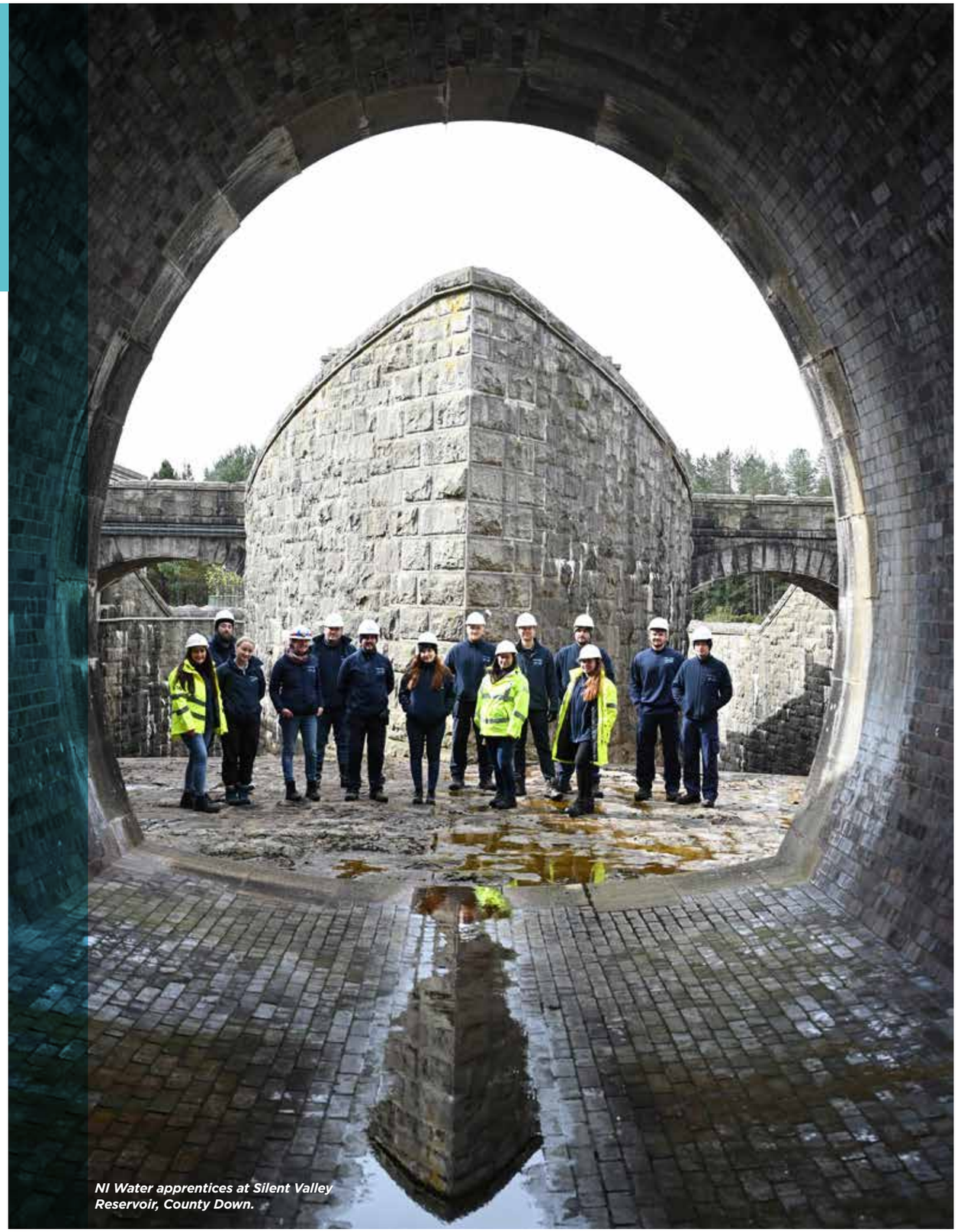
Delivering our strategic priorities



NI Water apprentices at Silent Valley Reservoir, County Down.

The world in which we operate

Our global world

We live in a resource constrained world and have a responsibility to ensure that our planet earth is sustainable for those who come after us. The United Nations has developed 17 goals to deliver a more sustainable world by 2030 and we are proud to play our part in supporting delivery of at least 12 of these goals:

SUSTAINABLE DEVELOPMENT GOALS

Customer Delivering an exceptional customer experience

NI Water staff on site at a development in Enniskillen, County Fermanagh.

Strategic areas of focus

- Right place, right time, right channel
- Caring for you
- Getting smarter
- Protecting you

Sustainable development goals

Principal threats/opportunities

Page 84 Read more about principal threats and opportunities.

Strategic performance indicators

Customer	Unit of measurement	Target 2021/22	Actual 2021/22	Pass/ Fail	Target 2022/23
Reduction in customers reporting service failures	Number	67,000	66,064	Pass	66,100
First point of contact resolution	%	84	84	Pass	84
More customers singing our praises (Net Promoter Score)	Number	42	32	Fail	42

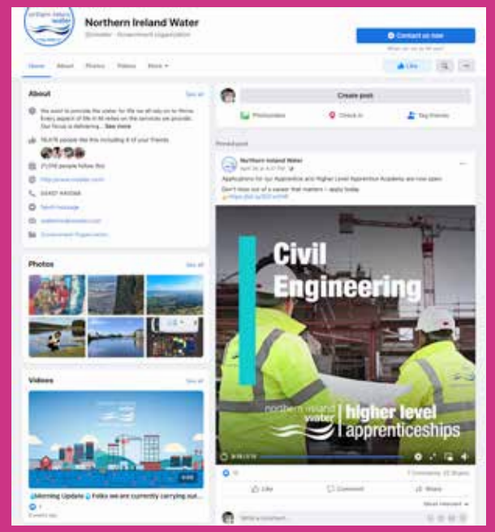
Right place, right time, right channel

Social media provides us with a fantastic platform to keep our customers informed of the challenges we face delivering great tasting, clean drinking water and recycling wastewater safely back to the natural environment. Our Website, Facebook and Twitter accounts allow us to reach out to our customers to change how they think about water to help reduce the pressure on our infrastructure and nature.

Facebook and Web Chat boost

In our ambition to deliver an exceptional customer experience, we are embracing new ways to meet rising customer expectations. During 2021/22 we increased the operational hours of our social media platforms and Web Chat Service, which we have also added to the front page of our web site. For the first time our social media followers has surpassed 30,000 and our Web Chat usage has increased by over 40%. Feedback from customers for these channels has been very positive with both Web Chat and social media registering high consumer advocacy scores.

Our customer base for web self-serve also continues to grow and in 2020/21 we launched our first web form for reporting a leak. Analysis of our range of social media offerings in comparison to other utilities is encouraging with around a quarter of our customers now choosing to contact us through a digital channel.



One of NI Water's digital communication channels.

Right first time

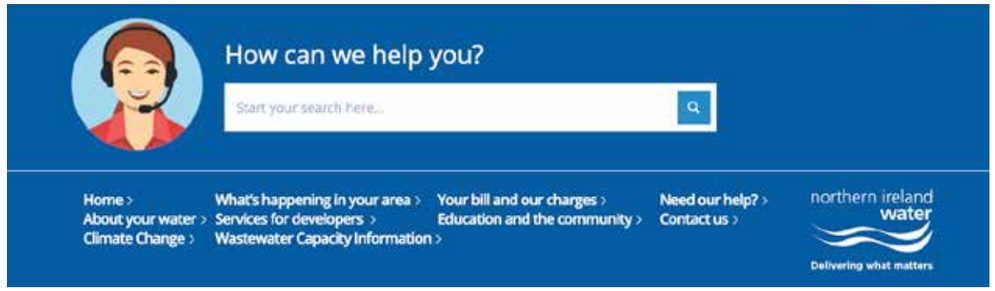
We have introduced a comprehensive programme of initiatives to minimise the need for customers to contact us and for those customers that do make contact, ensure we resolve their issue first time. Over 2021/22 we have had our best ever year in terms of unwanted customer contacts, outperforming our 67,000 target and also delivering against our First Point of Contact Resolution target of 84%. This is despite the challenges from the high demand event and the major burst on the Dunore trunk main over the summer. Our Net Promoter Score (NPS) of 32 compares favourably with other utilities and UK water companies, although it is below the challenging target set by the Utility Regulator.

Over 2021/22 we focused on changes to our billing complaints process and reduced our billing escalation threshold to ensure that more complex customer issues are resolved quicker and repeat contacts are reduced. In 2022/23 we will continue to enhance customer satisfaction by focusing on our worst performing NPS contact types and improving operational customer journeys.

Bots beat blockages

We have introduced further improvements to our text update services for web forms and an early warning text notification for metered non domestic customers experiencing high water consumption. In 2022/23 we are planning further improvements to our 'no water' text update service. The introduction of automation (a 'feature manipulation engine') for processing sewer blockages that customers report has enabled a quicker response time. This process also identifies potential recurring issues, providing an opportunity for us to undertake early investigations and expedite repairs. We are exploring additional ways to use automation to speed up the processing time of routine activities, so we can dedicate more time to more complex issues.

Our 'Knowledge Base' tool uses chatbot technology and artificial intelligence to help guide customers through a structured dialogue, providing answers to a wide range of their questions across all our service areas. Similarly, an interactive voice response for a number of transactions such as bill payment provides another choice of contact channel, and improves customer service by offering convenience and the potential to save time.



NI Water chatbot technology.

Caring for you

Our Customer Care Register offers a range of free additional services for those customers who need extra help, such as an alternative water supply when supplies have been interrupted for a prolonged period. We continue to work with Health Trusts, Councils and other Utilities to promote our Customer Care Register. A further 218 customers have been added to the register, with a total of 2,694 customers/organisations registered. We continue to engage with the Utility Regulator, CCNI and other utilities on the Consumer Protection Programme Best Practice Framework, which will standardise the approach to consumer vulnerability across the Northern Ireland utility sector. We are also liaising with the British Standards Institution with regard to understanding process for attaining the internationally recognised consumer vulnerability accreditation.

Getting smarter

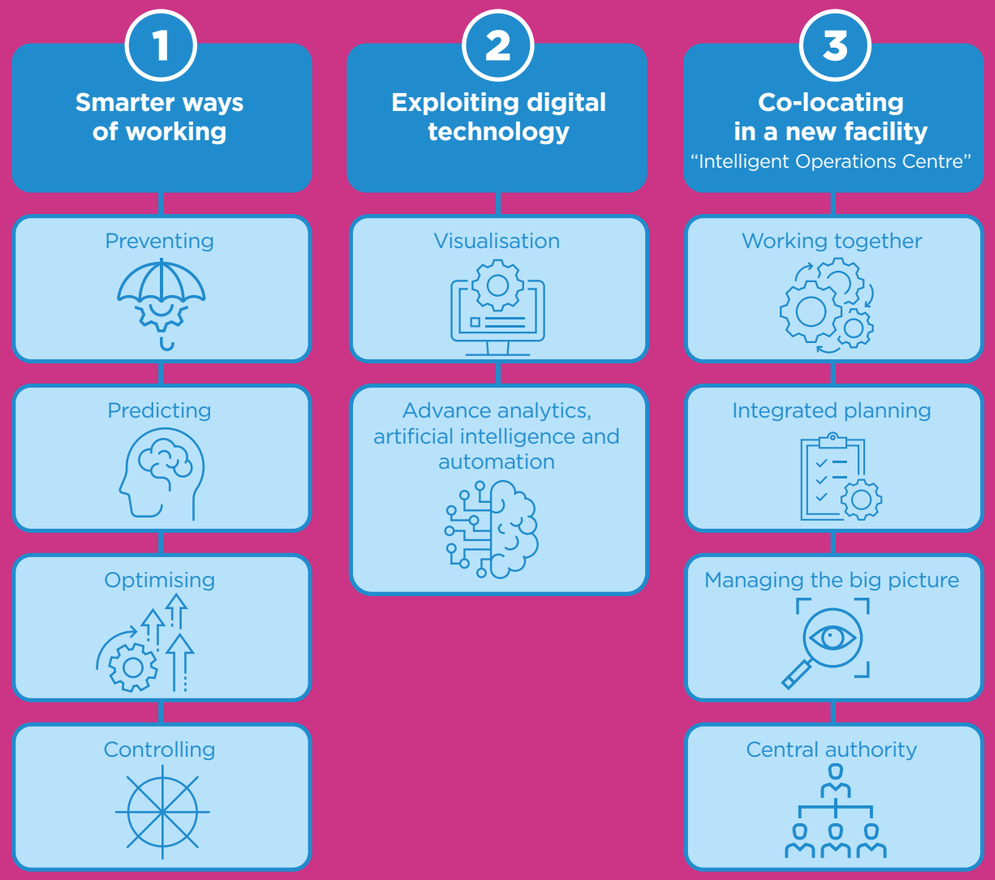
Our customers tell us they want a modern, interactive web-based platform where they can submit applications for our services, track progress, make payments and digitally sign documents without the need for paper or telephone contact. Over 2022/23 we plan to launch a digital application process for new connections to our water and wastewater network for housing developers and applications for trade effluent. We are also planning improvements to our website and to pilot the use of geo targeted social media posts to give advance warning of water outages to customers that do not follow us on social media.

Intelligent Operations is a new approach to how we operate. It comprises smarter ways of working that:

- ensure a more preventative approach to maintenance of assets instead of fixing when they fail;
- predict when issues are about to occur and intervene sooner – so reducing our reliance on customers having to tell us that issues have occurred;
- set up and tune our end-to-end water and wastewater system to run at its optimum state; and
- establish more central control of assets and the work we do on them.

This is enabled through the deployment of digital and visualisation technology and a new Intelligent Operations Centre. The centre opened in 2021/22 and brings together around 180 of our dispersed operational staff to work together in a more collaborative and intelligent way.

Intelligent Operations



NI Water's Intelligent Operations Centre.

Protecting you

Cyber crimes are increasing in both frequency and in their disruptive potential. These crimes could lead to an interruption in the delivery of our essential services, damage our computer control systems, or lead to a data breach. We continued our internal education campaigns with simulated phishing emails. External assurance of our cyber programme for operational technology is complete and broadly positive. We continue to liaise and collaborate with the National Cyber Security Centre to keep at the forefront of an ever changing threat landscape and be aware of new methods of attack as they develop.

NI Water CEO and staff promoting the cyber awareness training.

Despite all of the technical barriers and processes which we can introduce, NI Water depends primarily on its employees and supply chain partners, to protect the systems and equipment that provide the services to our customers. A short video was developed over 2021/22 for employees and supply chain partners to highlight their important roles in protecting against cyber-attacks.

Water Delivering great tasting, clean and safe water to meet customer need

Tankering of water and water wise messaging during the heatwave high demand event in July 2021.

Strategic areas of focus

Improve at source | Enough water for all | Tasty, clean and safe | Drive down leakage | Always on

Sustainable development goals

3 GOOD HEALTH AND WELL-BEING | 6 CLEAN WATER AND SANITATION | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 11 SUSTAINABLE CITIES AND COMMUNITIES | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Principal threats/opportunities

Page 84 Read more about principal threats and opportunities.

Strategic performance indicators

Water	Unit of measurement	Target 2021/22	Actual 2021/22	Pass/ Fail	Target 2022/23
Water quality compliance*	%	99.83	99.88	Pass	99.83
Leakage	Ml/d (Million litres/day)	157	156	Pass	156
Reduction in supply interruptions in excess of: • 6 hours • 12 hours • 24 hours	%	0.699 0.091 0.010	1.504 0.079 0.001	Fail	0.683 0.087 0.010

*Calendar year target.

Improve at source

NI Water is one of the largest land owners in Northern Ireland. The peat bogs in our water catchments are amongst nature's superstars, providing a range of eco-system services. They provide a natural form of water purification, protect against floods, help reduce greenhouse gas emissions by removing and storing carbon and enable us to restore our biodiversity.

Source to Tap

€5m
project engaged

220
landowners

40km
of fencing

Herbicide mitigation measures in over
3,000
acres of land

Since 2017 we have been working in partnership with Irish Water, The Rivers Trust, Ulster University, Agri Food and Bioscience Institute (AFBI), and East Border Region on an EU INTERREG VA funded project with a total investment of €4.9m. The Source to Tap project aims to improve the Erne and Derg cross border river catchments that are a shared source of our drinking water. As part of the project, the partnership has continued to roll out the pilot Land Incentive Scheme to farmers in the River Derg cross border catchment. Project Officers have engaged with over 220 landowners and undertaken farm visits, making recommendations for measures that benefit both the farm business and the environment, and this has identified over 1,700 issues affecting water quality. Remediation measures installed on farms to protect and improve water quality include the provision of 56km of riparian fencing to prevent livestock entering watercourses and eroding riverbanks. Where fencing has now been installed, we have grant aided 69 farms with alternative drinking water sources including 19 pasture pumps, 17 solar powered pumps for water troughs and 33 farms utilising mains fed water drinkers, to ensure livestock can avail of fresh water in a sustainable way. We have also improved 35 farm tracks and funded 20 clean/dirty water separation projects for farmyards. Each of these measures helps to reduce sediment run-off into rivers and drains.

We have encouraged farmers to replace field-wide spraying of the herbicide MCPA with targeted methods of rush topping (cutting) and weed-wiping to control rush growth. We have proactively paid farmers to avail of these herbicide mitigation measures in over 2,400 acres of land across the River Derg catchment, to protect and improve water quality by reducing the concentrations of MCPA in the raw water.

Fencing to prevent livestock entering watercourses and eroding riverbanks.

Find out more at https://www.sourcetotap.eu/

Sustainable catchment management is about improving the quality of the raw water using nature-based solutions prior to treatment. In doing so, we can save resources and extend the life of our assets.

Upland reservoirs adjacent to commercial conifer plantations are at risk of colour and turbidity fluctuations following felling. As part of the INTERREG VA funded Source to Tap project we trialled and monitored measures to reduce sediment run-off at sites where harvesting had taken place. Another element of the Source to Tap project was peatland restoration work at Tullychurry Forest, County Fermanagh. It trialled the novel cell bunding technique by creating low bund walls from fresh oxidized peat, forming watertight cells to re-wet the area. By slowly recreating the anaerobic waterlogged environment, bog conditions return and Sphagnum mosses can recolonise. We directly transferred these techniques to a 27ha area around Lough Bradan, County Tyrone. The Tullychurry and Lough Bradan forest to bog restoration projects have received a Green Apple Award 2021 in the climate change category and featured in a BBC Digital news item. NI Water also featured in a documentary at COP26 for the work that we are doing on climate change and biodiversity at the Garron Plateau, County Antrim.

NI Water's catchment management officer at the peatbog restoration project adjacent to Lough Bradan, County Tyrone.

NI Water staff marking the Green Apple award at Tullychurry forest, County Fermanagh.

The Education element of the Source to Tap project aims to raise awareness about the connection between our rivers and lakes and the water that comes out of our taps. Over 1,900 children have received at least one unit of our education programme and now know more about the importance of protecting our precious drinking water resources.

As well as this Source to Tap has delivered rush control events and a webinar to farmers to increase their awareness of the risks of the herbicide MCPA to water quality.

As part of the citizen science element of the Source to Tap project, over 40 volunteers across the Erne and Derg river catchments have been trained in the Riverfly monitoring technique. This enables them to go out into a local river armed with the correct equipment and to monitor it for Riverfly life on a regular basis. By doing so they can act as guardians of their local water environment to detect changes in the water quality, which may be signs of pollution and, to report them. This training has also provided them with new skills, confidence and the opportunity to be citizen scientists.

Educating our water whizz-kids on the Source to Tap project.

Partnering with members of the public across the Erne and Derg river catchments.

Partnering with farmers to reduce water quality risks from the MCPA herbicide.

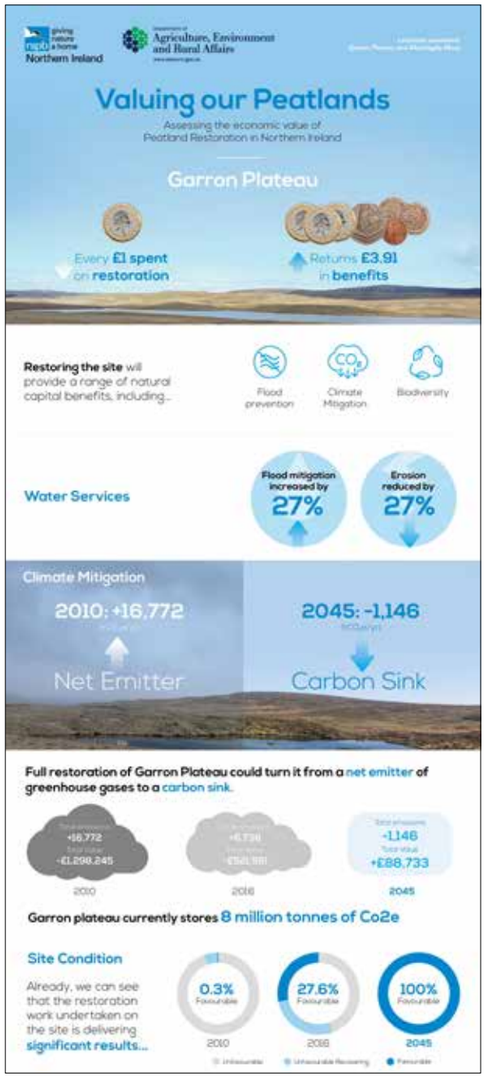
Find out more at https://www.sourcetotap.eu/

Valuing our peatlands

Peatlands store more carbon than all other vegetation types in the world combined. They can improve our water quality, provide natural flood management and support an array of species and provide wild places for people to enjoy. It is crucial for us to restore our natural habitats so they can play their role in the climate emergency and restoring biodiversity.

NI Water has been working closely with RSPB Northern Ireland who commissioned Natural Capital Solutions to complete a report on the Garron Project, 'Valuing Our Peatlands'. This is a Natural capital assessment and investment appraisal of peatland restoration in Northern Ireland. At Garron Plateau, County Antrim, and Lough Bradan, County Tyrone we have worked to block drains to raise the water levels in the peat, recreating bog pools and restoring natural habitats. This gives the ideal conditions for Sphagnum mosses and vegetation to grow, which then naturally filters the water, aiming to produce high quality water with fewer chemicals needed to clean the water. This assessment of peatland habitat shows that investing in bog restoration makes economic sense, with every £1 spent on peatland restoration returning £3.91 in benefits. The blanket bog restoration is not only a win in terms of raw water quality, but restoring the site will also provide a range of natural capital benefits, including flood prevention, climate mitigation and biodiversity. The restoration of Garron Plateau turns it from a net emitter of greenhouse gases to a carbon sink.

We are continuing to work with a number of our key partners including RSPBNI and DAERA Forest Service to identify further areas appropriate for peatland restoration in our land holding. Over the next number of years, we hope to increase the areas we can call 'bogs' around our drinking water catchments, to improve raw water quality but also to contribute to our corporate net zero targets, contribute to the national net zero targets and increase biodiversity on our most valuable habitats.



The Infrastructure Minister launched the NI Water's Schools Peatlands Poster competition along with pupils from St Mary's Queen of Peace PS, Glenravel and NI Water's Environmental Outreach and Learning Officer at the Garron Plateau, County Antrim.

Find out more at https://www.rspb.org.uk/about-the-rspb/at-home-and-abroad/northern-ireland/policyinnorthernireland/valuing-our-peatlands/

Enough water for all

Our changing climate is bringing more frequent and severe weather events such as heavy rainfall, heatwaves and extreme cold. These events can affect the quality and quantity of our water sources, placing pressure on our water treatment works.

High demand incident

On 22 July 2021 NI experienced its highest ever temperature (31.3°C).

July 2021 saw Northern Ireland basking in tropical weather conditions with record temperatures above 30°C. The demand for treated water peaked at almost 750 million litres per day on top of already elevated levels of demand seen since the COVID-19 lockdown.

To help manage the high demand a Category 1 Major Incident Regime was put in place to run and control the incident.

It was a huge operation with a massive concerted effort to reduce the impact on customers. From 16 July 2021, when the high demand incident began, over 36 tankers carried 1,800 loads of treated water to reservoirs which were struggling to cope with customer demand.

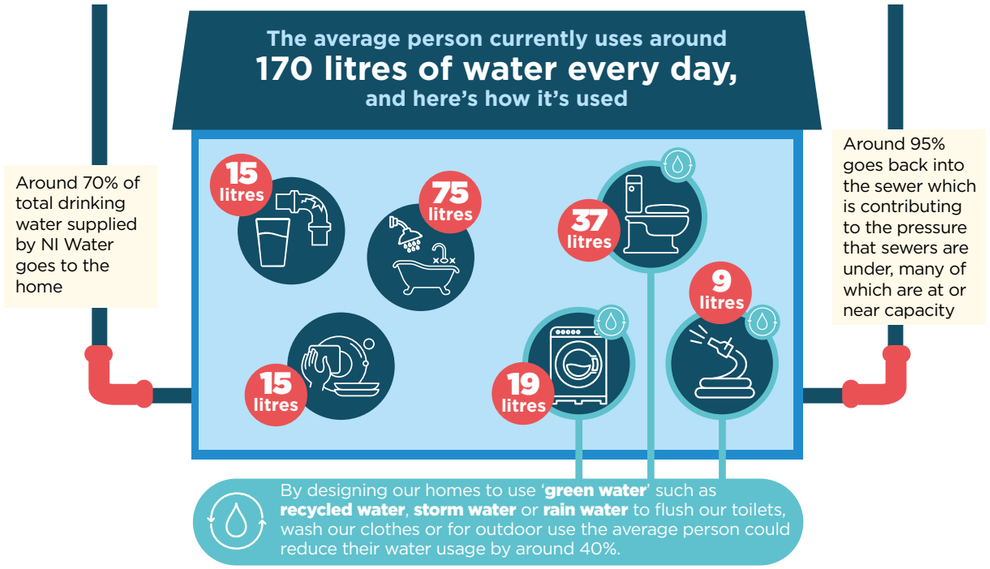
In total we moved a staggering 38.5 million litres of water, by tanker, across Northern Ireland to keep customers in supply. The high demand incident was further complicated towards the end of July when a major burst close to Dunore water treatment works resulted in a temporary loss of water supply and intermittent supply to properties in Antrim and surrounding areas. It was a difficult repair and Dunore water treatment works had to be closed down for a period with the loss of vital water production.

This was one of the largest movements of water across the network by tanker that NI Water has ever carried out.

Using less drinking water

By better designing our homes we could reduce the total demand for drinking water by around 25%. Further reductions in demand can be achieved by installing more water efficient appliances in the home and changing our behaviours e.g. shorter showers. By using less we can lower our carbon footprint, improve biodiversity, reduce leakage, increase resilience and ease pressures on our sewerage infrastructure.

Find out more at *www.niwater.com/water-saving/*



Pumping £12m into water resilience for Strabane, Omagh and Fermanagh

A major £12m investment in Derg water treatment works got underway in 2021/22. The original works was built in 2002 and serves Strabane and Omagh as well as supplying water into the Fermanagh area. The upgrade will improve the water quality within the Derg network and provide additional security of the water supply to the Castlederg and Strabane supply area and further afield, benefiting around 40,000 people. The investment will also protect the natural environment by improving the herbicide and organics removal.

Construction of Derg water treatment works, Strabane, County Tyrone.

https://www.youtube.com/watch?v=To9tWnI_vII

Reservoir safety

A £6m programme of reservoir improvements commenced across Northern Ireland to refurbish and enhance the safety of the impounding reservoir portfolio. Our impounding reservoir portfolio plays a critical role in the storage of untreated water for future supply to our treatment works. This will ensure that our reservoirs comply with the highest standards and meet the requirements of the Reservoirs Act (NI) 2015, when commenced. This major programme of work commenced at Seagahan reservoir in County Armagh and Silent Valley reservoir in County Down. Work will continue until 2024/25 and will involve completing improvements at over 30 major reservoirs throughout Northern Ireland.

Ben Crom reservoir, County Down.

Tasty, clean and safe

Delivery of great tasting, clean and safe drinking water is central to what we do. It underpins the public health and economy of Northern Ireland. The fresh water we use to produce our high quality drinking water is predominantly taken from Lough Neagh, local rivers and a range of upland sources.

World class on tap

The water we supply for domestic use or food production must comply with the standards in the Northern Ireland Water Quality Regulations, which incorporate European Union standards and more stringent UK national standards. The standards are strict and generally include wide safety margins. They cover: bacteria; chemicals such as nitrates and pesticides; metals such as lead; and how water looks and tastes. To make sure that your water supply is clean and safe, we take samples for testing. Sampling and analysis is carried out 365 days per year to ensure that our drinking water is tasty, clean and safe. Our sampling programme covers raw waters, water at various treatment stages, treated water going into supply from out treatment works, drinking water in the distribution system and at the customer tap. Samples are analysed by our scientists based in laboratories at Belfast and Altnagelvin. Overall drinking water quality compliance in 2021 was 99.88%, above the target of 99.83%. We publish a Drinking Water Quality Report each year, which is available on our website.

COVID-19 had an impact on regulatory sampling with zone sampling at customer taps suspended, in line with social distancing guidelines. To ensure that we continued to monitor water quality within the distribution system regulatory zone samples were taken at designated fixed points, service reservoirs (which store treated water) and at a number of fixed point customer addresses. Customer tap influenced parameters (such as lead, copper and nickel) were not sampled at service reservoir sample points. The suspension of sampling at customer taps samples was agreed with the DWI. Customer tap sampling recommenced in June 2021 at non-domestic properties and samples were scheduled to include the customer tap influenced parameters. Customer tap sampling recommenced at domestic properties in September 2021. In late December 2021 due to increased COVID-19 cases and public health concern sampling at customer properties was suspended again. This was agreed in advance with the DWI. Customer tap sampling recommenced in February 2022.

NI Water awards major £7m sampling contract to RPS

NI Water has awarded a contract for the sampling and transportation of water and wastewater samples to Belfast based company RPS Environmental Management Ltd. This contract is worth almost £7m over a five-year period.

The three-year contract operates around the clock, 365 days a year and involves taking samples at NI Water's treatment works and various other locations throughout both the drinking water supply and sewerage networks. The samples are then transported under strictly controlled conditions to NI Water's Analytical Services laboratories, where they undergo analysis to demonstrate compliance with water and wastewater quality regulations.

NI Water Head of Drinking Water Regulation pictured with the Regional Manager at RPS.

In 2020/21 we trialled a number of pilot studies at Derg water treatment works, County Tyrone, to remove heavy metals, suspended solids (turbidity) and pesticides including using a form of volcanic crushed rock and recycled brown and green glass to filter the water. We are working towards the delivery of treatment process at Derg water treatment works, County Tyrone, for herbicide (MCPA) removal to be completed by 31 March 2022.

NI Water revealed 'rock solid' solution to high quality water

NI Water revealed a 'rock solid' solution to obtaining a sustainable water supply by tapping into Earth's most hidden asset, groundwater. A long term, resilient water supply is a top priority for the company, which is why we are using boreholes to access this sustainable water supply.

Groundwater is perfect as it is stored underneath the Earth's surface and is a largely unused water source in Northern Ireland. It is also naturally filtered through rocks so requires minimal treatment to make it drinkable. NI Water is using solar panels for abstraction and treatment of the water which will offset electricity usage and activated filter media (recycled glass) to ensure it is treated to drinking standards. Overall, this innovative solution will not only provide water in all weathers but reduces chemical use and carbon.

NI Water and supplier staff pictured at the Moneymore Borehole test site in County Derry/Londonderry.

Wat-er upgrade!

Completion of the £13m investment at Drumaroad water treatment works in County Down to benefit a quarter of Northern Ireland's population.

https://www.youtube.com/watch?v=leu7b81X4Wc&t=9s

Tackling lead pipes

Replacing **11,000** lead communication pipes in PC21

1,864 replacements in 2021/22

The water leaving our water treatment works and in the distribution systems contains only trace amounts of lead. However, where lead has been used for supply pipes between the water main and the kitchen tap or in domestic plumbing, there is a risk of non-compliance at the customers' tap. So even with the removal of all lead pipes within our network there will be a risk to lead compliance from lead pipe remaining within customer properties.

We plan to replace over 11,000 lead communication pipes in PC21, with an annual target of 1,844 replacements. 1,864 proactive lead pipe replacements have been completed over 2021/22. We launched a media campaign to highlight the risk for lead pipework in customer properties and to encourage customers to replace lead pipework. We continue to engage with stakeholders concerning the potential for the establishment of a new grant scheme, to enable private customers to access funds for replacement of their private supply pipe.

Find out more about reducing the risk of lead at: www.niwater.com/lead-pipes/

https://www.youtube.com/watch?v=9k9Fl0_FcZE

Drive down leakage

Throughout the pandemic and every day of the year, NI Water's leakage teams work around the clock, locating and repairing approximately 220 leaks a week saving water, a precious resource for hygiene and hydration.

In 2021/22 we further reduced leakage to 155.6 million litres per day. This is a reduction of over 2 million litres per day compared to 2020/21. It is a credit to our leakage team, who work 24/7, using highly skilled leakage repair and detection techniques to have achieved this.

The leakage team is highly skilled and use a variety of leakage detection methods to find leaks, whether they are on water mains or within customer properties. Some of these techniques involve using a listening stick, a tried and tested way of detecting a leak. Another method of detection is by using ground microphones.

The leakage team works hard to reduce the amount of leakage on our vast network; however, there is more that we can do and we are asking the public to help. If you see a leak on the footpath or on the road, whether it's a trickle of water or it's gushing from a burst pipe, you can help by letting us know. You can report it by visiting www.niwater.com/leak or by calling our Leakline number on 0800 028 2011, open 24 hours a day, every day. Calls are free of charge.

Detecting leaks using a ground microphone.

Networks Leakage Technician, using a listening stick to detect a leak.

Always on

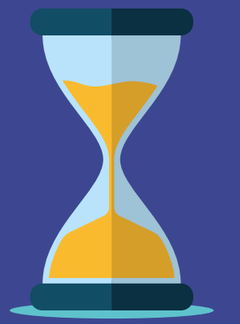
Every week we repair around 350 customer related bursts that occur on our water network of 27,000 km operational distribution and trunk mains. Many of these bursts can result in interruptions to customers' supply or customers experiencing low water pressure. Our 'Every minute counts' ethos helps to focus at ways to improve our performance and explore innovative solutions. Examples include post interruption reviews to establish key learnings; utilising water tankers in response to interruption to supply events; and providing each field manager area with emergency restoration trailers in order to increase our response capability.

We experienced a major burst at a strategic trunk main in Summer 2021 close to one of our largest water treatment works at Dunore in County Down. This resulted in a temporary loss of water supply to properties in Antrim and surrounding areas. It was a complicated repair to a large diameter trunk main and the treatment works had to be shut down resulting in the loss of water production during an already challenging high demand period. The burst inevitably led to loss of supply for around 12,500 customers. The burst resulted in failing to achieve our target for customers without supply for >6 hours in 2021/22. Performance against the targets for >12 hours and >24 hours was also impacted, but recovered over 2021/22. We have completed detailed post event analysis to mitigate and inform the response to such an event in the future.

Emergency trailer for use during a supply interruption event.

Our PC21 Business Plan includes capital investment to reduce the minutes lost per property by 50%, aiming for zero lost minutes per property by 2050. The SMART network capital programme for PC21 aims to maintain a CALM network and increase visibility on all our water assets to minimise customer impact should a failure occur.

Visit *https://www.niwater.com/current-service-updates/*



Ben Crom impounding reservoir, County Down, marks its 70th year of service!

Economy

Efficiently delivering infrastructure to underpin sustainable growth

Attending the Power of Water Event at the ICC Belfast were NI Water's Chairman, Dr Len O'Hagan, NI Water's Chief Executive, Sara Venning and Minister for Infrastructure, Nichola Mallon MLA.

Strategic areas of focus

- Funding world class economic infrastructure
- Efficient and affordable services
- Sustainable growth

Sustainable development goals

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

11 SUSTAINABLE CITIES AND COMMUNITIES

Principal threats/opportunities

Page 84 Read more about principal threats and opportunities.

Strategic performance indicators

Economy	Unit of measurement	Target 2021/22	Actual 2021/22	Pass/ Fail	Target 2022/23
Increase/(decrease) in customer tariffs	%	0.9	0.9	Pass	6.6
Number of economic constraint areas removed (cumulative over 2021-27 period)	Number	0	0	n/a	0
Number of serious development restrictions removed (cumulative over 2021-27 period)	Number	4*	0	Fail	0
Bathing water quality**	Excellent	Majority excellent or good	24	Pass	Majority excellent or good
	Good		1		
	Sufficient		1		
	Poor		0		

* We have reprofiled the delivery dates for this target and plan to recover performance by 2022/23.

**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 move from a 'stop-start' approach to delivery as a result of underfunding, to multi-year funding in line with that determined by the independent Utility Regulator, supported by a mechanism to deal with financial shocks.

From stop-start to multi-year funding

The Organisation for Economic Co-operation and Development (OECD) recommends that infrastructure be underpinned by fiscally sustainable multi-year funding. Recent reforms of infrastructure delivery in the UK public sector have been driven by the need to address the absence of multi-year funding and the adverse impact on infrastructure planning and delivery.

HM Treasury

Lack of multi-year funding also creates detrimental effects from cyclicality as highlighted by HM Treasury's report on smoothing investment cycles in the water sector. The report noted that the stop-start nature of five year investment cycles in England and Wales can lead to lean periods of great uncertainty, loss of productivity across the five year cycle, redundancies and an environment of uncertainty in which small and medium enterprises are adversely impacted.

highways england

The Department of Transport's Road Reform consultation noted that uncertainty of stop-start funding was having detrimental impacts on the delivery of multi-year projects and the supply chain. Highways England now benefits from ring fenced operational and capital expenditure across five year budgets.

Network Rail benefits from five year funding settlements.

Unlike Highways England and Network Rail, NI Water lacks funding visibility. This lack of visibility has been exacerbated by the absence of buffer to deal with financial shocks such as the energy price rises in 2021/22.

Scottish Water
Trusted to serve Scotland

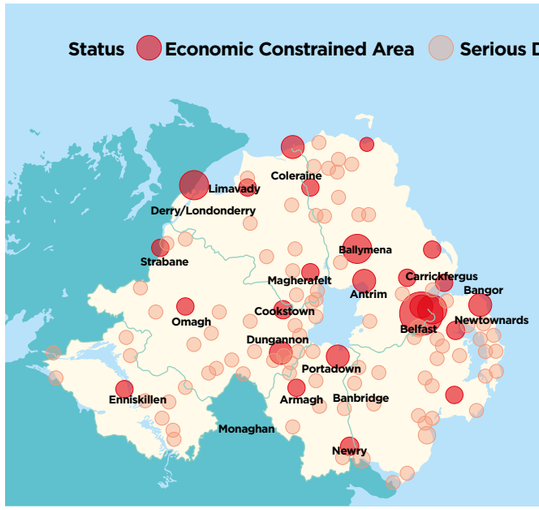
Scottish Water is an example of another Government owned water company with the ability to build up significant cash reserves as a buffer for financial shocks. NI Water's Non-Departmental Public Body Status limits the amount of cash that can be held in reserve.

NATIONAL INFRASTRUCTURE COMMISSION
Better infrastructure for all

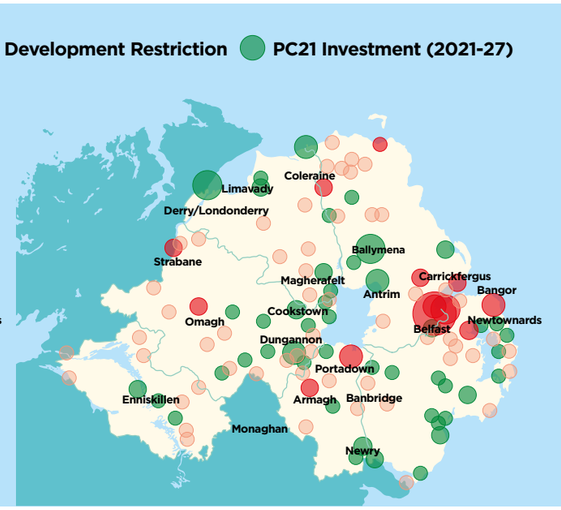
The National Infrastructure Commission has also highlighted the need for the UK's framework for economic regulation of utilities to be updated and strengthened due to the emerging and long term challenges it was not designed to address. This includes reaching net zero, protecting and enhancing the environment and increasing digitalisation. The Commission notes that it is vital that utility regulators have appropriate and coherent duties covering price, quality, resilience, the environment and net zero.

NIAO
Northern Ireland Audit Office

The NI Audit Office is undertaking a review on the funding of NI Water's infrastructure and plans to publish its report by Autumn 2022. We welcome this review and are assisting the NI Audit Office with its enquiries. Further details are available at *https://www.niauditoffice.gov.uk/publications/funding-ni-waters-infrastructure*



Development constraints across Northern Ireland at the end of year one of PC21 (2021/22).



Development constraints across Northern Ireland at the end of PC21 (2027).

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 quarter of a century to solve the problem of development constraints.

During 2021/22, we continued our engagement with local councils and other stakeholders on wastewater capacity constraints. We are also developing tools to help us further prioritise and target investment on wastewater capacity constraints across Northern Ireland.

£18m boost for Ards Peninsula

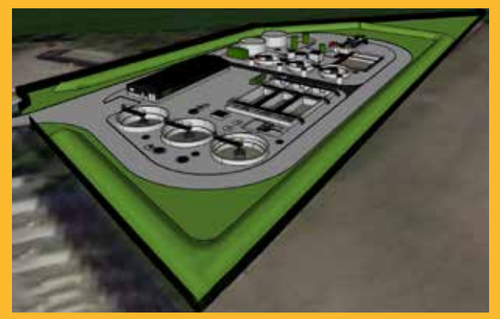
The Ards North Wastewater Improvement Project represents an £18m investment by NI Water to upgrade the existing wastewater collection and treatment systems serving a large part of the Ards Peninsula to bring about social, economic and environmental benefits.

The extensive project involves the rationalisation of the Carrowdore, Ballywhiskin and Ballywalter catchments so that all wastewater flows from these areas are transferred to a new state-of-the-art wastewater treatment works being constructed off the Ganaway Road in Ballywalter.

In addition to these catchments, the new treatment works has been designed to treat wastewater flows from nearby caravan parks and small settlements, which currently have no treatment facilities.

The effluent from the wastewater treatment works will be treated to strict environmental standards and will flow to a new long sea outfall. To achieve excellent bathing water quality at local beaches, the outfall discharges 550m off shore where the treated effluent is dispersed and diluted in 4m depth of seawater.

The new wastewater treatment infrastructure will support long-term economic growth in local development and tourism. Additionally, the investment will deliver environmental improvements, including cleaner beaches and bathing waters, which will benefit all those living, working or visiting this scenic part of the Ards Peninsula.



Outline design for the new wastewater treatment works.

Caravan park on the Ards Peninsula.

Beach on the Ards Peninsula.

Efficient and affordable service

We have reduced operating costs and improved comparative efficiency with water companies in England and Wales. The gap between us and the most efficient water companies in England and Wales has reduced from 49% in 2007/08 to just 5.7% in 2018/19. We are committed to reducing annual operating costs by a further £13m to eliminate this efficiency gap by 2027.

We recognise the need for innovation diffusion to close the UK's productivity gap with its main competitors. We will play our part in closing the gap by harnessing innovation and embracing new technology in pursuit of ever more efficient and sustainable solutions. We recognise efficient solutions often require changes to culture and collaboration with the supply chain, Universities and others.

We have developed a cost-to-serve tool and new metrics that create a more cost-curious culture. The metrics include £/million litres of water delivered to customer and £/population equivalent of wastewater recycled. The tool draws together the 250 million operational, financial and asset data points from our core systems and presents this information is easy to use Microsoft Power BI dashboards. The dashboards cover all main operating cost components: labour, electricity, chemicals, materials, contractors and operational capital.

NI Water receiving the Best Procurement Delivery and Highly Commended Team of the Year awards at the GO Awards Northern Ireland 2021/22.

Piloting the production of green hydrogen - NI Water staff showing Alliance Party of Northern Ireland MLA's Andrew Muir MLA and Stewart Dickson MLA the 10kW Electrolyser at Kinnegar Wastewater Treatment Works in Belfast.

NI Water Taps into Local Companies for Innovation in Water and Wastewater Treatment

Four Belfast-based local companies are leading the way in developing innovative technologies for NI Water's Water and Wastewater Treatment Plants and other assets in the water and sewerage network.

Analytics Engines, RPS, Lagan Meica and Advanced Analytics Labs are leading the way in helping NI Water to identify ground-breaking processes and data intelligence techniques to achieve efficiencies in the area of water and wastewater treatment.

These projects are all supported by the Small Business Research Initiative (SBRI), which is a pre-commercial procurement model promoted by Innovate UK, which enables public sector bodies to connect with technology organisations in order to stimulate the development of innovative solutions to specific public sector challenges and needs.

NI Water and supply chain staff involved in the projects.

Customer tariffs

The amount by which NI Water can increase customer tariffs is determined by the Utility Regulator. We work with the Utility Regulator to ensure the fairest pricing outcome for our customers. NI Water is acutely aware of its responsibility to strike a balance between our need to generate sufficient income to allow us to continue delivering our services and minimising the impact on non-domestic customers.

Following approval by the Utility Regulator, NI Water increased its non-household water and wastewater tariffs by 6.6% on average. This came into effect from 1 April 2022. When setting tariffs, NI Water seeks to strike a balance between the conflicting priorities of minimising the impact on customers whilst at the same time ensuring that enough revenue is generated. NI Water is currently facing considerable budgetary pressures which are likely to continue through 2022/23, primarily due to the impact of rising power prices and other unavoidable increases affecting costs such as chemicals. Whilst any increase is unwelcome we have worked hard to ensure our water and sewerage services continue to provide good value for money to our customers. This increase means most of our customers will see their bills rise by less than inflation.

Find out more at https://www.niwater.com/siteFiles/resources/pdf/WaterCharges/202223/NIWSummaryofChargesLeaflet.pdf

Sustainable growth

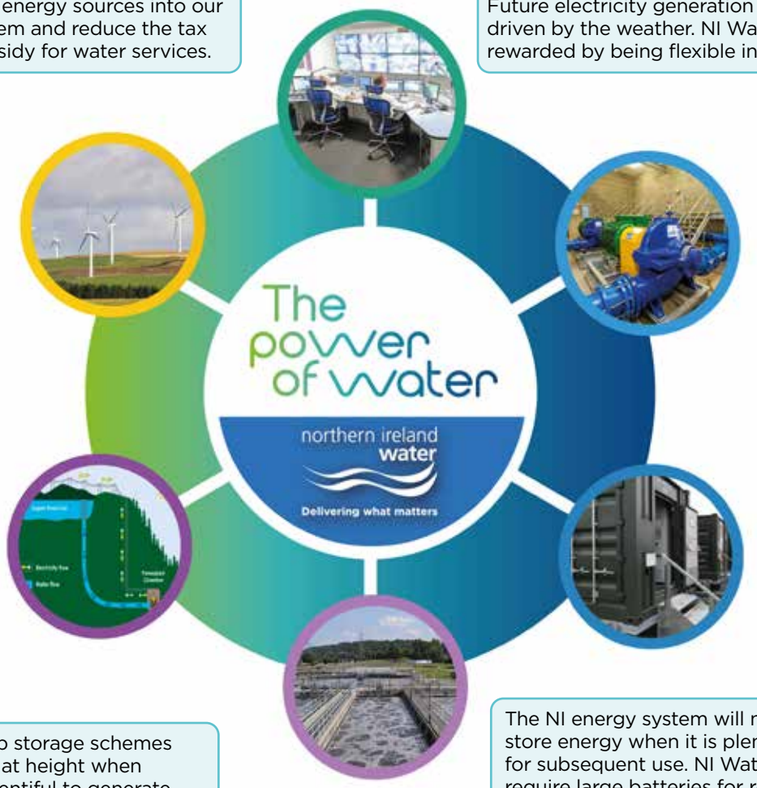
Every aspect of life in Northern Ireland relies on the water and wastewater services we provide, so it is important that any investment we make in our infrastructure is built with the future in mind. In order to improve our long term resilience we need to ensure our infrastructure can withstand pressures such as climate change, growth in the economy and the need to 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. Energy is at the nexus of this approach.

Power of Water could help the local economy go greener faster

A different type of ICU was the subject at the launch of the NI Water Power of Water Report. Innovate, Collaborate, Urgency – these were the three key messages if we are to decarbonize our energy system. Northern Ireland could be a world leader but we need to act. The Power of Water Report sets out a number of practical examples of how NI Water might be part of a wider decarbonisation agenda.

NI Water can help to integrate more sustainable energy sources into our supply system and reduce the tax payer's subsidy for water services.

NI Water is our largest electricity user. Future electricity generation will be driven by the weather. NI Water will be rewarded by being flexible in our use.



Hydro pump storage schemes store water at height when energy is plentiful to generate electricity later.

The NI energy system will need to store energy when it is plentiful for subsequent use. NI Water will require large batteries for resilience and to operate efficiently.

Find out more at: *https://www.niwater.com/climatechange/power-of-water/*

Nature Protecting and enhancing the natural environment

Nature based solution for treating wastewater using a wetland at Castle Archdale, County Fermanagh.

Strategic areas of focus

- More resilient network
- Sustainable solutions
- Keep it clear
- Towards zero carbon

Sustainable development goals

Principal threats/opportunities

Page 84 Read more about principal threats and opportunities.

Strategic performance indicators

Nature	Unit of measurement	Target 2021/22	Actual 2021/22	Pass/ Fail	Target 2022/23
Reduction in pollution incidents - sewage (high and medium)*	Number	12	12	Pass	11
Wastewater compliance (% population equivalent served)**	%	99.18	99.23	Pass	94.65
Reduction in number of properties at risk of out of sewer flooding (cumulative over 2021-27 period)	Number	0	3	Pass	6
Reduction in carbon footprint. Relates to reduction in net operational carbon emissions measured in tonnes of carbon dioxide equivalent (tCO_2e)	%	***	13	***	***

*Calendar year target.

**Calendar year target. Based on pre-announced rather than un-announced regulatory sampling at the treatment works and the reported wastewater compliance doesn't incorporate flow compliance for the wastewater treatment works or the sewer network.

***Target to be set following development of net zero carbon route map in 2022/23.

More resilient network

Reducing sewer flooding

Flooding and the risk of flooding can constrain economic development, increase the cost of insurance and pollute our natural environment. Most of the urban areas of Northern Ireland, including road surfaces, are served by combined sewers that carry both wastewater and surface water - such a system would never be built today.

Climate change has contributed to an increase in the intensity and frequency of rainfall. Heavy rainfall can cause the sewers to become full of water and the sewage to back up in the system. Many of our traditional systems include 'combined sewer overflows', which were designed to prevent out of sewer flooding/damage to properties by discharging this excess water directly into the rivers or streams bypassing the treatment works.

We understand that internal sewer flooding is one of the worst things that can happen to our customers' properties. We maintain a register which defines properties verified to be at risk of internal flooding as a result of the capacity of the sewerage system being exceeded. There were 108 properties on the register at the start of PC21. We removed three properties from the register in 2021/22 and plan to remove a further six properties in 2022/23.

We have a smarter approach to drainage area planning. Our new modelling studies are transforming our analysis and providing a world class evidence base on which informed decisions can be made. Our growing toolbox of digital surveys, powerful analytical tools and integrated environmental models are giving us better insight than ever into how our wastewater networks performing and how this performance affects our customers, nature and the economy. Industry leading modelling software (Infoworks ICM) is now being used to perform complex hydraulic analysis. It enables us to identify our worst performing overflows. Interactive Power BI dashboards then convey risks and recommendations; and bespoke software enables creation 3D visualisations.

Reducing the amount of surface water reaching the sewers can help reduce the risk of sewer flooding due to overcapacity. The Ravenhill Avenue flood alleviation project commenced in 2021/22 and will remove an impermeable area equivalent to around 12 football pitches, which currently discharges into the Belfast sewerage network. Ongoing investigation work on storm water removal will result in re-profiling the total impermeable area removed during PC21.

Storm water modelling.

"Timmy the Tunneller" arrives at £7m Ravenhill flood alleviation project

A major Tunnelling Machine has arrived in Belfast, for use on a major £7m Flood Alleviation Project, which is well underway in the Ravenhill area of South Belfast. Once complete, in early 2023, this major project will reduce the risk of out of sewer flooding in the area.

The machine, which is over 2 metres in diameter and 2.5 metres long will tunnel below the busy Ravenhill Road and help reduce disruption during construction. The tunnel will extend 75 metres from the edge of Ormeau Park up Ravenhill Avenue. Once the tunnelling works are completed, the more traditional open cut method will be used to construct the remaining sewers and manholes.

This essential infrastructure project involves the upgrade of existing and installation of new sewers along a section of Ravenhill Avenue and surrounding streets. It will increase the capacity of the sewerage system in this area of South Belfast and update the existing infrastructure, some of which dates back to the early 1900's.

Work is taking place in phases, progressing along Ravenhill Avenue, Sunwich Street, Federation Street and Millar Street. The project team have worked well with the local community to minimise disruption, including employing the use of underground trenchless construction methods where appropriate.

Tunnelling machine used for the Ravenhill flood alleviation project.

Tunnel boring machine arrives at £8m South Belfast project

A "friendly giant" Tunnel Boring Machine (TBM) over 10 feet in length has arrived in Belfast, for use on a major £8m Flood Alleviation Project. The work is to upgrade the sewerage infrastructure and substantially reduce the risk of out-of-sewer flooding in the Marguerite Park area of South Belfast, and pave the way for future works in the Sicily Park area.

Work on Phase one of this major infrastructure project is underway within the grounds of Musgrave Park & Musgrave Park Hospital, and the overall project will take up to two years to complete.

The machine will help reduce disruption within Musgrave Park/ Musgrave Park Hospital and Malone College by tunnelling around 800m of the new sewer underground – right below our feet! We will also tunnel under the main Belfast to Dublin Railway line, avoiding the need for any closures. The tunnelled sections of sewer will be up to 8m below ground level, the equivalent height of two double decker buses!

NI Water is delighted to welcome the arrival of the TBM on this major Flood Alleviation Project and look forward to putting the machine into operation!

The machine will remove approximately 4,000 tonnes of soil, equivalent to 250 full lorry loads of earth from below the ground, while users of the park and hospital will be unaware of what is happening below their feet! Tunnelling will also significantly reduce excavation works, and avoid the use of 21,000 tonnes of new stone fill, saving around 24,000 litres of fuel in transportation.

NI Water would like to thank the public for their ongoing patience as construction progresses on this major project. Once complete, the local community will benefit from reduced risk of out-of-sewer flooding in the Marguerite Park area for many years to come.

The overall project involves constructing over 1.3km of new large diameter sewer from the 'Grovelands' area of Musgrave Park, through the park grounds, Musgrave Park Hospital and Malone College, crossing under the railway line and through an area of private land into Diamond Gardens/Marguerite Park and Donegal Park.

NI Water Project Managers at the arrival of the tunnel boring machine.

Find out more: *https://www.niwater.com/major-infrastructure-detail/10029/sicilymarguerite-park-flood-alleviation-project-phase-1/*

Delivering a 21st century drainage and wastewater system for Belfast

Infrastructure Minister Nichola Mallon published Living With Water in Belfast: An Integrated Plan for Drainage and Wastewater Management in Greater Belfast. This follows Executive approval and a public consultation on the Plan. At £1.4bn over 12 years it is not a quick, or inexpensive fix. The Plan aims to deliver a long-term approach to drainage and wastewater management that will protect from flooding, provide a cleaner and greener environment and ensure that Belfast is open for business and investment. 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. It also marks the start of the delivery phase. Over 50 engineers are working full time to deliver the construction works which will include upgrading six wastewater treatment works and their sea outfalls, replacing pumping stations, building new tunnels and upgrading pipelines and sewers across the area. NI Water is working closely with partners to deliver sustainable solutions that provide adaptation to climate change and will also, where possible, provide a range of benefits to communities such as improved green spaces.

The Infrastructure Minister, the Belfast Lord Mayor and NI Water's Head of the Living With Water Programme visit the demonstration project at Cave Hill Country Park in Belfast.

Find out more at Living With Water Programme | Department for Infrastructure (*https://www.infrastructure-ni.gov.uk/topics/living-water-programme*)

Completing the picture on wastewater compliance

We recognise the need to improve how we measure wastewater compliance. The current regulatory monitoring programme is based on pre-announced rather than unannounced regulatory sampling at the treatment works and the reported wastewater compliance doesn't incorporate flow compliance for the wastewater treatment works or the sewer network. This provides an incomplete picture of environmental compliance and protection. We are working with the NIEA and other stakeholders to reform the wastewater compliance model to improve compliance across the whole wastewater system. This is known as the water regulation reform programme. We have agreed a revised governance structure for wastewater regulation, refreshed the terms of reference and developed a route map for the programme of work over PC21.

Reforming our wastewater compliance assessment is a key part of a wider programme of Water Regulation Reform being taken forward by our environmental regulator, the NIEA. To help inform this, we are undertaking an unannounced sampling programme to get a better understanding of wastewater treatment works' performance.

We are also installing flow meters at wastewater treatment works and event and duration monitors (EDMs) on our sewer network to better understand spills from combined sewer overflows and enable future regulatory reporting on spills. Combined sewer overflows act as emergency discharge valves in our sewerage system, discharging untreated sewage and wastewater when the system is overloaded. They are a necessary part of the existing sewerage system, preventing sewage from flooding homes and businesses. We delivered 52 monitors at combined sewer overflows against a target of 50 for 2021/22. We didn't deliver any EDMs at wastewater treatment works against target of 16 for 2021/22. We continue to work with NIEA to establish the method for measurement of flow requirements at wastewater treatment works, which may be a combination of flow meters and EDMs at most wastewater treatment works. We removed five unsatisfactory intermittent discharges against a target of seven for 2021/22. We plan to recover this slippage over PC21.

There are a number of key projects proposed for PC21 which will improve wastewater compliance performance and support the wastewater regulation reform programme. These include delivery of capital investment schemes to upgrade wastewater treatment works and parts of the network, doubling the number of event duration monitors to around 650, installing flow meters and improving our environmental models.

The intelligent control of wastewater flow involves the deployment of a digital tool called Aquasuite. It uses AI to control all the feed from each individual pumping station to ensure the flow to the treatment works is at a constant rate, so avoiding peaks and troughs. We expect this solution to create more headroom at works which means capital investment for upgrading can be deferred or avoided. It will improve treatment efficiency and deliver better compliance at the works – and improve our carbon footprint through running our pumps more efficiently.

Building capacity for Ballygowan

We continued to make good progress on the construction of the new £6.4m Ballygowan wastewater treatment works despite ongoing delays with some building services and materials. Overall, the work on site is at an advanced stage with the testing and commissioning phases planned for the end of 2021/22. NI Water is planning to install a new 65kW renewable solar energy system within the footprint of the old wastewater treatment works site. The electricity created from the new solar panels will be used to provide additional power to run the treatment works, reducing energy usage and lowering the carbon footprint of the site.

Construction of the wastewater treatment works at Ballygowan, County Down.

Find out more: *https://www.niwater.com/major-infrastructure-detail/10035/ballygowan-wastewater-treatment-works/*

Sustainable solutions

Every day we recycle wastewater from 736,000 homes and businesses before safely returning it to the rivers and sea. Traditional treatment works are carbon intensive, requiring a lot of energy, concrete and chemicals to ensure treated wastewater can be safely released back to the environment. We are committed to a more sustainable approach to wastewater treatment and have deployed a number of innovative approaches such as lower energy technologies and nature based solutions.

Lower energy treatment solutions

Set in the heart of an agri food hub, Dungannon wastewater treatment works receives over 60% of its influent from agri food traders. To treat difficult, high strength influent effectively and to serve these vital business customers in a way that protects the natural environment required the installing of a state-of-the art treatment process known as Nereda®. This technology places the plant at the forefront of world-class industry innovation, offering a low-energy solution for the treatment of both domestic and industrial wastewater. The investment – which forms the first phase in a wider programme of improvements planned for Dungannon wastewater treatment works – extended the existing works to meet the current demand and maintain regulatory compliance.

Its application is well suited to Dungannon as it allows delivery of a high quality effluent but only required a quarter of the space of traditional wastewater treatment solutions, meaning that it was installed without NI Water needing to purchase additional land. The addition of this process at Dungannon means that the works can cope with increasing current demand and maintain regulatory compliance.

The diagram above shows the layout of the Dungannon wastewater treatment works, County Tyrone (NI Water land ownership outlined in blue) with the new Nereda® process being installed to the north of the site (marked in colour).

Working with wetlands

In keeping with our ambition to put back more than we take out, we identified a green solution, which uses constructed natural wetlands to treat wastewater instead of traditional wastewater treatment processes. Wetlands do more than you think – they filter our fresh water, absorb and retain carbon, and support biodiversity.

NI Water has many examples of using reed beds at the end of a conventional (mechanical) wastewater treatment system to 'polish' or 'purify' the water. Clabby is the first site in Northern Ireland where we are leading the way with reed bed technology for the full treatment of wastewater. Known as Phragmifiltre®, this innovative system is the first reed bed technology in the UK that provides complete treatment of wastewater in one wetland system, with no pre-settlement and using little to no power. Because of the unique way the Phragmifiltre® process stores and composts sludge on site, there is no need for tankers to visit the site to desludge - a major difference to the previous treatment works. This natural system also provides wildlife habitats - another important element that a conventional treatment works doesn't have.

We are partnering with the Agri-Food and Bioscience Institute on an EU EU-funded project, CatchmentCARE, that aims to improve freshwater quality within the North Western and Neagh Bann international river basins. The project is focussed across three cross-border catchments, the Arney, Blackwater and Finn. As part of the project, final effluent from Cavanagrow wastewater treatment works is instead of being discharged into the local water course when ground conditions are suitable and used to irrigate a crop of willows. This improves the water course quality and provides irrigation for the crop.

Clabby wastewater treatment works, County Fermanagh - Courtesy of BSG Civil Engineering Ltd.

Boosting biodiversity

Strong biodiverse ecosystems are the basis for our water supply chains. We are partners in the All-Ireland Pollinator Plan, an island-wide initiative to reverse the decline of precious pollinating insects. We have been conducting fieldwork to identify areas best suited to be left aside for pollinators and mapped these areas on the All Ireland Pollinator Plan web-mapping tool. Working with the NI Water Bee Keeping Group is helping us identify areas to survey in the pollinator season. We are also undertaking counts of pollinators alongside site surveys, to assist the UK Centre for Ecology and Hydrology citizen science project.

Find out more at *https://pollinators.ie/wp-content/uploads/2021/03/FINAL-All-Ireland-Pollinator-Plan-2021-2025-WEB.pdf*

Nature based decision making

We are committed to putting nature at the heart of our decision making. The Water Industry Forum, working with Water UK's Environment Policy Advisory Group members including NI Water, produced a set of principles in 2020/21 on using natural capital type approaches in investment decision making. The principles are seen as a best practice guide for water companies and regulators to help design and apply natural capital type tools, ultimately with the aim of making more sustainable investment decisions and delivering better outcomes for customers and the environment. Over 20221/22, the Forum has been developing further guidance on driving best value decision making using a multi-capitals approach. We continue to pilot the use of multi-capitals decision making on the Living With Water Programme and have a number of activities within our Climate Strategy to support multi-capitals decision making. We plan to roll out the new approach across our investment programme to inform our next business plan in PC27 (2027-33).

Keep it clear

We deal with around 15,000 blockages of our sewers each year, over 11,000 of which could have been prevented. The most common causes of these blockages is the flushing of items which do not dissolve down the toilet such as wet wipes and the disposal of fats, oils and grease (FOG) down the sink. These combine to form a solid mass in the pipes underground, meaning less waste can pass through the pipe. If enough waste cannot pass through, it leads to flooding in homes, business or our natural environment.

'Wipe' Out at Christie Park

NI Water is appealing to customers in the Coleraine area to bag and bin their bathroom rubbish such as wipes and sanitary items after hundreds of wet wipes recently washed up at Christie Park. The sewer will require an upgrade, however the main problem here is the flushing of inappropriate items such as wipes and sanitary products. It is not the first time this has happened but NI Water and local Councillor William McCandless are appealing for it to be the last. If we all make changes to our flushing habits, then incidents like this, and those where we see an overflowing manhole, can be avoided in the future.

Our customer campaigns continued the seasonal messages around bag it and bin it and FOG over Christmas and Easter. This included messages carried in daily papers. Belfast Live featured Belfast wastewater treatment works skips and the volume of sewer related debris. This was in turn supported by the work of our education team who engage school children and the community to support and spread the message.

NI Water staff and Councillor William McCandless at the manhole at Christie Park, Coleraine, County Derry/Londonderry.

Find out more at: *https://www.niwater.com/fats-oil-and-grease-fog/*

Got the Bottle?

Northern Ireland uses 145 million single use plastic bottles every year. Across the UK, 7.7 billion plastic water bottles are used each year, with the average person now using 150 plastic water bottles every year – that's more than three a week. Many are discarded, and end up polluting our rivers and seas. Staggeringly if just one in ten refilled just once a week, we would save around 340 million plastic bottles a year.

NI Water is committed to tackling the problems caused by plastic bottles and bottle tops, which block up our drains and rivers, and pollute our seas and shorelines. By refilling a reusable bottle, not only do you reduce plastic waste, you are also helping to drive down your carbon footprint. Our Councils have signed up hundreds of local businesses across their local area who welcome any member of the public on to their premises to refill their reusable bottle with tap water. Over 300 primary and secondary schools have also signed up to become Refill schools, pledging to reduce the number of single use plastic water bottles in school and encouraging all pupils to refill a reusable bottle with world class tap water.

NI Water is a member of the Responsible Plastic Management Programme, which aims to introduce reducing plastic use initiatives across the company. The Programme helps to positively manage plastic enquiries that are becoming more prevalent in business, society and from interest groups and regulators. We will work collaboratively with the Programme to develop a responsible action management plan, with a view to engaging internally and externally our commitment to reducing plastic pollution.

Towards zero carbon

Climate change is of strategic importance to the water sector given its carbon intensity and exposure to extreme weather events. Operational emissions from the water industry account for nearly 1% of the UK's total carbon emissions. This is because water and wastewater treatment is energy and chemical intensive and transporting water requires a great deal of pumping. Grid electricity accounts for the majority of our operational carbon emissions.

At NI Water, we're committed to delivering a net zero, climate resilient future for all our customers. We are determined to harness the huge and largely unseen potential for NI Water to address climate change. We are committed to net zero by 2050 in line with the net zero target for Northern Ireland. We can also play a strategically important role in helping society to decarbonise by planting one million trees; building more renewables on our land; kick-starting our hydrogen economy; and providing sources of warmth for district heating schemes.

We know that we can't do this alone. We will need support from all of our partners and stakeholders; a positive policy and regulatory environment from government and regulators, innovation from our supply chain, reduced water use from our customers, collaborative planning from councils and other partners, and more.

We are encouraged to see progress by the NI Executive on climate change legislation for Northern Ireland with a net zero 2050 target and key climate related strategies on Energy, Green Growth, Environment, Infrastructure and Skills. We have engaged through the relevant consultations.

NI Water is Northern Ireland's single, largest electricity consumer

One of Northern Ireland's largest land owners

Carbon neutral by 2050

Battery Energy Storage Project

Following a competitive tender, NI Water has awarded Continu Ltd funding under Phase 2 of the SBRI (Small Business Research Initiative) to undertake a collaborative research project into the benefits of the use of large-scale battery storage technology to store and use renewable energy.

Head of Energy at NI Water said:-

"To provide the green power for the increasing adoption of electric vehicles and to start to decarbonise the heating for homes and places of work, Northern Ireland needs to double its renewable generating capacity in the next ten years.

"NI Water has over 3,000 widely distributed grid connected sites, which have the potential to play a vital part in the deployment of large-scale batteries across the province. The key outcome for this exciting research project is to reduce usage and costs while maintaining reliability of supply at all times.

MD of Continu, commented,

"Having successfully completed six months of feasibility research (Phase 1), we are excited to build on this further to develop our findings. This will identify opportunities to use battery energy storage technologies within NI Water in order to reduce energy consumption, reduce cost, improve resilience and generate income. Given NI Water's position in the Northern Ireland electricity market, the project has the potential to demonstrate major benefits and will provide valuable information to other large energy users in both public and private sectors."

NI Water staff and supplier representatives involved in the battery project.

Approach to climate disclosures

There have been a number of significant developments over 2021/22 including the Sustainability Accounting Standards Board and the International Integrated Reporting Council merger to form the Value Reporting Foundation, the publication of draft IFRS sustainability disclosure standards and the draft Task Force on Nature-related Financial Disclosures (TNFD) framework. This builds on the move towards mandatory climate change reporting against the Taskforce on Climate-related Financial Disclosures (TCFD) for large sections of the UK economy by 2025.

We have undertaken a gap analysis with TCFD and identified a number of actions to take as part of our transition towards mandatory TCFD reporting for large companies in 2023/24. NI Water has registered with Carbon Disclosure Project (CDP) and used the CDP questionnaire to prepare the TCFD climate disclosures. The CDP aligns with the Climate Disclosures Standards Board (CDSB) framework which helps corporates identify material information and data. The CDP and CDSB are part of a climate disclosure framework, which ultimately supports corporate disclosures under the TCFD framework.

Organisations with climate-related risks, opportunities and impacts

CDP DISCLOSURE INSIGHT ACTION

Generate clear and well-structured information and data

CDSB Climate Disclosure Standards Board

Disclose relevant material information and data in the mainstream report

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Resulting in: Efficient and investor-useful, TCFD-aligned mainstream disclosures

Climate governance

Board

The NI Water Board is responsible for overseeing the management of risks associated with climate change. Climate change is one of NI Water's Principal risks and the Board receives regular updates on the management of climate change risks throughout the year. Find out more about our Principal Risks on page 84.

The Board also provides leadership on climate change. The Chair of the Board launched the Power of Water Report in November 2021 at the International Convention Centre in Belfast. The Report highlighted the unique opportunity we have in Northern Ireland to collaborate with urgency to deliver a green economy. The hybrid event as attended by over 300 stakeholder representatives and received widespread media coverage. Find out more about the Power of Water Report at page 53.

The Audit Committee and Risk Committee received updates on the development of the Climate Risk Model to support the TCFD disclosures. Refer to the reports by the Committee Chairs at page 118 and page 120.

The Board has also been updated on the development of the Climate Change Strategy.

The Climate Change Strategy will be a call to action. We will engage widely to understand how we can work together to reach the targets set out in the strategy. However, this does not mean that our Climate Change Strategy will be the only one to focus on. We all need to plan, engage and come together to ensure we are moving in the right direction.

Executive Committee

Responsibility for the management of climate risks rests with the Executive Committee. The Director of Asset Delivery is the designated Senior Responsible Owner for climate change and is supported by designated senior managers and their teams across relevant areas of the business. The Executive Committee received regular updates on the management of climate risks over 2021/22. This included a half day workshop in January 2022 to review progress on the development of NI Water's Climate Change Strategy, the Climate Risk Model and building momentum on the Power of Water Report.

Climate Strategy

Focusing on climate is not new for NI Water. Since our formation in 2007, we have made significant improvements in water resilience for customers; delivering high levels of leakage detection, sustained investment in water mains and water efficiency initiatives. We have been developing a Water Resilience and Supply Plan from 2012 and have been partners in the Living With Water Programme to improve strategic drainage infrastructure from 2014. Since 2015, we have reduced our operational carbon emissions by well over 50%, through alternative fuel projects to reduce fossil fuels used in our treatment processes, delivering solar farms, restoring peatland and planting new woodlands.

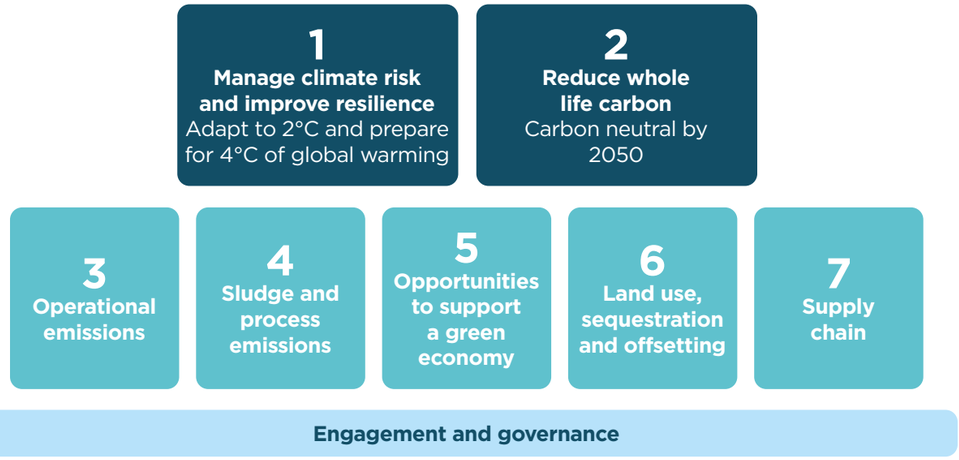
Corporate Strategy

Our Strategy 2021–2046 was launched in 2019 and through our strategic priority on nature, set out our goal to fully exploit innovative approaches to energy and new technology to reduce our carbon footprint and ultimately become carbon neutral. The long term corporate strategy also recognised the need for a sustained step change in levels of investment to improve asset resilience, particularly for our wastewater infrastructure. We recognised the need to develop a Climate Change Strategy to provide the targets that support this ambition, and begin to identify how and what we will need to change in order to deliver on these targets.

Developing a Climate Change Strategy

In 2021/22, Deloitte completed an advisory project regarding a Climate Change Strategy. A key recommendation was to identify prioritised actions required to take forward development of NI Water's Net Zero carbon route map and climate resilience strategy, including actions required to align with TCFD.

Over 2021/22, NI Water engaged ARUP climate change subject matter specialists to assist in developing a Climate Change Strategy and implementation road map. A series of workshops were facilitated by ARUP and were held over several months. They involved the active participation of NI Water senior managers and technical staff as well as workshop participation and discussions with Directors. The outcome of this work is a draft NI Water Climate Change Strategy that is framed around twin targets for climate resilience and Net Zero and starts by outlining NI Water's current carbon emissions and understanding of climate risk. To achieve our overarching targets, the draft strategy and associated action plan covers seven core pillars:



Seven core pillars in NI Water's draft Climate Change Strategy.

Together these areas will contribute to the management of climate risk and the reduction of whole life carbon. The strategy also sets out how NI Water will work with others, through internal governance to monitor and review progress, and engagement with wider stakeholders.

NI Water actions and action owners have been identified to ensure traction and delivery of the proposed NI Water Climate Change Strategy for informing NI Water's first net zero, climate change resilient business plan - PC27 (2027-33).

Climate risks

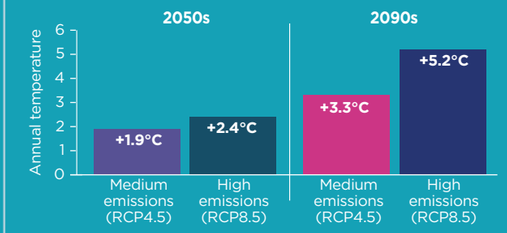
Climate risks include physical (extreme weather related) risks, transitional (net zero) risks and opportunities (such as outlined in the Power of Water Report).

Physical risks

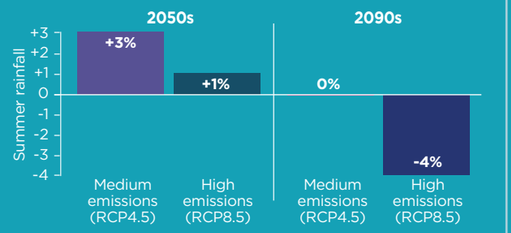
We have already seen the impact of global warming across our region through increased flooding, storms, prolonged periods with no rainfall and more frequent periods of intense rainfall. All of these factors create challenges across our business.

By 2050 Northern Ireland is expected to experience a temperature increase of between a 1.9°C, in a middle emission scenario, and 2.4°C, in a high emission scenario. By the 2090s the temperature is projected to be significantly higher of between 3.3°C and 5.2°C. As the future is uncertain for future planning we are planning for a temperature increase of 2°C in 2050 and for a 4°C increase in the 2090s.

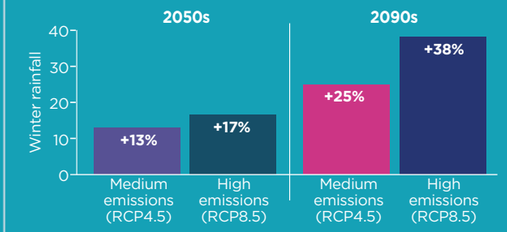
Annual temperatures are set to increase on average by between 1.9°C - 2.4°C by 2050**



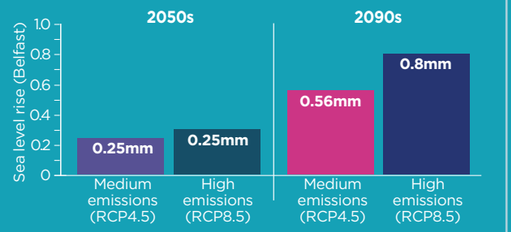
We can expect hotter drier summers, and while overall summer rainfall is projected to decrease, downpours will be more extreme*



Winter rainfall is projected to increase creating warmer wetter winters*



Projected sea level rise has the potential to impact our coastal towns and cities including Belfast



Climate change and sea level rise projections based on the 90th and 95th percentile respectively (compared to the 1981-2000 average)

Future climate projections for Northern Ireland.

*The key risks identified across the UK water sector include***:*

- risks to water networks from cascading failures;
- risk to infrastructure from river, surface water, groundwater and coastal flodding and erosion;
- risks to subterranean and surface infrastructure from subsidence;
- risks to water supplies from reduced water availability;
- risks to health from poor water quality and household supply interruptions; and
- risks to aquifers and agriculture and from sea level rise and saltwater intrusion.

*CCRA3 2021, Summary for Northern Ireland available at https://www.ukclimaterisk.org/wp-content/uploads/2021/06/CCRA-Evidence-Report-Northern-Ireland-Summary-Final.pdf.
**UKCP18 key results, available at https://www.metoffice.gov.uk/pub/data/weather/uk/ukcp18/science-reports/UKCP18-Key-results.xlsx.
***CCRA3, 2021, Water briefing, available at https://www.ukclimaterisk.org/wp-content/uploads/2021/06/CCRA3-Briefing-Water.pdf.

Transitional risks

Limiting warming to 1.5°C means that corporates face transition risks from the required policy and regulation, such as the introduction of carbon taxes, climate litigation, reputational exposure and shifting consumer preferences, as well as from the 'green premium' on new technology.

Opportunities

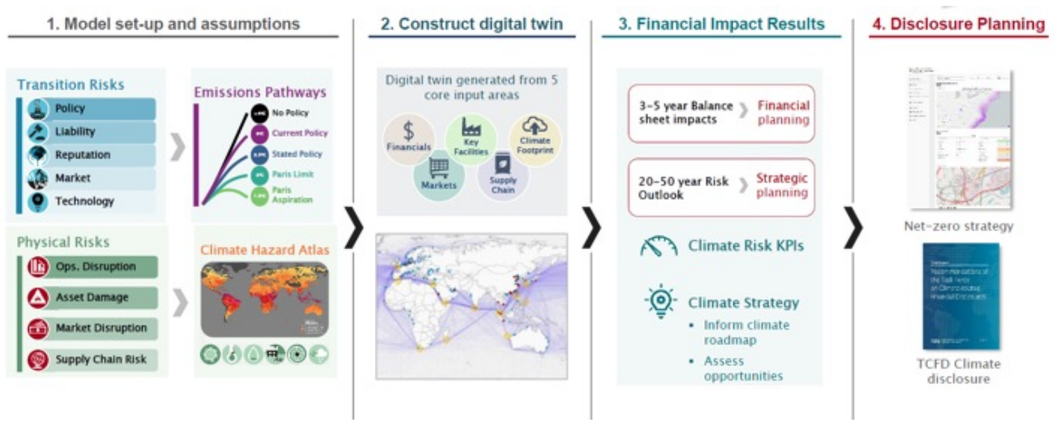
We have an exciting opportunity to address the challenge of climate change whilst also creating opportunities for development, improving infrastructure in a sustainable way, reducing inequalities, embracing the environment, providing places future generations can be proud of, cleaner air, jobs and opportunities for all. The Power of Water gave an insight to the possibilities that are already within our grasp. We truly believe that Northern Ireland has the skills and ambition to come together in agreeing and implementing a common approach. An approach that will outline a roadmap to success. Find out more about the Power of Water Report at page 53.

Risk scenario modelling

NI Water has worked with its insurance broker, Marsh, and the Centre for Risk Studies at the University of Cambridge (drawing on the Risilience platform*) to develop a Climate Risk Model to assess the financial impacts of physical and transitional risks over PC21. Marsh and the Centre for Risk Studies supported a number of workshops over 2021/22 involving relevant colleagues from across the business. The modelling is centred on scenario analysis disclosures for a range of climate warming pathways but also supports a number of other TCFD disclosure reporting areas. The model was developed in an iterative process starting from an existing generic model template, developed by the Centre for Risk Studies, which was tailored for NI Water.

The modelling involved the following steps:

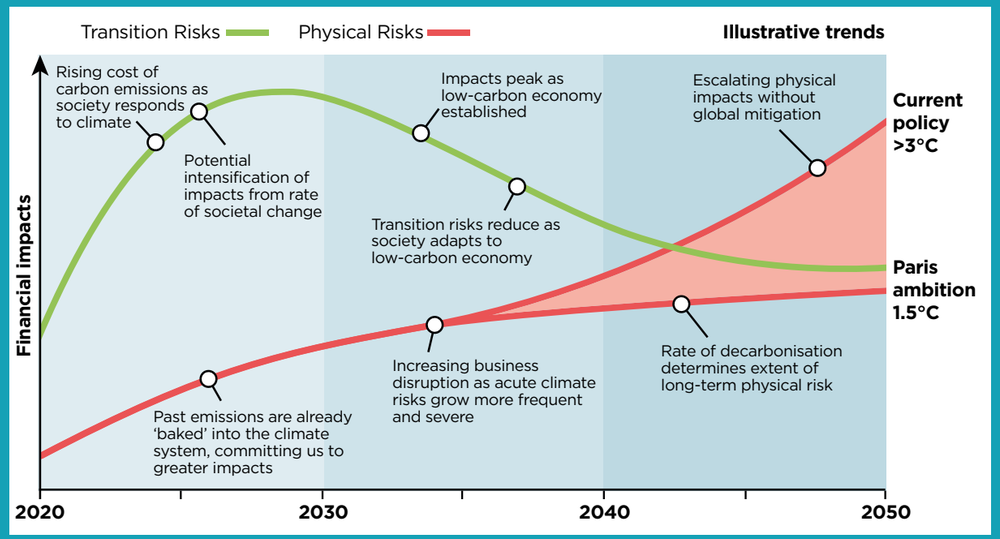
1. Model set up and assumptions – the model identified relevant transitional and physical risk categories. The physical risks categories were informed by a climate hazard atlas. A number of emission pathways were also identified to reflect the range of policy options;
2. Construct digital twin – a digital twin of NI Water was constructed using the PC21 financial actuals and forecasts;
3. Assess financial impact – the financial impacts were assessed over the medium term (2022-27). Indicative financial impacts were outlined over the longer term to 2050; and
4. Disclosure planning – outputs were aligned with the TCFD disclosure requirements.



Overview of NI Water's Climate Risk Model developed in partnership with Marsh and the Centre for Risk Studies at the University of Cambridge.

*Risilience is a platform used by global companies to facilitate strategic and financial decision making from climate change. Risilience uses a rigorous scenario-based framework that integrates a wide range of threat classes with the latest international standards in climate science to provide a competitive view of a corporation's balance sheet. Risilience works closely with its academic partner, the Centre for Risk Studies at the University of Cambridge Judge Business School, to tackle complex issues of management science and business risk.

The model points to illustrative trends for physical and transitional risks over the next three decades. These show transitional risks peaking over the next decade before being overtaken by physical risks. These trends reflect that companies and their owners face significant risks from both action and inaction.



Illustrative trends for physical and transitional risks over the next three decades.

The magnitude of the short term financial impacts over the PC21 period excludes the costs to transition NI Water to net zero. This aligns with the approach taken for the PC21 Business Plan and will likely result in a material increase in the financial impacts once factored in for PC27 (2027-33) and future Price Controls.

Key areas for development of scenario modelling

The modelling exercise has identified a number of areas for development, which have been incorporated into the draft Climate Change Strategy action plan:

Transitional risk:

- policy risk – assessment of scope 3 supply chain emissions as part of setting of science based targets;
- technology risk – quantifying the cost to decarbonise the business by 2050 and funding via the Price Controls; and

Physical risk:

- assessment of granular asset level impacts to inform long term asset resilience as part of our 25 year resilience plans for clean water (in place and to be updated for latest climate change projections by 2023/24) and wastewater (to be developed by 2023/24).

Embedding climate risks

Our principal risk on climate change is being aligned with the analysis on physical and transitional risks and the action plan for the draft Climate Change Strategy. This will further support the embedding of climate risks through our corporate, directorate and programme/project risk and resilience management systems.

The long term viability assessment has been updated for the latest analysis on climate risks. Find out more at page 127.

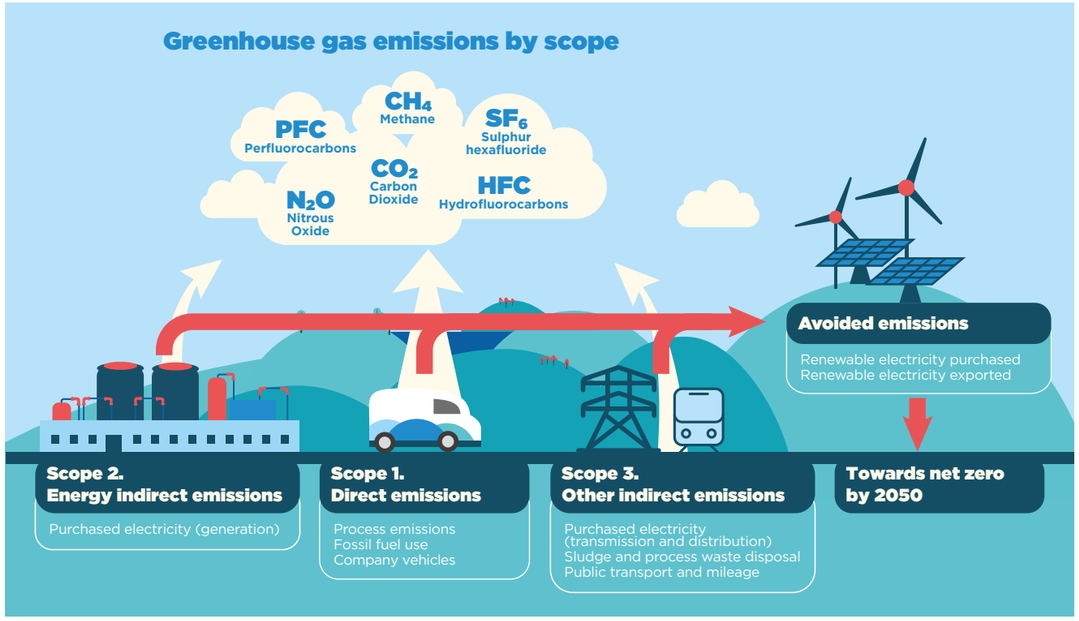
The Directors have considered in the Section 172 statement how their decisions support the long-term climate resilience of the business and the consideration of the climate impact of its operations. Find out more at page 133.

We have also considered the impact of climate change on the financial statements across areas such as provisions, impairment, contingent liabilities and accounting judgements and estimates. Find out more at page 155.

Climate metrics and targets

Our greenhouse gas emissions are accounted for and calculated using the UK Water Utilities industry Carbon Accounting Workbook, which aligns with the Greenhouse Gas Protocol. The workbook is updated each year with the most recent carbon emission factors released by government. We follow the 2019 UK Government Environmental Reporting Guidelines including the streamlined energy and carbon reporting guidance and are transitioning towards TCFD compliance.

We are liaising with our climate change subject matter specialists and the water industry to determine how we can capture additional areas in our carbon footprint reporting and embed carbon in our business case decision making for our PC27 Business Plan. Our carbon footprint doesn't currently capture some emissions from wastewater treatment processes, embedded carbon in materials such as carbon dense concrete used to construct our infrastructure or all the carbon stored in our land. This will include setting 'science based' climate targets for scope 1, 2 and 3 emissions. Targets are considered 'science-based' if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C. We will also consider validation of our targets by the Science Based Target initiative (SBTi), which defines and promotes global best practice in science-based target setting.



NI Water greenhouse gas emissions	2021/22 tCO_2e	2021/22 kWh	2020/21 tCO_2e	2020/21 kWh
Scope 1 direct emissions				
Direct emissions from burning of fossil fuels	4,319	20,040,113	4,520	19,387,492
Process emissions from our treatment plants	13,000*	n/a	13,100*	n/a
Transport: Company owned or leased vehicles	2,466	10,592,784	2,569	11,019,559
Total scope 1 direct emissions	**19,785**	**30,632,897**	**20,189**	**30,407,052**
Scope 2 energy indirect emissions				
Grid electricity purchased	62,797	295,727,438	69,300	297,246,290
Total scope 2 energy indirect emissions	**62,797**	**295,727,438**	**69,300**	**297,246,290**
Scope 3 other indirect emissions				
Business travel on public transport and private vehicles used for Company business	344	1,477,878	68	292,614
Emissions from sludge and process waste disposal	12,400*	n/a	12,400*	n/a
Grid electricity purchased - transmission and distribution	5,556	24,156,522	5,960	25,564,039
Total scope 3 other indirect emissions	**18,300**	**25,634,400**	**18,428**	**25,856,653**
GROSS OPERATIONAL CARBON EMISSIONS	**100,882**	**351,994,734**	**107,917**	**353,509,994**
Avoided emissions from renewable electricity exported	(469)	(2,036,957)	(605)	(2,595,007)
Avoided emissions from biomethane exported	-	-	-	-
Avoided emissions from renewable electricity purchased	(31,838)	(136,561,723)	(28,490)	(122,201,252)
Total avoided emissions	**(32,307)**	**(138,598,679)**	**(29,095)**	**(124,796,260)**
NET OPERATIONAL CARBON EMISSIONS	**68,575**	**213,396,055**	**78,822**	**228,713,734**
NI Water greenhouse gas emissions intensity			**2021/22**	**2020/21**
Operational emissions per megalitre of treated water (tCO_2e/Ml)			0.113	0.132
Operational emissions per megalitre of sewage water (tCO_2e/Ml)			0.184	0.214

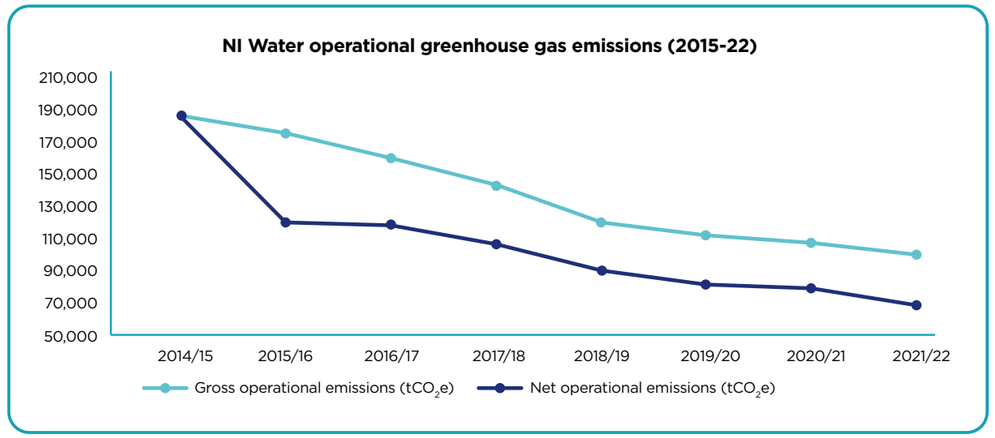
*The Scope 1 process emissions from our treatment plants and the Scope 3 emissions from sludge and process waste disposal are being reviewed to determine the tCO_2e. This work will take place over 2022/23. Provisional tCO_2e have been used for 2021/22 reporting based on the 2020/21 tCO_2e.

The net operational carbon emissions reduced from 78,822 tCO_2e in 2020/21 to 68,575 tCO_2e in 2021/22, a reduction of 13%. The reduction in net operational carbon emissions was primarily due to the use of a lower carbon supply of grid electricity and the increase in renewable electricity purchased. There was a resulting decrease in greenhouse gas emissions intensity.

NI Water's electricity consumption and renewable energy generation is shown below:

Electricity consumption and renewable energy generation	2021/22 MWh	2020/21 MWh
Grid electricity purchased (excluding renewable energy)	144,222	174,988
Grid electricity purchased - renewable energy	151,506	122,279
Renewable electricity generated and used	9,612	10,426
Total electricity consumption	**305,340**	**307,694**
Renewable electricity generated and used	9,612	10,426
Renewable electricity generated and exported to the grid	2,386	2,798
Total renewable energy generated	**11,998**	**13,225**

Progress in reducing our operational greenhouse gas emissions is shown below:



We're playing a pivotal role in doubling Northern Ireland's renewable generating capacity.

NI Water celebrated International Women in Engineering Day on 23 June by recognising some of the female engineers making a splash in the world of water.

Strategic areas of focus

- Powered by talent
- Safe, happy and healthy workplace
- Creating a legacy for our communities

Sustainable development goals

Principal threats/opportunities

Page 84 Read more about principal threats and opportunities.

Strategic performance indicators

People	Unit of measurement	Target 2021/22	Actual 2021/22	Pass/ Fail	Target 2022/23
Number of positions filled	Number	*	123	*	*
Employee promotion	%	*	10	*	*
Employee turnover	%	*	6	*	*
Health and safety incidents	Number	≤7	3	Pass	≤7

*Targets to be set following development of new indicators.

Powered by talent

We want to create a great place to work and ensure that NI Water is fit for the future by attracting, developing and retaining top talent. 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. Our plans support the provision of a safe, happy and healthy workplace, helping to make NI Water an organisation in which we are all proud to work.

In an increasingly competitive talent market, it is important that we address the challenges presented by STEM skills shortages in the marketplace and an ageing workforce to ensure NI Water remains fit for the future.

DEVELOP U
Realise your potential

We do this by driving individual and organisational development through:

- modernising our total reward strategy;
- attracting, developing and retaining top talent;
- building a strong pipeline of entry level talent through our prestigious Apprenticeship Academy;
- continuous professional development and a focus on learning at all career stages; and
- building current and future leadership capability at all levels.

As a result, we have a healthy picture of career development across the organisation with over 85% of all promotions in the last year filled internally. Our employer brand is strong in the marketplace and we have hired over 200 new recruits in the last two years. Whilst many organisations are experiencing the 'great resignation', our staff turnover remained consistently low at 6% in 2021/22 (of which one-third was due to retirement) and average tenure has remained high at 18 years. Our Apprenticeship Academy continues to go from strength to strength with the recruitment, on boarding and development of over 35 new apprentices in 2021/22, including the launch of NI Water's first Higher Level Apprenticeship programme.

Around 17% of our class of 2021/22 are female as we re-invent our workplace and address longstanding gender imbalance in typically male dominated areas.

Riding high on the success of our Apprenticeship Academy we will continue to ramp up year on year to seed our organisation with top entry level talent to support succession planning. In January 2022 we welcomed a further intake of 10 water and wastewater apprentices and have launched a wide reaching campaign to recruit a further 28 apprentices and higher level apprentices to join in September 2022. The apprentices will work across a range of areas to support business growth and diversification including water operations, mechanical engineering, civil engineering and cyber security.

Our entry level strategy is supported by a robust outreach strategy through which we continue to promote careers in STEM, partner with further and higher education bodies and influence early career choices. In 2022/23 this will include participating with NIE Networks in a major schools outreach project. Around 7,500 school children across Northern Ireland took part in the 4CUR future careers event in June 2022. Our involvement takes the form of the design of a 'Race to Net Zero' game to help key stage 3 children gain insights into their future career opportunities before they make their GCSE choices.

In 2022/23 we will engage an expert partner to support the delivery of a comprehensive management development framework that will develop world class management capabilities at all levels. This is a major investment in our people over PC21 and continues NI Water's journey in developing leadership skills, competencies and behaviours to create a high performance culture and role model our values.

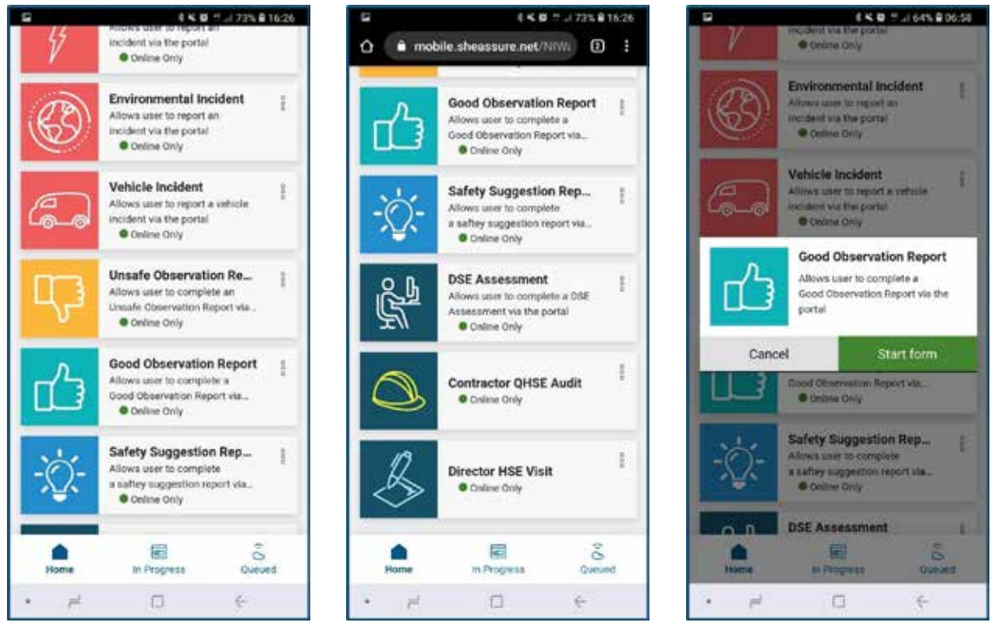
northern ireland water | apprentice academy

Providing a safe, happy and healthy workplace

It is only with a safe, happy and healthy workforce that we can deliver exceptional standards of customer service. We do this by placing care for our people front and centre in how we do business, looking after them through all of life's events and providing the conditions for them to perform their role to the best of their ability.

Zero harm

Significant investment continues to be made over PC21 to both review and upgrade our province wide network of facilities and above ground buildings and related assets. Another area of focus is driver safety, which we will target through the use of 'safe driving' workshops for all staff. The Assure health and safety software enables all employees and our supply chain to report incidents, unsafe and good observations and safety suggestions via App or Source homepage using a mobile phone, tough book, or laptop. The ability to undertake health and safety audits and spot checks is also now available via Assure. The system will give NI Water real time, accurate and meaningful data that will allow us to appropriately target and resource both our short and long-term health and safety priorities.



NI Water's Assure health and safety app.

Prioritising health

NI Water's award-winning health and wellbeing strategy is designed with and for employees to support their physical, mental, social and financial health in the belief that prevention is better than cure. This strategy is informed by absence data, employee pulse surveys, monthly polls and employee focus groups to understand the diverse needs of our workforce and ensure wide appeal. It was recognised as an example of best practice through the achievement of two prestigious business awards in 2021 - a year in which health had never been more important.

northern ireland water | Health & Wellbeing
Your health matters

Business in the Community | Wellbeing at Work Award
Winner 2021

Workplace Wellbeing Awards
WINNER

‘Flushed’ with success at Business in the Community Awards!

NI Water is celebrating after winning the Business in the Community Awards in the ‘Wellbeing at Work’ category.

Sara Venning, CEO at NI Water commented

“The health, wellbeing and safety of our people is always our first priority and being recognised as a champion in this category is a highly rewarding affirmation of our commitment to their welfare. It is particularly gratifying to know that our health and wellbeing strategy and programmes have been recognised for their excellence and positive impact during an unprecedented health crisis.”

NI Water’s Health and Wellbeing Manager commented

“We are absolutely thrilled to have won the highly contested Wellbeing at Work Award. This award demonstrates NI Water’s excellence in inspiring and supporting our employees to prioritise their health and wellbeing and embrace positive lifestyle choices.

Our wellbeing strategy is designed with and for our employees and encompasses a vast array of programmes, activities and benefits to meet a diverse range of needs and circumstances. This supports the provision of a happy and healthy workplace, helping to make NI Water a really great place to work.”

NI Water staff receiving the Business in the Community ‘Wellbeing at Work’ Award.

Involving people in the decisions that affect them

We use a range of listening strategies to gather the voice of the employee and ensure that action is targeted in the right place. These include employee surveys, frontline focus groups, cultural ambassador network, monthly polls and employee workgroups.

This approach provides agile ways of staying connected with our people to understand the sentiment of our workforce. Feedback received has helped inform a variety of corporate strategies including the new hybrid working strategy.

Celebrating and promoting diversity

A diverse workforce is good for business, providing different perspectives, encouraging innovation, and fostering a more collaborative working culture. As a traditionally male dominated industry, we recognise the importance of attracting more female applicants into the industry and have significantly increased our investment to achieve our diversity and inclusion ambitions. Find out more about diversity and inclusion at page 140.

Modernising our communication channels

Our Microsoft Teams Live broadcasts continue be a great way to brief staff on a variety of ‘hot topics’ including climate change and capital investment as well as providing insights into different areas of the business through broadcasting live from our locations and sites. Held once a quarter, these broadcasts are extremely well attended averaging 300 participants each session.

Reinventing our workplace

To help support our transition towards hybrid working for office based staff, we launched a programme of education and support for our future hybrid workers and line managers. The programme includes a guide to hybrid work and aims to help prepare and guide staff through the next phase of change and will set us up for success in the new hybrid model.

Making a Splash

NI Water was named Team of the Year 2021 at the Belfast Chamber Business Awards. We were recognised for the vital role our essential workers played at the frontline of the pandemic in ensuring public health protection across Northern Ireland, the clear sense of pride and duty continuously demonstrated by our employees in delivering over and above what is expected of them and overcoming challenges with an ‘all hands on deck’ approach. This is much welcomed external recognition for our collective efforts during a time of extreme personal and professional challenge. It shines a light on the vitally important work we do at NI Water, the many heroes and heroines we have and the phenomenal team to which we all belong.

NI Water receiving the Team of the Year award at the Belfast Chamber Business Awards 2021.

Creating a legacy for our communities

Helping hand

Amazingly our Cares Challenge volunteering scheme celebrates its 10 year anniversary in 2021/22 and to celebrate, we've launched an exciting new programme of events. Over 1,500 staff have volunteered in around 100 challenges to date, equating to over than 10,000 hours of volunteering to help support communities across Northern Ireland. Our colleagues have missed helping face to face in local communities during recent times and are keen to get back out and make a worthwhile contribution to the many charities who have struggled during COVID-19.
As part of the new 2021/22 programme, colleagues have already been out to help the NI Children's Hospice, Willowbridge Special School in Enniskillen and at Creggan Country Park in Derry/Londonderry.

NI Water staff celebrating 10 years of volunteering with Cares Challenge scheme at Northern Ireland Children's Hospice, Newtownabbey, County Antrim.

A toilet can be a life saver

Who cares about toilets? We do! This is the question posed by the UN to mark World Toilet Day. It aims to inspire action to tackle the global sanitation crisis and achieve sanitation for all by 2030. NI Water supports WaterAid to show that a toilet is not just a toilet; it's a life-saver, dignity-protector and opportunity-maker. World Toilet Day is an opportunity to influence decision makers and raise awareness that there are still 1.7 billion people living without a decent toilet of their own. Living without a safe toilet threatens the health, education and livelihood of billions of people. Everyone everywhere has the right to sanitation, but progress on achieving this is very slow. NI Water is proud to lead the local WaterAid NI Committee, raising over £74k, including £34k at a virtual fundraising ball, building on the £57k raised in 2020, including £48k at the 2020 virtual ball. These funds will go a long way in helping bring clean water, decent toilets and good hygiene to health centres in Machinga and Zomba districts of Malawi, where the Deliver Life project is based. Within the four healthcare centres in this project, these funds are helping to introduce a variety of facilities such as solar-powered piped water supply systems, inclusive bathrooms and other sanitary facilities.

The local committee continues to fundraise this year with many activities including a World Water Day partnership with local schools in March 2022 and the WaterAid ball in November 2022.

WaterAid virtual fundraising ball.

The Virtual WaterAid NI Ball is helping the Deliver Life project in Malawi. Photo credit Dennis Lupenga.

Water-whizz kids

We are really proud of our unique education programme, which includes the Waterbus mobile classroom initiative. We have educated over 218,000 'water-whizz' school kids about the value of water for health, the economy and nature.

As pupils headed back to the classroom the Education Team has been back on the road visiting schools to deliver the key messages of water efficiency, water for health and bag it and bin it. The team has also developed several new lessons to engage pupils with the wonderful world of water including a climate change escape room and the wonders of peat bogs presentation. We have supported both primary and secondary schools with the provision of 280 waterbutts to inspire water efficiency outdoors. This initiative included a popular 'brighten your butt' competition which encouraged schools to get creative and paint their new waterbutts to brighten up the school gardens.

Water-whizz pupils from St Malachy's Primary School, Armagh, County Armagh.

Brighten your Butt Winners Drumragh College, Omagh, County Tyrone.