

# Principal risks

The implementation of our strategic priorities is measured using a number of strategic performance indicators and managed using an opportunity/threat management model.

Strategic Priorities	Strategic performance indicators (SPIs)	Principal threat /Principal opportunity Read more page 80
<b>Customer</b> - delivering an exceptional customer experience Read more page 26	<ul style="list-style-type: none"> <li>Reduction in customers reporting service failures</li> <li>First point of contact resolution</li> <li>More customers singing our praises (Net Promoter Score)</li> </ul>	
<b>Water</b> - delivering great tasting, clean and safe water to meet customer need Read more page 32	<ul style="list-style-type: none"> <li>Water quality compliance</li> <li>Reduction in leakage</li> <li>Reduction in supply interruptions</li> </ul>	
<b>Economy</b> - efficiently delivering infrastructure to underpin sustainable growth Read more page 42	<ul style="list-style-type: none"> <li>Increase/(decrease) in customer tariffs</li> <li>Number of economic constraint areas removed</li> <li>Number of serious development restrictions removed</li> <li>Bathing water quality</li> </ul>	
<b>Nature</b> - protecting and enhancing the natural environment Read more page 50	<ul style="list-style-type: none"> <li>Reduction in our pollution incidents</li> <li>Wastewater compliance</li> <li>Reduction in number of properties at risk of out of sewer flooding</li> <li>Reduction in our carbon footprint</li> </ul>	
<b>People</b> - providing a great place to work Read more page 68	<ul style="list-style-type: none"> <li>Employee attendance</li> <li>Reduction in health and safety incidents</li> </ul>	



## Risk and resilience

Increasingly, NI Water faces downside threats which are external to the organisation. These include, for example, inflation; factors which impact our supply chain; uncertainty regarding funding, labour and skills shortages, cyber-attacks, and climate change.

While management of these threats is to a large extent outside the control of NI Water, we recognise the need to build a resilience culture in order to protect the value we create.

NI Water manages risks (both threats and opportunities) in line with our integrated risk and resilience framework which demonstrates the interconnectivity between risk and resilience, and the need for accountability to protect value creation.

A resilience culture within NI Water means that all employees are united in purpose and are clear on the need to be prepared for when that incident does occur rather than simply thinking that it might occur.

This is demonstrated by putting plans in place in advance and then being adaptive when an incident does occur so that disruption is minimised, and NI Water can return to 'business as usual' in the most effective and efficient way possible. All the corporate risk maps have a section which records the existing controls and the actions to be put in place to continually improve on our resilience.

### NI Water's integrated risk and resilience framework



## Integrated

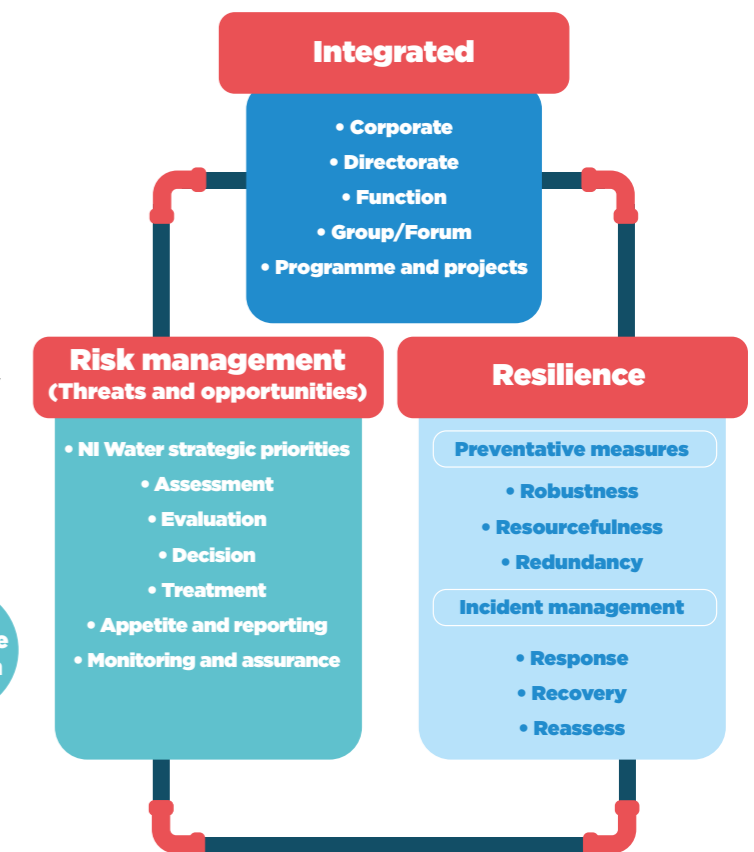
Risks are managed on a cross-directorate basis with input from external strategic partners where required (e.g., supply chain, local councils and service users).

## Resilient

NI Water recognises the need to adopt a resilience culture to prepare for unavoidable risk factors, which are external to NI Water.

NI Water defines resilience as 'the strategic and organisational capacity of NI Water to resist, respond to, and recover from disruptive threats both foreseen and unforeseen and to reassess such as to learn from and improve on how we deliver our services'.

### NI Water's integrated risk and resilience model



## NI Water’s approach to risk management

NI Water’s approach to risk management is to have a risk culture where our employees and strategic partners are aware of how they contribute towards our strategic priorities.

There is a collaborative approach to analyse the downside risk (threats) that could have a detrimental impact on the achievement of our priorities but also to consider the upside risk (opportunities) towards deriving better outcomes. Using an integrated risk management software, risk owners are able to manage controls and actions over the predetermined timeline towards achieving the risk appetite.

Through a process of horizon scanning emerging risks, benchmarking, risk trend analysis and workshops held on a business-wide basis, corporate threats and opportunities are established at the start of year. These are updated throughout the year to take account of emerging risks.

The description of the risk, the risk gradings and the individual risk appetite are approved by the Board. The Board receives a monthly progress report on the management of risks towards the projected risk appetite for each individual risk.

The Board has set the risk appetite for seven principal risk themes. The movement of the current risk position against each of these seven principal risk themes is reported to the Risk Committee twice each year.








The Risk Committee considers the risk maps throughout the year, reviewing the effectiveness of clearly defined controls and the completion of actions towards the delivery of expected outcomes and the appetite level.

The Audit Committee considers financial risks on a regular basis and at year end holds a joint meeting with the Risk Committee to consider the overall effectiveness of NI Water’s system of internal controls and risk management.

The Executive Committee meets on a monthly basis to consider corporate risk maps and the completion of actions within agreed timelines.

Corporate risk maps are linked to directorate, programme and project threats and opportunities, and business-wide groups either have or are being encouraged to have updated ‘live’ risk registers in order to better integrate risk management into ongoing activities.

Emerging from the corporate risk maps are a number of significant principal threats and opportunities. For each principal threat or opportunity, we have identified the related strategic priority and the change in the level of threat or opportunity over 2022/23. These threats and opportunities have not been ranked and therefore are not listed in order of significance.

Principal threat	Strategic priority	Change in threat level*
 Governance model and funding	Customer, Water, Economy, Nature, People	▲
 Health and safety	Water, Nature, People	▬
 Climate change	Customer, Water, Economy, Nature, People	▲
 Asset resilience	Customer, Water, Economy, Nature, People	▲
 Data integrity and cyber risks	Customer, Water, People	▲
 Supply chain	Water, Economy, Nature	▲
 People	People	▲ **

Principal opportunity	Strategic priority	Level of Opportunity***
 Customer service and innovation	Customer, Water, Economy, Nature, People	▬
 Living with Water Programme	Customer, Economy, Nature	▬
 Stakeholder engagement and sustainable development	Customer, Water, Economy, Nature, People	▬

\*This column shows the change in the threat level compared to what was reported in 2021/22. An upward arrow means that the level of threat has increased.

\*\*New threat. Previously managed as an opportunity.

\*\*\*This column represents the change in the opportunity compared to what was reported in 2021/22. An upward arrow means that the potential benefits to NI Water from the opportunity have increased.



Read more about risk management on pages 108 and 202

# Principal threats



## Governance model and funding

Strategic priorities: **Customer, Water, Economy, Nature, People**



### Background to the threat

NI Water seeks to efficiently deliver infrastructure to underpin sustainable growth. To deliver this, NI Water requires a sustainable funding model which will ensure access to secure and resilient finances. The absence of a sustainable funding model has been recognised as the top principal threat to the delivery of our strategy in PC21.

NI Water is an asset intensive business and long-term planning is essential to improve services for customers today while investing to safeguard services for future customers. The uncertainty over funding adds complexity and inefficiency to long-term asset management and longer-term asset resilience, as NI Water is unable to take a multi-year view of its investment profile. This makes it difficult to maintain momentum to complete programmes of work.

Like many businesses, NI Water is subject to threats which are largely outside its control such as inflation and cost increases; government funding cuts; adverse weather resulting in recovery costs and damage to our assets and unlawful acts by third parties (e.g., pollution, legislation breaches). The timing and impact of these are dependent on the nature of the threat. NI Water does not have a contingency fund to deal with such financial shocks which could potentially impact the ability to recover from the incident.

The current sub-optimal funding model is a result of the dual status of NI Water as both a regulated Government owned company and a Non-Departmental Public Body (NDPB) and leads to continual difficulties in applying government guidance that conflicts with NI Water's statutory and regulatory requirements.

The Board of NI Water accepted the PC21 Final Determination in July 2021 and was encouraged that the first year of PC21 (2021/22) was fully funded by the DfI and the NI Executive. Since then, global energy prices have risen to unprecedented levels and inflation has reached a 40 year high. This is creating significant pressure on operating and capital expenditure. While capital expenditure for 2022/23 was funded in line with the Final Determination, we faced significant challenges on operating expenditure. There is a risk that the capital

budget across the six-year Business Plan will not be sufficient to enable delivery of the regulatory outcomes due to significant levels of inflation associated with construction. These pressures are exacerbated by draft expenditure limits for 2023/24 which are below the level required, and the lack of visibility of funding for the remaining three years (2024/25 to 2026/27) of PC21. The absence of a functioning NI Executive prevents the setting of multi-year public expenditure budgets.

### Managing the threat

NI Water has increased customer bills for 2023/24 according to a formula agreed with the Northern Ireland Utility Regulator. However, public expenditure budget cuts can prevent NI Water from spending the income received from customers. Even with full funding and bill increases, historic underinvestment will take in the region of 12 to 18 years to remedy. NI Water continues to work with the Utility Regulator and the DfI to make the case for ring-fenced funding over PC21 supported by a financial risk mechanism, including the approval of strategic capital projects to reduce the threat of adverse impacts on customers. In the meantime, NI Water ensures that the implications on the delivery of our services because of funding constraints are fully analysed, managed, and communicated to the public in a clear and responsive manner.

### Emerging risks

NI Water is currently preparing for the PC21 mid-term review. We have received the Utility Regulator's approach to this mid-term review. NI Water will make a written submission to the Regulator at the end of September 2023, setting out proposed changes to funding, price limit requirements and revised output targets. The Regulator will publish their decision in December 2023.

### Owner

Director of Finance Regulation and Commercial.



Find out more about funding world class economic infrastructure at page 44, going concern and managing the threat at page 145.



## Health and safety

Strategic priorities: **Water, Nature, People**



### Background to the threat

Health and safety is an integral part of NI Water's day-to-day business. NI Water's vision for health and safety for employees, contractors and customers is the 'pursuit of zero harm by raising standards and performance through the identification and adoption of industry best practice and the development of an empowered, valued, engaged, accountable and competent workforce'. We are committed to ensuring that all work activities are conducted in compliance with the Health and Safety at Work (NI) Order.

### Managing the threat

NI Water has a dedicated Health and Safety team, which is key to ensuring that NI Water complies with relevant legislation and best practice. The Health and Safety Focus Group, made up of representatives from across NI Water, meets on a monthly basis to examine NI Water and contractor incidents, review health and safety training needs, and general promotion of health and safety; providing assurance to the Executive Committee, the Risk Committee and the Board on health and safety related matters.

NI Water has a Health, Safety and Facilities Transformation Programme 2021-2025 which sets out several priorities for health and safety. A significant amount of work was undertaken during 2022/23 to progress this plan, with progress being tracked by Risk Committee and Board. Completion of the transformation programme will help us to realise sustainable, measurable improvements and compliance in health and safety for the benefit of our people.

### Emerging risks

We are continuing with our hybrid working pilot to manage the return to office locations for non-front line staff.

### Owner

Director of People and Learning.



Find out more about health and safety at page 71.



## Climate change

Strategic priorities: **Customer, Water, Economy, Nature, People**

### Background to the threat

Transitioning to a zero carbon, climate resilient economy is a long-term aspiration, but we need to act with urgency and prioritise delivery now. We are in a climate emergency, a global energy cost crisis, and facing economic uncertainty. The need to act becomes more pressing with each day that passes.

Addressing climate change is critical to the water sector given the impact on the quality and quantity of water sources, the carbon intensity of our sector's supply chain, and the exposure of our assets to extreme weather events. We will mitigate emissions from our activities, reduce emissions where we can from our construction and the wider supply chain, and adapt our assets to extreme weather events.

### Managing the threat

At NI Water, we're committed to delivering a net zero, climate resilient future for all our customers. We have challenged ourselves to go further and faster than the net zero 2050 targets set in law. NI Water is committing to achieve net zero for the energy we use by 2030 and net zero for all our emissions by 2040, as measured against our 2020/21 adjusted baseline. As an operator of critical national infrastructure, we must be ready for climate change. We are moving our business to a higher state of readiness by planning for two degrees of temperature rise by 2050 and preparing for four degrees by 2090. We are determined to harness the huge and largely unseen potential for NI Water to address climate change. Several of the approaches we are taking will benefit our society and economy more broadly as it seeks to decarbonise and exploit the benefits of green growth through a just transition.

Our Climate Change Strategy lays the foundations to help us reach our climate change commitments under future Price Controls. While our spending to 2027 has largely been set, we are finding ways to decarbonise our business now which will enable us to make deeper emissions reductions at the next Price Control - PC27 (2027-33). This Climate Change Strategy will help us prepare our future Business Plans where we will have to make new climate investments, some of which we will only be able to anticipate once we are further along our journey.

### Emerging risks

Today all the answers do not exist. We will be bold and innovative in finding affordable solutions. Yet we can't do this on our own. Climate change is a systemic problem for Northern Ireland and requires systemic solutions. And we need holistic solutions that also address the changes of the global energy crisis and growing pressures on public sector funding that we experience as a government owned company. We will continue to collaborate across government and with the Utility Regulator to find the most cost-effective way to invest in our services, which supports those who can least afford to pay, places fairness across generations at the heart of our approach while restoring our natural environment.

### Owner

Director of Asset Delivery, Director of Business Services and Director of Customer and Operations.



Find out more about our Climate Change Strategy at page 60.



## Asset resilience

Strategic priorities: **Customer, Water, Economy, Nature, People**

### Background to the threat

NI Water inherited an aged asset base and significant investment is required to bring it to a comparable level by UK standards. Major capital investment together with a funded maintenance programme for water and wastewater networks and treatment facilities is required to comply with regulatory and environmental performance standards.

There is a very real threat that NI Water could suffer a major failure in its assets or be unable to respond effectively to a major incident caused by severe weather. This could cause a significant impact to our customers due to deterioration in the quality of drinking water, interruptions to supply and management of wastewater services, including an adverse impact to the environment.

The unavailability of anticipated funding (both operational and capital) is expected to cause a delay in achieving the desired Level of Service to all customers. Given the current levels of inflation, there is a risk that the capital investment budget for PC21 will not be sufficient to enable delivery of the regulatory outcomes.

### Managing the threat

As noted on page 80, NI Water continues to work with the Utility Regulator and the DfI on medium and long-term funding arrangements to ensure that assets are maintained and replaced appropriately. Significant work was undertaken as part of the PC21 submission to determine the capital maintenance required for assets and any impact on customers if this maintenance is not undertaken. This assessment indicated that additional capital (base) maintenance is required during PC21 to be able to maintain service levels.

Work was undertaken during the year to improve resilience across several of our sites. This included upgrades to water treatment works, trunk mains and completion of our northern resilience project.

NI Water's business continuity management framework, major incident plan and IT Disaster Recovery plan are continually being updated to reflect best practice and key learning points from annual exercises and previous major incidents to reduce the impact of adverse events and to manage recovery to 'business as usual'.

### Emerging risks

Aging assets are affected by capital expenditure for improvement or replacement, which in turn places greater pressure on the already constrained operating expenditure for planned maintenance. The public sector funding cuts in 2023/24 will impact on NI Water's ability to upgrade assets and put in place other resilience measures. Consequently, asset failure and an increase in the number of incidents becomes more likely, as does the associated reputational damage. It will impact on levels of service and other regulatory deliverables. Development constraints continue to impact the business, both from an operational and reputational perspective.

### Owner

Director of Asset Delivery and Director of Customer and Operations.



## Data integrity and cyber risks

Strategic priorities: **Customer, Water, People**

### Background to the threat

The robustness and accuracy of data, increasing regulation, changes in technology and the impact of cybercrime may have a significant disruption to levels of service.

The General Data Protection Regulation (GDPR) brings increased regulatory requirements in respect of privacy and the processing, storage and retention of personal information. The Network and Information Security (NIS) Regulations, mandatory for Operators of Essential Services, establishes a set of principles to improve the security and resilience of network and information systems across the UK.

Cybercrimes are increasing in both frequency and disruptive potential. These crimes can cause interruption to computer control systems and impact on data integrity. This could have a significant adverse impact on business performance over the recovery period.

### Managing the threat

NI Water is continually making improvements in its information governance to manage the quality of information to support service delivery.

There is a constant cycle of work on the NI Water Corporate IT Network to improve cyber resilience through updating of systems controls, compliance with IT system supplier updates, training, and awareness. In 2022/23, we continued our simulated phishing campaigns to test our awareness of phishing email attacks and to help educate users in how attackers attempt to gain access to their systems. We launched cyber training and continued to liaise with the National Cyber Security Centre to keep at the forefront of an evolving threat landscape.

A Cyber Resilience Programme is in place for the technology used to run the NI Water sites. Significant work is ongoing to deliver this Programme and significant improvements have been made in key areas.

We continue to collaborate across the business during the introduction of new technology and technology upgrades to ensure that any cyber risks are captured at an early stage.

### Emerging risks

The UK's National Cyber Security Centre has advised NI Water that the cyber threat level against Critical National Infrastructure from Russia has increased, with Russia expending more effort on sabotage. There has been a significant increase in disruptive and destructive attack attempts and this increase is expected to continue both in terms of volume and sophistication. We continue to monitor the situation.

### Owner

Chief Information Officer.



## Supply chain

Strategic priorities: **Water, Economy, Nature**

### Background to the threat

We rely on a complex supply chain for goods, services and construction works. Any disruption to this supply chain could impact on the delivery of our services.

Significant global economic uncertainty and volatility arising from the war in Ukraine and surging consumer demand following the easing of the COVID-19 pandemic, resulted in rising commodity prices, and increased raw material costs over 2022/23. Pandemic related supply chain bottlenecks have been exacerbated by labour shortages and trade friction.

Like most businesses NI Water is experiencing significant cost increases across many of the materials used to construct and operate our assets. We also face longer lead times and difficulty in sourcing some goods, services, and construction materials.

### Managing the threat

NI Water has established a commercial team which brings together procurement teams and contract managers. We have established a Supply Chain Resilience Working Group to review supply chain risks and agree mitigating actions to ensure resilience in this area, such as reprofiling of regulatory deliverables. As part of our procurement strategy, we have established four integrated partnerships, which will ultimately expand our available supply chain.

### Emerging risks

Rising geopolitical tensions, continued economic uncertainty and climate change will increasingly pressure logistics and procurement operations.

### Owner

Director of Finance, Regulation and Commercial; Director of Asset Delivery and Director of Customer and Operations.



Lime is one of the chemicals used in the treatment of water.



Find out more about the pressures caused by supply chain inflation in Note 1(c) to the financial statements.



## People

**Strategic priorities: People**



### Background to the threat

The current socio-economic pressures, such as skills shortfalls, labour shortages and competitive reward market have the potential to make it more difficult for NI Water to attract and retain the right talent for the organisation. NI Water also has an ageing workforce with limited diversity and low turnover.

### Managing the threat

NI Water is committed to providing a great place to work. Attracting, developing, retaining, and partnering with the best talent is fundamental to the success of our business and therefore, we want to be recognised as a local employer of choice that champions diversity and puts people first.

Our People Strategy is focused on driving performance for our customers through building capability, ensuring we have the right people with the right skills performing their roles to the best of their ability. We regularly invite our colleagues to participate in ongoing Pulse Surveys so that we can listen to their concerns and suggestions on how we can make NI Water a great place to work. We launched Apprenticeship and Graduate Programmes over 2022/23 and are piloting a succession planning framework during 2023/24. Diversity and inclusion training was provided to all senior managers over 2022/23. We also launched our 'SistersIN' Mentoring Programme, which encourages the uptake of STEM subjects amongst young females.

Our award-winning Health and Wellbeing Strategy helps staff 'live well' through a range of initiatives to support mental, physical, financial, and social health such as our Live Well Roadshow, Winter Wellness Programme and Spring Forward programme.

### Emerging risks

Rising levels of ill health in the economy, alongside acute pressures on the NHS, are lowering the size of the workforce.

### Owner

Director of People and Learning.



Find out more about providing a great place to work at page 70.

## Principal opportunities



## Customer service and innovation

**Strategic priorities: Customer, Water, Economy, Nature, People**



### Background to the opportunity

NI Water is seeking to deliver a world class customer experience. Changing customer expectations, the digital revolution and demographic and lifestyle changes are all leading NI Water to embrace new ways to meet customer needs, now and in the future.

### Exploiting the opportunity

Future developments in artificial intelligence and machines will enable us to spend less time on low value-added tasks and instead focus on customer care and improving customer journeys. More customers are using self-service options such as web and mobile self-service, interactive voice response or chatbots as their preferred point of contact.

Through cooperation with other utilities, business partners, universities and in-house development, we continue to support and implement new technologies to improve customer experience and efficiency in service delivery. In 2022/23 we expanded our online self-service portal with improved digital features to help our customers and colleagues. The portal provides an enhanced customer experience with added functionality of simple to use and environmentally friendly processes. We continued to support our vulnerable customers through promotion of our Customer Care Register.

There has also been a significant overall improvement in the service offered to developers over 2022/23. The introduction of a pre-planning team has helped to improve our engagement with developers and helped to mitigate the impact of infrastructure constraints.

### Emerging risks

Customers want to be increasingly more in control of how they interact with us, driving the need to be at the right place, at the right time, on the right channel and serving customers to a standard provided by leading service providers.

### Owner

Director of Customer and Operations.



Find out more about delivering a world class customer experience at page 28.



## Living With Water Programme

Strategic priorities: **Customer, Economy, Nature**

### Background to the opportunity

In July 2014 the NI Executive agreed to develop a strategic drainage infrastructure plan for greater Belfast. The plan aims to protect against flooding, enhance the environment and support economic growth by improving capacity for new connections. The initiative is now known as the 'Living With Water Programme' and is led by the DfI.

NI Water has been a key partner in the Programme since inception as the plan strongly aligns with NI Water's strategic priority of protecting and enhancing the natural environment and building a more resilient network. Implementation of the programme will provide an opportunity to deliver significant investments that will help to improve the drainage networks and wastewater treatment works that discharge into Inner Belfast Lough.

The Programme is currently overseen by a Board that includes the DfI, NI Water, the Utility Regulator, DAERA, NIEA and Belfast City Council.

Living With Water in Belfast:

An Integrated Plan for Drainage and Wastewater Management in Greater Belfast was published in 2021/22. At £1.4bn over 12 years it is not a quick, or inexpensive fix. The publication of the Plan is a major milestone as it represents the culmination of five years of studies by the programme partners to assess the challenges faced and determine drainage and wastewater related investment needed for Greater Belfast.

### Exploiting the opportunity

NI Water's participation in the programme provides an opportunity to develop the catchment based multi-agency sustainable solutions and upgrade the sewerage networks and six wastewater treatment works that discharge into Inner Belfast Lough. The upgrades need to be undertaken in a way that Government and NI Water can afford, and which minimises disruption during construction. Throughout 2022/23, several significant flood alleviation projects were carried out in Belfast. The approach is now being extended to develop catchment based and integrated solutions in other towns and cities across Northern Ireland

### Emerging risks

In 2023/24, NI Water will submit revised cost assessments for the Programme to inform the PC21 mid-term review. As has been noted on page 83, the public sector funding cuts in 2023/24 will impact on NI Water's ability to deliver the Living With Water Programme.

### Owner

Director of Asset Delivery.



Find out more about the Living With Water Programme at page 54.



## Stakeholder engagement and sustainable development

Strategic priorities: **Customer, Water, Economy, Nature, People**

### Background to the opportunity

NI Water is seeking to create a legacy for our communities and to work in such a way which puts more back into society than we take out. This includes engaging with stakeholders and the community to educate and benefit local communities.

### Exploiting the opportunity

NI Water is engaged in numerous and wide-ranging sustainable development projects to safeguard public health, underpin economic growth, and restore nature. Our work positions us as custodians of the natural environment.

Our fantastic Cares Challenge was active throughout 2022/23 and as part of this we supported charities such as Southern Area Hospice, Action Deaf Youth and Praxis Care as well as local community groups.

We are proud of our unique education programme, which includes the Waterbus mobile classroom initiative. We have educated over 200,000 'water-whizz' school kids about the value of water for health, the economy and nature.

### Emerging risks

Public expenditure budget cuts in 2023/24 place additional pressure on the delivery of our services and our ability to create a legacy for our communities.

### Owner

Company Secretary, Director of Asset Delivery and Director of Business Services.



Find out more about creating a legacy for our communities at page 74.