

NORTHUMBRIAN WATER LIMITED ANNUAL PERFORMANCE REPORT

FOR THE YEAR ENDED 31 MARCH 2017



NORTHUMBRIAN
WATER *living water*

ESSEX & SUFFOLK
WATER *living water*

Registered company
no: 02366703

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CHIEF EXECUTIVE OFFICER'S WELCOME

I am pleased to introduce our Annual Performance Report for the year ended 31 March 2017. Our vision is to be the national leader in the provision of sustainable water and wastewater services, and I am delighted that we have made further progress towards this and remain at the forefront of performance in our industry. We have included a number of case studies in this report to demonstrate some of the innovative approaches we have adopted to deliver this performance.

OUR PERFORMANCE

I am particularly proud that we have achieved national leader status for customer satisfaction as customers are at the heart of our business. I believe that this is a result of the work we carried out last year with the participation of our customers, as well as our employees and supply chain partners, to develop our Unrivalled Customer Experience Strategy. I am also proud that the Consumer Council for Water (CCWater) has found that we are the most trusted water company for the last three years.

We recognise that some of our customers face real challenges with affordability and continue to work closely with our partner, debt charity StepChange, to provide support and advice to customers experiencing financial difficulties. We have also worked this year on a number of initiatives with other utility companies across the north to jointly promote and align how we support vulnerable customers.

Our water business works hard to provide a reliable and resilient supply of clean water to our customers, and we have continued our industry leading performance in lowest interruptions to supply and maintained 100% security of supply. We have reinforced our award winning approach to water efficiency through our Every Drop Counts campaign through which we engage with customers on a whole town approach helping them to save water, energy and money.

The quality of the water we produce remains exceptionally high and we have made further progress tackling discolouration of water. We take an active catchment management approach to improving

the quality of water in the environment and have forged a number of environmental partnerships allowing us to pool our knowledge and resources and work more effectively together.

In our wastewater business we remain committed to reducing the risk of sewer flooding and are adopting a wide range of innovative approaches to achieve this, including working in partnership to deliver sustainable urban drainage solutions and engaging with communities through our RainWise initiative and Love Your Drain campaign. The impact of this can be seen through further reductions in the number of flooding incidents.

In the wider environment, we continue to deliver excellent levels of wastewater treatment compliance and are committed to minimising the risk of environmental damage from our network through initiatives such as our Water Rangers scheme. We are proud that all of the bathing waters in our north east operating region met the required standard and that we have the highest proportion meeting the good or excellent standard in England.

We recognise that to achieve our business priorities we must innovate continually and have adopted a design sprint approach to tackle key challenges, pushing the boundaries of what is possible and how quickly we can deliver solutions. We are also working with partners from across the utility sector to tackle the problem of future skills shortages by engaging with schools, investing in apprentices and sponsoring research, particularly in the science, technology and engineering disciplines.

MARKET CHANGES

One of our major areas of focus this year has been on preparing for the opening of the competitive non-household (NHH) retail market. The new market opened on 1 April 2017 and allows all NHH customers to choose their retail supplier. Under our Ready4Retail programme we have undertaken a major programme of activities including implementing two new billing systems, restructuring parts of our organisation and communicating with our customers about the changes. With the support of external assurance partners, our Board were able to confirm to Ofwat and Market Operator Services Limited (MOSL) that we had satisfied all of the market entry requirements and were ready for market opening from both a wholesale and retail perspective.

As NWL, we have chosen to exit the NHH retail market and transfer our NHH customers to NWGB, another NWGL subsidiary. This decision was taken to allow us to demonstrate transparently that, as a wholesaler, we will work with all retailers on an equal basis and will continue to provide excellent wholesale services to all.

LOOKING FORWARD

Although we have only just completed the second year of the current price control period, we are already developing our plans for the next price review. Understanding what our customers want is central to what we do every day and we have commenced an extensive programme of customer participation workshops to help inform our future plans, as well as working with our Water Forums. We are also continuing to engage with Ofwat and their 'Marketplace for Ideas' to help shape the future of the industry.

From a personal perspective, I was honoured to be appointed as The Prince of Wales' Ambassador in the North East through Business In The Community (BITC), the Prince's responsible business network. I passionately believe that business has a critical role in making a lasting, meaningful and positive difference to our communities and the environment. At NWL, we've shown how businesses can work innovatively in partnership to help make sure the places we live and work remain special and thriving environments for generations to come. Over my two years as an Ambassador I hope to bring together other businesses and partners from across different sectors to tackle some of our most challenging issues and build resilience and create a more sustainable future for us all.

We are proud of our achievements to date, but we are never complacent and will continue to make further service improvements in 2017/18 and beyond. I hope you find our Annual Report and Financial Statements helpful and informative.

H Mottram OBE
CEO



WATER FORUMS' VIEWS

Since the last Annual Performance Report, when I had just been appointed as Independent Chair, I'm pleased to tell you that our two Water Forums have appointed new members and meet regularly to understand and challenge both Northumbrian Water (NW) and Essex & Suffolk Water (ESW).

Through an open and straightforward meeting and presentation with the Directors, we have had the opportunity to understand, probe and test the company's performance results against its business plan and outcomes, including emerging trends, that are outlined in this report.

We very much welcomed the chance to hear about the positive strides that NWL has made in the past year and would like to highlight these aspects of its performance levels that are directly impacting customers:

- The success in achieving industry-leading levels of customer satisfaction, in particular the Service Incentive Mechanism (SIM) measure. The team has long had the aim of getting to the top spot and customer service has had a huge profile across the business
- The reduction in customer complaints about discoloured water – this has been an area of concern in the past, yet with effort and commitment the team has achieved its best ever result
- The approach they have taken to managing interruptions to water supply for customers, which means it has exceeded its performance commitment and fewer customers have been inconvenienced for long periods of time
- The positive trend in sewer flooding incidents inside and outside customers' properties, meaning fewer people are affected
- Improvements made in bathing water quality in Northumberland
- The performance in 'category 3' pollution incidents (i.e. the least serious type), which were 35% lower this year than in 2015/16. In many cases, this will have prevented the more serious category 1 and 2 pollutions of our environment. We welcome the decision to create a dedicated 'pollution team', whose remit it to work reactively and proactively to address and reduce pollution incidents.

As NWL enters the third year of its five year business plan, we have challenged the company to consider several areas where we believe there's a need or opportunity to improve performance and outcomes for customers. We would like NWL to:

- Seek ways to go even further beyond its performance commitments for 'sewer flooding' and 'interruptions to water supply'
- Have a clear ambition for a reduction in category 1 and 2 pollution incidents, which are higher than industry average – and then take action to achieve this ambition
- Through conversations with customers, understand and address the issues that have caused the company to miss its performance commitment for customer satisfaction with drinking water taste and odour
- Help customers better understand the basics of where water comes from; also the context of some of the performance measures, and work with the whole industry to do this. For example, on its own, 'leakage' in mega litres per day is meaningless to most customers, but if it was also described as a percentage of the amount of fresh, clean water supplied into the network it would offer a more meaningful picture of performance.
- Take a leading role in moving the industry forward on per capita consumption measures, i.e. the average amount of water each person uses
- Have a clear strategy for preventing issues with 'transferred pipe assets' (i.e. the pipes that are on private property but now the responsibility of NWL), including customer education to prevent issues
- In future Annual Performance Reports, show more historical data so that customers can see what the trends are.

We recognise that the weather plays a big role in determining whether the company hits or misses some of the performance commitments, e.g. periods of heavy rainfall have a negative effect on the number of sewer flooding incidents, but a positive effect on leakage. This reinforces the need to constantly focus on the resilience of the network for customers.

In summary, the Water Forums congratulate NWL on its successes in 2016/17, and in the coming year we will continue to challenge the company in the areas where it has fallen short of hitting its performance commitments for a variety of reasons.

Jim Dixon, Water Forums Chair

On behalf of the Forums for Northumbrian Water and Essex & Suffolk Water

Note: You may also find it useful to read this report in conjunction with the Environment Agency's 'Environmental Performance Assessment' report (July 2017) and the 'Report of the Chief of the Drinking Water Inspectorate' (July 2017).



WHO WE ARE

Northumbrian Water Limited provides:

- Water and sewerage services to 2.7 million people in the north east of England trading as Northumbrian Water.
- Water services to 1.8 million people in the south east of England trading as Essex & Suffolk Water.



OUR OUTCOMES

THEME	OUTCOME
 <p>CUSTOMER</p>	<ul style="list-style-type: none"> • We deliver water and sewerage services that meet the needs of current and future generations in a changing world • We supply clean, clear drinking water that tastes good • We provide a reliable and sufficient supply of water • Our customers consider the services they receive to be value for money • Our customers are well informed about the services they receive and the value of water • We provide a sewerage service that deals effectively with sewage and heavy rainfall • We provide excellent service and impress our customers
 <p>ENVIRONMENT</p>	<ul style="list-style-type: none"> • We help improve the quality of rivers and coastal waters for the benefit of people, the environment and wildlife • We protect and enhance the environment in delivering our services, leading by example
 <p>COMPETITIVENESS</p>	<ul style="list-style-type: none"> • We are an efficient and innovative company • Our finances are sound, stable and achieve a fair balance between customers and investors
 <p>PEOPLE</p>	<ul style="list-style-type: none"> • Our people are talented, committed and inspired to deliver great services to customers • Our people act in line with our values • We are seen as a great place to work • Our workplaces are healthy and safe
 <p>COMMUNITIES</p>	<ul style="list-style-type: none"> • We are proud to contribute to the success of local communities • We work in partnership towards common goals
 <p>REPUTATION</p>	<ul style="list-style-type: none"> • We are a company that customers trust

OUR VISION

Our vision is to be the national leader in the provision of sustainable water and wastewater services.

OUR VALUES

As important as what we do is how we do it. Our Values are the principles that define how we work to deliver our Outcomes and achieve our Vision.

CUSTOMER FOCUSED:

We aim to exceed the expectations of our external and internal customers.

CREATIVE:

We continuously strive for innovation and better ways to deliver our business.

RESULTS DRIVEN:

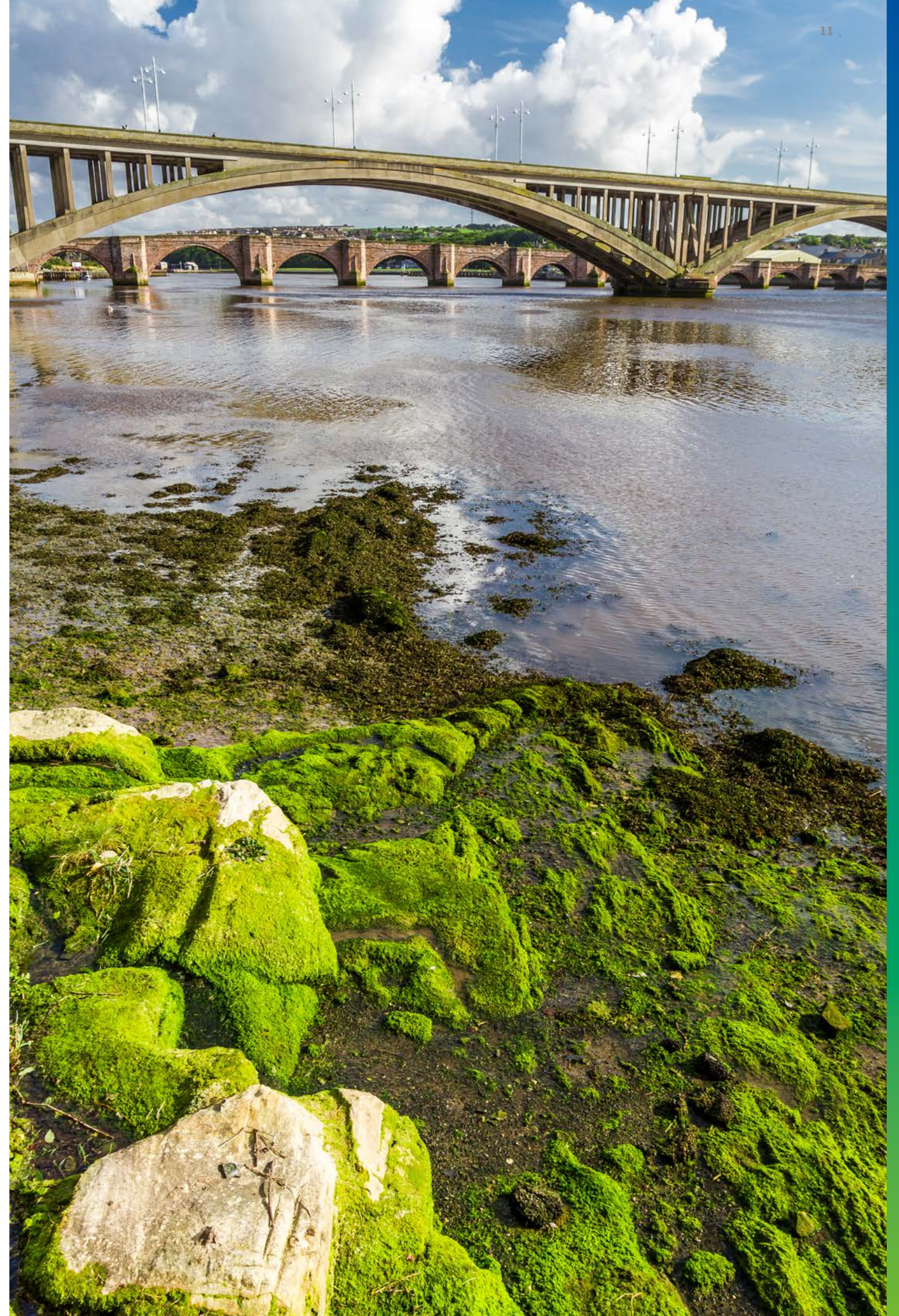
We take personal responsibility for achieving excellent business results.

ETHICAL:

We are open and honest in meeting our commitments, with a responsible approach to the environment and our communities.

ONE-TEAM:

We work together consistently, promoting co-operation, to achieve our corporate objectives.



OUR STAKEHOLDERS

We provide essential services to our customers and operate within a strict regulatory environment. Ofwat regulates prices and levels of customer service, the Environment Agency (EA) covers environmental protection and the Drinking Water Inspectorate (DWI) monitors drinking water quality. Customers' interests are represented by our Water Forums and the Consumer Council for Water (CCWater).

It is very important that we understand the needs of our stakeholders, provide a great service and deliver our business outcomes. We engage proactively with all of our stakeholders and, in our continuing efforts to provide an unrivalled customer experience, invite our customers to participate in and co-create our strategy and approach.

STAKEHOLDER GROUP	KEY ISSUES WE ENGAGE ON	HOW WE ENGAGE	EXAMPLES OF 2016-17 ACTIVITIES
Customers	<ul style="list-style-type: none"> Performance commitments Risk management Data protection Resilience Co-creation of service 	<ul style="list-style-type: none"> Focus groups Co-creation workshops Surveys Local mobile engagement hub Social media 	<ul style="list-style-type: none"> Billing literature design Co-creating customer service strategy Billing service consultation #MakeMyDay campaign Preferred timing of contact surveys
Ofwat	<ul style="list-style-type: none"> Trust and confidence Licence modifications 2019 price review Market reform Annual performance Governance and assurance 	<ul style="list-style-type: none"> Consultation response Targeted reviews Peer to peer contact Participating in the market place for ideas Annual performance report Annual assurance plan 	<ul style="list-style-type: none"> Proposals on treatment of bad debt and abstraction charges in cost models Annual Performance Report Assurance Plan Outcomes framework response Cathryn Ross visited Brunton Park sustainable urban sewerage scheme
Environment Agency (EA)	<ul style="list-style-type: none"> Environmental performance Discharge compliance Sewer flooding 	<ul style="list-style-type: none"> Consultation response Setting strategic objectives Regular performance reviews Collaborative workshops and joint learning Management reviews Working partnerships National strategy and practitioner networks Industry task & finish groups 	<ul style="list-style-type: none"> Joint working group on pollution incidents Input to 21st century drainage programme Monthly pollution challenge group meetings Hosted catchment partnership meeting OFWAT, EA and NWL Tripartite Meeting NWL/EA Enforcement Undertaking workshop
Drinking Water Inspectorate (DWI)	<ul style="list-style-type: none"> Drinking water quality Customer satisfaction Progress with named schemes 	<ul style="list-style-type: none"> Consultation response Quarterly operational liaison meetings Annual strategy meetings Chief Inspector's report launch meetings Water Safety Plan Forums Consultation and negotiation via Water UK Reviewing regulatory commitments Secondments Promoting good practice 	<ul style="list-style-type: none"> Quarterly DWI/NWL performance reviews Hosted Central & Easter CIR launch Reviewed Fontburn discolouration scheme Sponsored Water and Wastewater Treatment's Water Quality conference and pre-event dinner

STAKEHOLDER GROUP	KEY ISSUES WE ENGAGE ON	HOW WE ENGAGE	EXAMPLES OF 2016-17 ACTIVITIES
Water Forum	<ul style="list-style-type: none"> 2019 price review Performance commitments Customer research and engagement Water Forums structure 	<ul style="list-style-type: none"> Workshops and meetings Invite Forum members to customer research events 	<ul style="list-style-type: none"> Outcomes Social tariffs research
Consumer Council for Water (CCWater)	<ul style="list-style-type: none"> Vulnerability Literature review The role and focus of CCWater Industry matters 	<ul style="list-style-type: none"> Consultation response Sharing material for review Attending meetings <ul style="list-style-type: none"> Quarterly Liaison Regional public Committee and Board 	<ul style="list-style-type: none"> Quarterly performance reports Published information from Water and Sewerage Companies Consultation Reported complaints Area Committee Reports
Supply chain partners	<ul style="list-style-type: none"> Capex programme delivery Health, safety and environment Attracting and developing the next generation of engineers and project managers 	<ul style="list-style-type: none"> Frameworks agreements for long term relationships Joint Framework Governance Groups Integrated programme delivery teams Joint conferences and workshops Joint recruitment Awards Ceremonies 	<ul style="list-style-type: none"> Ten year frameworks for major capex awarded including Framework Charter Regular Framework Governance meetings Health and Safety and Customer Service conferences Our Vision, Our Values, Our Way workshops delivered to 400 supply chain partner employees Co-created Joint Framework for Health and Safety Partial team co-location (full co-location due in 2017) Joint recruitment campaigns aligned to NWG Academy Various external awards won NWG supply award ceremony to promote best practice
Local authorities	<ul style="list-style-type: none"> Working closely with our local authorities on: <ul style="list-style-type: none"> Planning issues Vulnerable customers Economic development Emergency response Flooding risk 	<ul style="list-style-type: none"> Regular meetings with senior officers and lead councillors. Technical input and support on planning matters Participation in consultations and steering groups relating to environmental or economic development issues The lead flood authority on flooding risk and mitigation 	<ul style="list-style-type: none"> Partnership working and joint investment with <ul style="list-style-type: none"> Newcastle City Council Northumberland Council North Tyneside Council South Tyneside Council Redcar and Cleveland Councils NWL CEO took on the role of Vice Chair of the North East Local Enterprise Partnership

STAKEHOLDER GROUP	KEY ISSUES WE ENGAGE ON	HOW WE ENGAGE	EXAMPLES OF 2016-17 ACTIVITIES
Employees	<ul style="list-style-type: none"> Volunteering opportunities Diversity and inclusion Company values Health and safety Staff benefits 	<ul style="list-style-type: none"> Internal communication channels Online benefits portal Team Talk (face to face from Senior Managers) Roadshows and surveys 	<ul style="list-style-type: none"> 85% attendance at Roadshows 'Our Behaviours' co-created with Senior Managers and launched to all of our people Personal resilience training to all employees 53.2% of employees participated in Just an Hour Employers Network for Equality and Inclusion benchmarking - silver standard employer
Media and opinion formers	<ul style="list-style-type: none"> Capital Schemes Environmental initiatives Innovation and Skills Community investment Corporate Social Responsibility Sustainable Urban Drainage (SuDs) Corporate Campaigns 	<ul style="list-style-type: none"> News releases Briefings Face to face Features stories Case studies Social media messaging 	<ul style="list-style-type: none"> Brunton Park Scheme to divert River Ouseburn Expanded Water Rangers Invested in drinking water quality Launched Rainwise Farmers at Abberton learn about PestiWise Launched EWISE Research facility Christine Walkdon (TV gardener) advises ESW customers about water saving Introduced ten Digital Apprentices Launched Dwaine Dash app Launched Sunderland sewer network upgrade Work on sea lock gates at Heybridge Mud clearance at Trinity Broads Flood reduction scheme Haydon Bridge
Government and Policy Makers	<ul style="list-style-type: none"> Capital Schemes Environmental initiatives Innovation and Skills Community investment CSR Resilience SuDS Corporate Campaigns Policy issues 	<ul style="list-style-type: none"> Briefings Site visits Face to face meetings Attendance at key forums Presentations Party Conference activity 	<ul style="list-style-type: none"> Appeared at All Party Parliament Water Group on SuDS Worked with Guy Opperman MP on flood risk prevention Written submission sent to the House of Commons on The Future of the Natural Environment after the EU Referendum Signed international declaration on flushable labelled products Various sites visited by Julie Hill (Independent Board Member of CC Water) and Mark Bayley (Non-Executive Director – Ofwat) Met with various MPs

STAKEHOLDER GROUP	KEY ISSUES WE ENGAGE ON	HOW WE ENGAGE	EXAMPLES OF 2016-17 ACTIVITIES
Investors	<ul style="list-style-type: none"> Financial results and regulatory and operating performance Funding, hedging and liquidity Regulatory environment Political environment UK legislation Capital programme update 	<ul style="list-style-type: none"> Non-deal roadshows Presentations Visits / meetings 	<ul style="list-style-type: none"> Roadshow/investor update Monthly reporting Board meetings Credit agency meetings Engagement with banks throughout the year
NGOs and charities	<ul style="list-style-type: none"> Community Investment CSR Environmental initiatives Volunteering Regional policy Economic and social well being 	<ul style="list-style-type: none"> Sponsorship Just an Hour Donations Fund raising Meetings and forums 	<ul style="list-style-type: none"> Supported Blyth Tall Ships Sponsored: <ul style="list-style-type: none"> William II project RSPB/WWT Ryhope Tees Cottage Museum of Power Supported 15 non Government Organisations projects, providing nearly £60,000 in funding and unlocking a further £375,704 in match funding (Branch Out) Supported charitable organisations (#MakeMyDay) Age Concern "Come Eat with Me" celebrated four years 95,000 bottles of tap water donated to community and charity events

ASSURANCE SUMMARY

Within this Annual Performance Report, we publish a range of information about our services and performance, including how we are performing against the commitments we made in our 2015-2020 business plan. This helps to provide our customers and stakeholders with assurance that we are delivering what they have told us they need and want from their water and sewerage company.

It is important that we have robust assurance arrangements in place to ensure that this information is accurate, clear and transparent. This is essential to building and maintaining a high level of trust and confidence with our customers and stakeholders.

In February 2017, following consultation with customers and stakeholders, we published our [Assurance Plan for 2017/18](#). Consistent with guidance from our economic regulator, Ofwat, this document firstly assessed any risks, strengths and weaknesses associated with either meeting our obligations and commitments, or providing information of appropriate quality. It then detailed the checks and balances - or assurance - we planned to put in place to address these risks and make sure we remain on track.

A significant proportion of this assurance is targeted at making sure that the information that we publish in our Annual Performance Report is of appropriate quality. We have published an [Assurance Summary](#) to sit alongside our Annual Performance Report. This document provides information on the assurance activities we have undertaken and detail of reviews by our internal and external assurance providers.

There were no significant issues to report and our assurance providers were able to confirm that:

- For each area of risk, the various teams compiling the documents and information had an understanding of and were meeting their obligations;
- The Company has sufficient processes and internal systems of control to fully meet its obligations;
- The Company has sufficient processes and internal systems in place to identify, manage and review its risks, and
- The Company's explanations of how it will manage and/or mitigate material or potentially material risks are soundly based.

INTRODUCTION

This report summarises our performance against our Outcomes during the regulatory year ending 31 March 2017. This is the second year of our 2015-20 business plan.

We have underpinned our drive to be the best with five strategic themes: customer, environment, competitiveness, people and communities. Our Outcomes are aligned to these themes and set out what we aim to achieve. They represent what our customers have told us they value in the long-term. They are our commitments, or promises, to our customers.

Our Outcomes were developed with our customers and stakeholders. We have 12 delivery Outcomes covering our strategic themes of customer, environment and competitiveness. We also have seven enabling and reputational Outcomes which cover our strategic themes of communities and people.

Everything we do is driven by an Outcome for our customers.

To track performance against our Outcomes we have clear metrics – our **measures of success** (MoS).

Each Outcome can have several measures of success and we must as a minimum deliver a stable level of service to our customers. These are our **performance commitments** (PC).

For delivering better performance we could earn a financial reward. However, poor performance means that we could incur a financial penalty. These rewards and penalties are called **outcome delivery incentives** (ODI).

Our two baskets of **asset health measures** (one for water services and one for wastewater services) are an innovative way of monitoring, protecting and incentivising the long-term sustainable stewardship of our assets. They are linked to our customers' valuations of service improvements that they want us to deliver between 2015-20.

This performance report sets out in an open, transparent and clear way the work that we are doing to deliver our Outcomes and provide the water and wastewater services that our customers want.

Sometimes our performance reporting covers a calendar year (2016) and other times it will be the regulatory period and will be shown as 2016/17.

The report provides extended commentary for 'Table 3A' which is a summary of our performance against our Outcomes that we must provide for our regulator, Ofwat, every year. 'Table 3A' can be found in Section 3 of the Regulatory Accounts section ([page 142](#)). A summary of our performance is shown on the next page.

Measurement of performance and calculation of any penalties or rewards is calculated using the methodology set out in our PR14 Final Determination, and as agreed with Ofwat. This process is subject to robust assurance. Some of the ODI have earned a reward in the two years to 31 March 2017, although this will not be realised until 1 April 2020, the start of the next price control period.

Our asset health ODI are calculated on a three-year average. With the first assessment in 2017/18 we have also included in this performance summary our current annual performance.

Within '[Table 3A](#)', performance against performance commitments (PC) for asset health measures have not been assessed because the first assessment point, for penalty and/or reward, will not take place until the end of 2017/18.

This report covers all of our Outcomes including our enabling and reputational Outcomes which are not part of '[Table 3A](#)'. Performance is highlighted by Outcome and we report on each MoS.

Further information about the company is available on our websites at www.nwl.co.uk, www.eswater.co.uk and www.welivewater.co.uk.

OUR PERFORMANCE

We are delighted to remain at the forefront of performance in our industry. These are our promises to customers and show when we have met our promise (✓) or are still working hard to achieve this (Ⓛ).

MEASURE OF SUCCESS	OUR PROMISE	OUR PERFORMANCE
We provide excellent service and impress our customers		
Ofwat Service Incentive Mechanism (SIM)	90	Ⓛ 87.57
Independent overall customer satisfaction survey (out of 10)	8.2	✓ 8.5
Domestic customer satisfaction (net promoter score)	32	✓ 46
Our customers consider the services they receive to be value for money		
Independent value for money survey (out of 10)	7.9	✓ 8.2
CCWater value for money survey - Water Services Northumbrian Water	83%	✓ 84%
CCWater value for money survey - Sewerage Services Northumbrian Water	84%	✓ 84%
CCWater value for money survey - Water Services Essex and Suffolk Water	73%	Ⓛ 67%
Our customers are well informed about the services they receive and the value of water		
Independent survey on keeping customers informed	N/A	✓ 94%
We provide a reliable and sufficient supply of water		
Leakage (MI/d) - Northumbrian area (per day)	137	✓ 133.82
Leakage (MI/d) - Essex and Suffolk area (per day)	66	Ⓛ 68.08
Water mains bursts (per year)	4,586	✓ 4,273
Interruptions to water supply for more than 3 hours(per property per year)	06:23	✓ 02:26
Properties experiencing poor water pressure	216	✓ 199

MEASURE OF SUCCESS	OUR PROMISE	OUR PERFORMANCE
We supply clean, clear drinking water that tastes good		
Overall drinking water quality compliance	99.940%	Ⓛ 99.929%
Discoloured water complaints (per year)	3,508	✓ 2,874
Satisfaction with taste and odour of tap water (no. of properties per year)	1,069	Ⓛ 1,229
We provide a sewerage service that deals effectively with sewage and heavy rainfall		
Properties flooded internally (per year)	224	✓ 119
Properties flooded internally (TDS) (per year)	228	✓ 215
Properties flooded externally (per year)	1,318	✓ 839
Properties flooded externally (TDS) (per year)	2,931	✓ 2,730
Repeat sewer flooding (in the last 10 years)	496	✓ 46
Sewer collapses (per year)	58	✓ 55
Sewer collapses (TDS) (per year)	84	✓ 72
We help improve the quality of rivers and coastal waters for the benefit of people, the environment and wildlife		
Pollution incidents (category 3)	115	✓ 102
Bathing water quality compliance (no. of sufficient bathing waters)	32	✓ 34
Sewage treatment works discharge compliance (no. of discharge permit condition failures)	0	Ⓛ 1
We protect and enhance the environment in delivering our services, leading by example		
Greenhouse gas emissions	183.0	Ⓛ 187.7

WE PROVIDE EXCELLENT SERVICE AND IMPRESS OUR CUSTOMERS

OUR CUSTOMERS CONSIDER THE SERVICES THEY RECEIVE TO BE VALUE FOR MONEY

OUR CUSTOMERS ARE WELL INFORMED ABOUT THE SERVICES THEY RECEIVE AND THE VALUE OF WATER

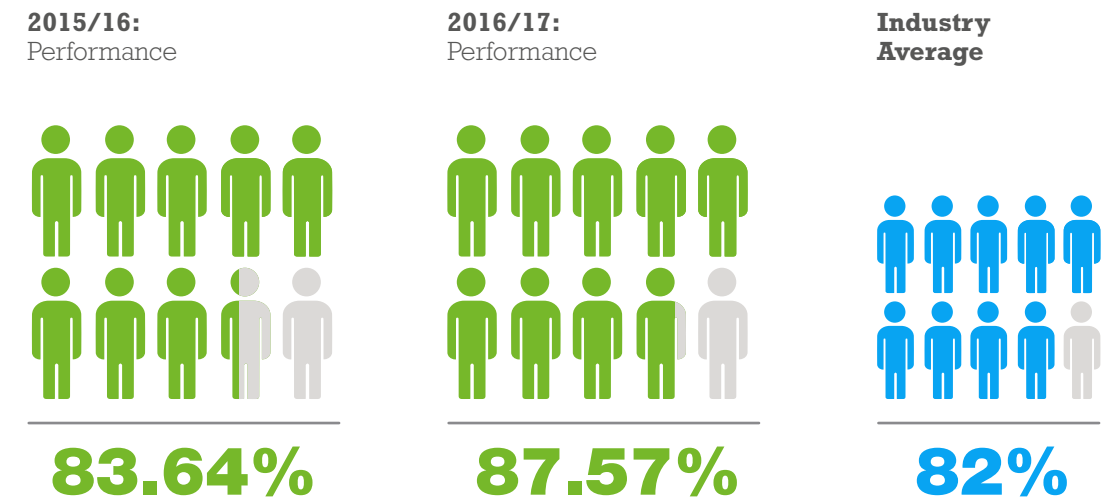
OUR MEASURES OF SUCCESS AND PERFORMANCE COMMITMENTS

We have grouped these three Outcomes together as they are very closely connected. Set out below, they cover seven MoS:

- **OFWAT'S SERVICE INCENTIVE MECHANISM (SIM)**
- **INDEPENDENT OVERALL CUSTOMER SATISFACTION SCORE**
- **DOMESTIC CUSTOMER SATISFACTION (NET PROMOTER SCORE)**
- **INDEPENDENT VALUE FOR MONEY SURVEY**
- **THREE CCWATER VALUE FOR MONEY SURVEYS COVERING WATER AND WASTEWATER SERVICES**



OFWAT SERVICE INCENTIVE MECHANISM (SIM)



Ofwat's SIM measures our customers' experience of dealing with us and provides a good indication of how well we are serving those customers who have had a reason to contact us.

There are two elements to the SIM measure; an independent customer satisfaction survey and a count of how many times customers have contacted us about a negative subject - including written complaints. The scores of each of these measures are combined to give an overall SIM score out of 100.

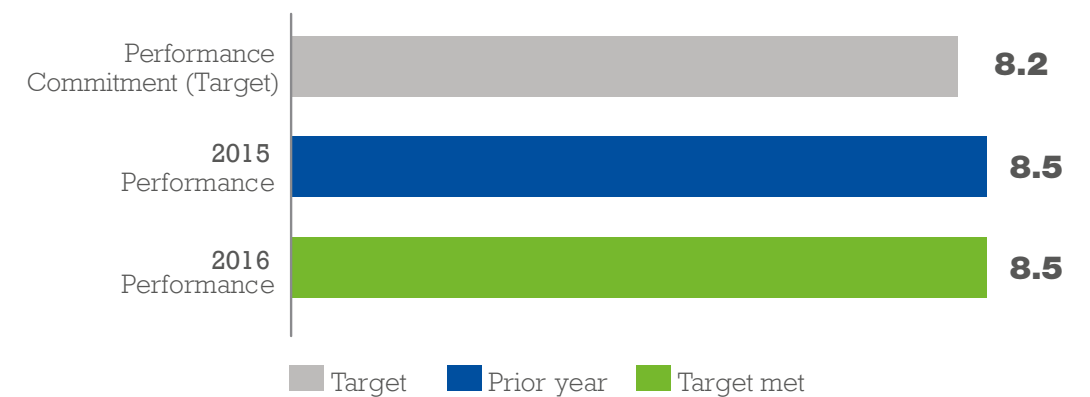
Our SIM score for 2016/17 has improved significantly to 87.57, from 83.64 in 2015/16. We are delighted that this places us in joint first place in the industry.

We are extremely proud of our performance over the last year and believe that this is a result of the whole business and our supply partners really embracing our Unrivalled Customer Experience Strategy and its core theme of 'Living Water Loving Customers'.

We have worked really hard to make sure our customers continue to be at the heart of everything we do and that their voice is heard. We have rolled out a daily 'voice of the customer' system across our operational teams and they now receive regular feedback on how they are doing enabling them to continue to build on the good and learn from areas requiring development.

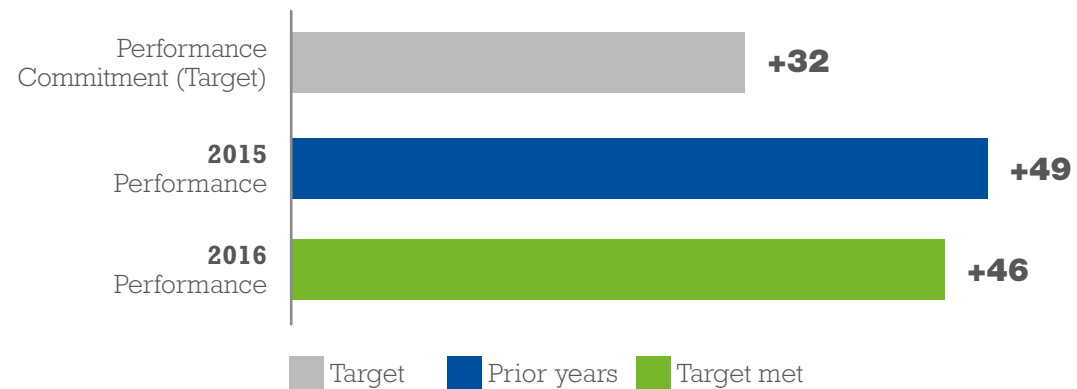
We have been relentless in our drive to achieve industry leading performance in the area of customer service and we are determined to push on from this and become the best service provider our customers' experience.

INDEPENDENT OVERALL CUSTOMER SATISFACTION SCORE



Our own customer satisfaction research is carried out quarterly by an independent company. In 2015, we achieved our best ever satisfaction score and we are delighted that customer satisfaction has remained at this high level in 2016. This score of 8.5 is better than our PC which is 8.2.

DOMESTIC CUSTOMER SATISFACTION, NET PROMOTER SCORE

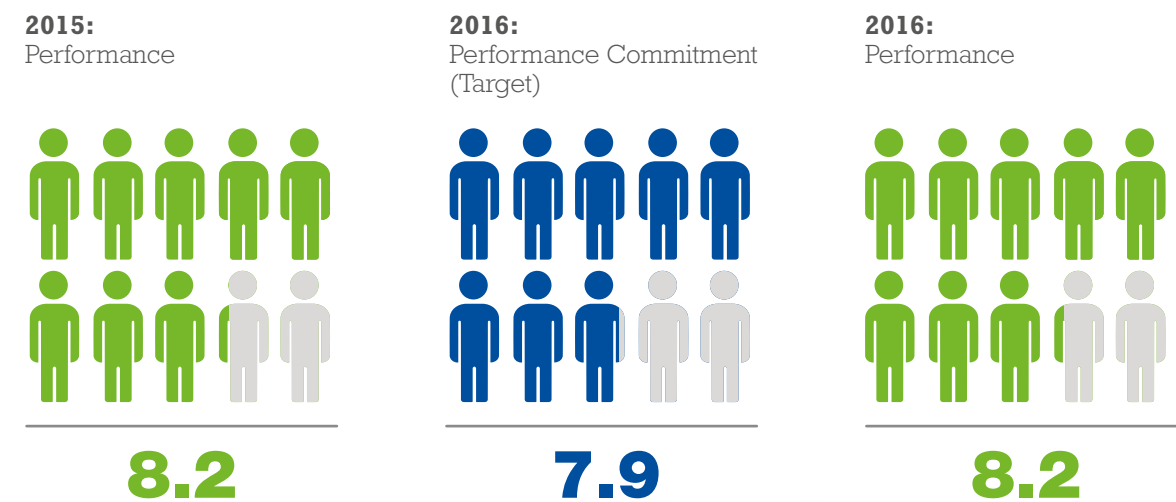


Net Promoter Score (NPS) measures customer advocacy which is the loyalty that exists between a company and its customers. It serves as an alternative to traditional customer satisfaction research. It enables companies to assess their performance across a wide spectrum of industries. Our PC for NPS is +32.

We beat our PC in 2016 but saw a small drop in performance compared to our best ever performance in 2015. While we were disappointed to see this, as our aim is to constantly improve our NPS, we remain proud that our NPS of +46 ranks us alongside UK leading businesses such as Apple, Amazon and John Lewis (according to Satmetrix, who are the independent company who conduct NPS surveys throughout the country).

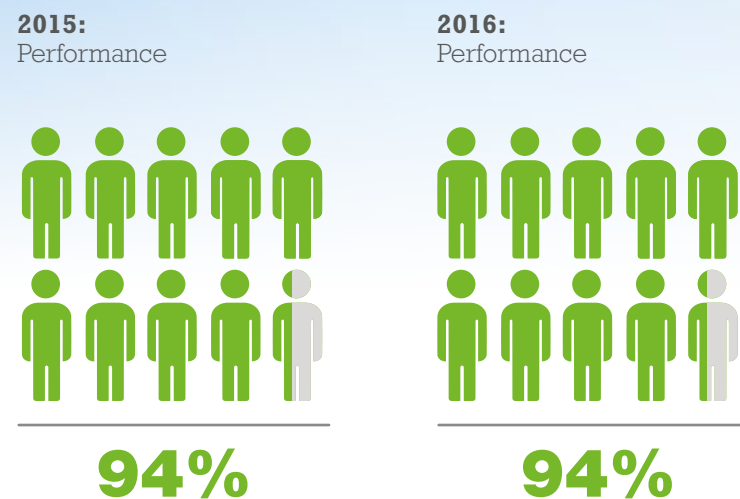
INDEPENDENT VALUE FOR MONEY

This measure is expressed as a score out of 10. Our PC is 7.9 or above.



In this survey, we ask customers about their overall satisfaction with the services we provide. Our value for money score remained consistent with our 2015 result at 8.2 out of 10 in 2016.

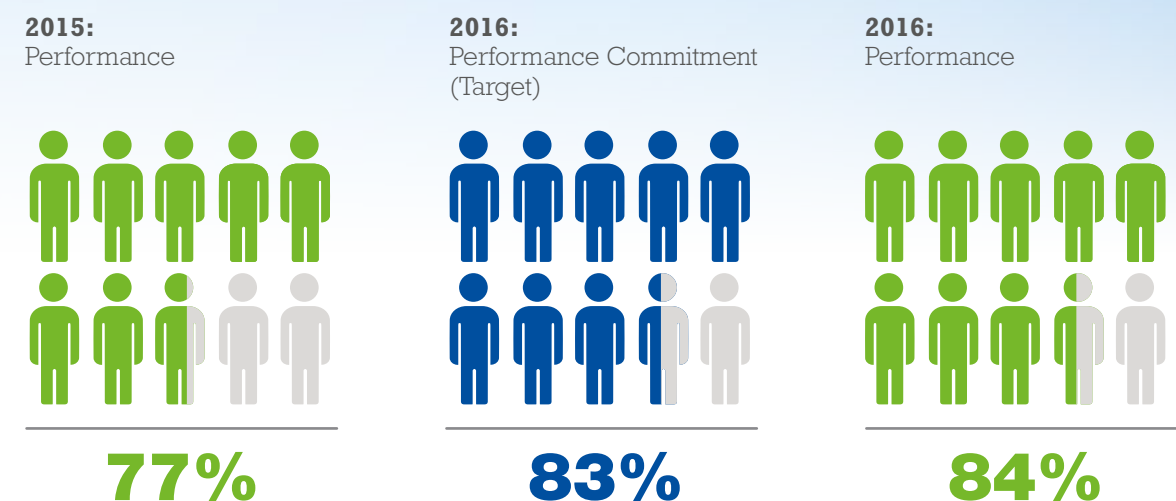
INDEPENDENT SURVEY ON KEEPING CUSTOMERS INFORMED



It is important to keep customers well informed.

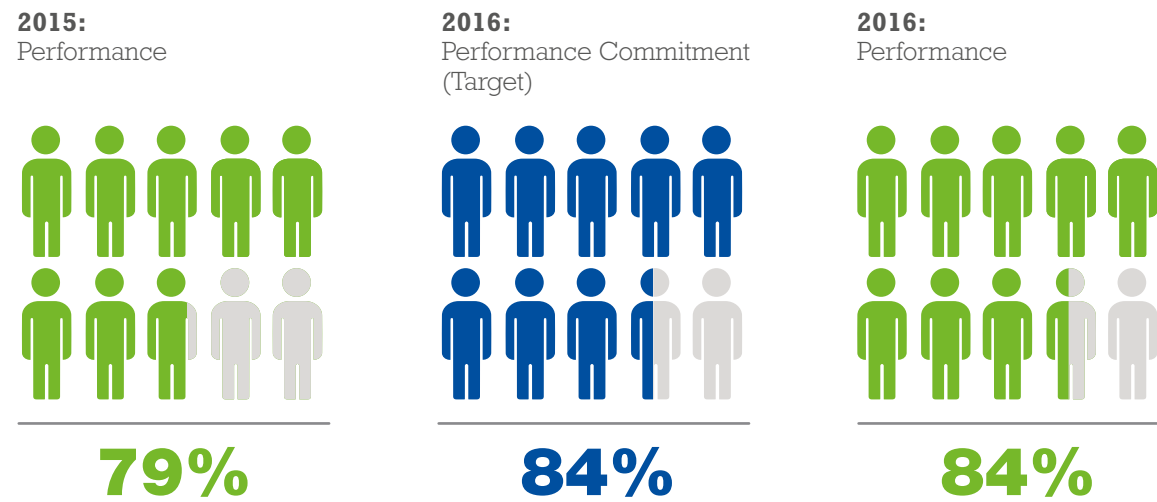
At the end of 2016, 94% of our customers told us that they were satisfied that they are supplied with all the information they want to feel informed about the services we provide. This is consistent with performance in 2015. We will set a formal target for this measure at the end of 2017.

SATISFIED WITH VALUE FOR MONEY OF WATER SERVICES - NORTHUMBRIAN REGION (CCWATER RESEARCH)



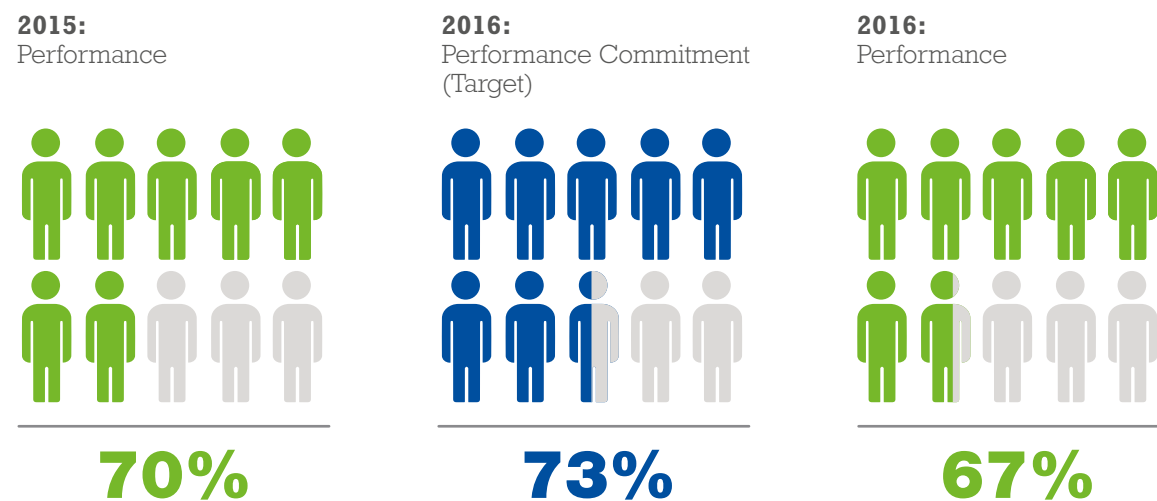
Our customers have also told us that value for money is very important to them, and this is a key area where they would like to be involved in influencing our future plans. The Consumer Council for Water (CCWater) publishes annual research on customers' perceptions of their water and sewerage companies and one element relates to value for money. The industry average remains at 76% from the CCWater research programme and we are delighted that our results has increased from 77% in 2015 to 84% in 2016. This is an industry leading result. Our PC is set at 83%.

SATISFIED WITH VALUE FOR MONEY OF SEWERAGE SERVICES – NORTHUMBRIAN WATER REGION (CCWATER RESEARCH)



Our result in CCWater survey for value for money for sewerage services is industry leading at 84% in 2016. This is an increase from 2015 and better than the industry average of 77%. Our performance is better than our PC which is 73%.

SATISFIED WITH VALUE FOR MONEY OF WATER SERVICES – ESSEX & SUFFOLK REGION (CCWATER RESEARCH)



We are disappointed that the latest CCWater value for money results for Essex & Suffolk Water have fallen to 67%. Our PC is 73%.

Improving our performance in this area is important. We will work with customers to better understand how improvements can be made.

HIGHLIGHTS

LIVING WATER LOVING CUSTOMERS

We co-created 'Our Unrivalled Customer Experience' Strategy in 2015 and since then we have worked really hard to embed the key principles and success factors across our business and that of our supply partners. More than 500 of our customers, supply partners and employees have participated in various aspects of the creation of this strategy and the new ways of working that are being embraced.

We launched the strategy by presenting our customer priorities and key success factors along with the story of their creation to everyone across the company. This was done via a series of face to face communications to make sure the full sentiment and messaging was delivered consistently. At these meetings it became clear that while we know that we deliver great service, our employees just saw it as "what we do". We looked for an innovative way to raise awareness. Every two months we hold 'team talk' throughout the company. Starting with Directors and Senior Managers, key business messages and stories are cascaded to everyone throughout our business. At the end of 2016 our Customer Services team held a 'team talk takeover'. This was to further embed our customer service principles.

All employees had the opportunity to be involved, participating in workshops and sharing their great customer service stories. As a result, we have over 50 great customer service stories videoed and we shared these on our internal social media network platform 'Yammer'. This approach was welcomed throughout the company, allowing examples of unrivalled customer service to be shared and creating a sense of pride that encouraged our people to want to do even more.

Maintaining focus has been key to delivering unrivalled customer experience and to support this our Customer Director hosts weekly conference calls across the business to ensure progress is made, commitments delivered and best practice shared.

We have seen our customer satisfaction performance improve and having finished in fifth place of the water and sewerage companies (WASCs) in 2015/16 we are now placed joint first in the industry.

#MAKEMYDAY

WE PROVIDE EXCELLENT SERVICE AND IMPRESS OUR CUSTOMERS

We want to provide our customers with unrivalled customer service. Through working with our customers to create our strategy for our unrivalled customer experience, we know that customers want to know about the great work we do locally and to be made to feel special.

One of the ways that we've done this is through a week of quite extraordinary activity to coincide with Customer Service Week in October 2016. We took to the streets and went out into our communities to surprise customers and specially selected community groups with treats and gifts to 'make their day'.

Each day we surprised customers that had been nominated by friends, neighbours and family members with a gift. This included a gift of £500 for Taylor who has severe cerebral palsy and wanted a beach wheelchair so he could enjoy visits with his family. A weekend in London to see Phantom of the Opera was given to Leesa Lynch, a customer from Grays and mother to son Ellis, who has Duchenne Muscular Dystrophy. She and her partner have not been away together in 9 years and Leesa, overcome with emotion at the gift said: "Thank you, it means so much that Essex & Suffolk Water have done something for us."

92 year old Violet asked for someone to take her out for fish and chips as she had no family and was lonely – one of our managers showed her the sights of Great Yarmouth and they both had a great time.

We also surprised a number of community groups with gifts – ranging from a £500 donation for tables and chairs for an over 60 club, to taking 22 community café volunteers with learning difficulties for a 5 star afternoon tea treat.

As well as the bigger surprises, we took our community engagement hub, 'Flo', to a different location each day and did a special lucky dip for residents on their high streets. Everyone won a prize and 100 lucky people won a bigger prize like meal vouchers for a local restaurant, flowers or tickets for a local attraction.

Mike Conyers, a customer from Brentwood, lost his sight when he was 12 years old following a cricket accident. Despite this, he's an inspiration through his charity work. Mike loves the smell of fresh flowers. We surprised him with a large bouquet of flowers and we have arranged a monthly delivery of flowers for the next year.

Mike said: "I hadn't a clue anything was a-foot! Flowers and smells brighten up life and they're so important for me. Surprises make life interesting and surprising - thank you."

"By the end of this special week, over 2,000 customers were delighted as we had made their day!"



CAFÉ JJ

Café JJ was set up by parents to give their disabled son the opportunity to use and retain his catering skills after he left college. Originally three disabled people worked in the cafe which operates out of the Clifton Community Centre based in Darlington. The café is a fantastic place for local residents and doubles up as a great community meeting place.

From its humble beginnings back in 2007, the café is today run by 'Team JJ' who despite having some learning difficulties, work extremely hard to make Café JJ a warm and welcoming place for the community and serve up delicious low cost home cooked food.

In June 2016 it was announced by Buckingham Palace that Team JJ's hard work was to be recognised and they were presented with the Queen's Award for Voluntary Service.

We were very impressed with the hard work and skills shown by Team JJ and decided to reward the team's efforts by treating them to afternoon tea at a top hotel.

THE LOWESTOFT 60 + CLUB

The Lowestoft 60+ Club is a registered charity run by a committee of trustees and manned by four part-time staff and many volunteers. They assist in the general welfare of the over sixties in the Waveney area by providing a welcoming social environment. This is achieved through the various regular social activities including bingo and Keep Fit. A coffee bar provides snacks and hot meals which are made and available during the week.

We felt this very worthy charity deserved some recognition for the great service they provide for the community and supplied them with some new tables for their club.



DANCE 21

Dance 21 is an Unincorporated Association which provides a dance group, 'Dance 21', for children and young people with Down Syndrome and their siblings in the Essex area, projecting a positive image of disability. Dance 21 operates to a professional standard and encourages participation of family, friends and other interested parties in supporting and developing the dance group. It is operated by the parents of the children with Down Syndrome on a volunteer basis.

Dance 21 offers a dynamic, fun, structured environment where everyone has the opportunity to improve their potential through dance and movement and each child is valued as an individual and a respected team member.

This brilliant dance group based in Chelmsford thoroughly deserved their £500 contribution from us to help towards the cost of their studio hire.

Mary Schultz founder of Dance 21 in Chelmsford said: "It has made my day! We'll use the donation to help pay for the hire of the two dance studios we use in Chelmsford - thank you it will make a real difference."

THE J'S HOSPICE

The J's Hospice charity improves the lives of young adults (aged 16-40) with life limiting and life threatening conditions and their families across Essex. They help provide enhanced care including tailored specialist nursing, respite, advice and emotional care as well as end of life care and bereavement support – in the comfort and security of people's own homes. They help young adults to live their lives to the fullest, however short this may be.

We recognised the enormous help and benefit that the J's hospice work brings to those young people and their families and were delighted to be able to send them £500 towards funding of the essential services they continue to provide.

Sue Upton, Director of Corporate Services at The J's Hospice said: "I thought we would be having a meeting with Essex & Suffolk Water, but to actually be given a cheque was amazing – it has made our day! A donation like this helps us to continue the work we are doing providing care and support for young adults aged 16 - 40 years with life limiting and life threatening conditions and helping to transform lives in many positive ways."

CHANCE

Chance is a voluntary organisation and registered charity that has evolved within the community over the years. The organisation was set up in 1993 by a group of female residents based originally in a high rise block of flats in the East End of Sunderland. It has been very successful providing free activities for children and young people and provided diversionary and positive activities to develop both their social and life skills. They have also created partnerships with other voluntary organisations in the local area to identify joint strategic projects and services.

However, due to the present economic climate funding has become harder to obtain and Chance and despite their determination to continue delivering the various projects and services their current building was in need of development and funding to ensure they could continue to make a real impact for the many people across the City of Sunderland.

We were more than happy to help Chance continue their super work and presented them with £500 towards new flooring for their building.

CASE STUDY

LIVING WATER LOVING CUSTOMERS

Water is an essential service to life and wellbeing. Our customers should always have complete confidence and trust that we can be the leading provider of sustainable water and wastewater services in the UK. To demonstrate that, we hold excellent customer service at the heart of what we do.

Our customers told us their priorities are:

- Making customer service personal.
- Keeping our promises.
- Making interacting with us easy.

Last year we introduced our Unrivalled Customer Experience Strategy – Living Water Loving Customers. This customer service ethos runs through everything we do and is our strategy for delivering an unrivalled customer experience in line with our vision and values. We want to exceed our customers' expectations and we want to do this consistently.

The service mind-set is in our culture and we're proud of our employees who live and breathe Living Water Loving Customers every day. They're empowered to make choices that allow personal and bespoke service to each and every customer we see and speak to in our day to day operations.

It isn't just about dealing well with complaints, it's about listening to our customers' priorities, and delivering extraordinary service, even in ordinary situations. Every day we're providing a service that we want people to talk about for the right reasons.

Here are just a few examples of our people making exceptional service part of everyday life.



OUR PEOPLE

John Garrett, one of the Operations Centre Supervisors, took a call from a lady enquiring about a new service connection that she wanted to progress quickly. John sensed the lady wanted the connection quickly and noticing her address was not too far away from his own home, he offered to drop off the necessary paperwork for her to complete.

On dropping off the forms the lady asked when he would collect them – he replied: “Early the next morning,” duly turned up at 05:30am on his way to work and picked up the completed forms from behind the milk bottles, much to the lady's delight.

Ali Branton took a call from an elderly gentleman who mentioned he lived alone without any family. Ali noticed his 80th birthday was coming up, went the shop in her lunch hour and bought him a birthday card which she popped in the post. The gentleman called back on his birthday to say thank you as her act of kindness had really surprised him.

Miss Matthews wrote to us to say that since having a water meter installed at her property her payments had been constantly increasing but she felt that she doesn't use much water. Dawn Coates arranged for a technician to visit her home, read the meter and check for any leaks. We soon discovered that Miss Matthews was on a cross supply (her water supply wasn't connected to the right property). We connected the meter to the correct supply and Dawn called Miss Matthews to tell her we would calculate an allowance and also notify Anglian water of the allowance so they could provide a similar. Miss Matthews wrote back with a thank you card:

“To Dawn, Thank you so much for trying hard to resolve the problem with my water supply and hopefully tomorrow when the leak team arrive there will be an answer. I very much appreciated your efforts and the friendly way you dealt with the enquiry and I will ring you after the men have called. Thanks again Dawn. With all good wishes from M Matthews.”

Mrs Halfpenny wrote to tell us she had received letters for an outstanding amount due on the account for her house. Stuart Caulkin wrote back to advise that the account was in her husband's name and that although we could not speak to her we would write to her husband regarding the amount.

If a customer requests a payment card and we don't deliver within our timescale, we send the customer a £20 focus cheque. Mr Connolly wrote to us to say he'd received one but did not know of a query that he had made. He advised he had not cashed the cheque and wished for an explanation and new payment card. Stuart Caulkin explained the reason for the £20 payment as we had not responded to a previous request for a payment card within our timescale and also apologised for his monthly plan being cancelled and that it had been re-setup. Mr Connolly replied with the below email:

“Thanks for your meticulous attention to my account. You have precluded any furthering of complaint. An unnecessary fuss it would be. I will address-book you personally for meticulous, sure-fire action should it be needed in future.

To Living Water!! And your competency,

Regards, D Connolly.”



PROJECT LEGACY

WE ARE AN EFFICIENT AND INNOVATIVE COMPANY

We are always seeking to be as efficient and innovative as possible and a recent project has enabled us to think differently about the legacy that we leave in the communities that we serve, particularly with our capital projects. NWL invests over £200million each year on capital investments projects, ranging from regular installations such as kiosks (boxes we put monitoring equipment inside), small scale projects such as the Worsingford River Bank erosion scheme to high profile projects such as Horsley Water Treatment Works. Each project has the potential to impact upon our customers and leave a positive lasting legacy to communities and the environment. These capital investments are particularly important as they are often extremely visible and the impact they have on the built and natural environment will be remembered long after our work has been completed. Working with students from Northumbria University we have developed a new and innovative approach to our capital developments, using a design strategy to ensure that aesthetic factors such as landscaping and signage are considered in the early stages of the project and creating a menu of alternative approaches to give our kiosks a value beyond their original purpose – from planters and charging points to art installations and storage units for defibrillators.

In order to kick start the project we sought to bring in fresh thinking and innovation to our current more functional design based approach, and felt that working with the Multidisciplinary Design Innovation (MDI) programme team at Northumbria University would meet this need. The MDI team consists of 17 students from a variety of disciplines, backgrounds and cultures, with each student contributing with different specialisms and experience.

The overall focus was ensuring the creation of a legacy aligned with our core values, with a focus on engagement, which enhances our brand and reputation. We worked with the MDI students on a one week design sprint to “re-invent the kiosk” with the aim of leaving a positive benefit to the community by creating value beyond their original purpose. The design sprint involved our project managers, engineers and maintenance teams collaborating with the students, using a variety of creative techniques to produce a range of innovative solutions.

MDI developed ideas from ideation and through to concept refinement. Over the week, concept designs were produced for 27 potential solutions to be applied to urban or rural situations and small or larger structures. We were amazed with the creativity and breadth of ideas put forward, which ranged from local habitat creation to electric charging points to interactive information boards and more.

This was followed up when Flo, our customer engagement vehicle, and our Customer Heroes teamed up with the MDI students to take the ideas to our customers. Using visuals of all 27 designs the team presented the concept ideas to our customers, and had in depth conversations with them about what they thought and which concepts they felt viable and would be worth exploring further. These ideas are

now going to be technically developed using Summer Placement students over the coming month. As the more viable concepts are developed we plan to further test some of the concepts on customers and look to promote these solutions on a number of “live” cases in the coming year.

“This was a very rewarding experience for students and the NWL team, and there is a great desire to make a number of these designs a reality”



CUSTOMER PARTICIPATION

One way of building trust is to involve customers in what we do as a business. During the year we have increased our engagement with customers who have actively participated in a number of critical pieces of work. This has included helping us shape our Information Services Strategy and the design of the new bills that we launched in April 2017.

We have also engaged with customers to help us to clearly explain our finances in a way they understand to show where their money is spent and how the company is financed. Customers participated in workshops to help us understand what information they wanted to know and how we could best present it.

ONCE PROGRAMME (OUR NEW CUSTOMER EXPERIENCE)

In line with the retail market opening in April 2017, our non-household customers were transferred to the retailer of their choice. We set up a new Wholesale team, separated 110,000 customer accounts from our existing systems, and achieved this on time and to the expected standard. New systems have been launched for non-household customers and our Wholesale team who are the new point of contact for retailers.

We have continued to invest in our new customer care and billing systems for our household customers. We will deliver an improved customer experience later in 2017 with billing contacts and then in 2018 operational contacts will transfer to the new system.

The new fully integrated customer care and billing system will also be complete in April 2018. It will enable a much more personalised service for customers. Coupled with an investment in a state of the art digital platform, this will provide our customers with real choice of how and when they want to contact us. It will increase our customers' ability to self-serve and experience a much more responsive service.

VOICE OF THE CUSTOMER

Feedback from customers is vital to enable us to improve service. We have now implemented real time feedback mechanisms in our call centres and for our field teams which is helping our people to understand what they have been doing well and where improvements need to be made. Our teams have embraced this and we have noticed improved satisfaction scores consistently since it was launched.

Some key feedback from our customers is that we should resolve problems more quickly and that they value being kept informed along the way. They have told us that they do not like it when we get things wrong or when we have to make multiple repeat visits to resolve their issues. To increase our speed of

resolution we have introduced virtual problem diagnosis using a remote video 'app'. The app enables customers to link directly with company experts to diagnose and solve customers' problems. We have also introduced a 'single' visit team who have helped reduce the number of times we need to visit to carry out essential work such as excavations, repairs and reinstatements.

SUPPORTING CUSTOMERS IN VULNERABLE CIRCUMSTANCES

We have continued to focus our support for customers who are in vulnerable circumstances. This builds on the work carried out with our partners in the free advice sector, such as Stepchange and the Money Advice Trust.

Affordability is still a real challenge for many customers with welfare reform having a real impact on budgets. We refer more customers needing support to Stepchange than any other water company, and see more than 70% of those customers referred going on to receive a full debt advice service. Our data sharing agreement with Stepchange means that in most cases they are able to provide us with information for those customers eligible for our SupportPLUS schemes.

Following promotion of our company funded SupportPLUS tariff we now have more than 3,000 customers benefiting from a discount of up to 50% on their bills.

Our "Take the first Step" campaign, during January 2017, promoted our services to vulnerable customers through the use of posters in bus shelters in areas of low income, articles in local press, and local radio advertising.

In conjunction with the Money Advice Trust we have rolled out a vulnerabilities e-learning course to our customer facing teams. The Course helps our colleagues identify those customers in vulnerable circumstances and provides guidance on how to encourage customers to share their individual circumstances. It also provides guidance on how to deal with often complex situations with understanding and empathy.

Our partnership work with Infrastructure North, (Northern Gas Networks, Northern PowerGrid, Yorkshire Water and NWL), has focused on supporting vulnerable customers over the last year. We have worked together on a series of initiatives to jointly promote our Priority Services registers (formally Extra Care) to enable customers to sign up should they have specific needs in relation to their utility services, for example home dialysis or requiring braille bills. We continue to align our priority services registers with the aim of sharing customers' information between energy and water providers where a customer has a priority services need.

SUPPORTPLUS

OUR CUSTOMERS CONSIDER THE SERVICES THEY RECEIVE TO BE VALUE FOR MONEY

We recognise that sometimes life's ups and downs mean that some customers may find themselves in challenging financial situations.

As a business that puts customers at the heart of everything we do, it's important that we are aware of this and that we find ways to help. It's also why it's vital that, when there is a problem, customers speak with us as early as possible, so that we can look for ways to provide support.

Three years ago, we teamed up with StepChange Debt Charity for an industry first partnership set up to offer customers access to free, confidential debt advice and support.

As the UK's largest debt charity, StepChange is a natural partner to entrust with such important and often sensitive matters for our customers.

In 2016 nearly 4,000 of our customers received advice and support to help manage debt from StepChange; 45% more than 2015. These referrals allow us to understand better each customer's financial situation and create an opportunity, and the time, for them to work with the charity to put together an action plan.

StepChange gives advice on a range of issues, from debt to bankruptcy, and even has an online benefits calendar on its website.

The partnership runs alongside a range of support available directly through our team, giving customers a number of ways to pay their bills. This includes; monthly instalments and budget plans, to help customers spread the cost of our services, short term payment plans and even payment holidays for customers who have a break in income are also available.

StepChange
Debt Charity

IN PARTNERSHIP SINCE

2014

4,000

REFERRALS IN
2016



MR MATTHEWS' STORY

"I USED TO BE A MEMBER OF THE ARMED FORCES. AFTER THIS EMPLOYMENT ENDED I GOT A JOB WITH A COMPANY ON A ZERO HOURS CONTRACT

Work was so infrequent and unpredictable I was really struggling. I had my mortgage and utility bills to pay which left me with no money to live on. The zero hours contract then started to bring no work for me at all, which left further strain on my finances.

I signed on for Job Seekers Allowance. At this point I was over £600 a month short to pay my bills, let alone buy food. Being an ex-member of the armed forces I have never had any arrears before on any bills and have a perfect credit history.

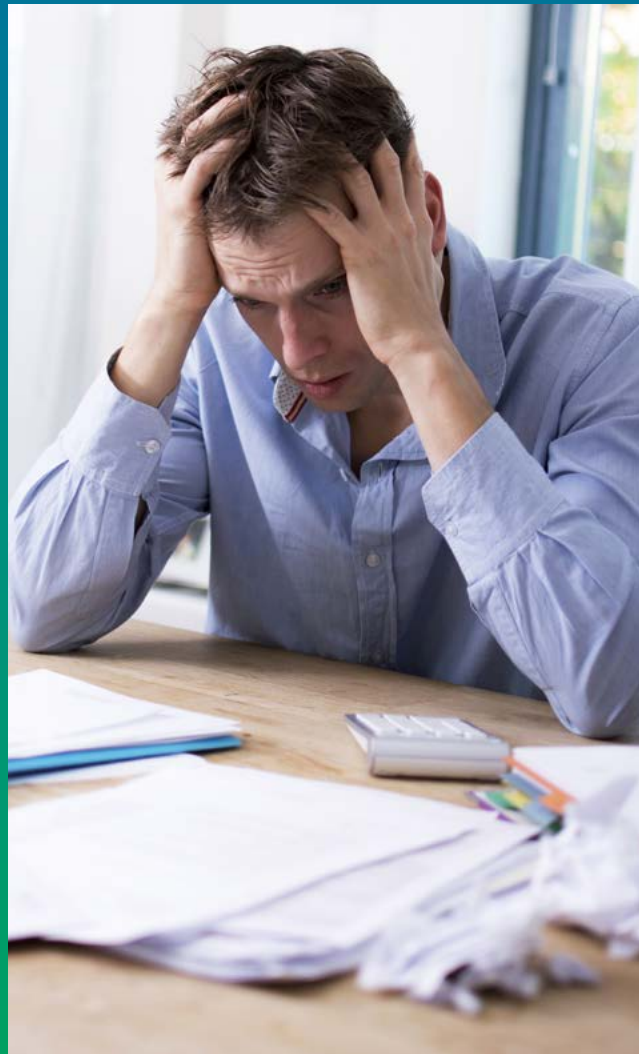
I telephoned all the companies I had Direct Debits with and either cancelled them or tried to postpone the payments until I secured work. I telephoned Northumbrian Water to delay the Direct Debit and opt to pay the water bill six-monthly.

I was then advised to contact StepChange Debt Charity. I told StepChange that Northumbrian Water had recommended me. StepChange then advised me on bill management and also advised that I may be eligible for reduced water charges.

They completed income and expenditure details with me and went through various options. StepChange then sent me an information pack in the post with my completed income and expenditure.

Around two days later, Northumbrian Water sent a letter advising they may be able to help by reducing my water bills. I went into the Northumbrian Water offices in Pity Me and handed them the StepChange pack. They took photocopies and took the information away.

Within a week Northumbrian Water wrote me a letter stating my water bill was reduced by 50% as long as I could pay just £13 per month with my Direct Debit. This was great relief for me. It has prevented me from going into arrears as all I was going to do was delay the matter until the next six-monthly bill was produced and I don't honestly know how I would have paid that."



**WATER BILL
REDUCED BY
50%**



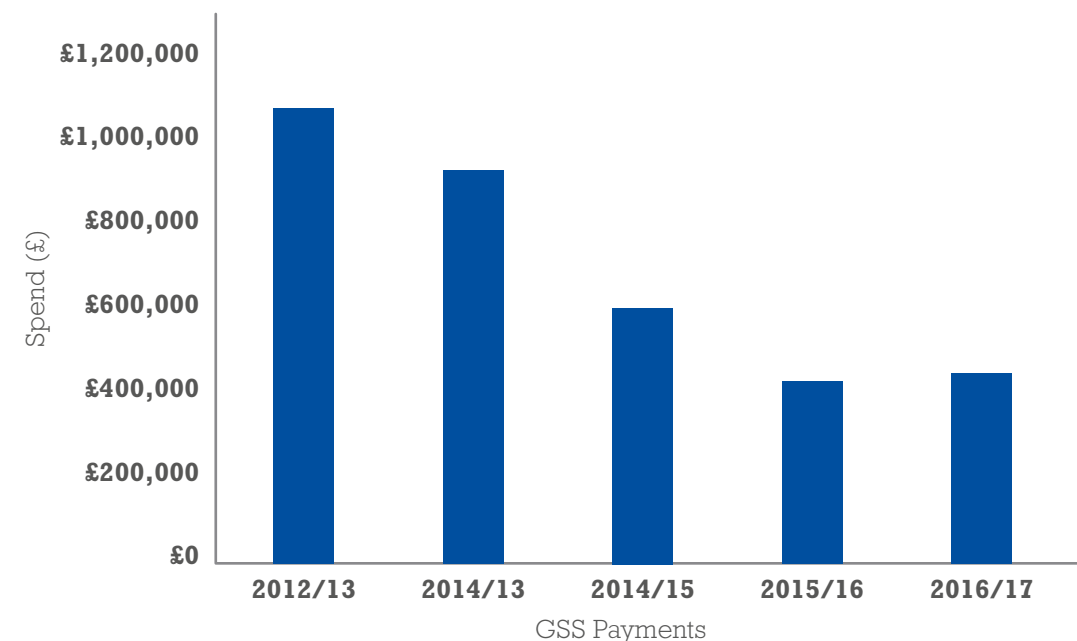
GUARANTEED SERVICE STANDARDS (GSS) PAYMENTS

We always try hard to provide excellent service. The Water and Sewerage Services (Customer Service Standards) Regulations 2008 require companies to provide compensation payments to customers in certain circumstances, when things occasionally go wrong.

There has been a significant increase in these payments relating to written account enquiries; largely due to an increase in the number of customers contacting us online, improved awareness of GSS and detailed investigations to identify GSS failures.

To combat this, a full time GSS Auditor has been recruited to deliver detailed and departmental specific training across the business to help increase awareness and lead to improvements within teams for better ways of working that make sure we comply with the standards. For example, working with process analysts on the ONCE programme, we have already created several new processes and measures in our new Customer Care and Billing System that will make sure failures are correctly identified and the appropriate payments are quickly made.

We have also seen a reduction in sewer flooding payments by 10% since last year.



SUPER SPLASH HEROES

OUR CUSTOMERS ARE WELL INFORMED ABOUT THE SERVICES THEY RECEIVE AND THE VALUE OF WATER

Helping our customers understand where their water comes from, how it is treated, reaches their homes, and ultimately is returned safely to the environment, starts at an early age and we are committed to educating our customers of the future.

A new educational resource for children is being championed by a gang of super heroes. Our "SuperSplash Heroes" help young people learn about water in the environment, water efficiency and water for health.

Accessed through our website the new on line resource offers educational materials for schools and supports fun learning for children and families with online activities, worksheets, videos and even information about the varied range of exciting careers available within the water industry.

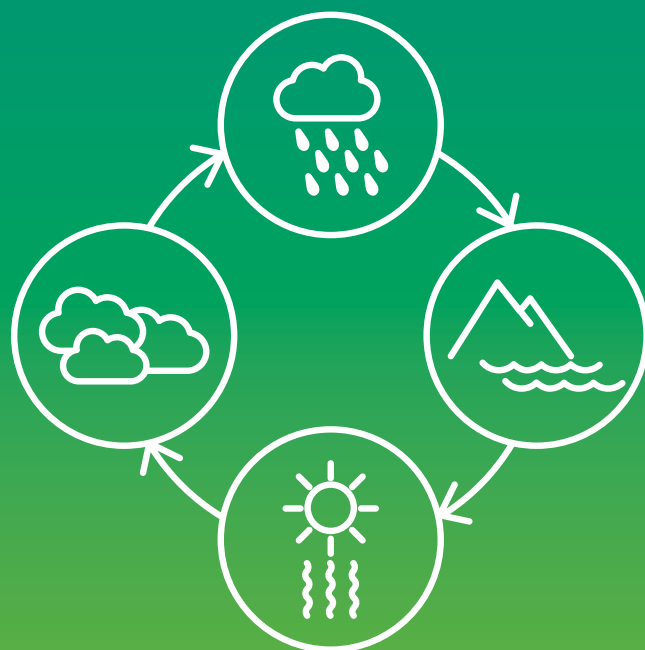
Special days are being organised in schools, where youngsters will get to watch a play featuring the heroic characters, then take part in workshops to learn more about how they can reduce water consumption and protect the environment.

Wendy Fegueira, headteacher at the St Peters Primary School in West Hanningfield in Essex said: "The Super Splash Heroes visit was a fun way to deliver an important message and the pupils really enjoyed the activities. The resources that have been made available provide a wide range of information and activities that can be used to help pupils learn all about the water cycle and its importance to everyday life."

Pupils from Key Stage 1 through to school leavers can find out more about the industry and the part it plays in the water cycle, interacting with nature to protect one of Earth's most important natural resources.

The resource can be found at www.nwl.co.uk/learnaboutwater

INFORMATION AND ACTIVITIES CAN BE USED TO HELP PUPILS LEARN ALL ABOUT THE WATER CYCLE AND ITS IMPORTANCE TO EVERYDAY LIFE



WE PROVIDE A RELIABLE AND SUFFICIENT SUPPLY OF WATER

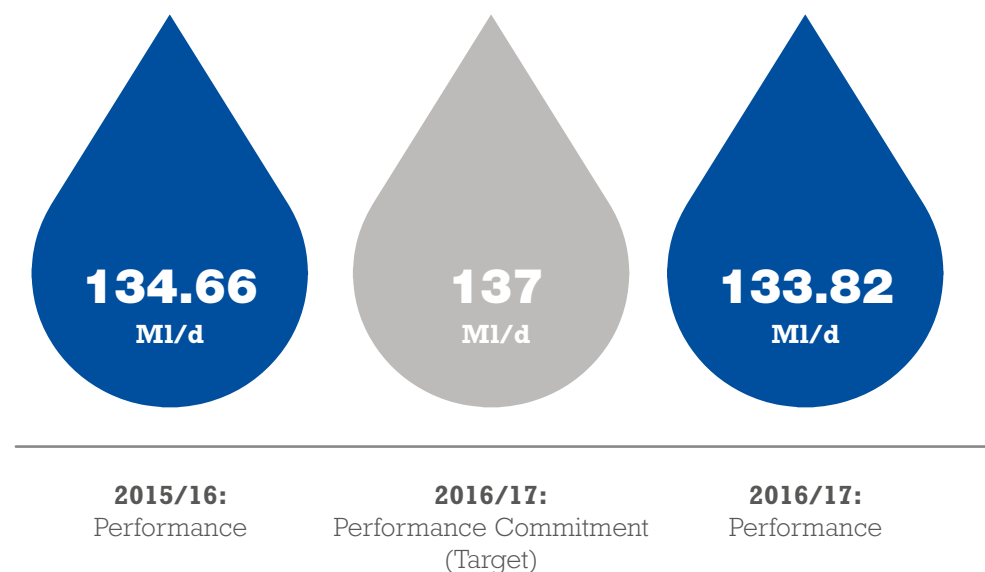
There are five MoS for this Outcome:

- **LEAKAGE (REPORTED SEPARATELY FOR NW AND ESW).**
- **INTERRUPTIONS TO SUPPLY GREATER THAN THREE HOURS (AVERAGE MINUTES AND SECONDS PER PROPERTY SERVED).**
- **THE NUMBER OF PROPERTIES AFFECTED BY LOW PRESSURE.**
- **THE NUMBER OF WATER MAINS BURSTS.**

LEAKAGE

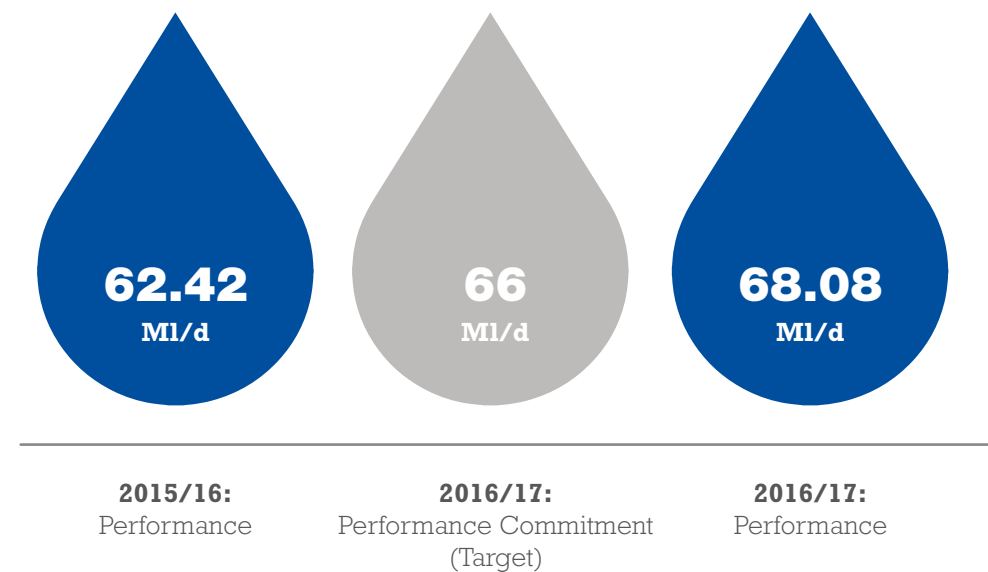
In very simple terms, leakage levels are calculated by measuring how much water we release from our water treatment works and then deducting the amount of water that our customers use. In doing this we can calculate the volume of water that is leaking from our water pipes. Leakage is measured in megalitres per day (MI/d).

LEAKAGE NW



In 2016/17 leakage averaged 133.82 MI/d which is better than our PC of 137 MI/d.

LEAKAGE ESW

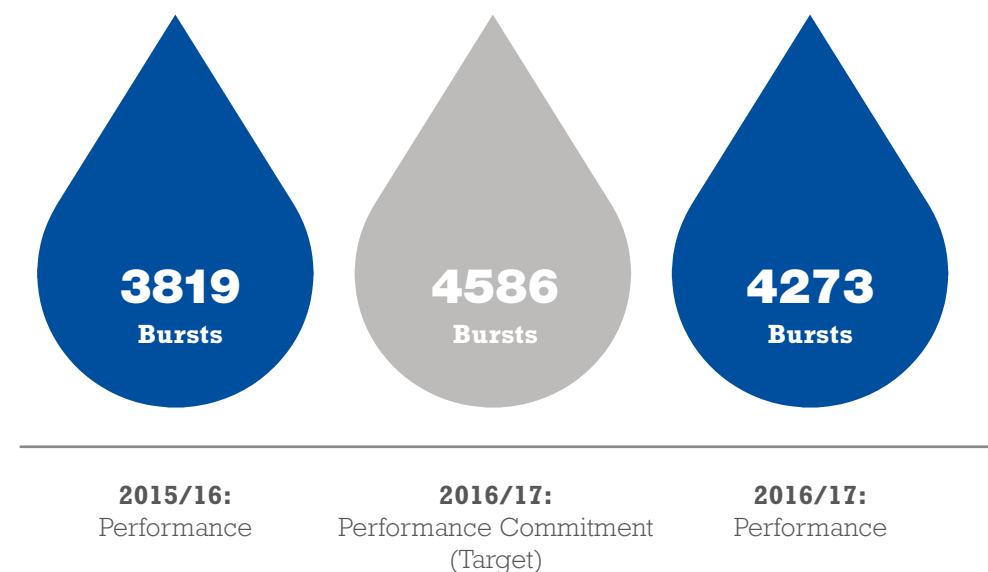


Leakage in ESW averaged 68.08 MI/d which exceeds our PC of 66 MI/d.

We experienced higher leakage than usual throughout the summer and autumn in 2016, during the driest period for more than 100 years in the South East of England. This had a big impact on the clay soils that we find across most of our supply area. When the clay dries out it moves and often results in fractured pipes. Despite putting additional resources and investment into repairing and replacing pipes as quickly as possible, the extreme ground conditions resulted in a significant increase in the number of bursts and leaks on ours and our customers' pipes.

Our increased focus on finding and fixing leaks is continuing through 2017. We continue to have one of the lowest levels of leakage in the industry and have reduced leakage by 32% since 1995.

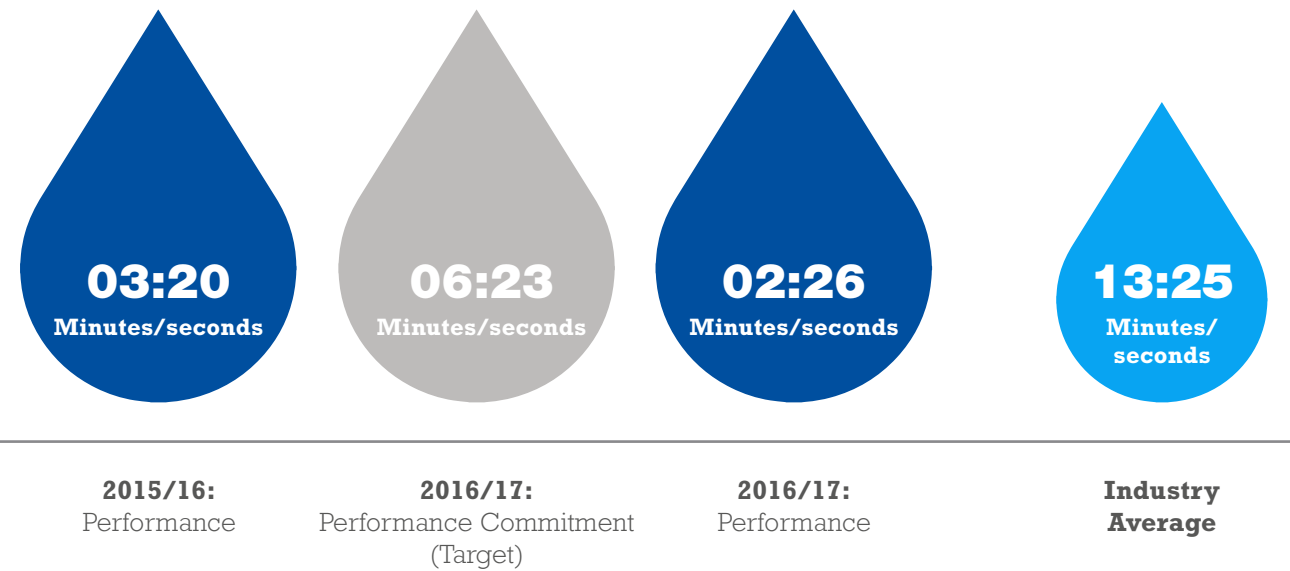
WATER MAINS BURSTS



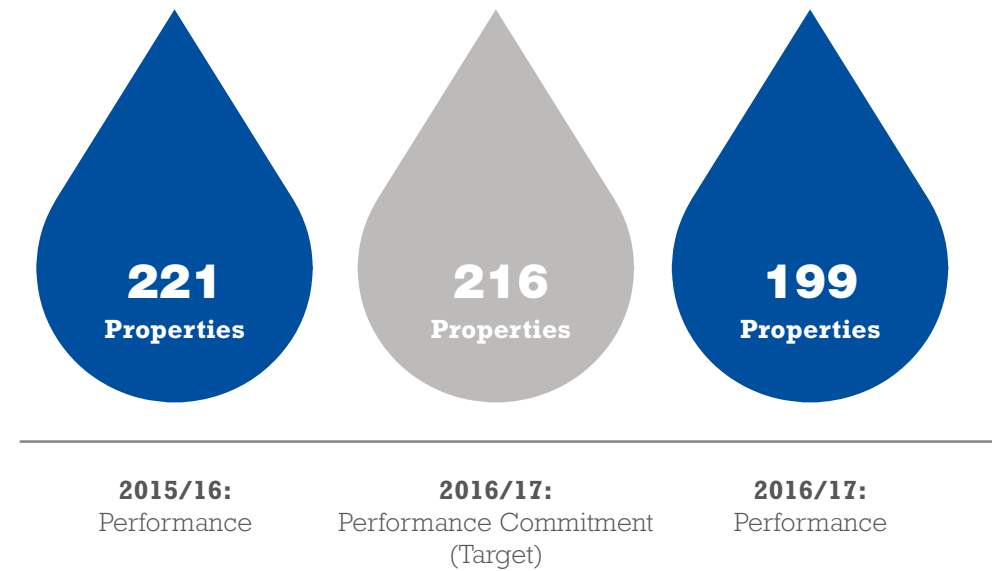
The weather pattern seen during the summer and autumn in 2016 in ESW is also reflected in our burst performance for the year. We finished the year with a result of 4273 water mains bursts.

The figures above show our annual performance in 2015/16 and 2016/17 for water mains bursts. As this is an asset health measure, compliance with our PC will be assessed based on three-year average performance at the end of 2017/18, 2018/19 and 2019/20. Consistent with this approach, [Table 3A](#) shows our three-year average performance of 4048 for the period 2014/15 to 2016/17. This is better than our PC.

WATER SUPPLY INTERRUPTIONS



PROPERTIES EXPERIENCING POOR PRESSURE



This measure reflects how often we have had to interrupt customers' water supplies as a result of needing to carry out planned work on our water pipes, or as a result of an unexpected event such as a burst pipe.

This measure is calculated by dividing the total duration of all interruptions of more than three hours in length by the number of properties the company supplies. This gives an average interruption time in minutes and seconds per year per property.

Our industry leading performance on supply interruptions has continued to improve to even better levels. We have reduced the average length of time our customers experience interruptions greater than three hours to 2 minutes 26 seconds. This level of performance is currently beyond the reach of all other water companies.

Our customers should expect water to arrive at their home at a certain pressure so that it flows well from the tap. This measure reflects how many properties receive water pressure below the industry minimum standard. This standard equates to being able to fill a 15 litre bucket in 100 seconds.

The number of properties experiencing pressure below this standard has reduced to 199.

We address properties that fail the pressure standard either within the year that they fail or through longer term planning and investment. This usually involves the installation of short lengths of additional pipework or small pumping stations, or reconfigurations of our water supply network.

The figures above show our annual performance in 2015/16 and 2016/17 for properties experiencing poor pressure. As this is an asset health measure, compliance with our PC will be assessed based on three-year average performance at the end of 2017/18, 2018/19 and 2019/20. Consistent with this approach, [Table 3A](#) shows our three-year average performance of 217 for the period 2014/15 to 2016/17. Our PC is 216.





HIGHLIGHTS

SECURITY OF SUPPLY

The Security of Supply Index (SoSI) measures whether companies have sufficient water resources to meet demand at all times, including periods of high demand (for example during warm, dry weather when our customers use more water on their gardens or to fill paddling pools).

Our SoSI score remains at 100% in both NW and ESW.

At the Northern most point of NW we have a small, separate water resource zone, Berwick and Fowberry, which is served only by local groundwater sources which we extract through boreholes. We are investigating the long term viability of these resources. Our studies will be completed in time to feed into our draft Water Resources Management Plan in December 2017. We are also investing money to ensure we can manage demand now and in the future through a borehole maintenance project and a targeted water efficiency campaign which was completed in the area in 2016.

METERING

We installed 7,209 household meters and 94 non-household meters in our ESW region during 2016/17. In Essex, 2,414 meters were installed in households as a result of a change of occupier. In NW, we installed 13,430 household meters.

All new properties are fitted with a water meter and this brought 5,845 additional household meters and 665 non-household meters into use in our ESW region. Similarly, 7,842 household meters and 1125 non-household meters were installed in our NW region.

In total, 60.5% of all households and 91.3% of non-households are now metered in ESW, and 34.7% of households and 87.4% of non-households are metered in NW.



EVERY DROP COUNTS

Every Drop Counts is our largest ever water saving campaign. It takes a truly innovative, creative and wide-reaching whole-town approach by offering customers the chance to participate in various water-saving initiatives taking place in the same town at the same time. Using targeted advertising and community based marketing, participation is maximised, helping participants save water, energy and money.

In Every Drop Counts in 2016, we have directly contacted 25,000 domestic customers and 1,700 non domestic customers. 7,794 households are now saving on average 20.5 litres a year and 81 businesses are also saving a total of 10.9 Million litres/year, showing what an impact the project has had.

We have delivered innovative water efficiency projects since 1997, ensuring that we are widely regarded as the industry leader in water efficiency. Since 1997, over 119,000 school children engaged through an interactive theatre production, and over 32,000 household water saving visits.

Every Drop Counts goes beyond existing good practice by bringing together all of our successful initiatives – previously delivered at different times and to different target audiences – and delivering them in one town all at once. Supplemented by an exciting and wide-reaching marketing campaign, the aims are clear; to increase participation, to demonstrate quantifiable water savings and to leave the town as water efficient as possible.

During the campaign, we worked in partnership with environmental charities and community champions to host stands in the local high streets, at supermarkets, shows and festivals to engage our customers in saving water and encouraging them to sign-up for a water-saving retrofit device.

Every aspect of the project is measured. This has enabled us to report real and quantifiable water savings, as opposed to assumed savings. Using meter reads and customer feedback allows detailed statistical analysis, in turn contributing to the industry's evidence base.

Our efforts have seen us shortlisted at the 2017 Edie Sustainability Awards in the Water Resources Management category. We have also been shortlisted at the 2017 Water Industry Achievement Awards for Water Management and Community Project awards.



WE HAVE DELIVERED INNOVATIVE WATER EFFICIENCY PROJECTS SINCE 1997, ENSURING THAT IT IS WIDELY REGARDED AS THE INDUSTRY LEADER IN WATER EFFICIENCY.

“We provide a reliable and sufficient supply of water”



IN EVERY DROP COUNTS IN 2016...



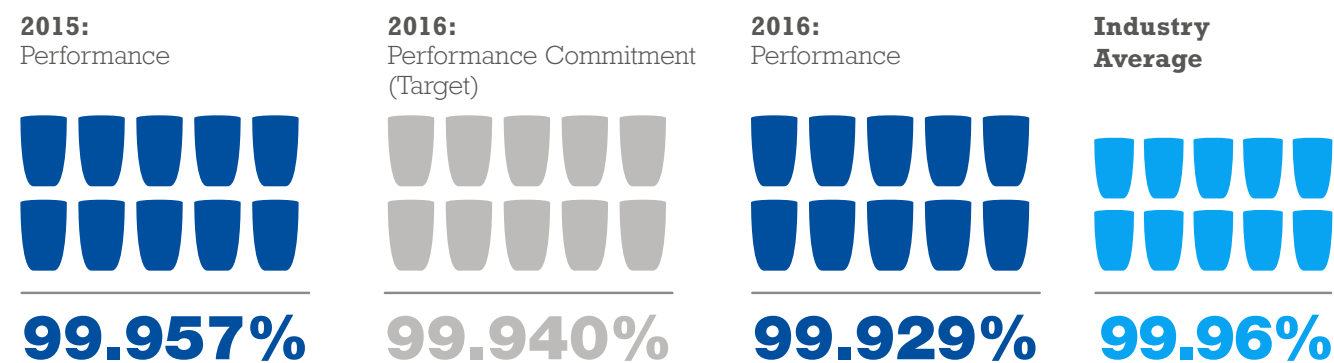
WE SUPPLY CLEAN, CLEAR DRINKING WATER THAT TASTES GOOD

There are three MoS for this Outcome which are:

- **OVERALL DRINKING WATER QUALITY COMPLIANCE**
- **DISCOLOURED WATER COMPLAINTS**
- **SATISFACTION WITH TASTE AND ODOUR OF TAP WATER**



OVERALL DRINKING WATER QUALITY COMPLIANCE



The water we supply must meet strict national standards set by the Drinking Water Inspectorate, to ensure that it is safe to drink and the quality is acceptable to customers.

This measure reflects the extent to which our water complied with these standards, based on the results of 73,484 tests carried out in the year.

The figures show our annual performance in 2016 was 99.929%. This is a slight reduction from our 2015 achievement of 99.957%. Out of the 73,484 tests carried out there were 57 failures in 2016 compared to 29 in 2015.

None of the failures represented a risk to health and our performance represents a very high level of compliance.

We would expect some variation in performance levels due to the fact that samples are taken on a random basis. We are committed to improving water quality, and aim to achieve this through a combination of improved water treatment and targeted maintenance of the network.

If 2017 performance does not return to 2015 levels then the asset health measure which takes a three year average of 2015, 2016 and 2017 could result in us failing to meet our PC.

The figures above show our annual performance in 2015 and 2016 for overall drinking water quality compliance. As this is an asset health measure, compliance with our PC will be assessed based on three-year average performance at the end of 2017/18, 2018/19 and 2019/20. Consistent with this approach, [Table 3A](#) shows our three-year average performance of 99.944% for the period 2014/15 to 2016/17. The PC is 99.940%

DISCOLOURED WATER COMPLAINTS



Very occasionally, for a brief period, our water may appear discoloured. This is caused by the disturbance of harmless deposits in our water supply network, possibly caused by a burst or a leak, which makes the water appear unclear.

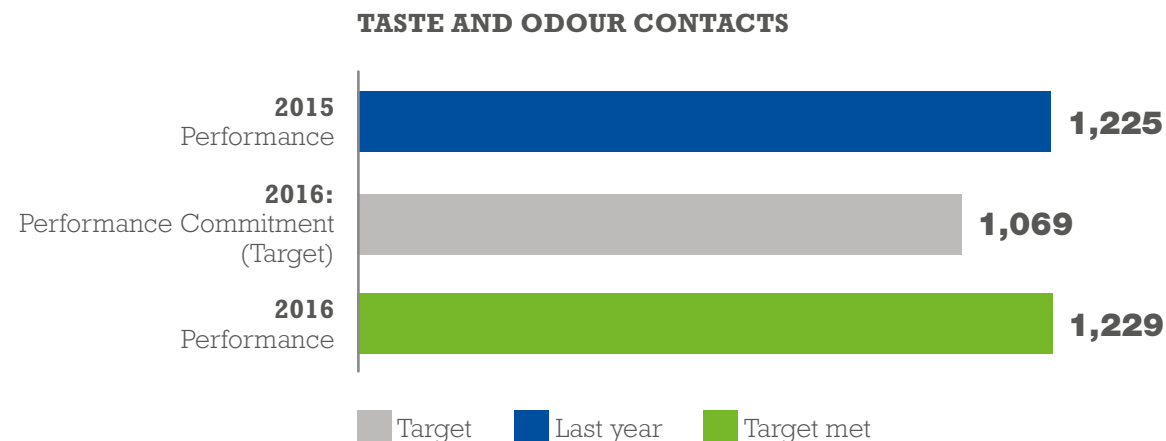
This measure reflects the number of times we have been contacted by customers due to their tap water being discoloured.

The figures show our 2016 annual performance improved to 2,874 discoloured water contacts.

We have been working to improve discoloured water complaints for more than ten years now and the current good performance is due to culmination of this work. However, when industry comparisons are made we recognise there is still more to do. Our strategy continues to 2019 and includes expenditure throughout the supply chain to reduce the creation and distribution of discolouration material coming from water treatment works and accumulating in pipes.

The figures above show our annual performance in 2015 and 2016 for discoloured water complaints. As this is an Asset Health measure, compliance with our PC will be assessed based on three-year average performance at the end of 2017/18, 2018/19 and 2019/20. Consistent with this approach, [Table 3A](#) shows our three-year average performance of 3,227 for the period 2014/15 to 2016/17, reflecting performance in 2014/15 before the PC was applied. The PC is 3,508.

SATISFACTION WITH TASTE AND ODOUR OF TAP WATER



Our drinking water is of a very high quality but occasionally our customers become aware of a different taste or smell. This could be due to:

- The use of chlorine to maintain good hygiene in our water supply network.
- A change in where a customer's water comes from, or how it is treated.
- Issues with customer's own plumbing, inside their house.

This measure reflects the number of times we have been contacted by customers to complain about the taste or smell of their water.

We received 1,229 taste and odour contacts in 2016 compared to 1,225 in 2015. This level of performance places us second in the industry. However, we have failed our PC, which for 2016 was set at 1,069. No penalty will be payable as the threshold for this was set at 1,534 contacts. The 2017 PC is 903 contacts and this represents a very challenging target.

We carried out bespoke research in 2015 to better understand taste and odour. Understanding the reasons for taste and odour contacts is complex. Some customers are more sensitive to changes in their tap water than others. Water that tastes of chemicals or chlorine is unacceptable. We have commenced a number of initiatives to improve our service, for example we optimised the chlorine level in the water leaving treatment works. We are also training teams to provide consistent advice. A lot of taste and odour issues arise in the property due to internal plumbing issues and we are improving plumbing knowledge so that when troubleshooting at the customer property the issue can be found and resolved.

HIGHLIGHTS

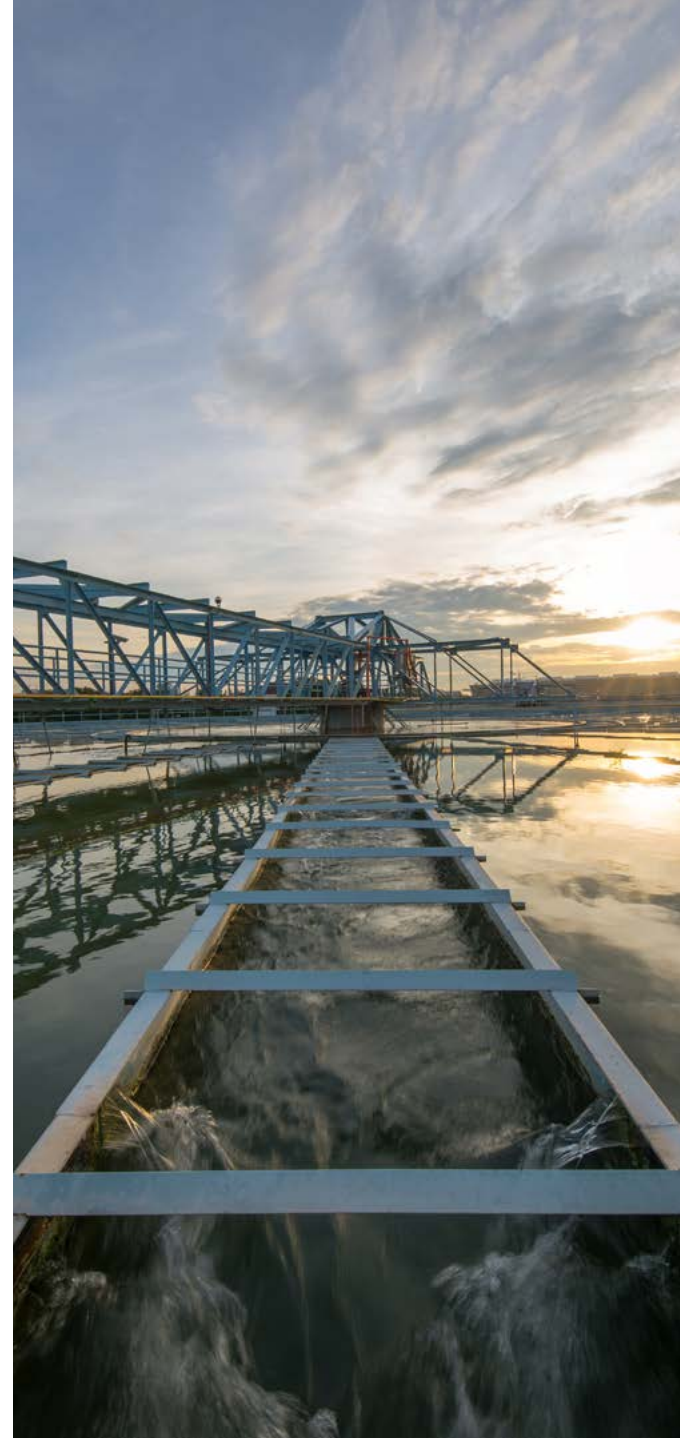
WATER TREATMENT WORKS AND SERVICE RESERVOIRS

In 2016 we recorded our best ever performance with the microbiological drinking water standards for Water Treatment Works (WTWs) and Service Reservoirs (SRs). In 2015 we recorded our previous best of eight detections, this improved by 25% in 2016 to six. This is out of around 50,000 samples taken from our 59 WTWs and 300 SR geographically spread though our three regions; the North East, Essex and Suffolk. Each detection is subject to scrutiny, each site was thoroughly audited in response and any non-conformances corrected. Our ambition is to have zero detections and we are working on an innovative approach using a technique called Flow Cytometry to help us understand in advance when a detection could occur. This is particle characterisation technique used in medicine and evaluates single cell properties in flows of fluid. In water samples this could enable very early detection indicators of sub-standard water. From this we are developing risk profiles to monitor trends and intervene prior to a detection. This work is pioneering and extremely promising.

DISCOLOURED WATER

The complaints of discoloured water that we report through the MoS by definition do not include complaints received when a water quality event is occurring, such as a burst repair. This is in line with our regulatory requirements. In our North East area where we have our highest levels of discolouration, we have been working with great results to improve performance.

For the first time in 2016 the North East area recorded zero discoloured water quality events. Our work to improve treatment, manage the strategic network, and actively flush the local distribution system has reduced contacts and improved service resilience. Our strategic pipe network, as a result of pioneering research into how pipelines can be conditioned to manage the accumulation of discolouration material, is now much more resilient to flow and pressure changes. By conditioning the pipes we limit the discolouration material without causing any deterioration to water quality. Now when a burst occurs, if any discolouration should arise, it is much less significant than it was a few years ago. To sustain this we continue to invest in research and implement new techniques in the management of our networks.



2016
BEST EVER
PERFORMANCE
WITH THE
MICROBIOLOGICAL
DRINKING WATER
STANDARDS FOR WATER
TREATMENT WORKS

CLEAN, CLEAR AND GREAT TASTING

Many simple things we enjoy and take for granted are dependent on the quality of water we supply. We are very proud that we have great quality tap water which comes from some amazing surroundings.

We wanted to engage with our customers and remind them in a fun and imaginative way about the quality of their water and encourage them to drink more to help keep hydrated.

In 2016, we had great success reaching our customers with the 'KNOW WHY' 'It's in the water' campaign. We took the streets, airports, shopping centres, restaurants and many other locations with messages like: "know why your morning cuppa tastes so good? It's all down to the quality of the water".

One powerful way of reaching our customers and showcasing the high quality product has been with our branded glassware in over 40 high profile establishments in the north east. When customers ask for tap water with their meals, they are presented with a carafe or bottle with 100% Northumbrian Water on it. Many restaurants take pride in the freshness and provenance of their food, so our high quality, local and fresh tap water is the perfect match and we want to shout about it.

John Calton, Chef at the Staith House in North Shields, said: "We are delighted to provide our customers with great tasting water which sits perfectly alongside our locally sourced produce. The feedback from our customers has been fantastic and it's a really innovative way of showcasing all that is great about our region."

We really grabbed our customers attention and got them buzzing about their tap water with our talking water cooler. Our clever water cooler was placed in popular public areas and had a hidden camera and microphone, so when people went to get a drink, the water cooler started talking to them about the great quality of our tap water and why staying hydrated is important.

The video of when our water cooler took to the streets has been viewed over 70,000 times and has been viewed globally (Spain, Germany, France, USA, Dubai, India, Japan and Australia).

Taking this fun and memorable campaign has had a fantastic impact with our customers. Reaching over 3.6 million people, including direct conversations with more than 3,000 customers, it has helped reduce contacts about taste and odour of water by 4%. The innovative approach and great results has been recognised with a prestigious national award.

"We supply clean, clear drinking water that tastes good"

WE REALLY GRABBED OUR CUSTOMERS ATTENTION AND GOT THEM BUZZING ABOUT THEIR TAP WATER WITH OUR TALKING WATER COOLER.



CATCHMENT PARTNERSHIPS

We engage with a number of environmental partnerships guiding catchment working or delivering catchment improvements in order to help us to improve the quality of rivers, lakes and reservoirs, groundwater and coastal waters for the benefit of public water supply, people, the environment and wildlife.

We recognise that looking at the whole catchment area is key to making sure we supply clean, clear drinking water that tastes great to our customers now and in the future. In addition to improving water quality, taking a catchment based approach is helping us reduce the risk of flooding and improve biodiversity. We have a long history of working in environmental partnerships and actively contributing to partnerships in catchments across our entire supply area.

By working in partnership, we are able to pool resources and knowledge to better understand our catchments and work more effectively to address any environmental issues.

The partnership groups we currently work with in catchments include the Catchment Partnerships supported under Defra's Catchment Based Approach (CaBA), the Northumbria Integrated Drainage Partnership (NIDP), agri-advice partnerships (working closely with Catchment Sensitive Farming), the Local Nature Partnerships (LNPs), Heritage Lottery Funded (HLF) Landscape Partnerships, flooding and community partnership groups, and a number of other partnerships including under Area of Outstanding Natural Beauty (AONB), coastal and marine remits. Among others, regulators, charities such as Rivers Trusts and land managers are often represented on each of the Partnerships.

Over the last year we have continued our support for a range of partnerships across our regions both with the support of people's expertise and time and with direct funding contributions to support individual projects and the work of the partnerships more broadly. In 2016/2017, we have provided more than £200,000 in direct support for CaBA, Rural & Upland, Coastal and drinking water catchment partnerships.

£100,000 of this funding supported the North Pennines Area of Outstanding Natural Beauty's Peatland Programme. We have been a partner in the Peatland programme for many years. In 2015 we renewed our commitment and are investing £500,000 (£400,000 in cash and £100,000 in kind) between 2015 to 2020. The joint venture, which is part of the North Pennines Area of Outstanding Natural Beauty's Peatland Programme, and also part of a wider European Life Bid, aims to demonstrate techniques to re-activate and maintain large areas of peat-forming blanket mire in badly eroded systems. As part of our commitment to the project we are using automated water sampling machines to take regular water samples for the next



"By working in partnership, we are able to pool resources and knowledge to better understand our catchments and work more effectively to address any environmental issues"

five years, to help measure the amount of unwanted peat sediment being deposited into rivers and streams by damaged bogs.

Extensive treatment is needed to remove the peat and its colour from water before it is fit to be supplied for drinking. It is a process which requires adding chemicals and then removing them together with the peat sediment from the water. It is hoped that this project will both help reduce the amount of chemicals used as well as reducing costs for customers and help ensure the long term sustainability of our supply

Restoration of the peatland is not only a major boost for biodiversity, it also helps to combat flooding downstream by acting as a sponge to soak up rain. This ongoing restoration programme aims to repair about 3,000 hectares of damaged peat throughout the North Pennines. When peatland is restored and healthy, it releases water slowly during the summer and is less likely to leach organic matter and colour into our waterways.

WE PROVIDE A SEWERAGE SERVICE THAT DEALS EFFECTIVELY WITH SEWAGE AND HEAVY RAINFALL

This Outcome has seven measures of success, some of which are linked to the performance of sewer pipes that transferred into our ownership in 2011 under the transfer of private drains and sewers (TDS), and others which relate to those assets which were already in our ownership (the public network).

These measures relate to sewer flooding performance as well as the condition of our sewer pipes. 'Internal' flooding refers to incidents where sewage has overflowed or flooded inside a customer's house. 'External' flooding refers to incidents where sewage has affected customers' gardens or curtilage.

They are:

- PROPERTIES FLOODED INTERNALLY (PUBLIC NETWORK)
- PROPERTIES FLOODED INTERNALLY (TDS NETWORK)
- PROPERTIES FLOODED EXTERNALLY (PUBLIC NETWORK)
- PROPERTIES FLOODED EXTERNALLY (TDS NETWORK)
- REPEAT SEWER FLOODING (WITHIN THE PAST 10 YEARS)
- SEWER COLLAPSES (PUBLIC NETWORK)
- SEWER COLLAPSES (TDS NETWORK)

Our sewerage system is an essential network of 30,000km of sewer pipes that lie unseen beneath virtually every street and road.

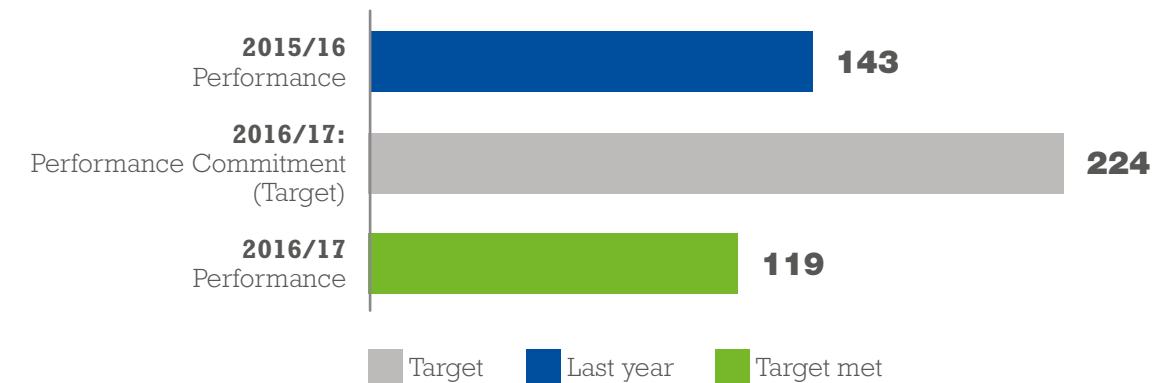
Sewer flooding can occur when rainfall is so heavy that there is more water than the sewers are designed to transport and they become 'overloaded'. It can also happen when sewers become blocked or broken. In either case sewage escapes from our network and finds its way into our customers' gardens, homes and business premises.

One of the worst service failures our customers can experience is sewer flooding. It is very unpleasant and distressing for customers and any escape of sewage from our network can also have a detrimental effect on the environment.

We are wholly responsible for maintaining the performance of our sewer network in order to provide an effective sewerage service to our current and future customers. We also have a responsibility to work with other organisations who play our part in resolving wider drainage issues, including surface water flooding which can often lead to sewer flooding. This is particularly important as heavy rainfall is the predominant cause of surface water flooding.

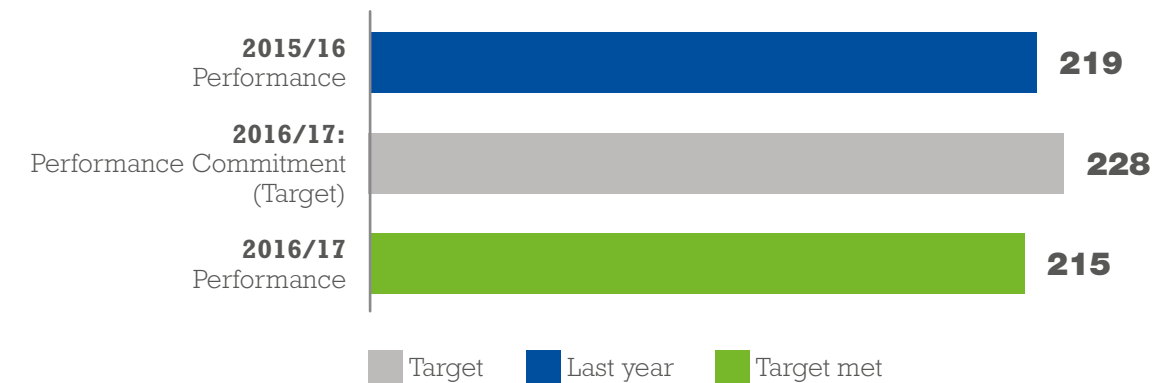


PROPERTIES FLOODING INTERNALLY (PUBLIC NETWORK)



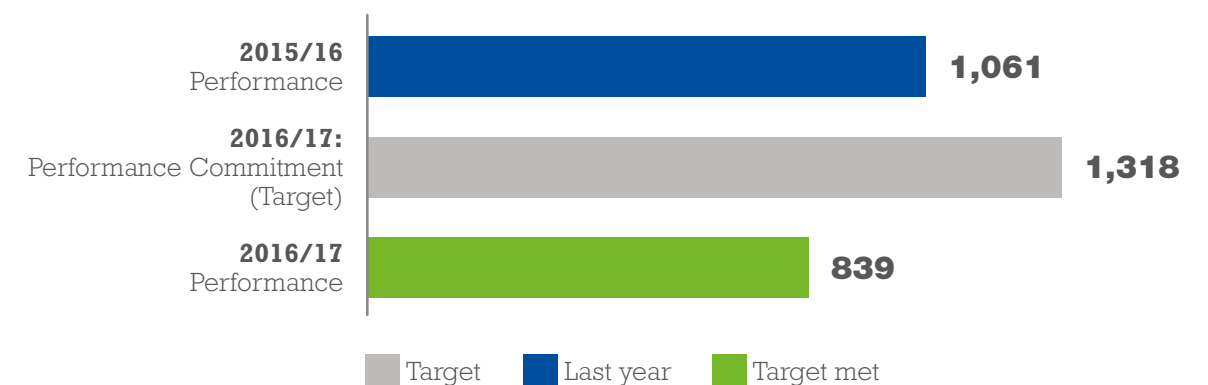
We have continued to reduce the number of properties flooded internally from the original public network, from 143 properties in 2015/16 to 119 properties in 2016/17. This is significantly better than our PC of 224.

PROPERTIES FLOODING INTERNALLY (TDS NETWORK)



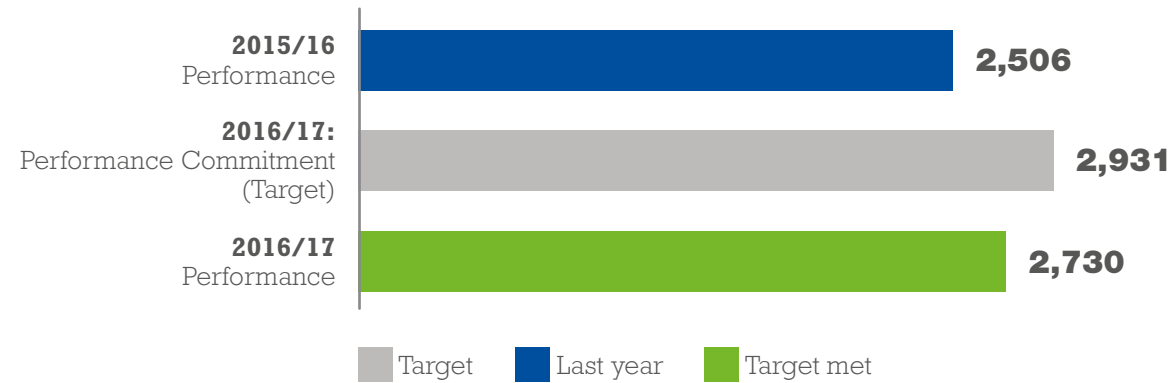
There is a slight decreasing trend in the number of properties flooded internally from our TDS network, from 219 in 2015/16 to 215 in 2016/17 which is better than our PC of 228 properties.

PROPERTIES FLOODING EXTERNALLY (PUBLIC NETWORK)



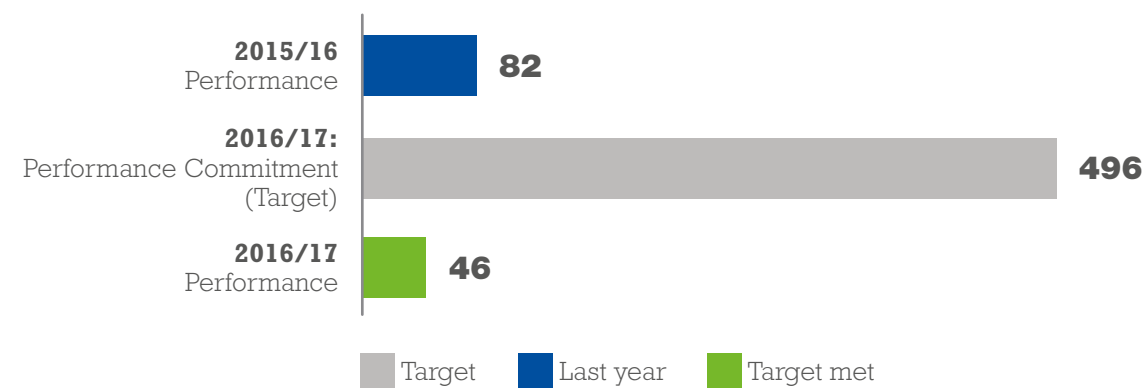
We are also seeing a continuation in the reduction in the number of properties flooded externally from the original public network, from 1,061 properties in 2015/16 to 839 properties in 2016/17. This is significantly better than our PC of 1,318.

PROPERTIES FLOODING EXTERNALLY (TDS NETWORK)



The number of properties flooded externally from the TDS network has risen from 2,506 properties in 2015/16 to 2,730 properties in 2016/17. Whilst we have seen an increase, this is still better than our PC of 2,931.

PROPERTIES SUBJECT TO REPEAT FLOODING (WHICH INCLUDES SEVERE WEATHER)

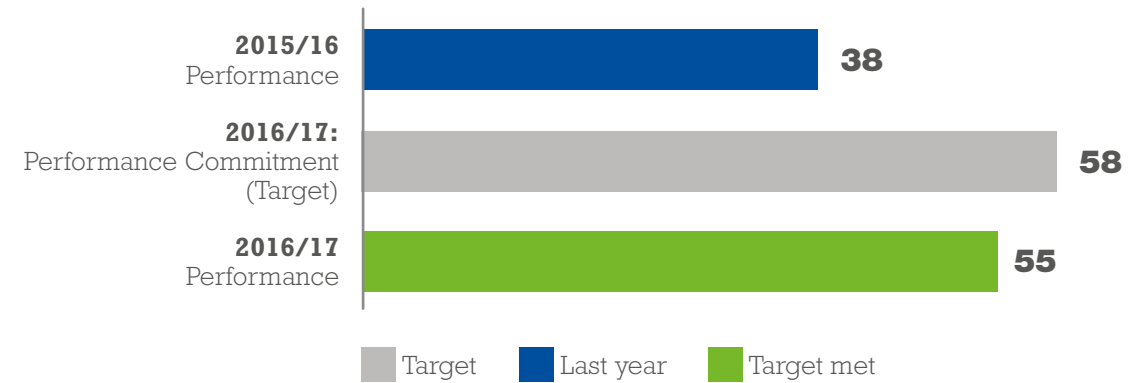


Repeat sewer flooding measures the number of times during the year that properties have experienced sewer flooding where the property or its garden has flooded before in the last ten years.

We have continued to reduce the number of properties subject to repeat flooding from the original public network, from 82 in 2015/16 to 46 in 2016/17. This is much better than our PC of 496.

The figures above show our annual performance in 2015/16 and 2016/17 for repeat flooding. As this is an Asset Health measure, compliance with our PC will be assessed based on three-year average performance at the end of 2017/18, 2018/19 and 2019/20. Consistent with this approach, [Table 3A](#) shows our three-year average performance of 82 for the period 2014/15 to 2016/17. Our PC is 496.

SEWER COLLAPSES (PUBLIC NETWORK)



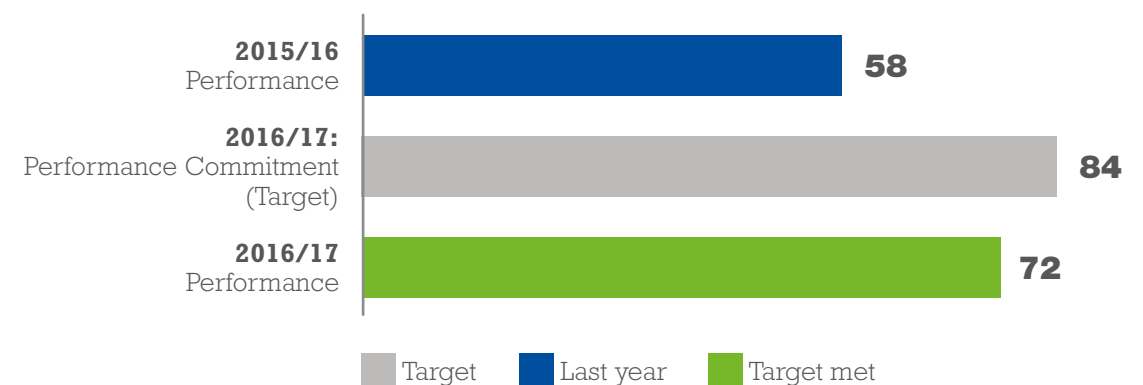
Occasionally the structure of a sewer pipe fails and the pipe 'collapses'. This can be due to a number of reasons including the age and condition of the pipe, ground movement or other factors. These collapses can result in other problems such as sewer flooding or pollution.

The number of sewer collapses is a key measure of the health of our sewerage network.

There was an increase in the number of collapses on the public network, from 38 in 2015/16 to 34 in 2016/17. This is below our PC of 58.

The figures above show our annual performance in 2015/16 and 2016/17 for sewer collapses. As this is an Asset Health measure, compliance with our PC will be assessed based on three-year average performance at the end of 2017/18, 2018/19 and 2019/20. Consistent with this approach, [Table 3A](#) shows our three-year average performance of 49 for the period 2014/15 to 2016/17. Our PC is 58.

SEWER COLLAPSES (TDS NETWORK)



There was an increase in the number of collapses on the TDS network, from 58 in 2015/16 to 72 in 2016/17. This remains below our PC of 84.



HIGHLIGHTS

INNOVATIVE, SUSTAINABLE SOLUTIONS IN LIAISON WITH OUR PARTNERS

We work with multiple environmental partners across our operating area to help us deliver water and wastewater services which meet the needs of current and future generations. We recognise that working in partnership can help us to deliver multiple outcomes in a more affordable way, achieving more benefits together than we could have achieved alone.

In 2016/17 we continued to develop and improve our industry leading approach to partnership working. The innovative Northumbria Integrated Drainage Partnership (NIDP) that we formed with the thirteen Lead Local Flood Authorities in our operating area and the EA, continues to strengthen and grow. This partnership has allowed all partners to take an active approach to integrated drainage issues ensuring we continue to deliver unrivalled customer service. Together in 2016/17 we delivered ten studies which identified lots of projects to be prioritised and developed in coming years.

A great example of a partnership project completed this year is the Fellgate Estate Flood Risk Reduction Scheme, which protects 175 homes. Our innovative solution consisted of constructing sustainable drainage (SuDs) solutions throughout the estate helping to slow the flow of water. We also delivered our SuDs for schools programme within the two schools on the same estate; creating swales, ponds, and an outdoor classroom to enhance the educational experience for the children.

Our approach has been recognised as best practice in the UK Water Industry Research project on partnership working and we received a Water Industry Achievement Award in 2016 for our SuDs for schools and communities project.



We also support Defra's Catchment Based Approach (CaBA) which is a key part of the UK's implementation of the Water Framework Directive (WFD). We are active members of the five catchment partnerships within our operating area supporting the delivery of improvements to our river environments and wider catchments through the provision of financial support, expertise, data and knowledge sharing. For example, this year we financially supported five projects and hosted four 'Thinking Ahead' workshops to develop our integrated catchment strategy. We worked to understand how our objectives can be aligned with other members' objectives and how we can work together on projects.

In 2016 we made the first steps towards aligning the aspirations of the Northumbria Integrated Drainage Partnership (NIDP) and the Catchment Partnerships within the region, bringing both partnerships together to work on the River Don catchment. The Don Partnership brings us together with six partners – South Tyneside Council, Gateshead Council, Sunderland Council, the Environment Agency, Wear Rivers Trust and Durham Wildlife Trust. Together we are collecting information which aligns with all partners' objectives and identifying partnership risks. We believe widening the objectives and bringing both partnerships together will bring wider benefits to our communities.

We are also exploring partnership working with organisations that do not have flooding as their main objective but where working together could provide multiple benefits to our customers such as transport departments in Local Authorities. We were awarded an Innovate UK grant along with Newcastle City Council to explore the feasibility of aligning various council programmes with the strategic surface water management plan for the city.

We continue to support the delivery of housing across the region, working with local authorities, developers and land owners to develop drainage master plans to unlock strategic housing sites. In particular, we have played a key role in identifying opportunities to overcome flood risk issues through maximising surface water separation within Newcastle and North Tyneside over the past year, supporting the development of 7,000 new homes.

RAINWISE

In 2016/17, we launched Rainwise our proactive flood risk reduction initiative, delivering excellent customer service by reducing customers flood risk before they ever experience flooding.

Through Rainwise, we ask our customers about their own flooding experiences and surface water issues. This local knowledge helps us to fully understand how surface water impacts on our sewer network during heavy rainfall. We can then explore potential flood-risk management projects and co-create solutions in partnership with our customers in their local communities.

We are applying our Rainwise approach to all of our drainage schemes and so far, Rainwise has reduced flood risk to 3,123 properties. 1,210 of them were considered to be high-risk properties. As well as traditional flood risk solutions we are focussing on improved sustainable methods to remove, delay, divert and store rainwater.

We are also inspiring our customers to get 'Rainwise' themselves, implementing very localised solutions such as the installation of water butts and creation of rain gardens as well as encouraging customers to use water wisely.

OPERATIONAL RESPONSE

We have further improved our operational processes to make sure that we respond quickly and efficiently to issues on our sewer network. To help with

investigations our operational teams are developing new innovative tools to help identify the root cause of issues. One such tool is the porcupine, a spiky tool we can put in the sewer to help determine the source of items in the sewer which should not be there such as wet wipes. We can trace the source of the wet wipes back up the sewer helping us, through our Love Your Drain campaign, to be as effective as possible.

Our 'Love Your Drain' campaign, spearheaded by the campaign character, Dwaine Pipe, continues to grow, educating customers about the causes of blockages and what can and cannot be disposed of down the toilet and sink. Dwaine Pipe uses multiple education and communication methods to pass on his messages including the only toilet paper, pee and poo go down the loo. This message has been heard over 15 million times in the North East.

Our Dwaine Dash game, downloadable as an App, has been played over 28,000 times. 5,000 children have participated in 'You've Been Flushed', our interactive educational pantomime at their schools.

We have built on the success of our whole town approach called 'Every Drop Counts' for water efficiency and Dwaine has targeted local communities where blockage numbers are high. Working together with our customers in this way has had a real impact on reducing the number of unnecessary sewer blockages caused by material such as baby wipes, fats, oils and grease. In particular, our innovative work with schools and food outlets is helping to change customer behaviour. For example, in one local area of Darlington, blockages have reduced by 24%.



SUSTAINABLE DRAINAGE

Brunton Park is an example of a sustainable drainage (SuDS) scheme, which saw a river being diverted for the first time, to protect homes in Tyneside from flooding.

Completed in August 2016, the scheme has reduced the flood risk to more than 100 homes from three sources of flooding; Northumbrian Water's surface and foul sewer networks, and from the River Ouseburn.

Working in partnership with the EA, sustainable solutions included the installation of 380 metres of new river channel to divert the River Ouseburn away from the Brunton Park estate and a storage basin created using the old section of the river course. Almost two kilometres of new sewer, 600 metres of flood defence walls and an underground storage tank were also constructed.

As well as reducing flood risk, the scheme has delivered environmental benefits including the management of surface water in the natural environment and the creation of increased wetland habitat for wildlife.

It has also helped to increase community engagement. The route runs along the edge of the City of Newcastle Golf Course. A professional golf course designer was commissioned to create an improved course with the incorporation of the new river channel. Two key feature holes were created, something that the club are exceptionally pleased with.

Within the housing estate, the works required the demolition and replacement of the play area. On completion of the work a new playground was co-created following extensive consultation with residents, the Parish Council and Newcastle City Council, providing a lasting legacy for the community.

“We provide a sewerage service that deals effectively with sewage and heavy rainfall”

**100 HOMES PROTECTED BY
WORKING IN PARTNERSHIP
WITH THE ENVIRONMENT AGENCY
AND NEWCASTLE CITY COUNCIL,
INVOLVING THE LOCAL
COMMUNITY IN THE SOLUTION**



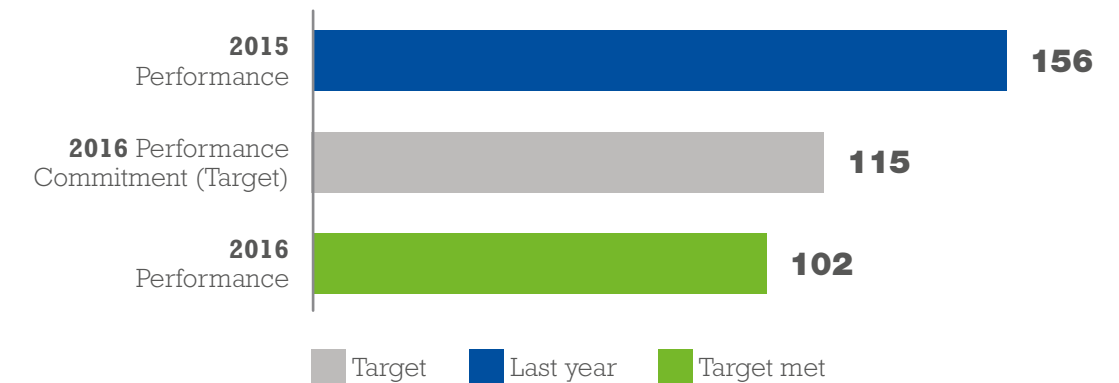
WE HELP TO IMPROVE THE QUALITY OF RIVERS AND COASTAL WATER FOR THE BENEFIT OF PEOPLE, THE ENVIRONMENT AND WILDLIFE

This Outcome has three MoS:

- **POLLUTION INCIDENTS (CATEGORY 3)**
- **BATHING WATER QUALITY COMPLIANCE**
- **SEWAGE TREATMENT WORKS DISCHARGE COMPLIANCE**



POLLUTION INCIDENTS (CATEGORY 3) (S-C2)



Problems with our sewerage system can also result in untreated sewage escaping from our sewers and causing environmental damage. Very rarely, problems with our water supply systems can also result in environmental damage.

While every effort is made to reduce the risk of this happening, a small number of these 'pollution incidents' occur. Incidents are categorised by the Environment Agency (EA), with category 1 incidents being the most serious. Category 2 incidents have a significant environmental impact and category 3 incidents have minor or minimal environmental impact. All pollution is to be avoided and we have a MoS for category 3 incidents.

Category 3 pollution incidents decreased from 156 in 2015 to 102 in 2016. This was mainly due to improvements in our pollution management process including high quality evidence collection and reporting.

The number of more serious category 1 and 2 pollution incidents increased to 9 in 2016 from 5 in 2015. We continue to work closely with the EA to identify lessons that can be learnt to ensure that serious incidents aren't repeated. Our aim is to have zero serious incidents by 2020.

To compensate for any environmental damage caused, we entered into an agreement called an 'Environmental Undertaking (EU)' relating to an incident at West Wylam sewage pumping station in February 2015. This resulted in us contributing the sum of £385,000 to a number of local environmental charities including River Trusts for the Tyne, Northumberland, Wear and Tees and a donation to Groundwork towards the Land of Oak and Iron Project.

Fiona Morris, Environment Manager with the EA in the North East, said: "We will always take forward prosecutions in the most serious cases and while we did initially consider prosecution, the company submitted an EU which we subsequently accepted. We felt it to be a more proportionate response that would benefit the environment – achieving more than if the company had been convicted and fined."

There is an expectation that we will pro-actively or 'self' report any pollution incidents we are aware of, rather than relying on others to point out the problem to us. Our self-reporting performance in 2016 decreased to 68% from our best ever and industry leading performance of 82% in 2015. This was as a result of far fewer incidents from sewage pumping stations in 2016 which have consistent high levels of self-reporting (around 95%).

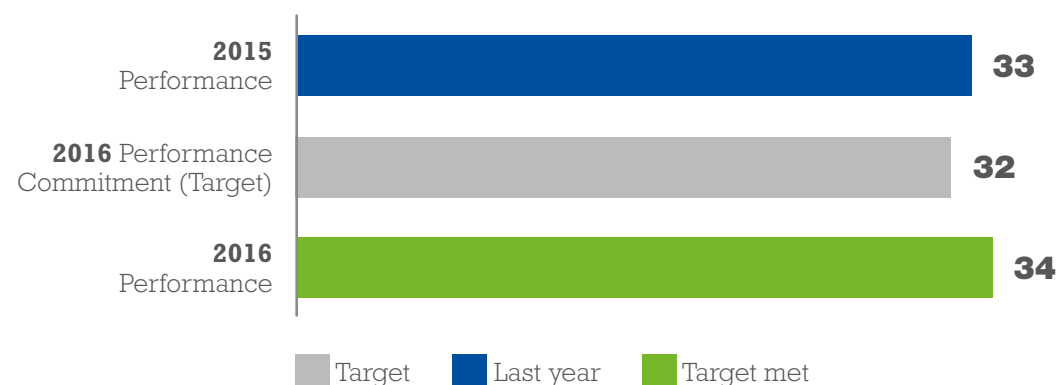
In meeting our commitment to having no serious pollution incidents and to reduce category 3 incidents to very low numbers, we developed an extensive programme of work including activities and investment that targets specific assets (e.g. sewage pumping stations and combined sewer overflows), community engagement, water industry benchmarking and the development of IT systems to provide early warning of potential problems.

Innovation plays a strong role in preventing pollution with creative and new ideas being taken forward for development.

The figures above show our annual performance in 2015/16 and 2016/17 for Category 3 pollution incidents. As this is an Asset Health measure, compliance with our PC will be assessed based on three-year average performance at the end of 2017/18, 2018/19 and 2019/20. Consistent with this approach, [Table 3A](#) shows our three-year average performance of 115 for the period 2014/15 to 2016/17. This matches our PC of 115.



BATHING WATER QUALITY COMPLIANCE (NORTHUMBRIAN WATER ONLY)



Sea water at the regions beaches, or 'bathing waters' are amongst the cleanest in the country.

Under the current regulations, each bathing water is classed as Poor, Sufficient, Good or Excellent. 'Sufficient' is the minimum acceptable standard.

We have a key role to play in maintaining the quality of our region's bathing waters. These can also be affected by a number of other factors such as run-off from agriculture and other sources of pollution.

All 34 designated bathing waters in our region now meet the minimum standard of Sufficient or better. This meets our PC that all 34 bathing waters are Sufficient or better by 2020. Our region has the highest percentage of Good (6) and Excellent (27) bathing waters in England with 33 out of 34 (97%) meeting this higher classification.

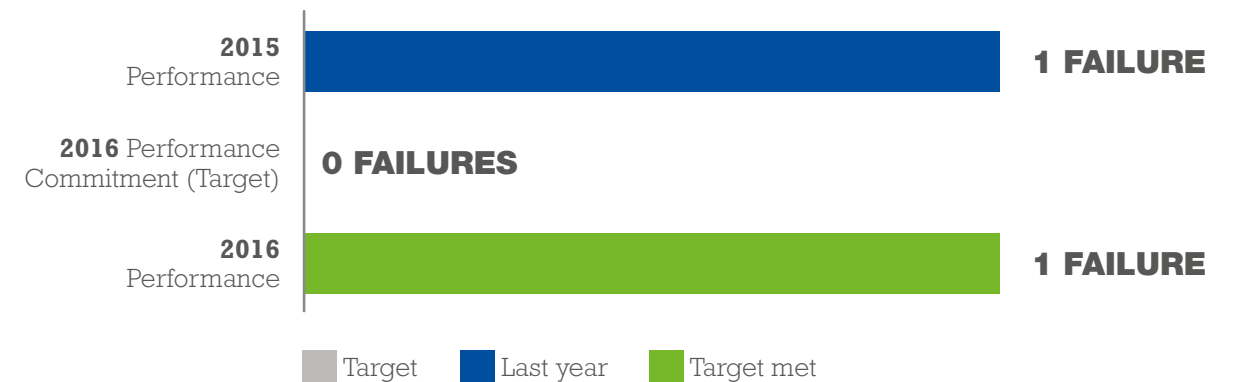
Spittal bathing water at Berwick-upon-Tweed, was classified as Sufficient in 2016. This bathing water is affected by agricultural diffuse sources from the River Tweed catchment. It had been categorised as 'Poor' under the regulations in 2015 and we carried out an investigation which concluded that it was highly likely to return to Sufficient status. The need for further investment to improve the bathing water at Spittal is under consideration by the EA.

We continue to work in partnership with the EA, Scottish Environment Protection Agency (SEPA), and Northumberland County Council to improve bathing water quality further at Spittal beach. We supported the Tweed Forum with a financial contribution towards the delivery of a diffuse pollution risk mapping project for the Rivers Till and Tweed. The Solway Tweed catchment has also been identified as a diffuse pollution priority catchment for investigation in SEPA's second river basin management planning (RBMP) cycle. Catchment walks, awareness raising and one-to-one engagement are used to encourage the adoption of best practice across the rural sector.

Investigations at bathing waters near the Tees Estuary, including Seaton Carew, have been carried out in 2016 and 2017 to see how we could further improve quality.

In support of the EA's Pollution Risk Forecasting (PRF) system, that notifies bathers of potential bathing water quality issues at 18 bathing waters in the region, we offered and subsequently purchased 12 electronic matrix signs for our local authorities to install.

SEWAGE TREATMENT WORKS DISCHARGE COMPLIANCE



Our Sewage Treatment Works (STWs) treat wastewater from homes and businesses so that it can be safely be returned to the environment, to rivers or the sea.

Before it can be returned, this wastewater must comply with strict standards specified in 'environmental permits'. These standards are assessed for compliance by taking regular samples that are analysed for the levels of substances, such as phosphorous and ammonia, in meeting environmental river water quality objectives.

These permits apply to 167 of our largest STWs and this measure shows the number of STWs where one or more samples failed these strict standards.

Our performance against this measure has been excellent for a number of years.

Our performance in 2015 and 2016 for STW discharge compliance was 1 failure in each year.

Our aim is zero failures. This will be challenging, but will fully meet our Outcome of helping to improve the quality of rivers and coastal waters for the benefit of people, the environment and wildlife.

The standards we much comply with are also continually tightening. As a result we are making a significant investment in our STW to reduce the amount of phosphorus being discharged and will continue our contribution to improving river water quality in the north east.

The figures above show our annual performance in 2015 and 2016 for STW discharge compliance. As this is an Asset Health measure, compliance with our PC will be assessed based on three-year average performance at the end of 2017/18, 2018/19 and 2019/20. Consistent with this approach, [Table 3A](#) shows our three-year average performance of 0.67 for the period 2014/15 to 2016/17.

HIGHLIGHTS

WHITBURN SPILLS REDUCTION

An £8million investment scheme was started at Whitburn in September 2016. It aims to reduce the number of times that storm water is discharged into the sea at Whitburn Steel sewage pumping station, and into the River Wear, near St Peter's Church in Sunderland.

Our plans have been developed in collaboration with our partners. This has resulted in the achievement of multiple goals and will improve the performance and resilience of our sewer network. The creative solution is an optimised combination of existing assets, separation and attenuation of surface water from the sewer network, and the provision of additional network capacity. With many sustainable features, such as rainwater gardens, this scheme creates green space for people to enjoy and creates valuable wildlife habitats.

To ensure that we selected the best solutions, and minimise the impact of our work on the local community, we actively engaged with Sunderland City Council and South Tyneside Council to maximise the scheme benefits. Through building strong partnerships with local authorities, we were able to support Sunderland's heritage lottery bid to refurbish Roker Park.

The scheme is progressing well with construction due to be completed in August 2017. For more on this project [see page 81](#).

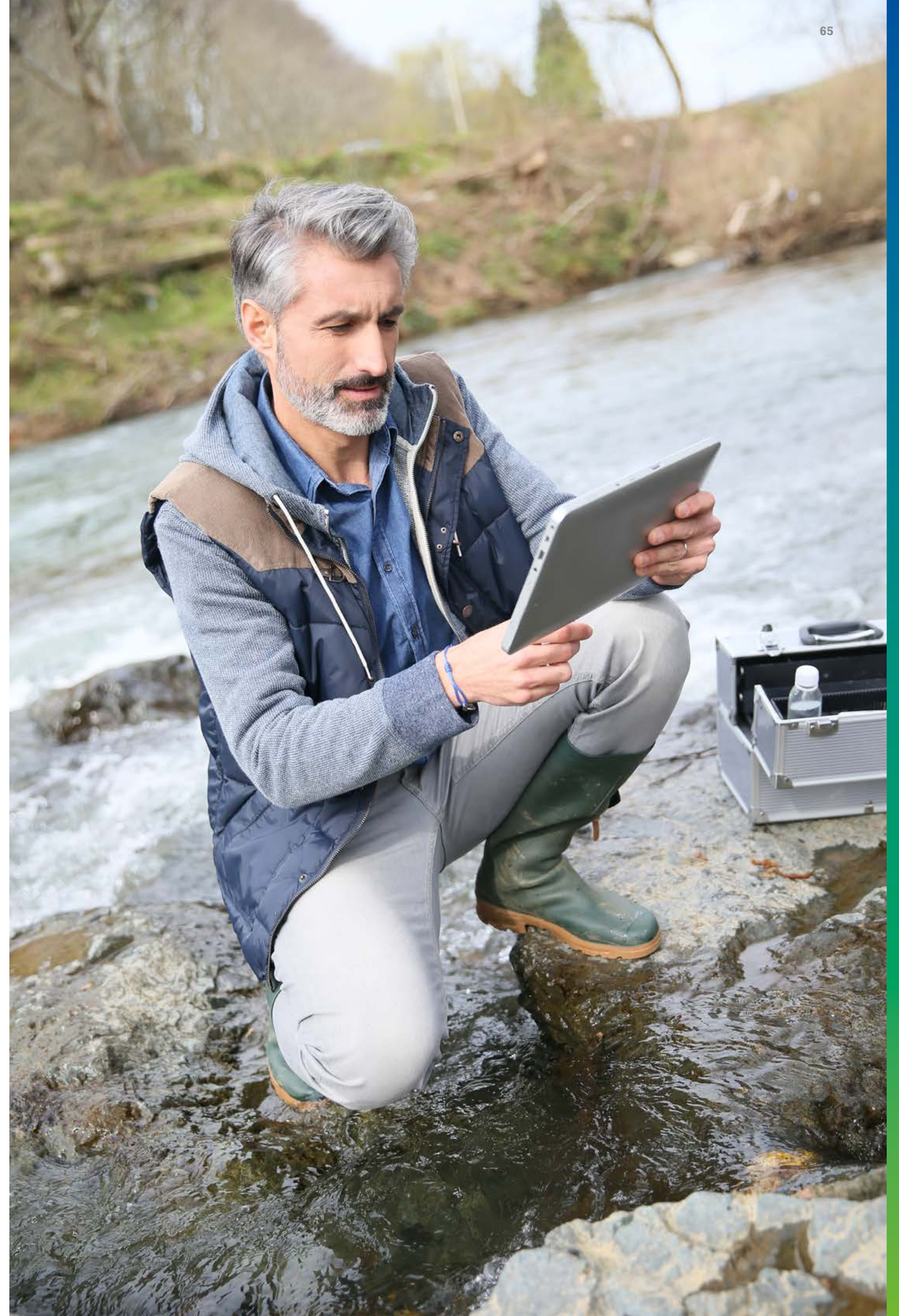
UPDATE ON CHANGES TO THE 2015-2020 NATIONAL ENVIRONMENT PROGRAMME (NEP) PHASES 4 AND 5 RIVER QUALITY SCHEMES

All effluent discharges to the environment require a permit, which is given by the EA, and has standards and conditions set to protect the receiving water. These are routinely monitored and Northumbrian Water is a nationally leading company in terms of permit compliance. Our aim is to maintain our current level of performance, however, we know that in future permits will tighten as legislation changes. We're also mindful of the pressures future challenges such as population and growth and climate change will present to our maintaining our performance.

A number of nutrient (phosphorus and ammonia) removal schemes are included in the 2015-20 NEP. These include improvements to meet tighter standards set by the EA to prevent the deterioration (no deterioration) of river water quality, as a result of increasing population and growth, and to meet our longer term obligation to achieve good status under the Water Framework Directive (WFD) in our rivers currently referred to as 'pathway to Good'. These schemes are due to be delivered March 2018 and March 2020 respectively.

Ramshaw STW was included as a no deterioration scheme, and was then also flagged with a tighter consent as part of pathway to Good. In order to avoid abortive investment and to implement the best catchment solution, the EA has agreed in principle that delivery of a solution at Ramshaw can be postponed until the later date of 2020. This has been agreed via change protocol and we are currently looking at the most cost beneficial solution for the River Gaunless (which includes two other STWs at Cockfield and Butterknowle).

The 2015-2021 (AMP6/early AMP7) phase 5 NEP also includes four additional phosphorus removal schemes for delivery early in AMP7. These also contribute to the pathway to good improvements.



WATER RANGERS

Our award-winning Water Rangers scheme launched in 2014 involves volunteers in monitoring public access routes next to streams, rivers, becks, burns and bathing waters across the North East which are prone to pollution. After completing weekly or fortnightly patrols, Water Rangers report on the condition of the watercourse so that any potential pollution can be dealt with quickly.

The volunteers receive thorough environmental training about what to look out for when monitoring watercourses.

Up to the end of February 2017, a total of 2,792 patrols were carried out by them, with 143 issues reported. Eight of these were then self-reported to the EA.

Originally starting with 32 routes, the scheme has expanded in recent months to 55 routes patrolled by a team of 67 Water Rangers. Three quarters of the original volunteers are still with the scheme and mood surveys with the Water Rangers result in high Net Promoter Scores reaching +85.

Water Ranger, Peter Stone said: "I am extremely proud to be a part of the Water Rangers Scheme and feel privileged to have been a part of the scheme from the start, assisting Northumbrian Water to ensure the environment, rivers and watercourses across the region are protected by reporting any potential issues.

"Northumbrian Water act promptly when dealing with pollution incidents and when the issue is not their responsibility, will notify the appropriate authorities whose responsibility it is. The Water Rangers scheme is very proactive and it is fantastic to see Northumbrian Water expanding and developing the scheme with new routes and additional Water Rangers."



"We help to improve the quality of rivers and coastal water for the benefit of people, the environment and wildlife"

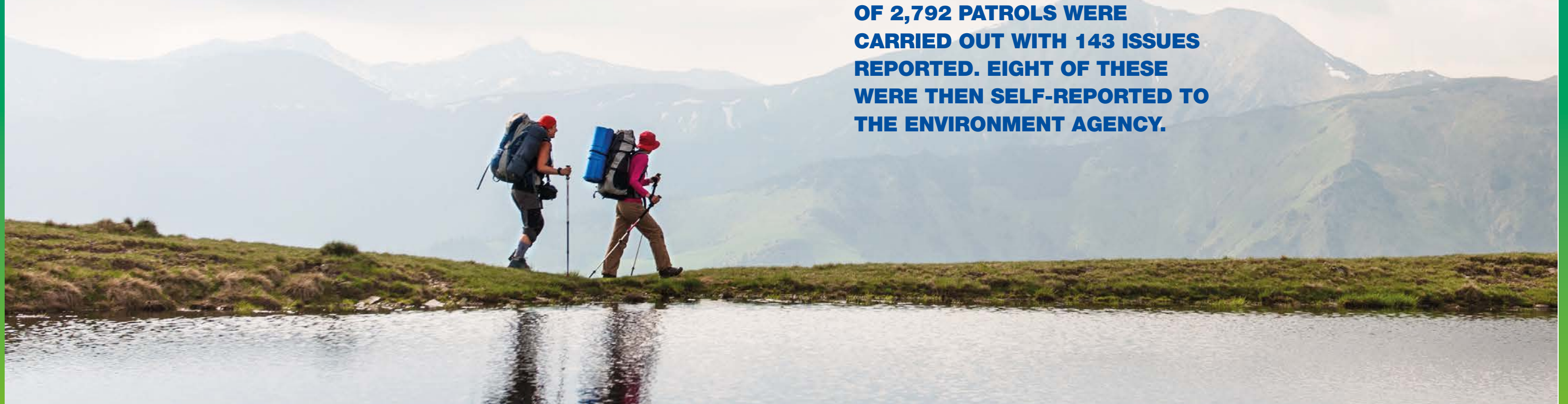


55 ROUTES



**PATROLLED BY
A TEAM OF
67 WATER
RANGERS**

**SINCE 2014 TO THE END OF
FEBRUARY 2017, A TOTAL
OF 2,792 PATROLS WERE
CARRIED OUT WITH 143 ISSUES
REPORTED. EIGHT OF THESE
WERE THEN SELF-REPORTED TO
THE ENVIRONMENT AGENCY.**



WE PROTECT AND ENHANCE THE ENVIRONMENT IN DELIVERING OUR SERVICES, LEADING BY EXAMPLE

ANNUAL ENVIRONMENTAL PERFORMANCE AND ACTIVITY

We recognise the impact our operations and activities have on the environment. In everything we do, we aim to protect and improve the environment for everyone's benefit.

We understand that you may be interested to learn about our activities and how they affect environments like rivers, coastal areas and wildlife. We are fully committed to being as ethical, open and honest as we can with you and so we publish a variety of information.

REDUCING CARBON EMISSIONS

Our operational carbon emissions fell in 2016/17 after two successive years when they increased. Net emissions this year totalled 187.7 ktonnes CO₂e, compared with 225.2 ktonnes in 2015/16. This represents a significant reduction of almost 17%. This reduction comes in the face of a very challenging year in respect of energy use, the prime driver of our operational emissions. An extended dry period has affected both the northern and southern operating areas meaning that additional pumping has had to be undertaken to ensure that customer demand for water was met. This dry spell is continuing into the current reporting year.

This challenge was further exacerbated by difficulties in treating raw water in our southern area, where algal blooms have affected our ability to produce water at some sites where slow sand filtration is the main form of treatment. This has added to the need for additional pumping so that treatment can be undertaken at sites with physical/chemical processes.

One major reason for the fall in emissions is a reduction in the emissions factor for grid electricity. After increases in the past two years a change in the mix of generation, towards cleaner renewable sources and away from the use of more polluting coal, means that the emission factor fell by 11% between 2015/16 and 2016/17.

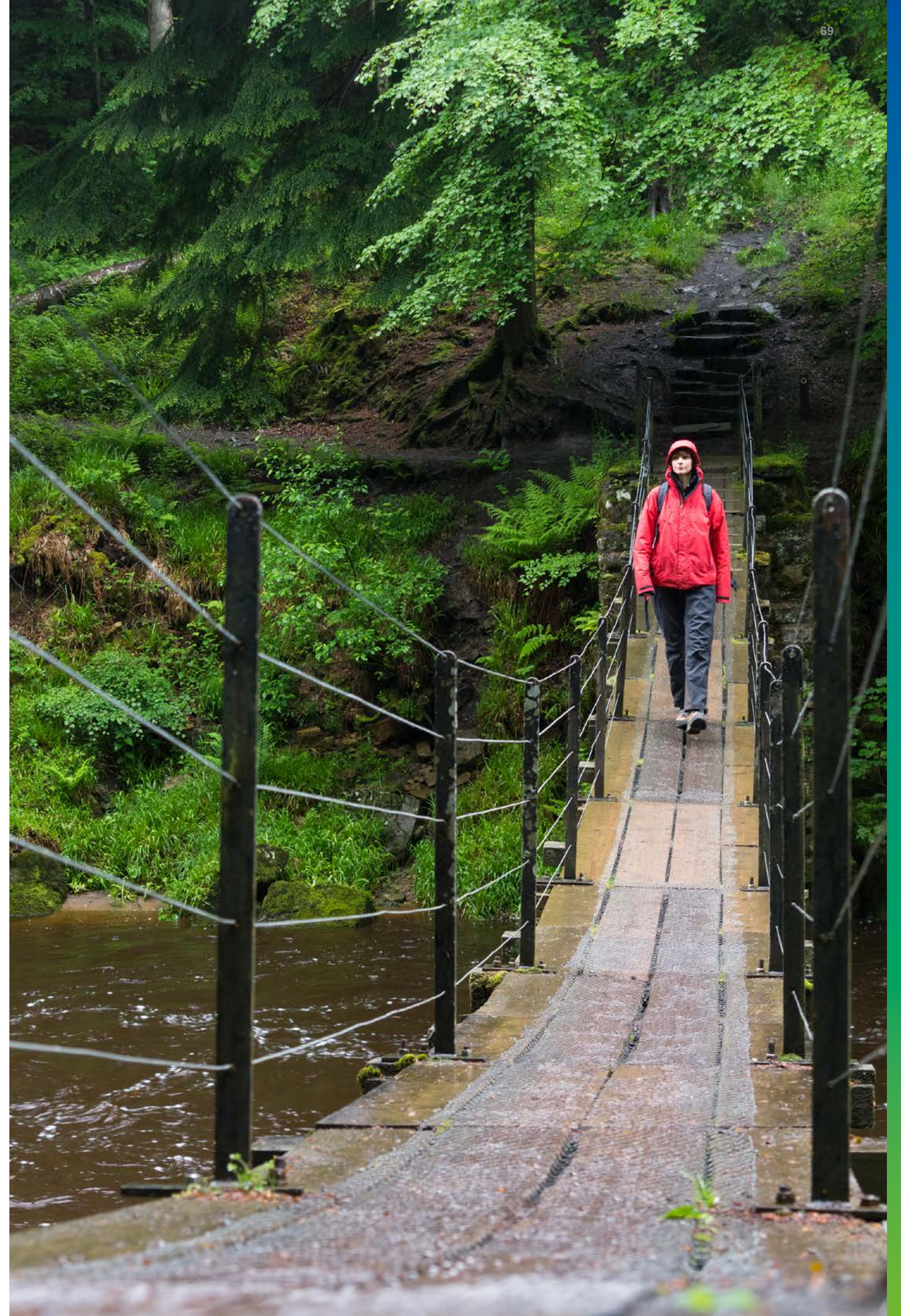
Another significant factor is a change in the approach to the emissions associated with the biomethane gas we inject to the grid. Injection of gas means it cannot be used for electricity generation, so we have to import more. We also need to use propane gas to correct the calorific value to meet grid gas

requirements and this further adds to our emissions. Our injection to the grid means that fossil gas is being displaced. In past years the reporting protocols have not permitted this positive impact of gas injection to be taken into account. This has changed this year. The benefit this brings is now recognised and any gas export is treated as a negative emission, just as electricity exports have been for some time.

There has also been a benefit in the wastewater service as a result of the dry weather that has required us to pump more for water supply. Electricity imports for sewage pumping and treatment are down by 7%, though increased use of generation from gas has also contributed to this fall.

We continue to make allowance in our reported emissions for energy used at Layer WTW, but for which we are not billed. This approach is in line with previous years, though we no longer make financial accrual for the value of this energy, since the way that the electricity settlement process works means that we are never likely to be charged in retrospect.

Our emissions are now down to 62% of the figure we reported in 2008. We also expect that, after a period of movement up and down, the grid emissions factor will now fall more steadily. We already have a strong indication of what the emissions factor will be next year and estimate that, if energy use is similar to this past year, our emissions are likely to be a further 4% lower. Overall we remain broadly on target for the reduction in emissions set out in our 2009 carbon management plan.



WATER & SO MUCH MORE

We believe that education is key to developing a sustainable planet and through this belief we have developed “Water & so much more”, an innovative new communication tool, using ecosystem services, which shows our communities the benefits they receive through NWL managing its land for biodiversity.

“Water & so much more” maps our estates into main areas of management or influence, such as local community, access and recreation, wetland, woodland and so on. The user is then guided to an interactive button, which when clicked, brings forward an ecosystem service table for that particular area.

Each ecosystem service table provides information on our current management practices and explains how this benefits certain ecosystem services. For example, at Lound Water Treatment Works, in ESW we have entered our agricultural land into an environmental stewardship scheme. This scheme is benefitting both regulating and supporting services through restoring grasslands and providing enhanced habitat to wildlife, reducing the amount of pesticides going into the ground and improving soils through increasing organic matter and stopping soil compaction.

“We protect and enhance the environment in delivering our services, leading by example”

This is the first time ecosystem services have been used in the way within the water industry. It is extremely effective at enabling us to share large quantities of information on land management, a subject often overlooked and undervalued, to much larger audiences. “Water & so much more” shows people another side to NWL that they might not have considered or even realised, existed before.

We hope that by raising awareness of our conservation work our employees and customers will have a greater understanding of the importance of biodiversity and why we work so hard to create space for nature. We also hope that by sharing this information we encourage other organisations, businesses and individuals to start managing their land sustainability for the benefit of ecosystem services.

We plan to create interactive maps for all our water treatment works and share these on our websites and partner websites, including enabling schools to access the information so that students can learn about ecosystem services using local case studies.



“Education is key to developing a sustainable planet”



WE DELIVER WATER AND SEWERAGE SERVICES THAT MEET THE NEEDS OF CURRENT AND FUTURE GENERATIONS IN A CHANGING WORLD

To monitor asset health we use two groups or baskets of MoS, one for water services and one for wastewater services.

The MoS in our water asset health basket are discoloured water complaints, overall drinking water compliance, properties experiencing poor pressure and water mains bursts.

The MoS in our wastewater asset health basket are sewage treatment works discharge compliance, pollution incidents, sewer collapses and repeat sewer flooding.

As the asset health concept is about the long term stewardship of our assets, performance is not assessed annually but on a three-year rolling average basis. Assessments will be made at the end of 2017/18, 2018/19 and 2019/20. At the first assessment point in 2017/18 we will review whether our performance commitments have been met.

More detail on our year on year performance against each of our individual asset health measures can be found earlier in this report.

One way of looking after our assets is an integrated approach to asset management. This means finding the right balance between operational and long term maintenance and investing at the right time in the interests of current and future customers. The international standard for this is ISO 55001, asset management. We are one of the few UK water companies to be accredited to this standard company-wide and demonstrates that we follow best practice in the long term management of our assets.



ABBERTON

Across the country we have some significant challenges to face when it comes to resource sustainability and resilience in a changing climate.

We plan 25 years ahead to ensure our customers can continue to be confident that we can continue to supply them with a reliable supply of clean clear drinking water and effectively deal with periods of heavy rainfall.

In order to ensure a resilient supply of water in the driest county in the country in Essex, we have invested £150million to complete the Abberton Scheme. Following more than twenty years of investigation, consultation and detailed planning, the reservoir has been expanded by 58% to hold an additional 15 billion litres of water to help secure supplies to our 1.5 million customers in Essex for the next twenty five years and beyond.

The enlargement of Abberton Reservoir was a particularly special project as Abberton Reservoir is one of the most important habitats for overwintering wildfowl in Europe and is protected as such by international designations. From the outset, we looked at how we might make this site even more special for wildlife as part of the project.

We designed the scheme to secure future growth and make significant environmental enhancement at the same time. As well as securing water supplies, we have vastly extended the important habitats at the site.

The environmental enhancements and partnership approach we adopted, meant that we were honoured that world renowned naturalist and broadcaster, Sir David Attenborough joined us to officially open the scheme.

During 2016 work has continued to further the environmental enhancements at the site; including further areas of habitat creation, tree and hedge planting.



£150 MILLION INVESTED

“As well as securing water supplies, we have vastly extended the important habitats at the site”

CONSERVATION HIGHLIGHTS

Numbers have increased for the following:


- Shoveler and Teal (Abberton is now the top site in the UK for overwintering Shoveler).
- SPA citation species (having immediate benefits for dabbling duck species).
- Breeding Coot and Great crested grebe.
- Breeding Little egrets, Grey herons and stable Cormorant numbers, indicating healthy fish populations.
- Breeding Barn owls and Tawny owls.
- Several pairs of Little ringed plover, a Schedule 1 species, have successfully nested and raised chicks on the site.
- Kingfisher, another Schedule 1 species also breeds at Abberton.
- Skylark, Yellow wagtail, Yellowhammer and Corn bunting.
- Hare and small mammals. This in turn has increased the numbers of raptors recorded around the site.
- Water vole.



Sir David Attenborough said about the project:

“I can remember a time when nature conservation and development were seen to be in opposition - you either developed or conserved - and that led to confrontation. Here at Abberton Reservoir this is fundamentally, extraordinarily and wonderfully different. This development has been constructed hand-in-hand to create a wonderment for people and wildlife who live and visit here and a godsend for people who depend on it for water. It is a blessing, a wonder and a great admiration to see what has been achieved by this partnership being celebrated.”

ABBERTON
EXPANDED BY
58%

TO HOLD
15 BILLION
LITRES
OF WATER 



OUR ENABLING AND REPUTATIONAL OUTCOMES

Innovation is a crucial part of how we will achieve our vision of becoming the national leader in the provision of sustainable water and wastewater services.

Our innovation strategy sets out how we enable and empower our people to drive our continuing success. We focus on innovating with a purpose to achieve our priorities, whether it is to improve water quality, reduce sewer flooding, tackle pollution incidents or deliver an unrivalled customer experience. We recognise that all of our people have the potential to be creative and to be part of our innovation journey. We identify opportunities for all our people to get involved in innovation activities, recognising everyone's ability to learn and do new things. We encourage people and teams to share their ideas and experiences, both success stories and things we can learn from.

As part of this strategic approach to innovation, we have been targeting areas where a step change in performance is required and have applied an innovative 'sprint' approach to enable us to break new ground, to push the boundaries of what is possible, and to think big. Design sprints were born in the digital labs of Silicon Valley with the aim of rapidly developing solutions to business problems. The real difference between a design sprint and day-to-day business is the speed and focus of a sprint. It would normally take many weeks to define the problem, generate ideas, choose the most promising ideas, prototype them and then validate their impact. On our sprints these steps are conducted within five or fewer days.

“We are an efficient and innovative company”

We have seen some really positive outputs of our sprints which have looked at many areas including improving customer service, reducing pollution and delivering efficiencies. We have rapidly implemented new ideas and have seen many benefits some of which include:

- An improved customer house moving journey which keeps the customer up to date with state of their journey, ensuring our customers have the information they need without having to contact us.
- An app, Utileyes, that allows us to access our customers' smart phone camera and see what they are looking at so we can assess a problem remotely, instead of sending out a technician. This is an industry leading piece of technology that benefits our customers by reducing the time and cost of dealing with their enquiry.
- Using data analytics on our sewage pumping station data to predict when possible issues are about to occur, preventing a possible pollution.
- A new streamlined and efficient recruitment process, which enables us to reach out and attract the best candidates into our business.
- Reducing energy use, and cost, at water treatment works.
- Identifying concepts and solutions for locating and mapping drains and small sewers.

Working Smarter is an on-going campaign that is engaging people across the company to identify and exploit opportunities for realising capital and operational efficiencies, creating long term, sustainable value across our business using a real one team approach to make this happen. Tools and materials are provided to help people develop their ideas and build a business case, supported by a network of Working Smarter Advocates who are committed to following our Working Smarter charter:

- Promote and support the generation of ideas across our business.
- Create ownership and help our people to develop their ideas.
- Keep people up to date with the progress of their idea and guide them through the working smarter process.
- Actively support people to successfully complete their initiatives.
- Celebrate success together, share lessons learnt and recognise creativity.
- Act as an advocate within each area of the business.

The Morpeth rising main in Northumberland is a great example of how we are working smarter. Anticipating the need for a new rising main, we asked the company building the new Morpeth bypass to install it now, while the road is already under construction, saving time and money.

**NEARLY
350 IDEAS
HAVE BEEN
SUBMITTED.**



Also contributing to Working Smarter is our new operating model in respect of the way we interact with our supply chain, helping us to meet the challenges of delivering our capital investment programme as efficiently and effectively as possible. This new approach is now firmly embedded, including the co-location of our and our framework partners' people and the establishment of joint working groups. We are also now including our supply chain partners in our process for assessing and adopting new technology – Market Innovation and New Technology, which provides a route into our business for supplier-led innovations.

(www.nwl.co.uk/business/innovation.aspx)

In October 2016 we launched IdeaBase, our new in-house ideas management platform, developed to allow people to log ideas or solutions and track their progress through approval, implementation and benefit validation. We are using IdeaBase to support campaigns such as Working Smarter as well as capturing the ideas that people across the business are developing on a daily basis. Since its launch, nearly 350 ideas have been submitted.

We continue to invest in research and technology development, working with academic and supply chain partners to deliver projects that will us to achieve our current and future performance commitments. Notable successes this year include:

- Establishment of Europe's only replicated biological wastewater research pilot facility on one of our sewage treatment works, in collaboration with Newcastle University; our collaboration is shortlisted in the Business Partnership category of the Guardian's University Awards.
- University of Sheffield research into the prediction of discoloured water in distribution systems (PODDS) contributing to reducing discoloured water contacts and a 90% reduction in the cost of cleaning some water mains.
- Industry-leading pilot to incorporate flow cytometry, an innovative particle characterisation technique used in medicine, into our drinking water risk assessment and reporting process.
- Flo, our mobile customer engagement hub designed with support from Northumbria University.

POWER FROM POO

We are leading the way in green energy production for the water industry.

We use the waste customers flush down the toilet, as a fuel, and turn it into electricity and gas which people then use to heat their homes and cook their meals.

We are the first water company in the country to use all of the sewage sludge (the material left over at the end of the sewage treatment process) to produce gas and electricity. We've transformed sewage sludge, from being a waste product into a fuel being used to produce green energy.

We have invested £75million in Thermal Hydrolysis Advanced Anaerobic Digestion (AAD). The procedure uses a natural, biological process which involves taking leftover sewage sludge and heating it in something similar to a giant pressure cooker.


Our Howdon and Bran Sands AAD sites convert 100% of our sewage sludge to biogas and then into renewable electricity. At our AAD plant at Howdon we've made the "power from poo" process even

more efficient by building a pioneering £8m gas to grid plant, which is the largest in the water industry. Biogas is upgraded after the AAD process by removing the carbon dioxide so the purified gas can be directly injected into the national gas grid.

Results are impressive. By moving the sludge as a cake rather than a liquid we have reduced our carbon footprint from 90,000 tankers per annum to 10,000 trailers annually. We exceeded our renewable energy target of 20% two years early in 2013 and reduced carbon emissions by 30% towards our target of 35% by 2020.

In the past 12 months, we have also invested in Anaerobic Digestion (AD) and opened a stand-alone AD plant near Leeds. The plant uses agricultural farm waste to create biogas which is injected into the grid to create power and the waste remaining (digestate) goes back onto farmland as an organic fertiliser - making a really sustainable solution.

"The results of power from poo are impressive!"

 **REDUCED OUR CARBON FOOTPRINT...**
90,000
TANKERS PER ANNUM



10,000 
TRAILERS ANNUALLY

100%

OF OUR SEWAGE SLUDGE TO BIOGAS AND THEN INTO RENEWABLE ELECTRICITY



WE EXCEEDED OUR RENEWABLE ENERGY TARGET



TWO YEARS EARLY



CAPEX EFFICIENCY

Capital expenditure (or CAPEX) is the amount we spend to upgrade our assets (such as our reservoirs, treatment works, pumping stations and pipes) and we do this in order to increase our resilience in a changing world to meet our customers' needs.

We are careful with our customers' money and have always operated under a regulatory framework, but as the industry and our own experience grows and becomes ever more customer focused, we have to work hard to apply new and more efficient purchasing models to drive efficiency and make sure we are innovative in the way we make savings when managing capital projects.

In AMP5 we developed better ways of working for our CAPEX improvement programme. A number of project based efficiency opportunities were identified and delivered: for example – a programme based approach to the delivery of sewer flooding solutions helped us to reduce our unit costs and shorten delivery times to improve customer service.

A strategy to embed this across our whole capital programme was developed and rolled out for AMP6.

Our approach is built around four key principles:

- **Professional client** – by understanding our assets and risks, we are able to set priorities and build affordability into our project plans from the offset.
- **Visibility and commitment** - through careful planning we can manage a visible and committed steady programme of work that supports contractor resilience and helps them, and us, to make sure our finances are sustainable for the long term.
- **Engage for value** - we select and work with the right partners in the right way to align values and objectives and we know that early engagement with our contractors supports innovation.
- **Collaborate and improve** – working closely with suppliers helps us to measure performance and drive improvement.

The process for engaging new contract partners was completed in October 2015 and we have been working with our partners company-wide to co-create this integrated approach.

Our customers are always at the heart of everything we do and working with partners to keep customers informed about the project work we are carrying out in their neighbourhood, has also helped us to improve customer satisfaction scores and community engagement.

The aim of this programme is to support the delivery of our business Outcomes through the efficient use of CAPEX. We have improved our efficiency tracker to capture project based efficiencies as well as strategic initiatives such as the implementation of our Future Operating Model (FOM), a collaborative working arrangement with our supply chain that enables us all to work smarter.

To date we have captured more than 900 cost saving opportunities in our tracker with a potential value of £193m. These possible savings are against notional project budgets (how much we think we should pay for each project) established from our historic costs and previous experience. Of these opportunities a total of £86m of savings are designated as "secured". Around half are as a result of the implementation of the FOM and the rest is made up from savings from solution optimisation across numerous projects. One of the more significant examples of project efficiency through solution optimisation is at Whitburn, see the case study opposite.

WHITBURN SPILLS REDUCTION

Looking after the environment and reducing the risk of flooding to homes and businesses are two of our top priorities.

We are working hard to improve the performance and the resilience of our sewer network in this area because we want to improve sea water quality by reducing spills at Whitburn (the amount of times wastewater is released into the sea at Whitburn Steel pumping station, and into the River Wear).

We will do this by reducing the amount of surface water (rainfall from roofs and roads) that enters the sewer network which will increase its capacity – this is particularly important in times of rainfall.

Our initial project plan included significant underground storage tanks at an estimated cost of £16m. The project team were empowered to challenge this through the "Investigate and Define" phase of the project. The innovative solutions they developed are a combination of optimisation of existing assets, decreasing surface water from the sewer network, and providing extra capacity by upgrading the sewer network.

The anticipated cost of the revised scope of work is £8m which compares extremely favourably with our initial estimate of £16m to achieve the required Outcomes.

As well as reducing spill frequency at Whitburn Steel PS and St Peter's CSO, extra benefits also include increased network resilience to the impact of urban creep (additional housing developments) and climate change and a reduction in flood risk to customers. The project also gave us the opportunity to work in partnership with the City of Sunderland and South Tyneside Council to deliver these improvements.

RIPPLE EFFECT

Our activities play a significant part in the economic well-being of the regions we serve.

In addition, to the vital role we perform in the provision of water services to homes and businesses across our supply area, we have a substantial annual and planned programme of expenditure and investment.

We are investing more than £3 billion over the next five years through operational and capital expenditure into our regional economies.

This scale of our investment in regional infrastructure is a significant contributor to local economic growth and we work closely with our many local suppliers, helping them to grow their businesses to add to the economic impact we have on the region. We have a network of more than 2,000 suppliers, many of who are based in our regions and have a combined value of approximately £720 million per year.

Employing more than 3,000 people in more than 60 offices and facilities across our operational area; the vast majority of employees both live and work in our operating area. Spending power from our employees accounts for £91.5 million of which £72.5 million is retained as disposable income and re-spent within our regions.

There are strong economic links between our company, our employees and our supply chain. This means that our investment has a ripple effect in the local economy going far beyond the direct investment through trade linkages with local suppliers and through employment of a large regional workforce. In our Northumbrian region, it is estimated that for every £100 million of investment and expenditure, approximately £80 million could be generated as a result of the 'ripple' effect upon the regional economy. Over a five-year period, the 'ripple' effect of the activities in the Northumbrian Water region could equate to £2.1 billion; a financial impact on the north of England economy of almost £0.42 billion per year.

“Our finances are sound, stable and achieve a fair balance between customers and investors”

WE ARE INVESTING MORE THAN £3 BILLION OVER THE NEXT 5 YEARS INTO OUR REGIONAL ECONOMIES.



WE WORK CLOSELY WITH OUR MANY LOCAL SUPPLIERS, HELPING THEM TO GROW THEIR BUSINESSES



FOR EVERY £100 MILLION OF INVESTMENT AND EXPENDITURE, APPROXIMATELY £80 MILLION COULD BE GENERATED



WE HAVE A NETWORK OF MORE THAN 2,000 SUPPLIERS, MANY OF WHO ARE BASED IN OUR REGIONS



EMPLOYING MORE THAN 3,000 PEOPLE IN MORE THAN 60 OFFICES AND FACILITIES ACROSS OUR OPERATIONAL AREAS



SPENDING POWER FROM OUR EMPLOYEES ACCOUNTS FOR £91.5 MILLION OF WHICH £72.5 MILLION IS RETAINED AS DISPOSABLE INCOME AND RE-SPENT WITHIN OUR REGIONS.

CREDIT RATING

We have retained our credit rating of BBB+ (Standard and Poor's) and Baal (Moody's).

WE ARE PROUD TO CONTRIBUTE TO THE SUCCESS OF LOCAL COMMUNITIES

In 2016 we continued and extended our activities in this area.

EMPLOYEE VOLUNTEERING

Just an hour is our highly successful employee volunteering programme.

We recognised both the need to take our community support beyond a pure donation of cash and also the wealth of knowledge, skills and expertise of our employees. A structured programme of employee involvement in the community designed to impact on education, the environment and the general wellbeing of the community has been developed.

One of the main objectives is to add value to the community, and to realise this, each of our employees has been given the opportunity to take a minimum of 15 working hours a year to support community initiatives.

More than half of our workforce is actively engaged in the programme.

In 2016, 53% of our people volunteered their time, giving support to 836 organisations.

“In 2016, 53% of our people volunteered their time”

KEY PARTNERS

We are proud to work with organisations across a broad range of sectors – including business, charitable, historical, cultural, educational and environmental bodies. We recognise the variety of benefits this mix of partnerships can bring.

- **Educational partners** - In 2016 we engaged with nearly 8,000 young people in programmes to support their learning, development and readiness for work.
- **Organisations based on our sites** - We are proud to host a number of partners on our sites; enabling these special places to be enjoyed by the community. In 2016 we welcomed more than 560,000 visitors to these sites.
- **Memberships** - We work business and trade bodies, such as the CBI and Chambers of Commerce, across our region and nationally, to support engagement with our customers and on significant areas of policy that impact on the wellbeing of the areas we serve.
- **Cultural, environmental and historic memberships** - We hold memberships with a number of arts, historic and cultural organisations. Our memberships support the important work of these organisations.

COMMUNITY FOUNDATIONS

Four community foundations hold endowment funds that are used to support a range of community and charitable activities across our areas of supply.

These are long term investments; with the income from the funds being donated, with the advice of the community foundations, by a committee of our people.

We value the expertise of our partners at the community foundations in expertly managing these funds, having first class knowledge of local needs and helping us direct our grants in the most effective way.

In 2016 through our funds at the community foundation we donated £115,000 to help 24 different organisations.

BOTTLED TAP WATER

Supplying top quality tap water that is great value for money is integral to what we do. We are pleased to provide our very own bottled tap water to charities and not for profit groups for use at outside events.

Since starting the scheme in 2005, we are proud to have more than one million bottles of water to support community events.

Our bottled tap water scheme continues to be very popular during 2016 we donated 95,000 bottles of tap water to 220 organisations.

BRANCH OUT

Our Branch Out fund helps to deliver projects that benefits the natural environment and their local communities. A healthy natural environment is essential for us today and to make sure we can continue to supply top quality drinking water and safely remove wastewater in the future.

Branch Out is about working in partnership to reconnect habitats for the benefit of people and wildlife. In 2016 the fund has continued to enable number of projects with the aim of helping this region build resilience and adapt to the changing climate while bringing benefits to water, wildlife and communities.

In 2016, through Branch Out we supported a variety of partners with 15 projects providing close to £60,000 in funding. This funding has unlocked more than £375,000 in match funding for our partners.



**1 MILLION
BOTTLES OF TAP
WATER DONATED
TO CHARITY SINCE
2005**

JUST AN HOUR

We encourage our employees to support community and charitable organisations through our employee volunteering scheme Just an hour. This scheme allows employees to give a minimum of 15 working hours every year to support causes close to their hearts.

Last year 53% of employees participated in Just an hour taking our community support beyond a pure donation of cash using their wealth of knowledge, skills and expertise.

Our employees often learn new skills through Just an hour opportunities, so they also benefit. Some departments use Just an hour for team building.

In 2016, our employees supported 836 organisations.

This included colleagues fundraising and sending more than 130 shoe boxes full of gifts to deprived communities across in the Ukraine and Central Asia at Christmas to help put festive smiles on the faces of families.

Teams have also worked together volunteering alongside local suppliers to help transform the grounds of a local hospice. Two days of hard work saw the volunteers tidying the grounds and clearing areas to lay a woodland path accessible for wheelchairs of Zoe's Place Baby Hospice in Middlesbrough.

Mark Guidery, General Manager at Zoe's Place Baby Hospice said: "Northumbrian Water have worked incredibly hard today and made a huge improvement to our lovely garden. The new seating area gives a great view of the garden and house and will be a special place to spend a few minutes with your thoughts. Huge thanks to NW team. We are very lucky to have such good friends."

"Our employees often find opportunities through just an hour allowing them to learn new skills and can increase their confidence so they also benefit"



WE ARE PROUD TO CONTRIBUTE TO THE SUCCESS OF LOCAL COMMUNITIES



53%
OF EMPLOYEES VOLUNTEERING

836
ORGANISATIONS
IN 2016

WE WORK IN PARTNERSHIP TOWARDS COMMON GOALS

Our work with partners in our communities is based on our Partnerships Strategy, which gives a clear direction to make sure we are focusing our efforts on the things that our customers have told us are most important to them.

Our Partnership Strategy puts working with partners to deliver common goals at the heart of our community activity. Our contribution in 2016 is detailed in our Contribution Report.

We work in partnership with a wide range of organisations to support the communities we serve and enhance the environment we operate in. In 2016 we continued many successful and long standing partnerships as well working with and supporting new partners to work together towards common goals. We continued to make sure that at least 1% of our pre-tax profits is re-invested in our communities through dedicating expertise, employee time, money and facilities.

Our work in this area has contributed to us being listed in 2016 as one of the world's most ethical companies by Ethisphere. This is the seventh consecutive year we have been listed and we remain the only water and sewerage company in the world to be included on this prestigious list.

We work with partners across sectors at a range of levels; from making sure we provide first class effective grassroots support to a large number of organisations in our community, to a small number of larger strategic flagship partners co-delivering with us in line with our vision and values.

“We are the only water and sewerage company in the world to be listed as one of the world’s most ethical companies”

IN 2016 WE ACHIEVED:

 **7,796**
YOUNG PEOPLE
SUPPORTED THROUGH OUR
EMPLOYABILITY ACTIVITY

 **£613,566**
DIRECT FINANCIAL
CONTRIBUTION TO
ENVIRONMENTAL,
COMMUNITY AND
CHARITABLE NGOS

 **95,000**
BOTTLES OF
TAP WATER
DONATED TO SUPPORT
COMMUNITY AND
CHARITY EVENTS

 **1,273**
ORGANISATIONS
SUPPORTED

13,600
PEOPLE GIVEN ACCESS
TO CLEAN WATER AND
SANITATION THROUGH OUR
FUNDRAISING FOR

 **3,918**
CUSTOMERS
RECEIVING SUPPORT AND
ADVICE TO HELP MANAGE
DEBT IN 2016

 **WaterAid**

53% 
OF OUR PEOPLE
VOLUNTEERED TO SUPPORT COMMUNITY,
ENVIRONMENT AND COMMUNITY PROJECTS

 **561,198**
VISITORS
TO OUR HISTORICAL AND
ECOLOGICAL SITES

 **15,781**
VOLUNTEER
HOURS GIVEN
BY OUR PEOPLE

 **1,137**
PATROLS
COMPLETED TO HELP
PROTECT OUR RIVERS

KIELDER WATER & FOREST PARK DEVELOPMENT TRUST

Kielder Water & Forest Park Development Trust (KWFPDT) was established in 2010 by Northumbrian Water and other partners to support economic development to an area in the heart of Northumberland National Park. The area is home to the biggest manmade lake in Northern Europe and England's largest working forest and in 2016, Kielder Water & Forest Park welcomed an estimated 410,000 visitors.

Recently, the Northumberland National Park Authority (NNPA) became a member of the Kielder Water & Forest Park Development Trust (KWFPDT) joining Northumbrian Water, the Forestry Commission, Calvert Trust Kielder, Kielder Observatory Astronomical Society and Northumberland County Council.

These partners have successfully grown the local economy, mainly through tourism, initiatives such as the award-winning Kielder Art & Architecture Programme. This year the Art & Architecture programme has received a. The £49,300 grant from Arts Council England's National Lottery funded Grants for the Arts programme to drive the 'Explore and Create' project. This project will provide practical opportunities for creative learning, skills development and engagement with children and young people and will bring together the existing and future installations with the natural environment.

Wildlife is an important part of the offering for people visiting Kielder Water & Forest Park, with the development of the Living Wild project, which aims to make wildlife more accessible to visitors. KWFPDT has successfully attracted two rounds of funding from the Heritage Lottery Fund to enhance the visitor experience

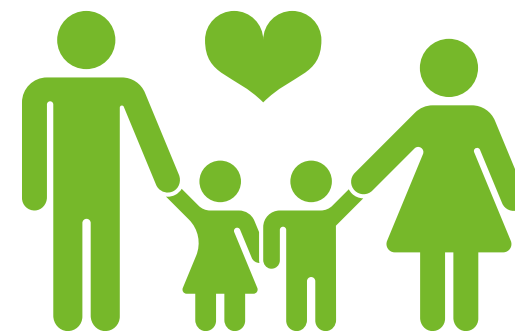
One of the highlights of 2016, was the Kielder Ospreys, who returned to Northumberland in 2009 following a 150 year absence. This year Kielder Water & Forest Park saw a record 11 fledged chicks across four nests.

The continuing tourism offer at Kielder resulted in visitors to the Park in 2016 spending an estimated £24.4 million, which supports approximately 450 jobs in the local economy.

“We work in partnership towards common goals”



KIELDER OSPREYS RETURNED TO NORTHUMBERLAND IN 2009, FOLLOWING A 150 YEAR ABSENCE. THE SPECIES ONCE MORE PROVED A HIGHLIGHT OF 2016, WITH A RECORD 11 FLEDGED CHICKS ACROSS FOUR NESTS.



KIELDER WATER & FOREST PARK WELCOMED 410,000 VISITORS.

VISITORS TO THE PARK IN 2016 SPENT AN ESTIMATED £24.4 MILLION IN 2016.

OUR PEOPLE ARE TALENTED, COMMITTED AND INSPIRED TO DELIVER GREAT SERVICE TO CUSTOMERS

Our people complete an annual survey every year and in addition many teams complete local pulse surveys throughout the year which gives a sense check of how their people are feeling. We have reviewed our approach to engagement surveys and from 2017 will be working with a new external, independent, specialist provider to ensure we can benchmark with the appropriate external organisations and understand what is really driving engagement within our teams. In 2016, 71% of our employees completed the survey giving us good insight into how people feel about working at NW and ESW.

We continue to support our people to deliver an unrivalled experience for all our customers with the roll-out of Our Way, our cultural change programme, and the introduction of emotional intelligence 360° feedback for our senior leaders.



SKILLS

OUR PEOPLE ARE TALENTED, COMMITTED AND INSPIRED TO DELIVER GREAT SERVICE TO CUSTOMERS

With 26 partners from across the energy and utilities sector, we're aiming to tackle future skills shortages to ensure we can continue to give customers the service they expect and deserve.

The EU Skills Partnership has launched the sector's first ever Workforce Renewal and Skills Strategy to help find 221,000 new recruits to the industry by 2027.

We are playing our own part, working with partners and a range of other organisations to deliver apprenticeships and other routes into the sector. We also work in schools, with around 8,000 young people each year, to educate them about water and also to enthuse them about our industry, so they see the varied and exciting careers available within the utilities sector.

At present there are ten Higher Degree Apprentices earning as they work towards their BSc (Hons) Digital and Technology Solutions degree, delivered in partnership with the University of Sunderland.

Higher Degree Apprentices are funded jointly between government and the employer, ensuring the learner gets paid to undertake academic studies, as well as undertake vocational learning, throughout the course.

Working with our team, the apprentices are helping to develop real applications and projects that will enhance the experiences of employees and customers alike.

Digital Apprentice Kyle Taylor said: "I am very honest in my opinion that the Degree Apprentice role at Northumbrian Water is an incredible opportunity, both qualification-wise but also primarily for vital industry experience, of which, Northumbrian Water are at the forefront in leading IS technologies and solutions within the water services industry. This position offers a variety of opportunities within different information systems and business specialisations within the company; and I would honestly not pass up the opportunity."

"We work with around 8,000 young people each year"

Students and academics at some of the UK's leading universities are also helping us to get answers to questions and develop new knowledge that will help us to keep at the forefront of our industry.

Over the last two decades, we have built a network that includes universities across our operating regions: Newcastle, Northumbria, Durham, Sunderland, Teesside, UEA and Essex. They join other leading institutions from across the UK including; the Cranfield University-led doctoral training centre, STREAM, Sheffield, Exeter, Cardiff, Strathclyde, Birmingham universities and Imperial College London.

WE CURRENTLY SPONSOR 30 STUDENTS



Much of our collaborative work is funded by the Engineering and Physical Sciences Research Council and the Natural Environment Research Council, in the form of post-doctoral research, for example to predict and reduce incidences of discoloured water affecting our customers. It also includes developing joint research facilities, such as the biological wastewater research pilot plant BE:WISE, or in supporting postgraduate research across a broad range of science and engineering disciplines.

We currently sponsor around 30 students through their postgraduate research and the findings that come back have enhanced our understanding of areas including water and wastewater treatment processes. This includes knowledge on how to recover energy and other resources, improving water quality for customers and the environment, how to sustainably reduce flood risk and how to engage more effectively with our customers and other stakeholders.

For the students, the opportunity and challenge is to approach a piece of research that has requirements of both an academic and an industrial nature.



OUR PEOPLE ACT IN LINE WITH OUR VALUES

Now in its sixth year our employee awards scheme fondly known as ViVa (Vision and Values) is still as popular as ever, with more than 170 employees nominating their teams and colleagues to be recognised for living and breathing our company values.

The most extraordinary individuals and teams from these nominations will be invited to an annual Award Ceremony with the overall winner on the night taking away £3,000. Our people have also been sending ViVa thank you cards to colleagues who on a daily basis are living the values and supporting each other. Over 900 cards have been sent with sentiments such as:

- "Thank you for always helping me with queries and going above and beyond to achieve excellent customer service by completing your own work and sometimes helping with ours as well!"
- "Thank you for asking for a safety share at today's Team Talk. Great safety leadership that makes a real difference."
- "Thanks for your hard work this weekend it is much appreciated!"

We've recently worked with colleagues across the company to identify how our behaviour can support our aspirations and help us ultimately deliver our vision of being national leader.

We have reviewed the underlying behaviours that support the delivery of Our Values, and have developed 'Our Behaviours', Our Behaviours explain how we would like to see everyone in our business choose to behave, regardless of the job role that they do and the position they hold.

VIVA

Our annual ViVa Awards recognise and reward our people who embrace the company's vision and values and make them part of how they do business every day.

Launched in 2012 the ViVa awards provide a simple way of one colleague saying thank you to another for doing a good job, of highlighting someone going the extra mile or rewarding someone for amazing work which has helped us work smarter on our journey to become the national leader.

Each year hundreds of nominations are received from all areas of the business showcasing leading examples of our people doing amazing things to live our values. 2016 was no exception – with 314 nominations being whittled down to 20 exceptional finalists.

Our winner in the ethical category was one such fantastic example. As a company we have committed to do more to support young people into work. Helen Sharp, a Customer Manager within Debt Recovery rose to the challenge by leading an employability programme with Siemens in the North East. Helen built a bespoke training experience, to match young people with teams around the business, for them to gain new skills and experience in the world of work. Thanks to Helen's dedication, all of the young people gained skills to set them up for life. All five 'graduates' of the programme have either got temporary positions or are registered with an agency for work.



WE ARE SEEN AS A GREAT PLACE TO WORK

We aspire for everyone to have a great experience at work and feel proud to work for NWL every day. Our most recent survey told us that 71% of our people believe that NWL is a great place to work, 77% would recommend working here to others and 84% enjoy their job.

Through discussion and regular feedback, each directorate has a local engagement action plan to ensure that we can continue to make NWL a great place to work for all of our people.

We held 62 roadshow sessions over three months for 2,750 colleagues. Heidi Mottram, CEO attended every session which equates to around 100 hours engaging with colleagues. The result was that 96% of our colleagues enjoyed their roadshow experience and 79% of them said they are now 'more informed' or 'fully informed' about the part they play in our journey to national leader.

Over the past few months, we have refreshed our employee engagement model and introduced our Great Place to Work Programme focussed on four areas: My Voice, My Manager, Our Values and Our Shared Story, in order to refocus how we make NWL better for everyone.

WISE NORTH EAST HUB

As a company, we recognise the value and importance of diversity and inclusion in our workforce and are actively working to improve.

Our aim is not to just focus on those elements of diversity that are protected by law. But to support all of our people to be the best that they can be in an environment that values and capitalises on everyone's contribution.

One of the ways that we work to lead in this area and continue to improve is through our partnerships with other organisations working to promote and encourage greater diversity and inclusion. For example, to help support this in our business and across the region, in September 2016 we hosted and have supported the launch of a brand new regional group aimed at improving gender balance and promoting diversity in science and engineering in the North East.

The WISE (Women in Science and Engineering) campaign's new North East Hub held its first meeting at our head office in Durham. People from across the North East's science and engineering sector, as well as others responsible for promoting diversity within businesses in the industry, attended the event.

The creation of the new group gives a forum to engage with other forward-thinking organisations, to share best practice, so that we can help others across the region to embrace diversity and inclusion.

Suzy Firkin, Membership Director at WISE, said:

“MANY THANKS TO NWL FOR HOSTING THE NORTH EAST HUB EVENT. IT IS ALWAYS A PLEASURE TO SEE THE ENERGY AND ENTHUSIASM OF OUR MEMBERS WHEN THEY COME TOGETHER TO SHARE EXPERIENCES AND SUPPORT EACH OTHER IN ENSURING MORE WOMEN THAN EVER BEFORE ARE AN ACTIVE PART OF THE STEM WORKFORCE.”



OUR WORKPLACES ARE HEALTHY AND SAFE

It is our aspiration and ethical responsibility to make sure that everyone goes home safe every day.

Looking after our people, supply partners, suppliers, customers, communities and the environment is part of who we are and is reflected in what we think, feel, say, and do. This is integral to our vision of becoming the national leader in sustainable water and wastewater services.

During 2016 we maintained our high safety performance keeping us within the top quartile of water companies. We are certified under BS OHSAS 18001 Occupational Health and Safety Systems and received a gold medal award for the fifth consecutive year from RoSPA.

We invested heavily in continuous health and safety improvements, completing 52 capital safety projects with a value of £1 million.



OUR SAFETY CULTURE

We are proud of our record of maintaining and a healthy and safe workplace, and we are working hard to improve this even further. We want to create and maintain a great safety culture and over the last years we have putting a significant amount of effort into further improving behavioural safety.

We've been working with our people to focus on talking to each other, engaging with their teams and thinking about safety in everything we think, say feel and do.

One way that we have helped to improve our safety culture, is by introducing a 'safety share'. A safety share is simply a safety story or example that our people may have seen or heard that they then share with their colleagues to demonstrate good practice or an opportunity to improve and learn. To help keep safety at the forefront of everyone's mind, a safety share is an important part of the start of all meetings and discussions. A 'safety share' is used a tool to start the conversation. This encourages others to pass on examples of safety and is a simple and effective way of further improving our safety culture that everyone from across the organisation gets involved with.

We operate a 'Spot It' system to encourage reporting of health and safety issues and concerns by colleagues. A procedure is place to ensure that that suitable investigation and remedial actions are carried out, which are monitored to ensure closure. During 2016, colleagues raised 654 Spot It's.

Safety is kept front of mind with regular communication with all our people. A bi-monthly Team Talk, which is delivered to all colleagues and contains key messages contains key messages and discussion points including health and safety. A focal point for all health and safety communication is our HSQE Matters, which is published as a monthly digest with the intention of keeping all colleagues updated on external and internal changes in health and safety. This digest clearly sets out in a clear and easy to read way things our people need to do, things they need to know and things that they should discuss.

This commitment to developing and maintaining this strong behavioural safety culture is clearly demonstrated by our Leadership team. Each year members of the Executive Leadership Team go out to meet colleagues and discuss health and safety. It provides Directors an opportunity to observe various workplace environments and learn how colleagues keep themselves and others safe.



"Safety is kept front of mind with regular communication with all our people"

WE ARE A COMPANY THAT CUSTOMERS TRUST

Each year CCWater asks customers for their views about the services they receive from their water and sewerage company and we are proud that for the third year running, that survey has named us as the most trusted water company.

We publish a range of information about our services and performance. This helps to provide our customers and stakeholders with assurance that we are delivering what they have told us they need and want from their water and sewerage company.

It is therefore very important that we have robust governance and assurance arrangements in place to ensure that when we publish information on our performance it is accurate, clear and transparent. In doing so we aim to continue to build trust and confidence with our stakeholders.

Our Assurance Plan is published in full on our website each year, is based on a well established framework for risk management, and has been developed in line with Ofwat's 'company monitoring framework' (published in June 2015) which describes how it intends to oversee the information water companies provide to customers over the period 2015-20.

Our Governance and Assurance framework builds upon our integrated management system and commitment to quality assurance. We have company-wide accreditation to the following standards;

- ISO 9001. Quality management.
- ISO 14001. Environmental management.
- OHSAS 18001. Occupational health & safety management.
- ISO 55001. Asset Management.

We are also working towards achieving company-wide accreditation to ISO 22301 – Business Community management and would be the first water company to achieve this. In addition our sampling and laboratory analysis are accredited to the demanding ISO 17025 standard.

OUR ROLE IN THE REGION

We understand that as a large local business, supplier of an essential service and major employer, we have a responsibility and important role to play in the regions that we operate in.

To help contribute to the well-being and success our communities, we strive to play a leading role in helping shape the policy that underpins this. This includes working with a number of business, consumer and charitable bodies across our region and nationally.

We understand that many organisations that have a significant influence on policy that impacts on the wellbeing of the areas we serve value the contribution of our leaders.

We continue to take an active role in Business in the Community, the Prince's Responsible Business Network. The members of Business in the Community work together to tackle a wide range of issues that are essential to building a fairer society and a more sustainable future. Our contribution includes helping to take forward the BITC's national Water Task Force, which is working to address some of the most pressing water challenges facing the UK.

Our extensive and leading work with BITC has led to our CEO, Heidi Mottram, being appointed as Regional Ambassador for HRH The Prince of Wales in 2016. The Prince's Ambassadors are chosen for their leadership in transforming their own businesses and empowering other organisations to take action. In their two year role, they promote the responsible business agenda in their country or region, engaging the local business community around key social issues.

As the Ambassador for the North East Heidi is leading on two key areas: first, business resilience, with a particular focus on water resources and flooding, and helping businesses plan to improve their resilience in this area; second, Heidi is committed to supporting the rural economy, sharing learnings from her work in Kielder across the region.

Heidi is also playing an extensive role helping regional economy and policy more generally as Vice Chair of the North East Local Enterprise Partnership (LEP) and with her role on the national board of the CBI.





REGULATORY ACCOUNTS

DIRECTORS' RESPONSIBILITIES AND DECLARATIONS

for the year ended 31 March 2017

DIRECTORS' RESPONSIBILITIES STATEMENT

The Directors are responsible under Condition F of the Instrument of Appointment granted by the Secretary of State for the Environment to the Company as a water and sewerage undertaker under the Water Industry Act 1991 for:

- ensuring that proper accounting records are maintained by the Appointee to enable compliance with the requirements of Condition F and having regard also to the terms of guidelines notified by the Water Services Regulation Authority ('the Authority') to the Appointee from time to time;
- preparing on a consistent basis for each financial year regulatory accounts in accordance with Condition F, having regard also to the terms of guidelines notified by the Authority from time to time, which so far as is reasonably practicable have the same content as the annual financial statements of the Appointee prepared under the Companies Act 2006 and which are prepared in accordance with the formats, accounting policies and principles which apply to those financial statements; and
- preparing such other financial and related information as is required by Condition F having regard also to the terms of guidelines issued by the Authority from time to time.

RISK AND COMPLIANCE STATEMENT

The Board confirms that:

- it considers the Company has a full understanding of, and is meeting, all its relevant statutory, licence and regulatory obligations and has taken steps to understand and meet customer expectations;
- it has satisfied itself that the Company has sufficient processes and internal systems of control to fully meet its obligations; and
- the Company has appropriate systems and processes in place to allow it to identify, manage and review its risks.

DISCLOSURE OF INFORMATION TO AUDITORS

So far as each current Director is aware, there is no relevant audit information of which the Company's auditor is unaware and each Director has taken all the steps that he or she ought to have taken as a Director in order to make himself or herself aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

CONDITION K (RING FENCING)

The Directors confirm that, as at 31 March 2017, the Company was in compliance with paragraph 3.1 of Condition K of the Instrument of Appointment in that the Appointee had available to it sufficient rights and assets to enable a special administrator to manage the affairs, business and property of the Appointee, should a special administration order be made.

CONDITION F6A.2A CERTIFICATE (FINANCIAL AND MANAGEMENT RESOURCES TO CARRY OUT THE REGULATED ACTIVITIES)

The Directors certify that, in their opinion:

- the Appointee will have available to it sufficient financial resources and facilities to enable it to carry out, for at least the next 12 months the Regulated Activities (including the investment programme necessary to fulfil the Appointee's obligations under the Appointment);
- the Appointee will, for at least the next 12 months, have available to it management resources and systems of planning and internal control which are sufficient to enable it to carry out those functions as required by subparagraph 6A.1 of Condition F of the Instrument of Appointment; and
- all contracts entered into with any Associated Company include all necessary provisions and requirements concerning the standard of service to be supplied to the Appointee, to ensure that it is able to meet all its obligations as a water and sewerage undertaker.

In providing this certificate, the Directors have taken into account:

- the financial strength of the Company at the balance sheet date and financial performance, which is in line with expectations and reviewed at each Board meeting, most recently in May 2017;
- the key financial ratios over the next 12 month planning horizon, as reflected in strong investment grade credit ratings;
- the fact that the Company has in place £350m of five year committed bank facilities as back up liquidity (maturing in 2019), and a further £100m of committed financing from the European Investment Bank, both of which were undrawn at 31 March 2017; and
- the Company's formal governance and risk management arrangements which are monitored by the Audit Committee, Risk & Compliance Committee and Board.

CONDITION F6A.6 (CREDIT RATING)

The Directors also confirm that throughout 2016/17 the Appointee has ensured that it, and an Associated Company as issuer of debt on its behalf, has maintained at all times an issuer credit rating which is a strong investment grade rating.

VIABILITY STATEMENT

The Directors believe that the Appointed Business is well placed to manage its business risks and expect that the business can continue to operate effectively over the long term and, specifically, meet its financial obligations over the next five years.

Further information in respect of this statement is provided in the Company's Financial Statements for the year ended 31 March 2017, [on page 75](#) of the Governance Report. The Financial Statements are available on the Company's websites.

By order of the Board



Andrew J Hunter
Chairman

14 July 2017



Heidi Mottram
CEO

14 July 2017



Paul Rew
Senior Independent
Non-Executive Director

14 July 2017

REGULATORY ACCOUNTING POLICIES AND DISCLOSURES

for the year ended 31 March 2017

(A) REGULATORY ACCOUNTS - BASIS OF ACCOUNTING

The Regulatory Accounting Statements, [on pages 111 to 139](#) of the APR, have been prepared in accordance with the RAGs issued by Ofwat. They have been prepared on a consistent basis to the Company's Financial Statements, with the following exceptions:

- income relating to energy generation and meter reading, which is recorded as revenue in the statutory accounts, has been recorded as negative operating expenditure;
- rental income and amortisation of deferred capital income in relation to adopted assets, which are recorded as revenue in the statutory accounts, have been recorded as other income below operating profit;
- profit on disposal of fixed assets, which is recorded as operating costs in the statutory accounts, has been recorded as other operating income; and
- borrowing costs that are directly attributable to the acquisition or construction of an asset, which are capitalised in the statutory accounts, are charged to the income statement.

The information reported in the Regulatory Accounting Statements relates to NWL's Appointed business only, except where stated. The Appointed business comprises Regulated Activities, defined in Condition A of the Licence to be 'functions of' and the 'duties imposed on' a water and sewerage undertaker by the Water Industry Act 1991. Such duties are consequently those necessary for the Company to fulfil its duty as a water and sewerage undertaker.

The accounts have been prepared on a going concern basis which assumes that the Company will have adequate funding to meet its liabilities as they fall due in the foreseeable future.

(B) REVENUE RECOGNITION

The revenue recognition policy is the same in the regulatory and statutory accounts, other than the exceptions related to income from energy generation, meter reading, rental income and deferred capital income as explained above.

RAG3 states that companies should not de-recognise turnover for amounts billed which they deem to be uncollectable, meaning that IAS 18.9 should be disappplied in this respect. NWL complies with this requirement.

Revenue from water and sewerage charges billed to customers is recognised pro-rata over the period to which it related. For consumption by measured customers which has not yet been billed, revenue is estimated and accrued using a defined methodology based upon historical usage and the relevant tariff per customer. Invoices raised or payments received where the service has not been provided are not recognised in revenue in the year but are treated as receipts in advance.

Additional charges added to a customer's account as a result of debt recovery activity, such as court costs or solicitors fees, are recognised as negative operating costs when payment is received in both the statutory and regulatory accounts. They are not recognised in revenue.

Charges for water and sewerage services remain due in full whilst a property contains furnishings and fittings or when a property is unfurnished and water is being used for any purpose including refurbishment. If the Company has turned off the supply of water at the mains to a property at a customer's request then water supply charges are not payable.

If the supply of water is turned off and the property is unfurnished the property is considered unoccupied and charges are not payable. If, however, the supply of water is turned off and the property remains furnished it is considered ready for occupation and in this case sewerage charges in respect of the drainage of surface water and contribution to highway drainage continue to be payable.

If a property is recorded as empty in the billing system an empty property process is followed. The purpose of this process is to verify whether the property is occupied or not and, if occupied, to identify the chargeable

person and raise a bill. No bills are raised in the name of 'the occupier'.

The empty property process comprises a number of steps including an initial letter asking the occupier to either contact the Company or return a completed registration form, a check of the property record against Land Registry information and visits to the property by Company representatives. If these steps confirm that a property appears to be empty then the supply may be turned off.

New properties are charged from the date a meter is installed, if consumption is being recorded on the meter. If the property is unoccupied but water is being registered the developer will be charged. Once the developer is no longer responsible for a property, if no new occupier has been identified the property will be treated as unoccupied and the empty property process followed, as outlined above.

A retrospective review has confirmed that there were no significant differences between the measured income accrual at 31 March 2016 of £61.2m and the amounts subsequently billed to customers, which was also £61.2m.

(C) BAD DEBT POLICY

The policy for bad and doubtful debts is applied consistently between the statutory and regulatory accounts.

(i) Bad debt write offs

Debt is only written off after all available economic options for collecting the debt have been exhausted and the debt has been deemed to be uncollectable. This may be because the debt is considered to be impossible, impractical, inefficient or uneconomic to collect.

Situations where this may arise and where debt may be written off are as follows:

- where the customer has absconded without paying and strategies to trace their whereabouts and collect outstanding monies have been fully exhausted;
- where the customer has died without leaving an estate or has left an insufficient estate on which to levy execution;
- where the customer does not have any assets or has insufficient assets on which to levy execution;
- where the value of the debt makes it uneconomic to pursue;
- where county court proceedings and attempts to recover the debt by debt collection agencies have proved unsuccessful; and
- where the customer has been declared bankrupt, is in liquidation or is subject to insolvency proceedings or a debt relief order and no dividend has been or is likely to be received.

For debt to be written off there must be a legitimate charge against the debtor. If it is considered that part or all of the debt is incorrect or unsubstantiated, then such elements are dealt with through the issue of a credit note.

(ii) Bad debt provisioning

The Company's detailed bad and doubtful debts provision policy has remained unchanged during the year and has been consistently applied in the current and prior periods. The bad debt provision is charged to operating costs to reflect the company's assessment of the risk of non recoverability of debtors. It is calculated by applying expected recovery rates to debts outstanding at the end of the accounting period. These recovery rates take into account the age of the debt, payment history and type of debt.

Higher provisioning percentages are applied to categories of debt which are considered to be of greater risk, including those with a poor payment history as well as to those of greater age. Bad debt provisioning rates are reviewed annually to reflect the latest collection performance data from the company's billing system. All debt greater than 48 months old is fully provided for. Actual amounts recovered may differ from the estimated levels of recovery which could impact on operating results.

A comparison of the provision against historical collection rates is carried out at the end of each year. At 31 March 2017, this comparison indicated that the provision was higher than required and the provision was reduced by £5.2m.

Provisions relating to non-household debt of £1.1m were reclassified as assets held for resale at the balance sheet date.

The provision has increased from £83.6m at 31 March 2016 to £84.9m at 31 March 2017. This reflects the additional provision made in the year as outstanding debt has aged, less the reductions made as a result of comparison to historical collection rates and the reclassification of non-household debt as assets held for resale. Typically, the provision increases each year as additional amounts are provided in the year whilst debt

is only written off in the specific circumstance outlined above.

(D) CAPITALISATION POLICY

The policy for the capitalisation of costs as items of property, plant and equipment is applied consistently between the statutory and regulatory accounts, in accordance with IAS16 Property, Plant and Equipment.

The application of this policy is summarised below. Further detail is provided in the accounting separation methodology statement published on our websites.

The cost of construction or purchase of new or replacement infrastructure and non-infrastructure assets is capitalised. Cost includes any costs directly attributable to bringing the asset into condition for use in the business, including directly attributable overhead costs but excluding general overhead costs. The costs of infrastructure and non-infrastructure assets are depreciated over their useful economic lives

On the infrastructure network, capital replacement of assets includes any renewal of a full pipe length of main or sewer and replacement of ancillaries such as stop taps, valves, meter chambers and manhole covers.

Subsequent maintenance expenditure is treated as an operating cost unless it provides an enhancement of economic benefits in excess of the expected standard of performance such as an extension in the estimated useful life or an increase in capacity, in which case it is capitalised. Examples of maintenance costs charged as operating costs include pipe and tank cleaning, inspections, surveys and zonal studies.

Further detail is provided in the accounting separation methodology statement published on our websites.

(E) ACCOUNTING SEPARATION POLICY

Cost allocations have been prepared in accordance with RAG 2.06 and RAG 4.06 for the definitions for the regulatory accounting tables. All costs are recorded in the accounting records by cost centre. Cost centres are defined either as a direct department, comprising operational and customer functions, or a support department. Direct departments are mostly directly allocated to service activities based on the nature of the function, although some costs require apportionment on an appropriate basis. Support departments are apportioned across the price controls either based upon a specific analysis of the costs or by apportionment by an appropriate cost driver. Once allocated to the appropriate price control the costs are then allocated to service activities pro-rata to full time equivalent staff numbers of the direct departments.

Fixed assets directly involved in the activities within each business unit are recorded against that business unit using direct allocation per the location or asset type. Where an asset is utilised in more than one business unit, the asset is allocated to the business unit of principal use and costs are recharged to other different business units on the same basis used to allocate operating expenditure.

Further detail is provided in the accounting separation methodology statement published on our websites.

(F) STATEMENT OF DIRECTORS' REMUNERATION AND STANDARDS OF PERFORMANCE

Directors' remuneration is fully disclosed in the NWL Annual Report and Financial Statements for the year ended 31 March 2017, in the Remuneration Committee Report [on pages 63 to 73](#). This is published on our websites. To avoid duplication, this information has not been replicated within the APR.

The Remuneration Committee Report has been produced in accordance with section 35A of the Water Industry Act 1991. It also has regard to the requirements of the Large and Medium-sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013 in respect of Directors' remuneration reporting for quoted companies, albeit in the context of a company which is not a listed public limited company.

SECTION 1: REGULATORY FINANCIAL REPORTING

1A INCOME STATEMENT

Financial performance for the 12 months ended 31 March 2017

	STATUTORY	ADJUSTMENTS			TOTAL APPOINTED ACTIVITIES
		DIFFERENCES BETWEEN STATUTORY AND RAG DEFINITIONS	NON-APPOINTED	TOTAL ADJUSTMENTS	
	£'m	£'m	£'m	£'m	£'m
Revenue	821.6	(12.6)	(25.8)	(38.4)	783.2
Operating costs	(464.7)	4.4	16.0	20.4	(444.3)
Other operating income	-	0.6	-	0.6	0.6
Operating profit	356.9	(7.6)	(9.8)	(17.4)	339.5
Other income	-	8.8	(1.2)	7.6	7.6
Interest income	3.4	-	(2.6)	(2.6)	0.8
Interest expense	(124.7)	(5.2)	-	(5.2)	(129.9)
Other interest expense	(2.8)	-	0.1	0.1	(2.7)
Profit before tax and fair value movements	232.8	(4.0)	(13.5)	(17.5)	215.3
Fair value gains/(losses) on financial instruments	(12.5)	-	-	-	(12.5)
Profit before tax	220.3	(4.0)	(13.5)	(17.5)	202.8
UK Corporation tax	(38.3)	-	1.5	1.5	(36.8)
Deferred tax	19.3	0.4	(0.1)	0.3	19.6
Profit for the year	201.3	(3.6)	(12.1)	(15.7)	185.6
Dividends	(212.5)	-	11.7	(11.7)	(200.8)

Differences between statutory and RAG definitions are explained in note (a) of the Regulatory Accounting Policies and Disclosures.

The change to profit reflects borrowing costs, which are capitalised in the Statutory Financial Statements but charged to the income statement in the Regulatory Accounting Statements, and the associated depreciation and deferred tax. Other changes are presentational in nature:

- income relating to energy generation and meter reading has been reclassified from revenue in the statutory accounts to negative operating costs;
- rental income and amortisation of deferred income from adopted assets has been reclassified from revenue in the statutory accounts to other income; and
- profit on disposal of fixed assets and amortisation of deferred income from grants and contributions have been reclassified from operating costs in the statutory accounts to other operating income.

1B STATEMENT OF COMPREHENSIVE INCOME

Financial performance for the 12 months ended 31 March 2017

	STATUTORY	ADJUSTMENTS			TOTAL APPOINTED ACTIVITIES
		DIFFERENCES BETWEEN STATUTORY AND RAG DEFINITIONS	NON-APPOINTED	TOTAL ADJUSTMENTS	
	£'m	£'m	£'m	£'m	£'m
Profit for the year	201.3	(3.6)	(12.1)	(15.7)	185.6
Actuarial losses on post employment plans	(60.8)	-	0.6	0.6	(60.2)
Other comprehensive income	3.2	-	-	-	3.2
Total Comprehensive income for the year	143.7	(3.6)	(11.5)	(15.1)	128.6

1C STATEMENT OF FINANCIAL POSITION

Financial performance for the 12 months ended 31 March 2017

(Registered number 02366703)

	ADJUSTMENTS				TOTAL APPOINTED ACTIVITIES £'m
	STATUTORY £'m	DIFFERENCES BETWEEN STATUTORY AND RAG DEFINITIONS £'m	NON-APPOINTED £'m	TOTAL ADJUSTMENTS £'m	
Non-current assets					
Fixed assets	4,260.5	(30.7)	(100.0)	(130.7)	4,129.8
Intangible assets	-	-	-	-	-
Investments - loans to group companies	160.9	-	(160.9)	(160.9)	-
Investments - other	-	-	-	-	-
Total non-current assets	4,421.4	(30.7)	(260.9)	(291.6)	4,129.8
Current assets					
Inventories	2.8	-	(0.5)	(0.5)	2.3
Trade & other receivables	203.4	3.4	(3.8)	(0.4)	203.0
Cash & cash equivalents	-	9.1	-	9.1	9.1
Total current assets	206.2	12.5	(4.3)	8.2	214.4
Current liabilities					
Trade & other payables	(137.3)	(13.8)	16.5	2.7	(134.6)
Capex creditor	(29.9)	-	1.4	1.4	(28.5)
Borrowings	(324.3)	1.2	-	1.2	(323.1)
Current tax liabilities	(3.0)	-	0.7	0.7	(2.3)
Provisions	(0.2)	-	-	-	(0.2)
Total current liabilities	(494.7)	(12.6)	18.6	6.0	(488.7)
Net current assets / (liabilities)	(288.5)	(0.1)	14.3	14.2	(274.3)

	ADJUSTMENTS				TOTAL APPOINTED ACTIVITIES £'m
	STATUTORY £'m	DIFFERENCES BETWEEN STATUTORY AND RAG DEFINITIONS £'m	NON-APPOINTED £'m	TOTAL ADJUSTMENTS £'m	
Non-current liabilities					
Trade & other payables	(0.2)	-	-	-	(0.2)
Borrowings	(2,431.8)	-	-	-	(2,431.8)
Financial instruments	(39.6)	-	-	-	(39.6)
Retirement benefit obligations	(153.1)	-	3.0	3.0	(150.1)
Provisions	(1.2)	-	-	-	(1.2)
Deferred income - grants and contributions	(533.3)	-	127.9	127.9	(405.4)
Deferred tax	(375.5)	5.3	1.1	6.4	(369.1)
Total non-current liabilities	(3,534.7)	5.3	132.0	137.3	(3,397.4)
Net assets	598.2	(25.5)	(114.6)	(140.1)	458.1
Equity					
Called up share capital	122.7	-	(30.6)	(30.6)	92.1
Retained earnings & other reserves	475.5	(25.5)	(84.0)	(109.5)	366.0
Total Equity	598.2	(25.5)	(114.6)	(140.1)	458.1

Approved by the Board of Directors on 14 July 2017 and signed on their behalf by:



H Mottram
CEO

Differences between statutory and RAG definitions are explained in note (a) of the Regulatory Accounting Policies and Disclosures.

Differences in relation to fixed assets and retained earnings reflect borrowing costs, which are capitalised in the Statutory Financial Statements but charged to the income statement in the Regulatory Accounting Statements, and the associated depreciation and deferred tax. Other changes reflect trading balances between the appointed and non-appointed businesses, which were settled immediately after the balance sheet date.

1D STATEMENT OF CASH FLOWS FOR THE APPOINTED BUSINESS

Financial performance for the 12 months ended 31 March 2017

	TOTAL APPOINTED ACTIVITIES
	£'m
Operating profit	339.5
Other income	7.6
Depreciation	127.5
Amortisation of grants and contributions	(5.8)
Changes in working capital	17.8
Pension contributions	(27.6)
Movement in provisions	29.8
Profit on sale of fixed assets	(0.6)
Cash generated from operations	488.2
Net interest paid	(114.7)
Tax paid	(28.1)
Net cash generated from operating activities	345.4
Investing activities	
Capital expenditure	(202.1)
Grants & contributions	21.8
Disposal of fixed assets	0.7
Other	-
Net cash used in investing activities	(179.6)
Net cash generated before financing activities	165.8
Cashflows from financing activities	
Equity dividends paid	(200.8)
Net loans received	83.1
Cash inflow from equity financing	-
Net cash generated from financing activities	(117.7)
Increase in net cash	48.1

1E NET DEBT ANALYSIS AS AT 31 MARCH 2017

Appointed Business only

	INTEREST RATE RISK PROFILE			
	FIXED RATE	FLOATING	INDEX	TOTAL
	£'m	£'m	£'m	£'m
Borrowings (excluding preference shares)	1,803.6	131.2	820.1	2,754.9
Preference share capital				-
Total borrowings				2,754.9
Cash				(9.1)
Short term deposits				-
Net Debt				2,745.8
Gearing %				68.4%
Adjusted gearing				68.4%
Full year equivalent nominal interest cost	90.7	2.9	32.3	125.9
Full year equivalent cash interest payment	90.7	2.9	11.7	105.3
Indicative interest rates				
Indicative weighted average nominal interest rate	4.96%	2.21%	3.92%	4.52%
Indicative weighted average cash interest rate	4.96%	2.21%	1.42%	3.78%
Weighted average years to maturity	11.3	13.1	21.6	14.5

APPOINTED BUSINESS TAXATION

The rate of UK corporation tax remained at 20% for the second consecutive year. However, the Government has reduced the rate of corporation tax from 20% to 19% with effect from 1 April 2017. It is expected that the new rate will apply for the remainder of AMP6. In addition, Finance Act 2016 provides for a further reduction in the rate to 17% with effect from 1 April 2020 (which coincides with the start of AMP7).

The Appointed business charge of £36.8m, as reported in table 1A, includes £23.9m payable to fellow Group companies in respect of their current year tax losses that will be surrendered to the Appointed business. The surrender of tax losses to the Appointed business has not required the disclaimer of any capital allowances, and payment for those losses is being made at the full rate of corporation tax.

Although profit before tax for the Appointed business has fallen compared to 2015/16, the current tax charge for the year has increased. This reflects one-off deductions received in 2015/16 in relation to the adoption of FRS101 and fair value losses on derivatives incurred in the current year that are not allowable for tax purposes, offset by an increase in deductions for pension contributions due to a spreading of the previous year's payments.

The deferred tax credit for the Appointed business of £19.6m includes a credit of £24.1m in relation to the opening restatement of deferred tax from 18% to 17%. The vast majority of deferred tax at the balance sheet date is provided at 17%, being the rate at which temporary differences are expected to reverse.

An explanation of why the current tax charge for the Appointed business is lower than the result of applying the standard rate of corporation tax to profit before tax is provided in the table below:

CURRENT TAX RECONCILIATION

for the 12 months ended 31 March 2017

	TOTAL APPOINTED ACTIVITIES
	£'m
Profit before tax and fair value movements	215.3
Profit before tax and fair value movements multiplied by standard rate of corporation tax of 20%	43.1
Effects of:	
Expenses incurred that are not deductible for tax purposes	0.4
Depreciation in respect of non-qualifying items	0.9
Tax reliefs claimed for capital expenditure in excess of accounts depreciation	(7.2)
Grants and contributions received in excess of accounts amortisation	3.6
Pension contributions paid in excess of accounts service and finance costs	(2.5)
Other temporary differences	0.1
Deferred tax movements not at the standard rate for the year	(1.1)
Adjustments in respect of prior periods	(0.5)
UK:UK transfer pricing adjustments	(0.9)
Balancing payment payable	0.9
Current tax charge	36.8

FACTORS AFFECTING FUTURE TAX CHARGES AND OTHER SIGNIFICANT MATTERS

As well as the tax rate changes referred to above, future tax charges will potentially be affected by the following matters.

The Appointed business expects to continue to incur high levels of capital expenditure during the remainder of the 2015-20 regulatory review period which, under current tax legislation, should result in claims for tax reliefs being in excess of depreciation.

It is expected that new rules will be introduced with effect from 1 April 2017 to determine the amount of interest that companies can deduct for UK corporation tax purposes. Although the Company's financial statements contain significant amounts of finance costs, the new rules are not expected to have a material impact on its tax position.

CURRENT TAX RECONCILIATION TO FD

An allowance for corporation tax was made in the Final Determination (FD) at PR14. Actual performance differs to the FD for a number of reasons. As far as current tax is concerned, the charge for the year is reconciled to the FD allowance as follows:

	TOTAL APPOINTED ACTIVITIES
	£'m
Current tax charge allowed in price limits (restated to reflect actual RPI)	35.5
Increase in profit before tax and depreciation	7.0
Increase in allowable pension contributions	(1.9)
Increase in tax reliefs claimed for capital expenditure	(2.4)
Increase in amortisation of grants and contributions	(1.2)
Other	0.3
Adjustments in respect of prior years	(0.5)
Current tax charge	36.8

APPOINTED BUSINESS TAX STRATEGY

Scope

The Company is required, by section 3.11 of RAG 3.10, to publish details of its Tax Strategy relating to the Appointed Business within the Annual Performance Report. For the avoidance of doubt, the Company has a single Tax Strategy which applies to its Appointed and Non-appointed businesses, as well as to its subsidiaries.

The Tax Strategy set out below is for the Company's financial year ended 31 March 2017.

Aim

The Company is committed to fully complying with all its statutory tax obligations, including the payment and recovery of taxes at the right time and the provision of all relevant information to HM Revenue and Customs (HMRC) to support the amounts of tax concerned.

The Company's Board owns and approves the Tax Strategy which comprises the following four components :

a) Tax governance arrangements

The Board reviews and approves all significant investment and business operating decisions directly or delegates the appropriate authority. The Company's Audit Committee considers significant tax related matters as part of its monitoring of internal controls and financial reporting arrangements.

Day-to-day management of the Company's tax affairs is delegated to the Tax Manager and to other appropriately qualified staff who have responsibility for specific taxes. All staff with responsibility for tax report to members of the Company's senior management team which, in turn, reports to the Board.

The Company's tax affairs are conducted in a business-like manner in accordance with the Company's commitment to corporate responsibility.

b) Tax risk management framework

The Company's Risk & Compliance Committee oversees the risk assessment process applied by the business which includes an assessment of tax risks. Significant risks identified by the business are escalated for the Committee to consider.

As far as possible, through the activities of its Board, Committees and personnel responsible for tax matters, the Company seeks to reduce or eliminate the level of tax risk arising from its operations by ensuring appropriate processes and controls are in place.

The Company only takes tax positions which are justifiable and based on law, with advice taken from reputable professional firms where necessary. In addition, any transaction that has material tax consequences will be referred by the Company to the ultimate parent company's tax team to ensure there is agreement with, and consistency in, the tax treatment.

To help manage tax risk, the Company's taxation affairs are only handled by appropriately qualified and experienced staff and, where necessary, training is given to non-tax staff who are involved in processes which have tax implications.

c) Approach to tax planning

The Company considers tax as part of its business decision making process. When entering into commercial transactions, the Company seeks to obtain the benefit of tax incentives, reliefs and exemptions available under UK tax legislation. Any tax planning that is undertaken is in response to, and supports, business or commercial activities.

d) Relationship with HMRC

The Company seeks to have a transparent and constructive relationship with HMRC on all taxation matters and keeps HMRC aware of significant transactions and business developments. All contact with HMRC is conducted in a professional and courteous manner.

The Company seeks to obtain certainty from HMRC at the earliest opportunity on the tax treatment of complex or uncertain issues. Discussions with HMRC are held at least annually to review past and present tax risks and agree on the steps required to take matters forward. Resolution of any disputed matters will be sought through open discussion and negotiation with HMRC, but the Company is prepared to litigate in cases where it believes the technical basis of a decision is incorrect.

The Company takes an active role in the development of the UK's legislative framework through participation at company or industry level in Government consultations on significant new tax laws.

Publication date: 14 July 2017.

SECTION 2: PRICE REVIEW AND OTHER SEGMENTAL REPORTING

2A SEGMENTAL INCOME STATEMENT

For the 12 months ended 31 March 2017

	RETAIL	
	HOUSEHOLD	NON-HOUSEHOLD
	£'m	£'m
Revenue - price control	57.9	8.9
Revenue - non price control	0.5	0.4
Operating expenditure	(43.5)	(7.4)
Depreciation - tangible fixed assets	(1.9)	-
Amortisation - intangible fixed assets	-	-
Other operating income	-	-
Operating profit before recharges	13.0	1.9
Recharges from other segments	(1.3)	(0.2)
Recharges to other segments	0.1	-
Operating profit	11.8	1.7
Surface water drainage rebates		

WATER RESOURCES	WATER NETWORK+	WATER TOTAL	WASTE WATER NETWORK+	WHOLESALE		TOTAL
				SLUDGE	WASTEWATER TOTAL	
£'m	£'m	£'m	£'m	£'m	£'m	£'m
-	413.9	413.9	293.7	-	293.7	774.4
-	6.7	6.7	1.2	-	1.2	8.8
(50.3)	(119.1)	(169.4)	(87.3)	(9.2)	(96.5)	(316.8)
(2.8)	(71.2)	(74.0)	(45.7)	(5.9)	(51.6)	(127.5)
-	-	-	-	-	-	-
-	0.1	0.1	0.5	-	0.5	0.6
		177.3			147.3	339.5
(1.7)	-	(1.7)	(4.9)	(0.5)	(5.4)	(8.6)
-	8.5	8.5	-	-	-	8.6
		184.1			141.9	339.5
						0.8

2B TOTEX ANALYSIS: WHOLESALE WATER AND WASTEWATER

For the 12 months ended 31 March 2017

	WATER RESOURCES	WATER NETWORK+	WASTEWATER NETWORK+	SLUDGE	TOTAL
	£'m	£'m	£'m	£'m	£'m
Operating expenditure					
Power	6.5	12.7	17.4	0.4	37.0
Income treated as negative expenditure	(0.2)	(0.4)	-	(8.1)	(8.7)
Service charges/ discharge consents	22.2	0.2	2.6	-	25.0
Bulk supply/ Bulk discharge	1.0	-	-	-	1.0
Other operating expenditure	14.8	91.0	58.2	15.1	179.1
Local authority and Cumulo rates	2.0	12.5	8.4	1.8	24.7
Total operating expenditure excluding third party services	46.3	116.0	86.6	9.2	258.1
Third party services	4.0	3.1	0.7	-	7.8
Total operating expenditure	50.3	119.1	87.3	9.2	265.9
Capital Expenditure					
Maintaining the long term capability of the assets - infra	2.1	23.4	15.0	-	40.5
Maintaining the long term capability of the assets - non- infra	5.1	53.7	31.6	3.4	93.8
Other capital expenditure - infra	0.8	19.5	18.6	-	38.9
Other capital expenditure - non-infra	0.9	12.5	6.6	-	20.0
Total gross capital expenditure excluding third party services	8.9	109.1	71.8	3.4	193.2
Third party services	-	-	-	-	-
Total gross capital expenditure	8.9	109.1	71.8	3.4	193.2
Grants and contributions	-	(15.9)	(5.8)	-	(21.7)
Totex	59.2	212.3	153.3	12.6	437.4

	WATER RESOURCES	WATER NETWORK+	WASTEWATER NETWORK+	SLUDGE	TOTAL
	£'m	£'m	£'m	£'m	£'m
Cash Expenditure					
Pension deficit recovery payments	0.7	5.1	2.5	0.3	8.6
Other cash items	-	-	-	-	-
Total					
Totex including cash items	59.9	217.4	155.8	12.9	446.0

Local authority and cumulo rates for Water includes an exceptional credit of £10.7m. At the balance sheet date, the Company had an outstanding appeal against the rateable value for water business rates, as published on the 2005 Central List by the Valuation Office Agency (VOA). After the balance sheet date, the VOA responded to the Company's submitted arguments and proposed a revised valuation, which the Company accepted. The Company, with support of its professional advisors, calculated that the revised valuation will result in a refund of £10.7m, related to the years 2005/06 to 2010/11.

2C OPERATING COST ANALYSIS: RETAIL

For the 12 months ended 31 March 2017

	HOUSEHOLD	NON-HOUSEHOLD	TOTAL
	£'m	£'m	£'m
Operating expenditure			
Customer services	12.6	1.6	14.2
Debt management	4.6	0.5	5.1
Doubtful debts	14.5	1.9	16.4
Meter reading	2.4	0.4	2.8
Services to developers	-	0.2	0.2
Other operating expenditure	9.4	2.8	12.2
Total operating expenditure excluding third party services	43.5	7.4	50.9
Third party services operating expenditure	-	-	-
Total operating expenditure	43.5	7.4	50.9
Depreciation - tangible fixed assets	1.9	-	1.9
Amortisation - intangible fixed assets	-	-	-
Total operating costs	45.4	7.4	52.8
Debt written off	5.6	2.6	8.2

Retail revenue and cost reconciliation to FD

Household

Household retail revenue, reported in table 2I, was £57.9m, which was £0.2m lower than allowed in the FD. Household retail costs, in table 2C above, were £45.4m, which was £6.7m lower than allowed in the FD. This generated a household retail margin of 2.1%, reported in table 4H, compared to a margin of 1% assumed in the FD.

The main difference on operating costs related to the doubtful debt charge. Whilst the underlying bad debt provision policy remained unchanged, as reported in note c(ii) of the Regulatory Accounting Policies, a comparison of the provision against historical collection rates indicated that the provision was higher than required. As a result, the provision was adjusted downwards by £5.2m, reducing the doubtful debt charge in the year.

If the impact of the doubtful debts adjustment is removed, costs would be £1.5m lower than FD and the household retail margin would be 1.2%.

Non-household

Non-household retail revenue, reported in table 2I, was £8.9m, which was £1m lower than allowed in the FD. Non-household retail costs, in table 2C above, were £7.4m, which was £2.5m higher than allowed in the FD. This generated a non-household retail margin of 0.8%, reported in table 4H, compared to a margin of 2.5% assumed in the FD.

The main reason for the non-household retail costs being higher than FD was the costs of preparing for the opening of the non-household retail market on 1 April 2017.



2D HISTORIC COST ANALYSIS OF FIXED ASSETS: WHOLESALE AND RETAIL

	WHOLESALE			
	WATER RESOURCES	WATER NETWORK+	WASTEWATER NETWORK+	SLUDGE
	£'m	£'m	£'m	£'m
Cost				
At 1 April 2016	65.8	2,980.6	2,486.8	183.9
Disposals	(0.1)	(1.5)	(1.2)	(0.2)
Additions	8.9	109.1	71.8	3.4
Assets adopted at nil cost	-	0.2	12.5	-
At 31 March 2017	74.6	3,088.4	2,569.9	187.1
Depreciation				
At 1 April 2016	(15.6)	(975.8)	(594.9)	(110.5)
Disposals	0.1	1.5	1.1	0.2
Charge for the year	(2.8)	(71.2)	(45.7)	(5.9)
At 31 March 2017	(18.3)	(1,045.5)	(639.5)	(116.2)
Net book amount at 31 March 2017	56.3	2,042.9	1,930.4	70.9
Net book amount at 1 April 2016	50.2	2,004.8	1,891.9	73.4
Depreciation charge for year				
Principal services	(2.8)	(70.9)	(45.7)	(5.9)
Third party services	-	(0.3)	-	-
Total	(2.8)	(71.2)	(45.7)	(5.9)

	RETAIL		TOTAL
	HOUSEHOLD	NON-HOUSEHOLD	
	£'m	£'m	£'m
Cost			
At 1 April 2016	37.5	5.2	5,759.8
Disposals	(3.7)	-	(6.7)
Additions	11.4	(1.6)	203.0
Assets adopted at nil cost	-	-	12.7
At 31 March 2017	45.2	3.6	5,968.8
Depreciation			
At 1 April 2016	(17.7)	-	(1,714.5)
Disposals	0.1	-	3.0
Charge for the year	(1.9)	-	(127.5)
At 31 March 2017	(19.5)	-	(1,839.0)
Net book amount at 31 March 2017	25.7	3.6	4,129.8
Net book amount at 1 April 2016	19.8	5.2	4,045.3
Depreciation charge for year			
Principal services	(1.9)	-	(127.2)
Third party services	-	-	(0.3)
Total	(1.9)	-	(127.5)

2E ANALYSIS OF CAPITAL CONTRIBUTIONS AND LAND SALES: WHOLESALE

For the 12 months ended 31 March 2017

	FULLY RECOGNISED IN INCOME STATEMENT	CAPITALISED AND AMORTISED (IN INCOME STATEMENT)	FULLY NETTED OFF CAPEX	TOTAL
	£'m	£'m	£'m	£'m
Grants and contributions - water				
Connection charges (s45)	-	6.4	-	6.4
Infrastructure charge receipts (s146)	-	5.7	-	5.7
Requisitioned mains (s43, s55 & s56)	-	1.6	-	1.6
Diversions (s185)	-	2.0	-	2.0
Other Contributions	-	0.2	-	0.2
Total	-	15.9	-	15.9
Value of adopted assets	-	0.2	-	0.2
Grants and contributions - wastewater				
Infrastructure charge receipts (s146)	-	3.6	-	3.6
Requisitioned sewers (s100)	-	2.0	-	2.0
Diversions (s185)	-	0.7	-	0.7
Other Contributions	-	(0.6)	-	(0.6)
Total	-	5.7	-	5.7
Value of adopted assets	-	12.5	-	12.5
	WATER	WASTEWATER	TOTAL	
	£'m	£'m	£'m	
Movements in capitalised grants and contributions				
Brought forward	238.2	138.6	376.8	
Capitalised in year	15.9	5.7	21.6	
Adopted assets	0.2	12.5	12.7	
Amortisation (in income statement)	(3.5)	(2.2)	(5.7)	
Carried forward	250.8	154.6	405.4	
Land sales				
Proceeds from disposals of protected land	0.7	-	0.7	

Grants and contributions falling within the wholesale price control, and therefore also reported on table 2B, comprise connection charges, infrastructure charge receipts and requisitioned mains and sewers.

2F HOUSEHOLD REVENUES BY CUSTOMER TYPE

	WHOLESALE CHARGES REVENUE	RETAIL REVENUE	TOTAL REVENUE	NUMBER OF CUSTOMERS	AVERAGE HOUSEHOLD RETAIL REVENUE PER CUSTOMER
	£'m	£'m	£'m	000s	£
Unmeasured water only customer	77.4	7.5	84.9	300.6	25.0
Unmeasured wastewater only customer	7.1	0.4	7.5	33.6	11.9
Unmeasured water and wastewater customer	263.6	23.2	286.8	703.9	33.0
Measured water only customer	78.5	12.1	90.6	436.9	27.7
Measured wastewater only customer	5.3	0.5	5.8	32.3	15.5
Measured water and wastewater customer	102.3	14.2	116.5	361.8	39.2
Total	534.2	57.9	592.1	1,869.1	31.0

2G NON-HOUSEHOLD WATER REVENUES BY CUSTOMER TYPE

	WHOLESALE CHARGES REVENUE	RETAIL REVENUE	TOTAL REVENUE	NUMBER OF CONNECTIONS	AVERAGE NON-HOUSEHOLD RETAIL REVENUE PER CONNECTION
	£'m	£'m	£'m	000s	£
Non-Default tariffs					
Total non-default tariffs	1.2	-	1.2	-	-
Default tariffs					
Cust type 01, Unmeasured, Unmeas Water N, Unmeasured	0.8	0.2	1.0	6	28.4
Cust type 02, Unmeasured, Unmeas Water S, Unmeasured	0.4	-	0.4	3	18.9
Cust type 03, Measured, Meas Water N std, Measured	30.9	2.9	33.8	50	57.3
Cust type 04, Measured, Meas Water N f20, Measured	4.0	0.2	4.2	-	1,552.9
Cust type 05, Measured, Meas Water N fx, Measured	4.8	0.2	5.0	-	3,757.5
Cust type 06, Measured, Meas Water N f+, Measured	10.9	0.1	11.0	-	5,033.0
Cust type 07, Measured, Meas Water S std, Measured	25.2	1.8	27.0	35	50.6
Cust type 08, Measured, Meas Water S f20, Measured	3.4	0.1	3.5	-	1,062.3
Cust type 09, Measured, Meas Water S fx, Measured	3.4	0.1	3.5	-	4,053.0
Cust type 10, Measured, Meas Water S f+, Measured	3.7	-	3.7	-	4,951.7
Cust type 15, Measured, Ind Water, Measured	6.6	0.1	6.7	-	7,348.5
Total default tariffs	94.1	5.7	99.8	94	60.2
Total	95.3	5.7	101.0	94	60.2

2H NON-HOUSEHOLD WASTEWATER REVENUE BY CUSTOMER TYPE

	WHOLESALE CHARGES REVENUE	RETAIL REVENUE	TOTAL REVENUE	NUMBER OF CONNECTIONS	AVERAGE NON-HOUSEHOLD RETAIL REVENUE PER CONNECTION
	£'m	£'m	£'m	000s	£
Non-Default tariffs					
Total non-default tariffs	-	-	-	-	-
Default tariffs					
Cust type 11, Unmeasured, Unmeas Sew, Unmeasured	3.5	0.2	3.7	10	20.8
Cust type 12, Measured, Meas Sew - std, Measured	59.1	2.7	61.8	44	60.3
Cust type 13, Measured, Meas Sew - LU, Measured	4.2	0.1	4.3	-	3,793.0
Cust type 14, Measured, Trade Effluent - std, Measured	7.3	0.2	7.5	1	492.1
Cust type 16, Measured, Trade Effluent - Special Agreement, measured	4.0	-	4.0	-	7,367.2
Total default tariffs	78.1	3.2	81.3	55	58.2
Total	78.1	3.2	81.3	55	58.2

2I REVENUE ANALYSIS

for the 12 months ended 31 March 2017

	HOUSEHOLD	NON-HOUSEHOLD	TOTAL
	£'m	£'m	£'m
Wholesale charge - water			
Unmeasured	195.5	1.2	196.7
Measured	123.1	87.5	210.6
Third party revenue	-	6.6	6.6
Total	318.6	95.3	413.9
Wholesale charge - wastewater			
Unmeasured	152.6	3.5	156.1
Measured	63.0	74.6	137.6
Third party revenue	-	-	-
Total	215.6	78.1	293.7
Wholesale Total	534.2	173.4	707.6
Retail revenue			
Unmeasured	31.1	0.5	31.6
Measured	26.8	8.3	35.1
Other third party revenue	-	0.1	0.1
Retail total	57.9	8.9	66.8
Bulk Supplies - water			2.2
Bulk Supplies - wastewater			-
Other third party revenue			5.9
Principal services - non-price control			
Other appointed revenue			0.7
Total appointed revenue			783.2

	WATER	WASTEWATER	TOTAL
	£'m	£'m	£'m
Wholesale revenue governed by price control	413.9	293.7	707.6
Grants & contributions	13.7	5.6	19.3
Total revenue governed by wholesale price control	427.6	299.3	726.9
Amount assumed in wholesale determination	421.4	300.5	721.9
Adjustment for in-period ODI revenue	-	-	-
Adjustment for WRFIM	-	-	-
Total assumed revenue	421.4	300.5	721.9
Difference	6.2	(1.2)	5.0

Wholesale revenue control reconciliation to FD

Wholesale water revenue was £6.2m (1.5%) higher than the revenue allowance from the PR14 price control. This comprised £4m from standard published water charges and £2.2m from capital contributions. The higher water charges primarily related to higher than expected water usage by households in ESW and by non-households in the NW region. Higher new development activity generated more infrastructure charges and new connection charges than expected.

The numbers of reported properties were broadly in line with forecast and the number of void properties increased slightly. These movements did not generate material differences from the allowed revenue.

Wholesale wastewater revenue was £1.2m (0.4%) lower than the allowed revenue. Whilst capital contributions from new development activity were £1.2m higher than forecast, the revenue from standard published charges was £2.4m lower than expected. This was primarily due to lower volumes and credits issued for surface water drainage rebates and return to sewer allowances.

The necessary Licence modifications have been made during the year, therefore the wholesale revenue allowance to be recovered in 2018/19 will be adjusted to take account of the over recovery on water and under recovery on wastewater for 2016/17.

DISCLOSURE OF TRANSACTIONS WITH ASSOCIATES

Services supplied by the appointee to associated companies:

ASSOCIATE	SERVICE	TURNOVER	TERMS OF SUPPLY	VALUE
		£'m		£'m
AquaGib	Sale of materials	13.7	Negotiated	0.2
Northern Gas Networks Limited (NGN)	Mains repairs and trade effluent charges	422.2	No market	0.1
Vehicle Lease and Service Limited (VLS)	Rental of garage and service charges	15.0	Negotiated	0.1

Services supplied to the appointee by associated companies:

ASSOCIATE	SERVICE	TURNOVER	TERMS OF SUPPLY	VALUE
		£'m		£'m
CKI	Software licensing agreements	2,598.5	Negotiated	2.6
Hutchison Whampoa (Europe) Limited (HWL)	Marketing services	40.9	Competitive letting	0.1
NGN	Gas main diversions	422.2	No market	0.1
NWGL	Holding company charges	6.1	No market	1.2
Three Rivers Insurance Company Limited (TRICL)	Public liability insurance (deductible infill policy)	0.5	No market	0.5
VLS	Vehicle maintenance and capital finance charge	15.0	Competitive letting	8.2

Turnover data for AquaGib, NGN, NWGL and TRICL relates to the year to 31 March 2017. Turnover data for VLS, HWL and CKI relates to the year to 31 December 2016.

Information in relation to allocations and apportionments

The appointed and non-appointed businesses operate separate accounting records including sales and purchase ledgers. Revenue, operating costs, assets and liabilities are taken directly from these records.

Revenue is separately recorded between wholesale water and wastewater and household and non-household retail services and no apportionment has been necessary. Operating costs have been allocated between wholesale water and wastewater and household and non-household retail services in accordance with the guidance set out in RAG 4.06.

Overhead costs incurred in the appointed business which relate to the non-appointed business have been allocated using an activity based approach to comply with RAG 5.06.

Interest has been allocated between the appointed and non-appointed businesses on the basis of actual cash balances held by these businesses during the year at market rates. Capital costs and the related depreciation charges are specifically identifiable to the appropriate business and service.

Amounts borrowed by the appointee from associated companies

The Company has loans amounting to £2,078.0m due to NWF, a subsidiary company and £41.6m owed to NWGL. Details of these loans and the associated guarantees are provided in note 16 of the NWL Annual Report and Financial Statements.

The Company acquires vehicles from VLS, an associated company, on a finance lease basis. During the year, new finance leases of £3.9m were entered into and capital repayments of £3.5m were made. The year end finance lease creditor was £9.4m. All leases are at a fixed interest rate of 6%.

Guarantees or other forms of security

There were no guarantees or other forms of security provided by the appointee to any associate during the year, other than those relating to amounts borrowed from NWF, outlined above.

Dividends paid and proposed

During the year, the appointed business paid and proposed dividends to its immediate parent companies as follows:

	£'m
Dividends paid:	
Interim paid for the period ended 31 March 2017	100.3
Interim paid for the period ended 31 March 2017	100.5
Total dividends paid in the period	200.8

The Directors have a policy which aims to grow dividends on a slow but regular basis and which takes into account the principle of incentive based price cap regulation, including operating, investment and financing performance.

Accordingly, the level of dividend has been declared by reference to:

- the Company's ability to finance its functions;
- the Company's cumulative financial performance and past outperformance; and
- maintaining the Company's stable strong investment grade credit ratings.

A special dividend of £18.9m was proposed for the year ended 31 March 2018, and paid after the balance sheet date on 3 April 2017. This related to the profit on the sale of NWL's non-household retail business to NWGB, as described in note 2 of the NWL Annual Report and Financial Statements, and the enduring working capital benefit which NWL will gain as a consequence of this transaction.

Omission of right

There were no omissions by the appointee to exercise any rights which would cause the net assets to decrease.

Waivers

There were no waivers by the appointee of any consideration, remuneration or other payment owed to it by any associated company.

The information in this note has been produced to comply with the requirements of RAG 5.06 Transfer Pricing in the Water Industry and the disclosures required by paragraph 6 of Condition F of the Company's operating licence.

The Directors confirm that, to the best of their knowledge, all transactions with associated companies have been disclosed.

INDEPENDENT AUDITOR'S REPORT TO THE WATER SERVICES REGULATION AUTHORITY ('WSRA') AND DIRECTORS OF NORTHUMBRIAN WATER LIMITED

Opinion on Annual Performance Report

In our opinion, Northumbrian Water Limited's (the Company) Regulatory Accounting Statements within the Annual Performance Report:

- have been properly prepared in accordance with Condition F, the Regulatory Accounting Guidelines issued by the WSRA (RAG1.07, RAG2.06, RAG3.09, RAG4.06 and RAG5.06) and the accounting policies (including the Company's published accounting methodology statement), set out [on pages 108 to 110](#).

Emphasis of matter - basis of preparation

Without modifying our opinion on the Regulatory Accounting Statements within the Annual Performance Report, we draw attention to the fact that the Annual Performance Report has been prepared in accordance with Condition F, the Regulatory Accounting Guidelines, the accounting policies (including the accounting methodology statement) set out in the statement of accounting policies and under the historical cost convention. The nature, form and content of the Regulatory Accounting Statements are determined by the WSRA. It is not appropriate for us to assess whether the nature of the information being reported upon is suitable or appropriate for the WSRA's purposes. Accordingly we make no such assessment.

The Annual Performance Report is separate from the statutory financial statements of the Company and has not been prepared under the basis of International Financial Reporting Standards as adopted by the European Union ('IFRSs'). Financial information other than that prepared on the basis of IFRSs does not necessarily represent a true and fair view of the financial performance or financial position of a company as shown in statutory financial statements prepared in accordance with the Companies Act 2006.

The Regulatory Accounting Statements [on pages 111 to 139](#) have been drawn up in accordance with Regulatory Accounting Guidelines with a number of departures from IFRSs. A summary of the effect of these departures from Generally Accepted Accounting Practice in the Company's statutory financial statements is included in the tables within section 1.

What we have audited

The sections within the Company's Annual Performance Report that we have audited ('the Regulatory Accounting Statements') comprise:

- the regulatory financial reporting tables comprising the income statement (table 1A), the statement of comprehensive income (table 1B), the statement of financial position (table 1C), the statement of cash flows (table 1D) and the net debt analysis (table 1E) and the related notes; and

- the regulatory price review and other segmental reporting tables comprising the segmental income statement (table 2A), the totex analysis for wholesale water and wastewater (table 2B), the operating cost analysis for retail (table 2C), the historical cost analysis of fixed assets for wholesale and retail (table 2D), the analysis of capital contributions and land sales for wholesale (table 2E), the household water revenues by customer type (table 2F), the non-household water revenues by customer type (table 2G), the non-household wastewater revenues by customer type (table 2H) and the revenue analysis by customer type (table 2I) and the related notes.

The financial reporting framework that has been applied in their preparation comprises Condition F, the Regulatory Accounting Guidelines issued by the WSRA and the accounting policies (including the accounting separation methodology) set out in the Annual Performance Report.

In applying the financial reporting framework, the Directors have made a number of subjective judgements, for example in respect of significant accounting estimates. In making such estimates, they have made assumptions and considered future events.

We have not audited the Outcome performance table (tables 3A to 3D) and the additional regulatory information in tables 4A to 4I.

This report is made, on terms that have been agreed, solely to the Company and the WSRA in order to meet the requirements of Condition F of the Instrument of Appointment granted by the Secretary of State for the Environment to the Company as a water and sewage undertaker under the Water Industry Act 1991 ('Condition F'). Our audit work has been undertaken so that we might state to the Company and the WSRA those matters that we have agreed to state to them in our report, in order (a) to assist the Company to meet its obligation under Condition F to procure such a report and (b) to facilitate the carrying out by the WSRA of its regulatory functions, and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the WSRA, for our audit work, for this report or for the opinions we have formed.

Respective responsibilities of the WSRA, the Directors and Auditors

As explained more fully in the Statement of Directors' Responsibilities set out [on page 106](#), the Directors are responsible for the preparation of the Annual Performance Report in accordance with Condition F, the Regulatory Accounting Guidelines issued by the WSRA and the Company's accounting policies, including the Company's published accounting methodology statement.

Our responsibility is to audit and express an opinion on the Regulatory Accounting Statements within the Annual Performance Report in accordance with International Standards on Auditing (UK and Ireland) ('ISAs (UK & Ireland)'), except as stated in the section on 'What an audit of the Annual Performance report involves' below, and having regard to the guidance contained in ICAEW Technical Release Tech 02/16 AAF 'Reporting to Regulators on Regulatory Accounts' issued by the Institute of Chartered Accountants in England and Wales. Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

What an audit of the Annual Performance Report involves

An audit involves obtaining evidence about the amounts and disclosures in the Regulatory Accounting Statements sufficient to give reasonable assurance that the Regulatory Accounting Statements within the Annual Performance Report are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Directors; and the overall presentation of the Annual Performance Report. In addition, we read all the financial and non-financial information in the Annual Performance Report to identify material inconsistencies with the audited sections of the Annual Performance Report and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

We have not assessed whether the accounting policies are appropriate to the circumstances of the Company where these are laid down by Condition F. Where Condition F does not give specific guidance on the accounting policies to be followed, our audit includes an assessment of whether the accounting policies adopted in respect of the transactions and balances required to be included in the Annual Performance Report are consistent with those used in the preparation of the statutory financial statements of the Company. Furthermore, as the nature, form and content of Annual Performance Report is determined by the WSRA, we did not evaluate the overall

adequacy of the presentation of the information, which would have been required if we were to express an audit opinion under ISAs (UK & Ireland).

The Company has presented the allocation of operating costs and assets in accordance with the accounting policy for price control segments set out in note (E) of the Regulatory Accounting Policies and Disclosures and its Accounting Methodology Statement published on the Company's website on 14 July 2017. We are not required to assess whether the methods of cost allocation set out in the Methodology Statement are appropriate to the circumstances of the Company or whether they meet the requirements of the WSRA, which would have been required if we were to express an audit opinion under ISAs (UK & Ireland).

Opinion on other matters prescribed by Condition F

Under the terms of our contract we have assumed responsibility to provide those additional opinions required by Condition F in relation to the accounting records. In our opinion:

- proper accounting records have been kept by the appointee as required by paragraph 3 of Condition F; and
- the Regulatory Accounting Statements are in agreement with the accounting records and returns retained for the purpose of preparing the Annual Performance Report.

Other matters

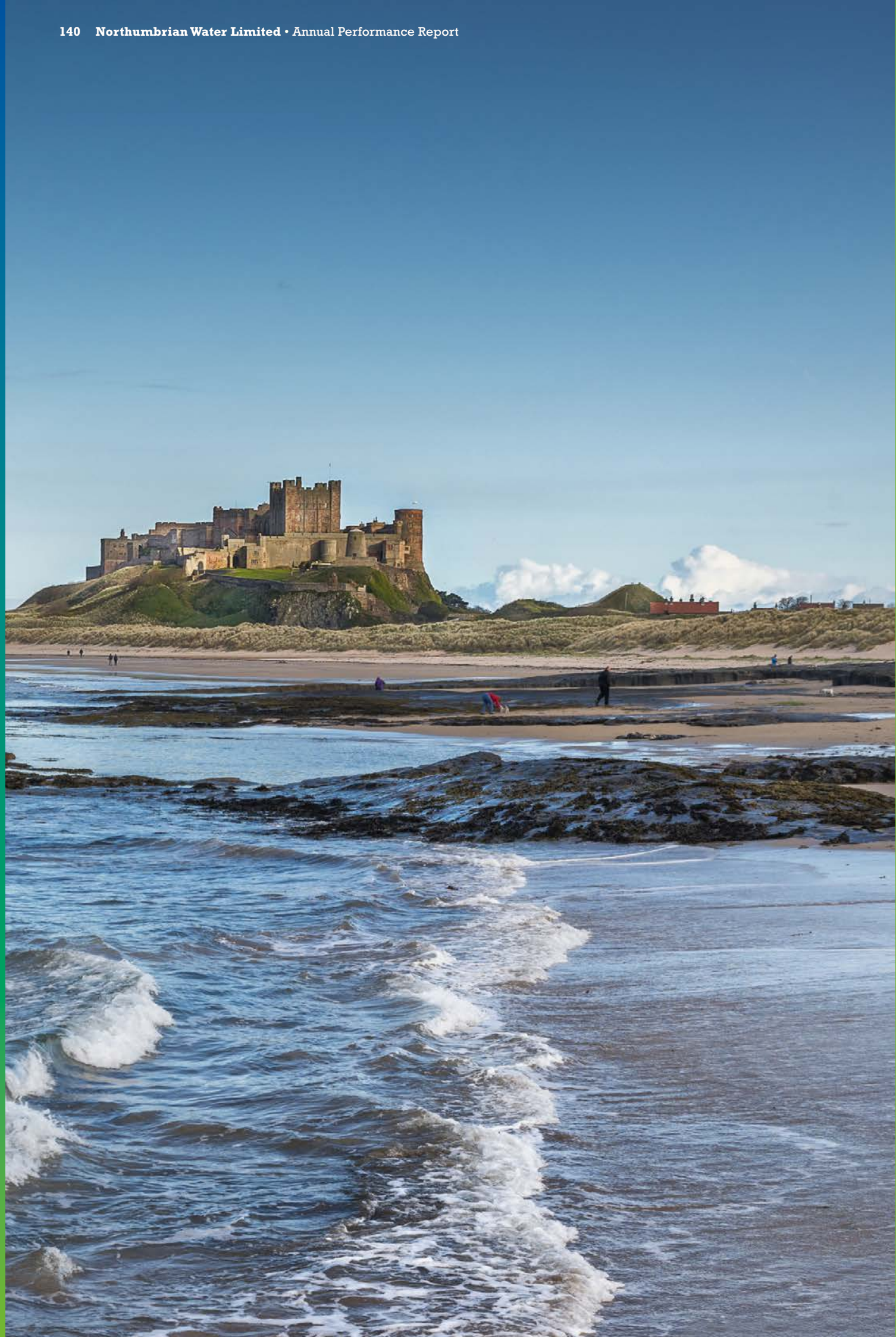
Our opinion on the Regulatory Accounting Statements within the Annual Performance Report is separate from our opinion on the statutory financial statements of the Company for the year ended 31 March 2017 on which we reported on 14 July 2017, which are prepared for a different purpose. Our audit report in relation to the statutory financial statements of the Company (our 'Statutory audit') was made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our Statutory audit work was undertaken so that we might state to the Company's members those matters we are required to state to them in a statutory audit report and for no other purpose. In these circumstances, to the fullest extent permitted by law, we do not accept or assume responsibility for any other purpose or to any other person to whom our Statutory audit report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Anthony Matthews

Anthony Matthews (Senior statutory auditor) for and on behalf of Deloitte LLP

Statutory Auditor
Newcastle Upon Tyne, United Kingdom

14 July 2017



SECTION 3: PERFORMANCE SUMMARY

3

3A OUTCOME PERFORMANCE TABLE FOR THE YEAR ENDED 31 MARCH 2017

UNIQUE ID	PERFORMANCE COMMITMENT	UNIT	2015-16 PERFORMANCE LEVEL - ACTUAL
W-A1	Asset health measures - water	N/A	n/a
W-B1	Satisfaction with taste and odour of tap water	nr	1,225
W-B2	Overall drinking water compliance (AH)	%	99.937
W-B3	Discoloured water complaints (AH)	nr	3,762
W-C1	Interruptions to water supply for more than 3 hours (average time per property per year)	time (mins secs)	3:20
W-C2	Properties experiencing poor water pressure (AH)	nr	238
W-C3	Water mains bursts (AH)	nr	3,916
W-C4	Leakage (Ml/d) Northumbrian area	nr	134.66
W-C5	Leakage (Ml/d) Essex & Suffolk area	nr	62.42
W-D1	NWL independent overall customer satisfaction score	score	8.5
W-D2	Service incentive mechanism (SIM)	score	83.64
W-D3	Domestic customer satisfaction, net promoter score	%	49
W-E1	NWL independent survey on keeping customers informed	%	94
W-F1	Greenhouse gas emissions	nr	225.2
W-F2	Annual environmental performance report	text	Report published
S-A1	Asset health measures - wastewater	N/A	n/a
S-B1	Properties flooded externally	nr	1,061
S-B2	Properties flooded internally	nr	143
S-B3	Repeat sewer flooding (AH)	nr	184
S-B4	Sewer collapses (AH)	nr	48
S-B5	Transferred drains and sewers - internal sewer flooding	nr	219
S-B6	Transferred drains and sewers - external sewer flooding	nr	2,506
S-B7	Transferred drains and sewers - sewer collapses	nr	58
S-C1	Sewage treatment works discharge compliance (AH)	nr	1
S-C2	Pollution incidents (category 3) (AH)	nr	124
S-C3	Bathing water compliance	nr	33
S-C4	Whitburn combined sewer overflow (CSO) scheme	text	n/a
S-D1	NWL independent overall customer satisfaction score	score	8.5
S-D2	Service incentive mechanism (SIM)	score	83.64
S-D3	Domestic customer satisfaction, net promoter score	%	49

2016-17 PERFORMANCE LEVEL - ACTUAL	2016-17 COMMITTED PERFORMANCE LEVEL MET?	NOTIONAL REWARD OR PENALTY ACCRUED FOR 2016-17	NOTIONAL REWARD OR PENALTY ACCRUED FOR 2016-17	TOTAL AMP6 REWARD OR PENALTY 31 MARCH 2020 FORECAST	TOTAL AMP6 REWARD OR PENALTY 31 MARCH 2020 FORECAST
			£'m		£'m
n/a	-	-	-	-	-
1,229	No	Penalty deadband	-	Penalty	(8.9)
99.929	-	-	-	-	-
2,874	-	-	-	Reward	0.5
2:26	Yes	Reward	3.6	Reward	15.1
199	-	-	-	-	-
4,273	-	-	-	-	-
133.82	Yes	Reward deadband	-	-	-
68.08	No	Penalty	(0.1)	Penalty	(0.1)
8.5	Yes	-	-	-	-
87.57	No	-	-	-	-
46	Yes	-	-	-	-
94	-	-	-	-	-
187.7	No	-	-	-	-
Report published	Yes	-	-	-	-
n/a	-	-	-	-	-
839	Yes	Reward	0.6	Reward	2.5
119	Yes	Reward	0.9	Reward	3.3
46	-	-	-	Reward	3.8
55	-	-	-	-	-
215	Yes	Reward deadband	-	-	-
2,730	Yes	Reward deadband	-	-	-
72	Yes	-	-	-	-
1	-	-	-	-	-
102	-	-	-	-	-
34	Yes	-	-	-	-
n/a	-	-	-	-	-
8.5	Yes	-	-	-	-
87.57	No	-	-	-	-
46	Yes	-	-	-	-

UNIQUE ID	PERFORMANCE COMMITMENT	UNIT	2015-16 PERFORMANCE LEVEL - ACTUAL
S-E1	NWL independent survey on keeping customers informed	%	94
S-F1	Greenhouse gas emissions	nr	225.2
S-F2	Annual environmental performance report	text	Report published
R-B1	NWL independent overall customer satisfaction score	score	8.5
R-B2	Service incentive mechanism (SIM)	score	83.64
R-B3	Domestic customer satisfaction, net promoter score	%	49
R-C1	NWL independent value for money survey	score	8.2
R-C2	Satisfied with value for money of water services - Northumbrian region (CCWater research)	%	77
R-C3	Satisfied with value for money of sewerage services - Northumbrian region (CCWater research)	%	79
R-C4	Satisfied with value for money of water services - Essex & Suffolk region (CCWater research)	%	70
R-D1	NWL independent survey on keeping customers informed	%	94
R-E1	Greenhouse gas emissions	nr	225.2
R-E2	Annual environmental performance report	text	Report published
R-F1	Delivering a consolidated Customer Information and Billing (CIB) system	£m	n/a

2016-17 PERFORMANCE LEVEL - ACTUAL	2016-17 COMMITTED PERFORMANCE LEVEL MET?	NOTIONAL REWARD OR PENALTY ACCRUED FOR 2016-17	NOTIONAL REWARD OR PENALTY ACCRUED FOR 2016-17	TOTAL AMP6 REWARD OR PENALTY 31 MARCH 2020 FORECAST	TOTAL AMP6 REWARD OR PENALTY 31 MARCH 2020 FORECAST
			£'m		£'m
94	-	-	-	-	-
187.7	No	-	-	-	-
Report published	Yes	-	-	-	-
8.5	Yes	-	-	-	-
87.57	No	-	-	-	-
46	Yes	-	-	-	-
8.2	Yes	-	-	-	-
84	Yes	-	-	-	-
84	Yes	-	-	-	-
67	No	-	-	-	-
94	-	-	-	-	-
187.7	No	-	-	-	-
Report published	Yes	-	-	-	-
n/a	-	-	-	-	-

Our performance against our outcomes, measures of success and performance commitments is explained fully [on pages 18 to 103](#) of this report. Table 3A reports the full performance in the format required by Ofwat.

Measurement of performance and calculation of any penalties or rewards is calculated using the methodology stated in our PR14 Final Determination, and is subject to robust assurance. Some of the ODIs have earned a reward in the year to 31 March 2017, although this will not be reflected in the RCV until 1 April 2020 in the next price control period.

For MoS within our Asset Health baskets, the methodology states that these are measured on a three-year average. Within this performance summary, we have also included actual annual performance.

Within Table 3A, performance against PCs for the Asset Health measures have not been assessed although actual three-year average performance is shown. This is because the first assessment point, for penalty and/or reward, will not take place until the end of 2017/18.

We have engaged with our Water Forums to discuss our performance and further information about our performance is available in a more customer-friendly presentation on our websites at www.nwl.co.uk, www.eswater.co.uk and www.welivewater.co.uk.

3B SUB-MEASURE PERFORMANCE TABLE

For the year ended 31 March 2017

NWL does not have any sub-measures to report in table 3B. All performance measures are reported in [Table 3A](#).

3C AIM TABLE

For the year ended 31 March 2017

ABSTRACTION SITE	2016-17 AIM PERFORMANCE (MI)	2016-17 NORMALISED AIM PERFORMANCE	CUMULATIVE AIM PERFORMANCE 2016-17 (MI)	CUMULATIVE NORMALISED AIM PERFORMANCE 2016-17	CONTEXTUAL INFORMATION RELATING TO AIM PERFORMANCE
Ormesby Broad	n/a	n/a	n/a	n/a	See note below

Note: The water level in Ormesby Broad did not fall below the water below trigger threshold of -0.14m AOD during the reporting year. The mud pumping project was completed in May 2017 which helped resolve the sustainability issue identified through the RoC process.

3D SIM TABLE

For the year ended 31 March 2017

	UNITS	DECIMAL PLACES	SCORE
Qualitative performance			
1st survey score	score	2	4.50
2nd survey score	score	2	4.53
3rd survey score	score	2	4.62
4th survey score	score	2	4.54
Qualitative SIM score (out of 75)	score	2	66.56
Quantitative performance			
Quantitative composite score	score	2	79.79
Quantitative SIM score (out of 25)	calc	2	21.01
SIM score			
Total annual SIM score (out of 100)	calc	-	87.57

SECTION 4: ADDITIONAL REGULATORY INFORMATION



4A NON-FINANCIAL INFORMATION

For the 12 months ended 31 March 2017

RETAIL - HOUSEHOLD	TOTAL COMPANY		NORTHUMBRIAN WATER		ESSEX AND SUFFOLK WATER	
	2017		2017		2017	
	UNMEASURED	MEASURED	UNMEASURED	MEASURED	UNMEASURED	MEASURED
Number of void households ('000s)	61.1	50.3	47.8	19.0	13.3	31.3
Per capita consumption (excluding supply pipe leakage) l/h/d			143.4	133.5	158.6	139.9

WHOLESALE	NORTHUMBRIAN WATER		ESSEX AND SUFFOLK WATER	
	2017		2017	
	WATER	WASTEWATER	WATER	WASTEWATER
Volume (MI/d)				
Bulk supply export	0.7	-	2.7	-
Bulk supply import	-	-	85.3	-
Distribution input	662.2		443.8	

4B TOTEX ANALYSIS

	CURRENT YEAR		CUMULATIVE 2015-20	
	WATER	WASTEWATER	WATER	WASTEWATER
	£'m	£'m	£'m	£'m
Actual totex	277.3	168.7	559.6	343.5
Items excluded from the menu				
Third party costs	7.1	0.7	20.9	4.4
Pension deficit recovery payments	5.8	2.8	11.4	5.6
Other 'Rule book' adjustments	0.3	0.3	17.7	9.0
Total items excluded from the menu	13.2	3.8	50.0	19.0
Transition expenditure	-	-	-	-
Adjusted Actual totex	264.1	164.9	509.6	324.5
Adjusted Actual totex base year prices	243.8	152.3	475.4	302.8
Allowed totex based on final menu choice – base year prices	272.1	206.4	529.8	410.9

Wholesale totex reconciliation to FD

Our aim is to deliver the business outcomes of our wholesale activities as efficiently as possible, whilst maintaining the health of our assets and supporting excellent customer service. We are confident that we will outperform the wholesale totex allowed in our PR14 Final Determination over the five year price control period, based upon our implementation of a new operating model for efficient delivery of our capital investment programme, our ongoing focus on our opex efficiency programme and our innovation strategy.

However, it is important that one-off exceptional adjustments are taken into account to gain a more realistic view of the underlying efficiency position.

Prior year restatement

The format of table 4B has changed significantly from that reported in the 2015/16 APR therefore, in order to ensure that the cumulative position is calculated consistently, the 2015/16 values have been restated.

Atypical items

The 2015/16 results included an exceptional pension credit in respect of a pension curtailment. This related to changes made to future benefits from the Northumbrian Water Pension Scheme, a defined benefit pension scheme, after consultation with employees. Of the total pension credit of £38.9m, £19.7m related to the water service and £10m related to wastewater.

In 2016/17, an exceptional water cumulo rates credit of £10.7m has been recognised, which relates to a revised 2005 cumulo valuation agreed with the VOA, as described in the note to table 2B.

Other Rule book adjustments

In accordance with RAG4.06 and PR14 reconciliation rulebook, the other 'Rule book' adjustments row comprises 'other cash adjustments' as reported in table 2B and disallowable costs, as defined in the PR14 reconciliation rulebook. The overarching principle is that costs should only feature in the totex menu where it is appropriate for a company to share an over, or under, spend with customers. Disallowable items are costs that do not conform to this overarching principle, examples being fines and compensation costs.

NWL has disallowed the following costs:

Water:

- fines and fixed penalty notices related to traffic management legislation: £0.5m in 2016/17 and £0.7m cumulatively;
- reduction in a provision for a compensation event: £0.1m in 2016/17 and cumulatively.

Wastewater

- enforcement undertaking agreed with the EA relating to a pollution incident: £0.4m, in 2016/17 and cumulatively;
- reduction in a provision for a compensation event: £0.1m in 2016/17 and cumulatively.

Water totex compared to FD

The performance reported in the table above shows cumulative actual costs for Water which are £54.4m (10.3%) lower than the totex allowed in the FD. However, this includes the impact of the atypical pension credit and atypical rates adjustment described above. After taking these atypical credits into account (in base year prices), the adjusted cumulative costs are £26m (4.9%) lower than FD.

The main driver of lower costs on water is the new operating model that we have implemented to deliver our capital investment programme as efficiently and effectively as possible. This is based on four key principles: we operate as a well-informed professional client; we offer clear visibility of, and commitment to, future workload to suppliers; we engage suppliers as early as practicable in the delivery process to add value and innovation; and we create the right environment for collaboration and co-operation, incentivising innovation and performance.

The performance reported in [Table 3A](#) and in Our Performance Summary [on pages 18 to 19](#) demonstrates that we have achieved efficiencies whilst continuing to deliver excellent customer service, shown in SIM scores, maintaining industry-leading performance in areas such as interruptions to supply and maintaining asset health performance.

Wastewater totex compared to FD

Table 4B shows cumulative actual costs for Wastewater which are £108.1m (26.3%) lower than the totex allowed in the FD. Even after taking the atypical pension credit into account (in base year prices), the adjusted cumulative costs are £98.7m (24%) lower than FD.

This exceptionally strong efficiency has also been driven in part by the new capital investment delivery model, but also by investment in renewable energy generation and sustainable urban drainage solutions.

This has also been achieved at the same time as achieving year on year improvements in sewer flooding performance, maintaining excellent sewage treatment works compliance and maintaining asset health performance.

4C FORECAST IMPACT OF PERFORMANCE ON RCV

	2017	
	WATER	WASTEWATER
	£'m	£'m
RCV determined at FD at 31 March	2,017.3	1,996.8
RCV element of cumulative totex over/underspend so far in the price control period	(16.5)	(51.2)
Adjustment for ODI rewards or penalties	7.2	2.2
Projected 'shadow' RCV	2,008.0	1,947.8

4D TOTEX ANALYSIS: WHOLESALE WATER

For the 12 months ended 31 March 2017

	WATER RESOURCES	
	ABSTRACTION LICENCES	RAW WATER ABSTRACTION
	£'m	£'m
Operating expenditure		
Power	-	6.5
Income treated as negative expenditure	-	(0.2)
Abstraction charges	22.1	0.1
Bulk supply	-	1.0
Other operating expenditure	-	14.8
Local authority and Cumulo rates	-	2.0
Total operating expenditure excluding third party services	22.1	24.2
Third party services	4.0	-
Total operating expenditure	26.1	24.2
Capital Expenditure		
Maintaining the long term capability of the assets - infra	-	2.1
Maintaining the long term capability of the assets - non-infra	-	5.1
Other capital expenditure - infra	-	0.8
Other capital expenditure - non-infra	-	0.9
Total gross capital expenditure (excluding third party)	-	8.9
Third party services	-	-
Total gross capital expenditure	-	8.9
Grants and contributions	-	-
Totex	26.1	33.1
Cash Expenditure		
Pension deficit recovery payments	-	0.7
Other cash items	-	-
Totex including cash items	26.1	33.8
Unit cost information (operating expenditure)		
Population ('000s)	4,427.2	4,427.2
Unit cost (£/pop)	5.9	5.5
	LICENCED VOLUME AVAILABLE	VOLUME ABSTRACTED
Volume (Ml)	701,754	458,237
Unit cost (£/Ml)	37.2	52.8

	NETWORK+				TOTAL
	RAW WATER TRANSPORT	RAW WATER STORAGE	WATER TREATMENT	TREATED WATER DISTRIBUTION	
	£'m	£'m	£'m	£'m	
Operating expenditure					
	2.0	-	5.9	4.8	19.2
	-	-	(0.4)	-	(0.6)
	-	-	0.2	-	22.4
	-	-	-	-	1.0
	0.7	0.9	31.4	58.0	105.8
	1.4	-	1.9	9.2	14.5
	4.1	0.9	39.0	72.0	162.3
	1.4	-	0.3	1.4	7.1
	5.5	0.9	39.3	73.4	169.4
Capital Expenditure					
	0.1	-	-	23.3	25.5
	0.1	-	24.0	29.6	58.8
	-	-	-	19.5	20.3
	-	-	10.1	2.4	13.4
	0.2	-	34.1	74.8	118.0
	-	-	-	-	-
	0.2	-	34.1	74.8	118.0
	-	-	(0.1)	(15.8)	(15.9)
	5.7	0.9	73.3	132.4	271.5
Cash Expenditure					
	-	-	1.5	3.6	5.8
	-	-	-	-	-
	5.7	0.9	74.8	136.0	277.3
Unit cost information (operating expenditure)					
	4,427.2	4,427.2	4,427.2	4,427.2	
	1.2	0.2	8.9	16.6	
	VOLUME TRANSPORTED	AVERAGE VOLUME STORED	DISTRIBUTION INPUT FROM WATER TREATMENT	DISTRIBUTION INPUT TREATED WATER	
	268,779	54,692	404,422	404,422	
	20.5	16.5	97.2	181.5	

4E TOTEX ANALYSIS: WHOLESALE WASTEWATER

for the 12 months ended 31 March 2017

	NETWORK+ SEWAGE COLLECTION		
	FOUL	SURFACE WATER DRAINAGE	HIGHWAY DRAINAGE
	£'m	£'m	£'m
Operating expenditure			
Power	5.2	-	-
Income treated as negative expenditure	-	-	-
Discharge consents	1.1	-	-
Bulk discharge	-	-	-
Other operating expenditure	3.9	17.4	9.6
Local authority rates and Cumulo rates	0.2	-	-
Total operating expenditure excluding third party services	10.4	17.4	9.6
Third party services	0.3	0.3	-
Total operating expenditure	10.7	17.7	9.6
Capital Expenditure			
Maintaining the long term capability of the assets - infra	4.2	7.0	3.8
Maintaining the long term capability of the assets - non-infra	2.6	4.3	2.2
Other capital expenditure - infra	5.2	8.7	4.7
Other capital expenditure - non-infra	0.7	1.1	0.6
Total gross capital expenditure (excluding third party services)	12.7	21.1	11.3
Third party services	-	-	-
Total gross capital expenditure	12.7	21.1	11.3
Grants and contributions	(1.7)	(2.9)	(1.5)
Totex	21.7	35.9	19.4
Cash Expenditure			
Pension deficit recovery payments	1.0	0.2	-
Other cash items	-	-	-
Totex including cash items	22.7	36.1	19.4

(TABLE CONTINUED)

NETWORK + SEWAGE TREATMENT		SLUDGE			TOTAL
SEWAGE TREATMENT AND DISPOSAL	SLUDGE LIQUOR TREATMENT	SLUDGE TRANSPORT	SLUDGE TREATMENT	SLUDGE DISPOSAL	
£'m	£'m	£'m	£'m	£'m	£'m
11.0	1.2	-	0.4	-	17.8
-	-	-	(8.1)	-	(8.1)
1.5	-	-	-	-	2.6
-	-	-	-	-	-
26.4	0.9	3.6	9.9	1.6	73.3
8.2	-	-	1.8	-	10.2
47.1	2.1	3.6	4.0	1.6	95.8
0.1	-	-	-	-	0.7
47.2	2.1	3.6	4.0	1.6	96.5
-	-	-	-	-	15.0
22.5	-	0.9	2.5	-	35.0
-	-	-	-	-	18.6
4.2	-	-	-	-	6.6
26.7	-	0.9	2.5	-	75.2
-	-	-	-	-	-
26.7	-	0.9	2.5	-	75.2
0.3	-	-	-	-	(5.8)
74.2	2.1	4.5	6.5	1.6	165.9
1.3	-	-	0.3	-	2.8
-	-	-	-	-	-
75.5	2.1	4.5	6.8	1.6	168.7

4E TOTEX ANALYSIS: WHOLESALE WASTEWATER (CONTINUED)

for the 12 months ended 31 March 2017

	NETWORK+ SEWAGE COLLECTION		
	FOUL	SURFACE WATER DRAINAGE	HIGHWAY DRAINAGE
	£'m	£'m	£'m
Unit cost information (operating expenditure)			
Population ('000s)	2,680.4	2,680.4	2,680.4
Unit cost (£/pop)	4.0	6.6	3.6

	VOLUME COLLECTED FOUL	VOLUME COLLECTED SURFACE WATER DRAINAGE	VOLUME COLLECTED HIGHWAY DRAINAGE
	MI	MI	MI
Volume	167,332	101,337	54,566
£/unit	63.9	174.7	175.9

NETWORK + SEWAGE TREATMENT		SLUDGE			TOTAL
SEWAGE TREATMENT AND DISPOSAL	SLUDGE LIQUOR TREATMENT	SLUDGE TRANSPORT	SLUDGE TREATMENT	SLUDGE DISPOSAL	
£'m	£'m	£'m	£'m	£'m	£'m
2,680.4	2,680.4	2,680.4	2,680.4	2,680.4	
17.6	0.8	1.3	1.5	0.6	

BIOCHEMICAL OXYGEN DEMAND (BOD) SEWAGE	BIOCHEMICAL OXYGEN DEMAND (BOD) IMPORTED SLUDGE LIQUOR	SLUDGE VOLUME TRANSPORTED	SLUDGE TREATMENT DRIED MASS SOLID MASS TREATED	SLUDGE DISPOSAL DRIED SOLID MASS DISPOSED
Tonnes	Tonnes	m3	ttds	ttds
186,023	5,823	793,189	68	30
253.7	360.6	4.5	59,084.2	53,872.1

4F OPERATING COST ANALYSIS: HOUSEHOLD RETAIL

For the year ended 31 March 2017

	HOUSEHOLD UNMEASURED			
	WATER ONLY	WASTEWATER ONLY	WATER AND WASTEWATER	TOTAL
	£'m	£'m	£'m	£'m
Operating expenditure				
Customer services	1.2	0.2	2.9	4.3
Debt management	0.4	0.1	1.1	1.6
Doubtful debts	1.7	0.1	9.5	11.3
Meter reading	-	-	-	-
Other operating expenditure	0.9	0.1	2.1	3.1
Total operating expenditure excluding third party services	4.2	0.5	15.6	20.3
Third party services operating expenditure	-	-	-	-
Total operating expenditure	4.2	0.5	15.6	20.3
Depreciation - tangible fixed assets	0.2	-	0.4	0.6
Amortisation - intangible fixed assets	-	-	-	-
Total operating costs	4.4	0.5	16.0	20.9

DEMAND-SIDE EFFICIENCY AND CUSTOMER-SIDE LEAKS ANALYSIS - HOUSEHOLD	TOTAL
	£'m
Demand-side water efficiency - gross expenditure	1.6
Demand-side water efficiency - expenditure funded by wholesale	(1.6)
Demand-side water efficiency - net retail expenditure	-
Customer-side leak repairs - gross expenditure	2.7
Customer-side leak repairs - expenditure funded by wholesale	(2.7)
Customer-side leak repairs - net retail expenditure	-

	HOUSEHOLD MEASURED				TOTAL
	WATER ONLY	WASTEWATER ONLY	WATER AND WASTEWATER	TOTAL	
	£'m	£'m	£'m	£'m	£'m
	4.4	0.3	3.6	8.3	12.6
	1.6	0.1	1.3	3.0	4.6
	1.6	-	1.6	3.2	14.5
	1.3	0.1	1.0	2.4	2.4
	3.3	0.3	2.7	6.3	9.4
	12.2	0.8	10.2	23.2	43.5
	-	-	-	-	-
	12.2	0.8	10.2	23.2	43.5
	0.7	-	0.6	1.3	1.9
	-	-	-	-	-
	12.9	0.8	10.8	24.5	45.4

4G WHOLESALE CURRENT COST FINANCIAL PERFORMANCE

For the 12 months ended 31 March 2017

	WATER	WASTEWATER	TOTAL
	£'m	£'m	£'m
Revenue	420.6	294.9	715.5
Operating expenditure	(169.4)	(96.5)	(265.9)
Capital maintenance charges	(127.8)	(96.8)	(224.6)
Other operating income	0.1	0.5	0.6
Current cost operating profit	123.5	102.1	225.6
Other income	4.7	2.9	7.6
Interest income	0.4	0.4	0.8
Interest expense	(65.3)	(64.6)	(129.9)
Other interest expense	(1.8)	(0.9)	(2.7)
Current cost profit before tax and fair value movements	61.5	39.9	101.4
Fair value gains/(losses) on financial instruments	(6.3)	(6.2)	(12.5)
Current cost profit before tax	55.2	33.7	88.9

4H FINANCIAL METRICS

For the 12 months ended 31 March 2017

	UNITS	METRIC
Financial indicators		
Net debt	£m	2,745.8
Regulated equity	£m	1,268.3
Regulated gearing	%	68.4
Post tax return on regulated equity	%	14.6
RORE (return on regulated equity)	%	8.4
Dividend yield	%	15.8
Retail profit margin - Household	%	2.1
Retail profit margin - Non household	%	0.8
Credit rating	n/a	BBB+/Baa1
Return on RCV	%	7.9
Dividend cover	dec	0.9
Funds from operations (FFO)	£m	327.6
Interest cover (cash)	dec	3.8
Adjusted interest cover (cash)	dec	2.2

	UNITS	METRIC
FFO/Debt	dec	0.1
Effective tax rate	%	18
RCF	£m	126.8
RCF/capex	dec	0.6

Revenue and earnings		
Revenue (actual)	£m	774.4
EBITDA (actual)	£m	457.6

Borrowings		
Proportion of borrowings which are fixed rate	%	65.4
Proportion of borrowings which are floating rate	%	4.8
Proportion of borrowings which are index linked	%	29.8
Proportion of borrowings due within 1 year or less	%	11.7
Proportion of borrowings due in more than 1 year but no more than 2 years	%	1.3
Proportion of borrowings due in more than 2 years but but no more than 5 years	%	4.1
Proportion of borrowings due in more than 5 years but no more than 20 years	%	56.7
Proportion of borrowings due in more than 20 years	%	26.2

RORE (Return on Regulated Equity)

The table below shows the differences between the base RORE set at the PR14 FD and the actual RORE reported in the table above.

COMPONENT OF RORE	VARIATION FROM BASE	EXPLANATORY COMMENT
PR14 base RORE	5.5%	Before adjustments related to revenue under-recovery in the previous price review period under Ofwat's Revenue Correction Mechanism (RCM)
Totex outperformance	2.6%	See table 4B narrative
Retail outperformance	0.3%	Retail cost outperformance against FD
ODI rewards	0.4%	See table 3A and associated narrative earlier in this report
Financing costs	(0.4)%	Due to RPI being lower than anticipated in the FD calculation, leading to higher than anticipated real debt costs compared to FD
2016/17 RORE	8.4%	This is the arithmetic average of 2015/16 and 2016/17 RORE, per Ofwat's guidance

4I FINANCIAL DERIVATIVES

For the 12 months ended 31 March 2017

	NOMINAL VALUE BY MATURITY (NET)		
	1 TO 2 YEARS	2 TO 5 YEARS	OVER 5 YEARS
	£'m	£'m	£'m
Derivative type			
Interest rate swap (sterling)			
Floating to fixed rate	10.0	40.0	150.0
Fixed to index-linked	-	-	150.0
Total	10.0	40.0	300.0
Forward currency contracts			
Forward currency contracts USD	4.2	2.6	-
Total	4.2	2.6	-
Other financial derivatives			
Other financial derivatives	19.8	19.3	-
Total	19.8	19.3	-
Total financial derivatives	34.0	61.9	300.0

NOMINAL VALUE (NET)	TOTAL VALUE		INTEREST RATE (WEIGHTED AVERAGE)	
	MARK TO MARKET	TOTAL ACCRETION	PAYABLE	RECEIVABLE
£'m	£'m	£'m	%	%
200.0	(17.6)	-	2.97%	0.98%
150.0	(13.7)	2.9	RPI-0.42%	0.00%
350.0	(31.3)	2.9		
6.8	0.6	-	0.00%	0.00%
6.8	0.6	-		
39.1	(8.9)	-	-	-
39.1	(8.9)	-	-	-
395.9	(39.6)	2.9		

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