/funding-water-infrastructure-northern-ireland>. Read more on our funding at page 88.

**Ballygomartin 'pumping' out energy savings**

17 sites have been progressed for pump optimisation work, investing £4m and delivering 4.7m kilowatt hours (kWh) of annual benefits. This saves enough electricity to power around 1,600 domestic properties annually. Ballygomartin water pumping station is one of the sites where two efficient pumps were installed, replacing previous pumps, which resulted in around a 35% reduction in site energy usage. With every best in class energy efficient pump that we install, we are delivering water more efficiently.



NI Water staff and contractor with the energy efficient pumps installed at Ballygomartin water pumping station, County Antrim.

[https://youtu.be/\\_IZMON7SijE](https://youtu.be/_IZMON7SijE)

**Storm overflow optimisation helping to deliver cost savings**

We have been working collaboratively to develop innovative approaches to reducing pollution from NI Water assets at a lower cost and carbon footprint, whilst delivering water quality improvements to our local watercourses. Working together, the Hydraulic Modelling and Capital Delivery Teams, have successfully reduced the costs of delivering the storm overflow improvement project in Ballynahinch.

Savings have been delivered after the NIEA indicated that the Ballynahinch town wastewater pumping station needed a large volume of storm storage (around 12 Olympic sized swimming pools) to protect the Ballynahinch River from the storm overflow. Using evidence from modelling studies, coupled with detailed on-site investigations, we demonstrated to the NIEA that a much smaller infrastructure upgrade would be sufficient to achieve the necessary water quality improvements in the Ballynahinch River. The detailed modelling and investigation work, which proved a more efficient solution could be employed,

is projected to deliver cost savings of over £50m. In addition, by installing state of the art screens, the scheme will also prevent any sewer related debris (wet wipes etc) visually impacting the river. The subsequent reduction in carbon will also help reduce our carbon emissions.



NI Water staff involved in the storm overflow improvement project.

Read more on storm overflows at page 58.

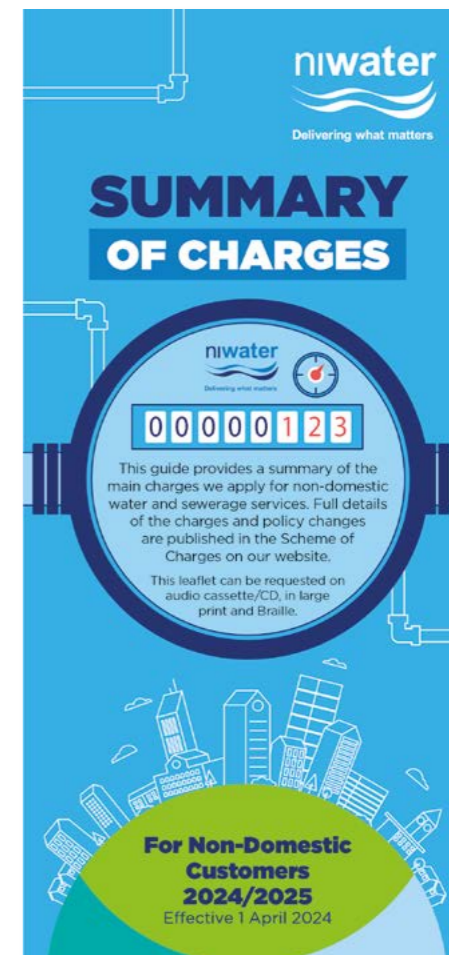
**Customer tariffs**

We are aware this is a challenging time for businesses and the local economy. Like many of our business customers, we continue to face significant financial pressures from continued high energy prices, high inflationary conditions, and other cost increases.

Whilst any increase is of course unwelcome, we have worked hard to ensure most of our customers will see their bills rise by less than inflation. Specific bill changes operate according to a formula agreed with the Northern Ireland Utility Regulator.

From 1 April 2024, non-domestic water and sewerage charges increased by 4.7% on average. Measured customer bills increased by 4.1%, while unmeasured and trade effluent bills increased by 5.3% and 6.8% respectively.

Find out more at <https://www.niwater.com/siteFiles/resources/pdf/WaterCharges/202425/SchemeofCharges202425.pdf>






### Sustainable growth

Every aspect of life in Northern Ireland relies on the water and wastewater services we provide, so it is important that any investment we make in our infrastructure is built with the future in mind. To improve our long-term resilience, we need to ensure our infrastructure can withstand pressures created by climate change; can accommodate growth in the economy and helps protect and restore nature. We believe that our future infrastructure investment can support not only the transition to a more sustainable and resilient business but also help create an affordable, low carbon green economy for Northern Ireland.

Advances in our investment management processes are helping us ensure we deliver our services for the lowest possible cost. These processes are also helping us choose more integrated sustainable solutions to address climate change. Our Investment Planning and Costing tool allows estimates of standardised costs and recommend lowest whole life cost solutions to be calculated for PC21 projects. We are expanding our

carbon accounting to capture whole life carbon and land carbon. Pilot projects are being undertaken over the remainder of PC21 to examine the use of a multi-capitals approach to support our decision making. This approach incorporates the social and environmental costs and benefits not presently captured in market prices.

We are working closely with NIEA on the review of consenting method and source apportionment techniques, which will contribute towards ensuring discharge standards at our wastewater treatment works are proportionate, whilst delivering on the best environmental outcome for the investment delivered by NI Water. We have established an Investment Group, which provides a forum with NIEA to facilitate negotiation of discharge standards, enabling open and transparent decision making, supported by appropriate scientific evidence.

 Read more about wastewater compliance on page 57.

### £4.7m hydro turbine boost

We were awarded £4.7m of funding through the Department of Economy 'Invest to Save' Scheme. The funding received is for the installation of hydro turbines at Breda service reservoir in South Belfast, Ballygomartin water pumping station in North Belfast and Crocknafeola service reservoir in County Down along with further pump efficiency work across six sites. The hydro turbines will enable NI Water to generate electricity at these sites to reduce grid consumption and/or export to the grid to generate an income for the business.



Hydro turbines at Breda Service Reservoir in South Belfast, County Antrim.




### NI Water battery delivers for the Grid

NI Water is set to reduce its carbon footprint after becoming one of the first public sector organisations to install a state-of-the-art battery energy storage system. The 4.1 MW battery is powered by an existing solar farm at one of our largest water treatment plants at Dunore Point. The battery boasts a 5.6 MWh total capacity, which helps to store surplus energy generated onsite from around 24,000 solar panels. The battery means that

during periods of low customer demand, NI Water can store this surplus renewable energy to use later during peak times. The company can therefore power its operations at a lower cost and keep water flowing. The battery also has flexibility to provide power back to the grid when required, to help support grid stability and provide greater resilience in the network to benefit NI society and economy.



NI Water's state-of-the-art battery energy storage system at Dunore Point, County Antrim.

 <https://www.youtube.com/watch?v=CCzFPLvJviM>