

AffinityWater

Taking care of your water

Regulatory Annual Performance Report
for the year ended 31 March 2022

Affinity Water Limited
[Registered Number 02546950]



Welcome to the Affinity Water Regulatory Annual Performance Report for the year ended 31 March 2022

About this report

This regulatory Annual Performance Report is prepared to enable the Water Services Regulation Authority (Ofwat) to monitor the financial performance of the regulated water business of Affinity Water Limited.

Glossary of key abbreviations and definitions used within this report and the water industry

AMP – Asset Management Plan

The five-year price control period covered by a company's Business Plan. AMP6 ran from 2015-20. AMP7 runs from 2020-25.

C-MeX – Customer Measure of Experience

A measure of customer service levels being used by Ofwat in AMP7.

CCG – Customer Challenge Group

An independent group of individuals who hold us to account on how we are performing against our Performance Commitments.

CRI – Compliance Risk Index

A measure of water quality compliance designed to illustrate the risk arising from treated water compliance failures.

D-MeX – Developer Measure of Experience

A measure of developer service levels being used by Ofwat in AMP7.

Ml/d – Megalitres per day

A measure of consumption. One megalitre is equal to one million litres.

MOSL – Market Operator Services Limited

The market operator of England's non-household water market.

MZC – Mean Zonal Compliance

A measure of water quality compliance derived from monitoring samples taken from customers' taps.

ODI – Outcome Delivery Incentive

Mechanism for financial rewards or penalties that underpins the Performance Commitments submitted in a company's Business Plan (the "Plan").

PCC – Per Capita Consumption

The amount of water used by each person, usually measured in litres per person per day (l/p/d).

PR – Periodic Review

The price determination process undertaken by Ofwat ahead of each new AMP. The PR19 process set the price controls for AMP7.

R-MeX – Retailer Measure of Experience

A measure of retailer service levels being used by Ofwat in AMP7.

RCV – Regulatory Capital Value

The economic value of the regulated business, as determined by the price control regime.

RORE – Return on regulated equity

A financial metric used by Ofwat to determine the profitability of the regulated company.

Totex – Total expenditure

The sum of operational expenditure and capital expenditure.

WINEP – Water Industry National Environment Programme

A set of actions that water companies must complete in order to meet their environmental obligations.

WRMP – Water Resources Management Plan

A long-term plan detailing how a water company will maintain a sustainable balance between future demand and supply of water.



Important information

Terms used in this report:
The "company" or "Affinity Water" means Affinity Water Limited; the "regulated business" or "regulated activities" means the licensed water activities undertaken by Affinity Water Limited in the South East of England.

Our Registered Office: Tamblin Way, Hatfield, Hertfordshire AL10 9EZ

We're taking care of your water now and for the future.

Over the last few years, we've redefined what we want Affinity Water to mean to our people and the communities we serve.

In 2020, we defined our purpose as 'to provide high quality drinking water and take care of our environment, for our communities now and in the future'.

This led us to a simple framework that defines three clear things we want everyone to know about Affinity Water. We call these our 'brand genes'.

Everything we do can be seen through the lens of our brand genes. These help to guide our people, the activities we carry out and how we work with communities to ensure we continue to deliver a long-term, sustainable supply of water.



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The following regulatory Annual Performance Report is prepared to enable the Water Services Regulation Authority (Ofwat) to monitor the financial performance of the regulated water business of Affinity Water Limited.

This regulatory Annual Performance Report should be read in conjunction with the Annual Report and Financial Statements of Affinity Water Limited for the year ended 31 March 2022, which can be found here: affinitywater.co.uk/performance



Download the full Affinity Water Annual Report 2022 by visiting: affinitywater.annualreport2022.com



Highlights of the year

Second year of our 2020-25 business plan


Every five years, water companies produce business plans which set out the performance commitments they will deliver over a five-year period. These plans are shaped by customers and stakeholders on the things they want their company to deliver on.

Our current Business Plan 2020 – 2025 includes a total of 28 stretching performance commitments that will ensure we deliver our four customer outcomes.


Operational



 Supplying high - quality water you can trust

 Making sure you have enough water, whilst leaving more water in the environment

 Providing a great service that you value

 Minimising disruption to you and your community

Our performance in 2021-22

- Compliance Risk Index (CRI): We scored 0.87 for the 2021 calendar year within the deadband of 2 (lower is better). This is our best performance yet and improves on our 2020 score of 1.31. CRI is the metric the industry uses to measure water quality and is designed to illustrate the risk arising from treated water compliance failures.
- Customer contacts per 1,000 population for water quality: We achieved a contact rate of 0.75. Whilst this is our best performance yet and improves on our prior year score of 0.83 and the improving trend that we saw before Covid, we did not achieve the performance rate of 0.67 set for the year.

Our performance in 2021-22

- Leakage: We reduced our leakage by 10.5% (based on three-year average from 2019/20). This did not achieve the targeted rate of an 11.1% reduction, but was a reduction of 16.6ml/d since 2020/21. Failure against the target was mostly due to performance in the prior years.
- Per Capita Consumption (PCC): PCC increased by 4.1% (since base year) and did not achieve the target of 4.9% reduction. This is a decrease of 13.6 l/p/d compared to prior year. PCC is measured as a three-year average, and there was an increase in domestic water use due to Covid restrictions.
- We delivered three Environment Innovation Projects in the year, aimed at educating and reducing water usage. We are aiming to complete seven EIP projects by 2025.
- River restoration: We completed 13 projects in the year, bringing our total to 20 in the AMP period. We completed seven projects in the prior year.
- Abstraction Incentive Mechanism (AIM): We reduced abstraction by 430 ML in the year from environmentally sensitive sites when flows or levels were low. (2020/21 was 304 ML)

Our performance in 2021-22

- Customer Measure of Experience (C-MeX): C-MeX is a mechanism to incentivise water companies to provide an excellent customer experience for residential customers, across both the retail and wholesale parts of the value chain. We have achieved 14th position out of 17 companies assessed against C-MeX. Our score for the year was 76.57, compared to the industry median of 80.43. We have moved up one place on the ladder since 2020/21.
- Developer Services Measure of Experience (D-MeX): [D-MeX] is a mechanism to incentivise water companies to provide an excellent customer experience for developer services (new connections) customers. These customers include small and large property developers, self-lay providers (SLPs), and those with new appointments and variations. Our D-MeX score for 2021/22 was 85.54, compared to an industry median of 85.26. We are placed 8th out of 17 companies in the industry league table, an improvement of two places on 2020/21 and continuing our improving trend over the last two years.

- Priority Services Register: We have exceeded the target of 3.3% of our customers of the Priority Services Register (PSR). In 2021/22, 6.5% were registered (5% in 2020). During the year, we attempted to contact 90% (63% in 2020) of these customers and made actual contact with 47% (25% in 2020).
- Gap sites: We reduced the number of occupied properties not billed by 74, against a target of 50. In 2020/21, we reduced the number of occupied properties not billed by 118.
- Void properties: We achieved our target of reducing our void properties in the year to 2.23%, against a target of 2.27%. (2020/21 reduction of 2.37%)
- Vulnerable customers: Through surveys conducted, 97% (97% in 2020/21) of our customers in vulnerable circumstances who receive financial help said they were happy with our service, and 98% (96% in 2020/21) of those that receive non-financial help were satisfied. We achieved the target of 90% for both customer surveys.
- BSI Accreditation: We retained certification for BS 18477 for Inclusive Service Provision.
- IT resilience: We have met the target of less than 1,500 Priority 1 and Priority 2 IT incidents in the year, with 949 incidents. (2020/21 was also 949 incidents)

Our performance in 2021-22

- Mains repairs: Performance in the year was 100.2 repairs per 1,000km of mains against a target of no more than 148.6 in the year (2020: 155.8). Weather is a strong contributing factor in the number of mains repairs required in a year. 2021/22 experienced a benign summer and winter and, therefore, the year's figures cannot be directly compared to the previous year's without taking this into account.
- Interruptions to Supply (I2S): The number of minutes per property where interruptions to supply was three hours or greater was our best performance in a year – 3 minutes 43 seconds – compared to our target of 6 minutes 8 seconds. This is a reduction of over 2 minutes on 2020/21 performance.
- Unplanned interruptions >12 hours: 477 properties were interrupted for over 12 hours, against a target of no more than 320 properties. 421 of these properties were because of a single major burst event with no options for maintaining mains water to the properties. This is an improvement on last year's performance of 538 properties.
- Properties at risk of receiving low pressure: We did not achieve the target of 1.51 properties affected per 10,000 connections at risk of receiving low pressure. Performance for the year was

48.20 which is an improvement on last year's performance of 196.85. However, the number of pressure monitoring points we have across our network, combined with reporting guidance conceived more than 30 years ago, makes it unlikely we can ever meet the prescribed target.

- Average time properties experienced low pressure: On average, properties were affected for 1.67 hours in the year, against a target of <11 hours (2020 / 21: just over 5 hours).
- Unplanned outage: We experienced 1.19% of unplanned outages across all our treatment works in the year, against a target of <2.34%. This was an improvement on 1.65% in 2020/21.
- Severe restrictions in a drought: We have not achieved the target for severe restrictions in a 1-in-200-year drought scenario, with 61.5% of population being at risk against a target of 0%.
- Delivery of WINEP: We have delivered the requirements for the Water Industry National Environment Programme (WINEP) in the year. This requirement is laid out to improve the natural environment by the timely delivery of environmental improvements schemes. This was also met in 2020/21.

CEO's introduction

“

Everyone has worked incredibly hard throughout the organisation and, through our collective efforts, we are becoming more of a team across the company. For that, I would like to say a big thank you to everyone, and also for the support I've received in moving into this role.”



We still have a lot to do on our journey to 2025

but we have really moved forward and I think we can achieve an excellent performance next year and through the AMP by focusing on our key eight performance indicators.

Journey to 2025

In November 2021, I set out the plan to the end of this regulatory period, which is called Journey to 2025. This has been communicated across the business and underpins how we are moving forward.

Journey to 2025 has four forward themes that set the high-level outcomes we are aiming to achieve over the next three years.



We have made good progress this year. Our performance has improved across all of our key areas of performance. We have redefined who we are, launching a new look for the company, we have put in place a new leadership team, and are establishing the culture of the organisation. We have advanced our planning for our water resources management plan, our Periodic Review (PR) 24 plan and our longer-term strategy.

We have also put in place all of our financing for this regulatory period and in doing so launched a green financing framework and a green bond. I believe we are really moving forward as a business, but also know that we have much more to do over the next couple of years.

Coming into the role of CEO in September I set out our plan to the end of this regulatory period, AMP7 which is called Journey to 2025. This sets our priorities of delivering performance in this regulatory period, developing a robust and credible PR24 plan for the next regulatory period and beyond and framing the future to enable the

company to continue to deliver for its customers.

The external environment

External factors affect all businesses and their customers, and there have been a number of these worth noting this year. The treatment of water, and distributing it to everyone's houses, makes energy one of our biggest costs, and energy prices have risen sharply, particularly in the second half of the year. In addition, with inflationary pressures, chemical prices have gone up 35%. Our hedging strategy for energy has protected us to some extent and will do so for the year ahead. Nevertheless, higher prices than we planned for have been a challenge from a cost perspective.

Of course, Covid-19 has also had an impact. Many customers would normally leave our region to go to work or on holiday, but instead they have been at home. Therefore, we have seen much higher water usage over the last two years than in previous years, although we've kept everyone in supply.

1

Delivering the best outcome for the current year and setting ourselves up for success.

- a. Focus on the top 8 PCs,
- b. Tactical changes and
- c. In year plans

2

Achieving our AMP7 plans and ambitions.

- a. Focus on the top 8 PCs,
- b. Culture programme, and
- c. Delivery plans for the AMP including totex.

3

Plan for AMP8 that is robust, credible and stretching with confidence in deliverability.

- a. PR24 programme,
- b. Water Resources Management Plan, and
- c. Strategic Direction Statement.

4

Enabling us to step into AMP8, transition seamlessly and be ready for our future.

- a. Key enabling projects



I am also concerned about the impact that Covid-19, as well as inflation and the cost of living crisis, might have on people's financial situation.

For customers, we've been very proactive in providing more support. We have a social tariff and debt trust funds, and are identifying and reaching customers who qualify, and we have also established various payment plans. We have used data and insight to proactively reach out to customers to offer support that has helped us to reach a position where we are supporting over 96,000 households, while at the same time, actually improving our collections process and our bad debt performance. In setting our tariffs for 2022/23 we accelerated a rebate of £3m to bring forward this benefit to customers.

We proactively contact customers we feel to be vulnerable through our Priority Services Register - not just from an economic point of view, but also those who have a critical need for water supply, perhaps a medical need, or people are unable to get to where we may be supplying water in an emergency situation.

Interruptions to supply score one of the best performances in industry

3:43
minutes seconds

We are pleased to report we now have over 92,000 customers on our Priority Services Register to provide extra support during emergencies. Partnerships are key for us to drive our message and engage with customers - especially those hard to reach. We have partnered with debt charities and other organisations such as National Debtline, Citizens Advice, Money Advice Service, Surviving Economic Abuse, StepChange and Turn2Us.

Issues specific to the water sector

The water industry has been in the media spotlight a lot this year due to combined sewer overflows, which are instigated by storms. As a water only company, the storm overflow issue doesn't affect us directly. But nevertheless, it has brought to the forefront the whole conversation about water, its connection with the environment and with rivers. There are sewer overflows that go into some of the chalk streams in our area, but the biggest issue for those streams is that they have very limited flow in the first place. This is partly due to the abstraction to supply customers with water, and we need to look at how we can reduce this over time. So, it does lead to the need to have those wider conversations, as a nation, about how we value water and use it sensibly, and address the challenges of water scarcity.

One thing we are doing, and for the first time, is to have an integrated long-term water plan for the south, as part of Water Resources South East. Here, the water companies work together to address the need for water in the face of climate change, population growth and impacts on the environment. These plans will then feed into our own water-resources plans and then into our next price review.

Reducing leakage

While we haven't made this year's target, we are at the lowest level of leakage we've ever achieved, which is a massive step forward. We invested more than we had planned in improving our technology making use of satellite technology and developing artificial intelligence. This enables us to piece together all the monitoring across the network and understand where the leaks are. Most leaks are in the ground, rather than the classic burst pouring out across a street, so to repair a leak, we need to identify the right place to dig. Our new technology helps us do that, and it's created a real turnaround in performance.

Reducing PCC

Again, we didn't achieve our target, but we have seen a reduction of 13.6 l/p/d in the year from 2020/21 (spot year). We are confident that over 21 million litres of water have been saved through demand side improvements alone and we expect this performance to be industry leading in terms of absolute reduction volume.

One challenge has been the increased home usage from Covid-19 lockdowns, but we are nearly back to pre-pandemic levels. We've managed this through campaign-led approaches such as our award winning Save Our Streams campaign that over 191,000 customers signed up to in 2021/22, water-efficiency home checks, virtual home checks, and engaging with our particularly high users.

Our focus for the future

One of the big issues is future water scarcity - the need for new water resources - but, in the shorter term, managing the water we have, including reducing abstraction from the more delicate areas of water supply. Currently, we are working on our water resources management plan and setting out what this looks like for the next 50 to 60 years. And from that we work forward to our next five-year plan. But we're at a really crucial point where we have to take action now, just like we do on carbon. What we decide now is about ensuring people have sustainable water for the next 100 years.

One of the things we have to consider is the risk of severe droughts from climate change. While we can plan for how we take water from different sources, or join up water supplies, in the immediate term, the two tools we have in our arsenal are reducing the amount of water we take, and getting people to use less. This means working harder on our PCC, as well as investing in new technology to be able to better serve our customers, and then increasing capital investment. For example, we are opening a plant at Sundon that allows us to reduce the water we abstract from the chalk aquifers in the north of our region.



I look forward as a series of horizons, being the year ahead of us, then the remainder of the current AMP, followed by the next AMP of 2025-2030, and then the longer term."

We are also well underway with preparing our PR24 submission, with a team pulling the plan together, and I think it's more integrated across the company than previous plans. The Board has been engaging heavily on this, and I feel we are on track to presenting a strong and thorough plan for PR24.

Outlook

I look forward at a series of horizons, being the year ahead of us, then the remainder of the current AMP, followed by the next AMP of 2025-2030, and then the longer term. And of course, as we reach these, they become milestones or checkpoints that tell us where we are and how we have done. At this stage, the first of those is the most important. We still have a lot to do on our journey to 2025, but we have really moved forward, and I think we can achieve an excellent performance next year and through the AMP by focusing on our key eight performance indicators. But it's also the year when we set out our water resources plan

and our PR24 plan, so it is a key year for us. So, success in my third horizon is based on a robust and credible PR24 plan that makes compelling arguments for what we aim to achieve, which of course sets us up for the longer-term future. The logic of that approach is to try to provide some clarity for each of those horizons, but it all starts with next year's performance.

Stuart Ledger
Interim CEO

July 2022



Where we operate

We are focused on providing a high-quality supply of water and to help protect our environment for our communities – now and in the future.



Why our supply area is unique

We're focused on building our resilience and providing a long-term sustainable supply of high-quality water, while protecting our environment for our communities – now and in the future.

- 10% of all globally rare chalk streams are in our supply area
- Around 60% of water is sourced from groundwater
- We currently have the highest demand for water in the country per person at 157 litres per day, on average (compared to a national average of 145 litres)
- Population growth, demand for water, climate change and the need to leave more water in the environment means we are working increasingly closely with customers to use water better
- We have a diverse customer base with equally diverse needs. We supply dense urban communities, and rural ones too.
- One of the most densely populated, economically active regions in the UK in an area considered to be water stressed

We're the largest water-only supply company in the UK, owning and managing the water assets and network in an area of approximately 4,500km² across three supply regions in the South East of England.

We sub-divide our supply regions into eight different communities, based on our existing water resource zones – each named after a local river – which allows us to tailor a high-quality service to customers at a local level.

How we operate

Our mission is to provide sustainable, high-quality water and work together with our community to make better use of water, and safeguard the local environment.

We've been supplying water to the local community for more than 170 years.

In June 2022, we celebrated our 10th anniversary as Affinity Water – but our history runs much deeper than that.

In various guises, we've been supplying water to the local community for more than 170 years.

In 1848, The Folkestone Water company was established alongside a mix of other small water companies who served the areas we now supply today.

The provision of clean drinking water was a marvel of the last millennium and helped to drastically improve standards of living and public health.

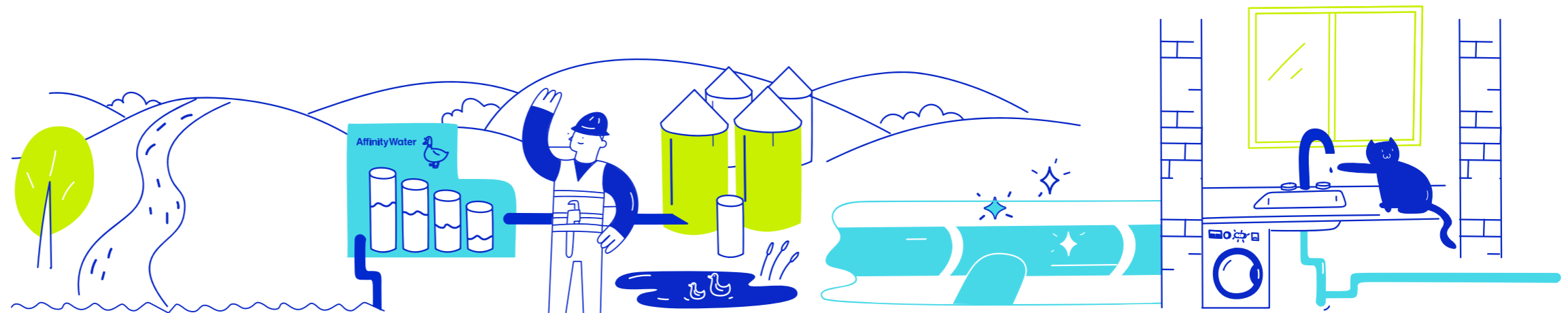
Over a hundred years later, pressure on water resources from a growing population resulted in a new network of pipes that enabled the distribution of water from the River Thames over a wider area.

Over time, we evolved from various mergers with smaller companies and in 2012, we became known as Affinity Water.

Since those early days of the first water companies, our expertise and network has grown exponentially to provide the essential service of supplying high-quality water to an ever-increasing population.

In the same way, our forebears met the challenges of their time to improve living standards and public health through the provision of clean drinking water – we are now faced with other challenges from climate change and population growth that has made our supply area a 'water stressed area'.

Through long-term planning and working with our communities, we are focused on building a network that provides a sustainable supply of water to an increasing population, whilst leaving more water in the environment to our globally rare habitats. A network that is resilient to the threats of climate change and able to support a growing economy. And a service that is exceptional to customers.



Water is collected

Most of our water comes from local sources in the chalk aquifer. Local sources of groundwater are less energy intensive to treat and distribute compared to surface water. However, we need to leave more water in the chalk aquifer to help our globally rare chalk streams, which are under threat from the demand for water and the effects of climate change.

Key facts

We are looking at new ways to bring in water from neighbouring areas through our Sundon treatment works, so we can leave more water in the environment.

We are moving water around our network more efficiently. With a new trunk main from Hemel Hempstead to St Albans we can reduce the amount we take from local chalk groundwater.



We are the largest water-only supplier in the UK and we are committed to delivering a high-quality water service to all our customers."

Water is cleaned

As we take water from various groundwater and surface sources, the quality of it can be different, so the treatment process is tailored to make sure we continue to provide the highest quality water possible.

Key facts

We provide some of the highest quality water in the world. In fact, in 2021, Affinity Water achieved an industry leading Compliance Risk Index* [CRI] score of 0.87 within a dead band of 2 and improving upon our 2020 performance of 1.31.

High-quality water assured through 186,000 tests at our sites and customers' taps.

* CRI is a measure designed to illustrate the risk arising from treated water compliance failures.

0.87

Industry leading Compliance Risk Index* [CRI] score within a dead band of 2

186,000

Tests at our sites and customers' taps

Water is stored

After water is treated, it is pumped into large storage reservoirs or water towers before making the final journey to customers' taps.

Key facts

Water is heavy. It weighs a tonne per cubic metre! This is the same amount of water a family of four would use in about a day and a half, and we need to supply about 936 million litres of it to 3.8 million people, every single day.

Due to its weight, the process of moving water and treating it requires a lot of energy, which carries a carbon impact.

We have committed to net zero carbon from operations by 2030.

Investing £29 million in solar renewables at our sites saving 75,000 tonnes of CO₂.

936M

litres of water supplied to about 3.8 million people, every single day

£29M

Investing in solar renewables at our sites

Water is delivered to customers

We look after over 16,900km of pipework that would stretch from London to Sydney. Our network of pipes is used to deliver over 936 million litres of high-quality water to 3.8 million customers, every single day.

Key facts

Each person in our supply area uses about 12 litres above the national average. Our area is also considered water stressed and we need to leave more water in the environment.

Over 191,000 customers joined our industry leading campaign 'Save our Streams' helping to save over 21 million litres of water a day.

We have reduced leakage by 10.5% and are on track for 20% reduction by 2025.

We look after over

16,900km

of pipework that would stretch from London to Sydney

After water is used

After customers use water, it is flushed into the sewage network, where it is treated before it goes back into the environment. Affinity Water is a water-only supply company, and we do not manage wastewater. Sewage providers in our supply area include Thames Water, Anglian Water and Southern Water.

We are focused on providing a long-term sustainable supply of water for our customers and leaving more water in the environment to help our region's chalk streams.



We are focused on providing a long-term sustainable supply of water for our customers and leaving more water in the environment to help our region's chalk streams."

Our external environment

Leadership insights on our industry



Liv Walton
Regulatory and Strategy Director

Q How has the water industry changed over the last five years?

We've seen a very welcome focus on improving the services our customers and communities receive. Customers have no choice about who provides their water, so we need to make sure they trust us to take care of their water now and for the future. Customers expect us to improve our performance in key areas, such as reducing water wastage, while also working hard to keep bills affordable and good value for money.

There's also an increasing expectation that the industry doesn't just act as an 'invisible service' but takes an active role as a steward of the environment with a strong sense of social purpose. Our Annual Report sets out how we're protecting and enhancing our natural capital through our own activities and in partnership with others.

The industry is also changing to adapt and become resilient to the effects of climate change and population growth. Improving our resilience prepares us for unexpected external shocks so we can continue to deliver our essential public service of providing water. Resilience has certainly been put to the test recently, with the Covid-19 pandemic and the current energy crisis.

Q How are customer needs evolving and what can companies do to meet expectations?

The privilege of providing water means we must constantly listen to our customers and gain insights to adapt our services and activities. Water companies need to be agile to evolving needs so we can take care of our customers and provide an exceptional service, while also taking care of the environment.

Providing high-quality water and a reliable service is an absolute, but customers also want to make sure we are delivering on our wider commitments, such as reducing our carbon impact and protecting and improving the rare chalk stream habitats in our supply area.

The cost of living crisis has been exacerbated by various global events, which caused a dramatic hit to standards of living. It is fundamental that we continue to support those most in need and explore what more can be done with our regulators and across sectors. Our response to Covid has amplified the existing support services we have available. It also fostered a culture of collaboration between different sectors and support services to get the message out that help was at hand, especially to hard-to-reach groups.

Q What impact did Covid have on the way society consumes water?

Alongside reducing leakage and bringing online new sources of water, reducing demand is also key to ensure a long-term sustainable supply of water, increase resilience to climate change and to leave more water in the environment.

Reducing the amount of water we use also helps to reduce our energy consumption – approximately 16% of energy used in the home is for heating water.

Covid caused a shift in how society consumes water. With more people at home, household demand for water significantly increased. However, with innovative initiatives such as our industry-leading Save Our Streams campaign, using AI machine learning to identify water savings, and unique partnerships with large users of water, we are seeing a declining trend in the demand for water.

We are also looking at other exciting and innovative ways to reduce demand. Over the last year, we were thrilled that our project 'Water Neutrality at NAV sites' was successful in winning an Ofwat Innovation bid.

Q What needs to change to ensure a successful outcome for customers and the environment as part of the price review process?

We very much welcome Ofwat's focus for this price review to take a more long-term approach to business planning over the next 25 years. Water is a long-term business – more so than ever with the challenges we face. This is great news for the industry and certainly a step in the right direction.

In January this year, we published our own 25-year strategic direction statement, which sets out our priorities and ambitions for the long term. It will also frame our next five-year plan for 2025–30, which we're well on the way to developing. We've started our business planning process much earlier than previously to ensure we are engaging our customers, partners and communities in the co-creation of our delivery plans.

We're also focused on delivering performance for customers in the current period to 2025. We have some of the most stretching PCC and leakage commitments in the industry, and we've recently launched our 'Journey to 2025' plan to enable us to deliver exceptional service for our customers.

PR24 timeline

[Process starting earlier than in previous AMPs]

- **April 2023**
Milestone
 Publication of our draft Business Plan for customer consultation
- **September 2023**
Milestone
 Submission of our Business Plan to Ofwat
- **Early 2024**
Milestone
 Ofwat initial assessment of Business Plan
- **July 2024**
Milestone
 Ofwat publish draft Determination of Business Plan – Affinity Water to review and respond with representations
- **December 2024**
Milestone
 Ofwat publish Final Determination

Leadership insights on our industry



Steve Plumb
Director of Asset Strategy and Capital Delivery

Q Why is there a need to leave more water in the environment?

We have started to see the effects of climate change now. The industry is moving at great speed to ensure we adapt and make the environment and supplies of water more resilient and sustainable.

These climate change effects are resulting in more frequent extreme weather patterns – prolonged dry spells, followed by long periods of intense wet weather. The stereotypical constant English drizzle, which was great for water supplies and the environment, now seems to be a thing of the past.

South East England is home to some of the rarest habitats on the planet – chalk streams. Around 10% of them are in our supply area alone and support a rich variety of wildlife that is under

threat. Through reducing demand, reducing leakage, moving water around networks more efficiently and bringing online new sources of water, we can leave more water in these precious environments and do our bit to make them more resilient to the effects of climate change.

We are making bold moves to tackle this now. As part of our commitment to end unsustainable abstraction, in 2021 we started our plans to bring in a significant supply of water from a neighbouring area. As part of this, a new conditioning facility will be built at our Sundon site and will allow us to reduce abstraction from sensitive chalk groundwater sites in the Chilterns.

75,000

tonnes of CO₂ saved over a 20-year asset life through investing in solar energy



Q How is the industry preparing to address climate change and meet net zero?

It's encouraging to see the passion and willingness to do things differently to meet the challenges of climate change, population growth and demand for water, while also neutralising the impact of our operations on the environment.

Our industry has made a bold commitment to achieve net zero for our operational emissions by 2030 – 20 years before the government's own timeframe. This is a chance to demonstrate the ingenuity of our sector and become a beacon for water industries across the world. For the future of our communities and environment, this is absolutely the right thing to do, and we must work together and at pace to deliver this.

Net zero for our operational emissions by 2030 is a massive challenge for any industry – this is just eight years away. I would argue, for the water industry, an industry that requires enormous amounts of energy to move water around its extensive 350,000km network of pipes that could stretch eight times around the world, the challenge is perhaps greater than most.

We are already taking steps to address this and, in November 2021, we began installing solar panels at two of our major strategic sites to generate 1.5MWh of renewable energy to help power the sites' operations.

Over the next three years, we will also be investing over £29 million in solar renewables alone at our sites. On completion, the solar panels will

generate over 23.5MWh per annum of clean and renewable energy, saving over 75,000 tonnes of CO₂ over a 20-year asset life.

This is a first small step that will form a key pillar of Affinity Water's ambitious Plan for net zero. Further phases will deliver installations of solar energy, along with the introduction of wind power, hydrogen and battery storage solutions across our sites and the transition of our fleet to electric vehicles.

The industry cannot act alone in the mammoth task that lies ahead over the next eight years. We know more investment will be needed to deal with this challenge. We need an open and honest dialogue with government, customers and regulators to ensure we have the right investment in place, and a detailed, practical way in how this is funded in the long term, while ensuring a fair and balanced deal for customers.

Innovation also plays a key role in tackling the climate crisis. The innovation fund launched by Ofwat is a fantastic example of how different industries can come together in a practical way to find new solutions and share best practice to the collective problems we face.

For Affinity Water, the innovation fund has led to several exciting new projects, such as seagrass seeds of recovery using a nature-based solution for carbon/nitrogen sequestration, water neutrality at NAV sites and smart water tanks to name a few.

Our strategy

Our strategy sets out our short and long-term ambitions to tackle the challenges we face, to create value for our society and the wider water sector.

Our purpose >

Why we exist

To provide high-quality drinking water for our customers and take care of the environment, for our communities now and in the future.

Water resources management plan

Every five years, we produce a Water Resources Management Plan to ensure water is available for our customers and communities.

Our plan sets out how we will provide a reliable, resilient, efficient and affordable water supply to customers from 2020–80, while protecting the environment.

Our plan addresses the need to balance the availability of water supply with the demand for water from customers. We also continue to strive to help protect the environment and improve the resilience of our water supplies to droughts and other challenges.

Long-term strategy 25 years+

Our Strategic Direction Statement ambitions (2050)

The systems that Affinity Water will work within:

Aim: Leave the environment in a sustainable and measurably improved state.

We will work with our customers and communities to restore the environment into a sustainable state where it can re-generate itself so that it can continue to provide its assets and services to support current and future generations who will enjoy its natural wealth.

Objectives:

- End unsustainable abstraction from chalk groundwater sources
- Achieve net zero carbon by 2045 (and 2030 for our operational emissions)
- Deliver a net gain in Natural Capital

Link to SDGs



Aim: Be prepared for change, and resilient to shocks and stresses.

We will invest with our stakeholders to create a more resilient community able to cope with and respond to an increasingly uncertain future.

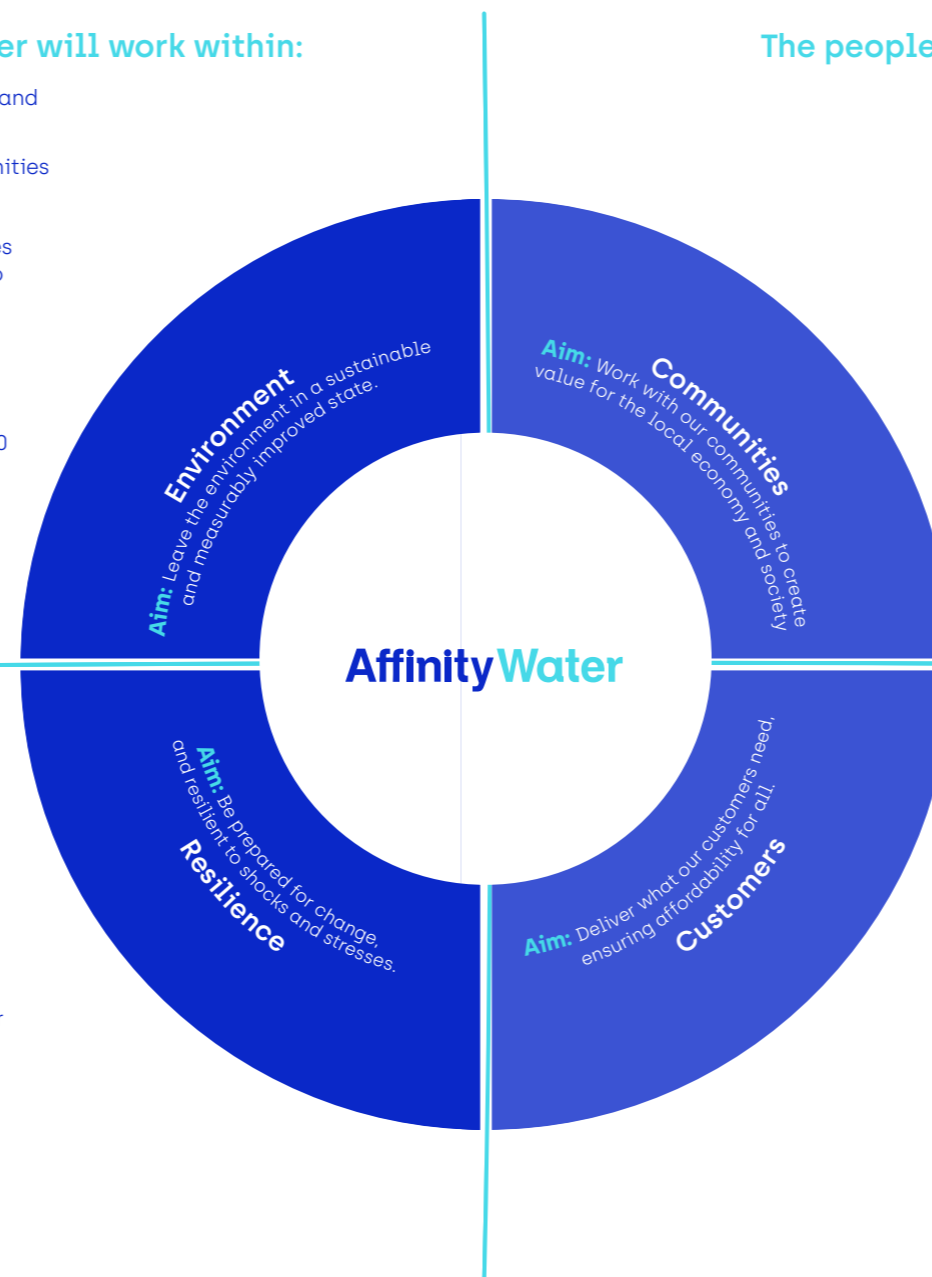
Objectives:

- Ensure a resilient supply of water for our customers
- Ensure our physical assets are resilient for the long term
- Ensure our people, processes, suppliers and finances remain resilient

Link to SDGs



Our long-term strategy sets the direction of our short-term plans



The people that Affinity Water will work with:

Aim: Work with our communities to create value for the local economy and society.

Create a collaborative relationship with all our communities allowing us to act together with common purpose to deliver a society and environment that are mutually sustainable, based on:

Objectives:

- Building trust and transparency
- Enhancing environmental and social health to provide value to our communities
- Reducing our impact in the water environment

Link to SDGs



Aim: Deliver what our customers need, ensuring affordability for all.

We will develop a constructive, collaborative relationship with our customers that enables us to work together to deliver for the future.

Objectives:

- Exceed customers' expectations for drinking water
- Personalise our services to support different needs and wants
- Take care of our vulnerable customers and ensure affordability for all

Link to SDGs



Short-term strategy 5 years

Our customer outcomes [till 2025]

Supplying high-quality water you can trust

- Maintain high-water quality
- Catchment management
- Water treatment

Making sure you have enough water, whilst leaving more water in the environment

- Abstraction reduction
- PCC reduction
- Leakage reduction

Providing a great service that you value

- Keep bills low
- Support vulnerable customers
- Improve customer experience

Minimising disruption to you and your community

- Reduce supply interruptions
- Reduce risk of low pressure
- Invest in our assets

Statement on direction and performance

We are pleased to introduce our regulatory Annual Performance Report for the year ended 31 March 2022, the second year of AMP7. In this regulatory period, we agreed challenging commitments and we recognise the importance of meeting these.

These commitments are in response to the significant environmental, social and governance challenges we face from rising population and increased demand for water, as well as a reduction in the availability of water in years ahead. We recognise how crucial our business activities are to the wider environment and understand the need to become even more agile as we need to deliver more for the environment and our customers, for an affordable price. We know we can adjust rapidly and transform our ways of working and we have continued this transformation in 2021/22, for example launching our Green Finance framework to align our funding and financial strategy with our strategic and sustainability priorities.

As a Board, we spend a significant amount of time aligning our company plans to the interests of customers, employees and wider stakeholders. Our Section 172 statement on page 86 of our Annual Report and Financial Statements 2021/22 shows how we have engaged with our key stakeholders to make key decisions in 2021/22. We have re-invigorated the business considerably over the last few years, with a new executive team, a strengthened Board, committed long-term investors, an excellent team of colleagues, and a clear purpose to help us move forwards. Our Customer Challenge Group, consisting of representatives with experience representing household customers, holds us to account on how we are performing against our performance commitments, all of which can be read on pages 4 and 5.

How the company has set its aspirations and performed for all those it serves

Our ambition is reflected in our purpose "to provide high quality drinking water for our customers and take care of the environment, for our communities now and in the future". The Board was heavily involved in forming the company purpose and has continued to work with the leadership team to monitor our performance throughout 2021/22. As a Board, we are responsible for fostering the right culture, and we work with senior leadership to reinforce the right behaviours to allow all members of our workforce to bring their true selves to work, to enable them to reach their full potential and deliver on our purpose. By committing to inclusivity, we ensure that our company and its values best reflect the communities we serve and allow us to strive to be world class in what we do. For more details on our purpose and culture, see page 12 of our Annual Report and Financial Statements 2021/22.

Our shareholders are highly regarded and have experience of long-term asset ownership. They support our plans to invest and enhance our infrastructure to ensure future resilience, as demonstrated by their agreement to restrict dividends paid in AMP7. See details of our finances on page 40 of our Annual Report and Financial Statements 2021/22, including details on our investment plans and funding of these programmes. Our Board approved dividend and executive remuneration policies that ensure dividends and executive

remuneration are proportionate with performance of the company, while not impairing its longer term financeability. The dividend policy states that dividends paid by the appointed business must consider an assessment of our performance against the Final Determination for AMP7 for the following areas: financial performance, operational performance, customer and community performance, and safety and health performance.

Our salary and benefit pay policy for executives is based on the market median. Executive annual bonuses are linked to in year delivery of financial, operational, customer and community and health and safety measures, which are linked to our AMP7 commitments where applicable, detailed in our Remuneration Report on pages 164 to 183 of our Annual Report and Financial Statements 2021/22. The Board is reassured that the pay structure incentivises executives to deliver long-term sustainable performance for customers and communities, employees and shareholders.

This annual report and financial statements include full and transparent disclosure of our performance in 2021/22 and the Board is confident that the plans put in place ensure a stable future for our company.

On behalf of the Board:

Ian Tyler
Company Chair

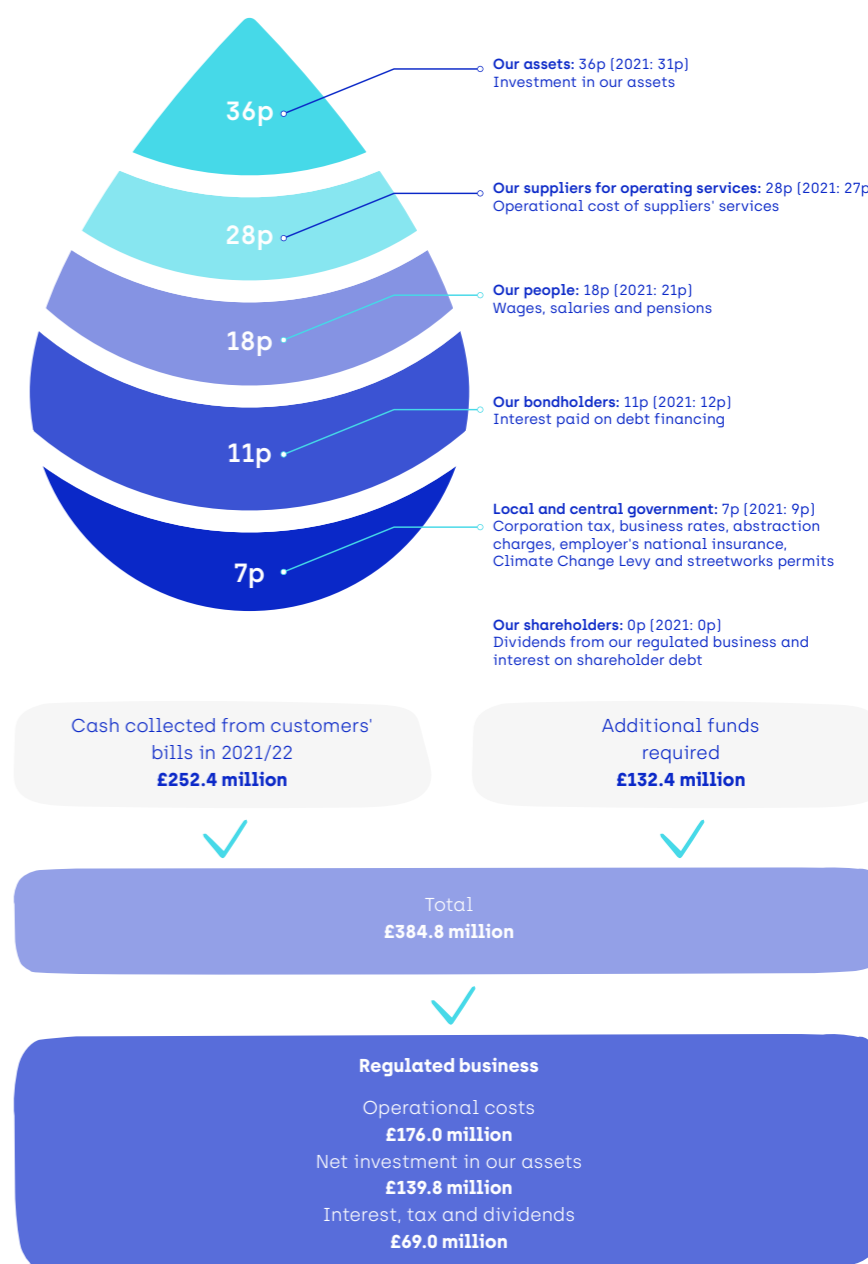
Funding our regulated business

Our average household bill for 2021/22 was approximately £181, the equivalent of just under 50p per day, which we think represents great value for money.

In 2021/22, we spent 82p of every £1 collected from customers' bills on our suppliers for operating services, our assets and our people, ensuring customers receive the highest quality water and service. 11p of every £1 was spent on debt financing and the remaining 7p of every £1 was spent on taxes and charges relevant to the local and central governments. None of our customers' money was spent on dividends or interest on shareholder debt.

Not all of the funds required by our business comes from customers' water bills. For every £1 we collected from customers in 2021/22, we required an additional 52p in order to operate.

Our bills also include sewerage costs charged by other water companies. Some of the additional funds we require are received through commission earned on billing and collecting sewerage charges for these companies. We also receive funds from non-household retailers who pay us for the wholesale water we supply to their customers, or developers who contribute towards the cost of adding new connections to our network. The remainder is borrowed from external debt capital markets. By carefully managing our long-term finance we can keep customers' bills low and fairer for all by avoiding significant fluctuations.



Board statement on the completeness and accuracy of information

We want to be open with our customers and other stakeholders about our performance against our commitments. We want them all to have trust in our service and confidence in the information we publish about our performance. We encourage customers and other stakeholders to provide feedback at any time about how we are performing.

We regularly publish information on our performance to demonstrate to customers, stakeholders and our regulators the extent to which we are delivering the services expected of us.

Our Assurance Plan sets out the main assurance activities that we either carry out ourselves or engage third-party providers to carry out independently, so that the information we report to customers, stakeholders and regulators is accurate, transparent, reliable, relevant, complete and up to date. We consider it essential to demonstrate that we report information on our performance that meets these criteria. This is part of our commitment to demonstrate that we take ownership of the information we report. Our Assurance Plan also describes the main categories of information which we report, and the main assurance controls we have in place for each category.



Our plan is published on our website at [affinitywater.co.uk/corporate/about/governance-assurance](https://www.affinitywater.co.uk/corporate/about/governance-assurance)

On behalf of the Board, our Audit, Risk and Assurance Committee has:

- Reviewed and challenged our Assurance Plan prior to publication;
- Received, reviewed and challenged reports from various assurance providers, including our external Auditor, in respect of key reports and publications including our Annual Report and Financial Statements and our Annual Performance Report;
- Received, reviewed and challenged reports from the Head of Internal Audit on the effectiveness of the company's systems of internal control and risk management systems; and
- Received, reviewed and challenged individual internal audit reports, in particular with regards to risks to the provision of accurate and complete data and information and how those risks are being mitigated.

The Chair of the Audit, Risk and Assurance Committee reported to the Board in respect of the outcomes of the above reviews.

The activities referred to above and detailed in full in the Assurance Plan led the Board to conclude that all data and information which the company has provided to Ofwat during 2021/22 and which we have published in our Annual Report and Financial Statements and Annual Performance Report in our role as water undertaker was accurate and complete with no material exceptions to report.

On behalf of the Board

Ian Tyler
Company Chair

12 July 2022

Certificates of compliance

To: **Water Services Regulation Authority**
Centre City Tower
7 Hill Street
Birmingham B5 4UA

Ring-Fencing Certificate

This is to certify that on 12 July 2022 the Board of Affinity Water Limited (the Appointee) resolved that in its opinion, in accordance with the company's Condition P licence requirements:

- 1) 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]; and
- 2) the Appointee will, for at least the next 12 months, have available to it
 - (a) sufficient management resources and systems of planning and internal control; and
 - (b) rights and resources other than financial resources

which are sufficient to enable it to carry out the Regulated Activities [including the investment programme necessary to fulfil the Appointee's obligations under the Appointment]; and

- 3) all contracts entered into with any Associated Company include all necessary provisions and requirements in respect of the standard of service to be supplied to the Appointee, to ensure that it is able to carry out the Regulated Activities.

In giving this certificate the main factors which the Board has taken into account are:

Financial resources and facilities:

- the net worth of the company as shown in the financial statements and the budget for the forthcoming year supported by long-term plans and performance against the Final Determination set at the most recent price review, for both operating and investment expenditure;

- the financing arrangements available to the company and management of associated risks (refer to notes 16 and A4 of the company's Annual Report and Financial Statements 2021/22 and the principal risks and uncertainties section of the company's strategic report beginning on page 98 of the company's Annual Report and Financial Statements 2021/22 for further details), including details of the company's credit rating; and
- the results of the stress-testing performed in relation to the company's viability statement for the year ended 31 March 2022 (refer to page 112 of the company's Annual Report and Financial Statements 2021/22) which is subject to external assurance (refer to our Board statement on the completeness and accuracy of information on page 22 for details on controls and the levels of assurance obtained during 2021/22).

The Board concludes that the budget for the forthcoming year adequately supports our commitments set in the Final Determination and provides sufficient resources to meet our operating and investment expenditure needs for at least the next 12 months. The company has sufficient financing arrangements available to it to meet these commitments, taking into account the impact of any potential principal risks and uncertainties and the results of stress-testing performed on the base case forecasts and budgets. Therefore, the Board concludes 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.

Management resources:

- the Board and its Committees have the resources available to them and the fact that they have sufficient independent membership to ensure they can make high-quality decisions that address diverse customer and stakeholder needs; and
- the review of succession planning being performed by the Nomination Committee along with the company's HR Team, as well as the recruitment process, including that of the permanent CEO and CFO following interim recruitment

for these roles, staff engagement and diversity, the quality of training and development programmes and the company's purpose and principles.

The Board concludes that directors have sufficient time to engage with the company and to discharge their responsibilities effectively. The Board concludes that there is an appropriate mix of skills and experience on the Board and the individual Committees, including sufficient independent membership on Committees for the individual directors to constructively challenge and appropriate division of responsibilities, see the skills matrix in the Corporate Governance Statement on page 137 of our Annual Report and Financial Statements 2021/22. The Board concludes that there are appropriate steps in place to ensure good succession planning that allows for orderly succession to both the Board and senior management positions, ensuring there is a diverse pipeline for succession that reflects the communities that we serve.

Systems of planning and internal control:

- the comprehensive suite of internal control procedures across both operational and financial matters to ensure maintenance of supply, supported by governance procedures, risk management frameworks, segregation of duties matrices and detailed delegated levels of authority, as well as policies to prevent fraud and other unethical behaviour (including but not limited to the company's whistleblowing policy);
- an Internal Audit team reporting to the Audit, Risk and Assurance Committee, and the availability of specialist planning teams who are deployed to major projects and utilise the resources of acknowledged external specialists in such matters;
- the fact that the company's output is subject to considerable external assurance, both financial and operational (refer to our Board statement on the completeness and accuracy of information on page 22 for details on controls and the levels of assurance obtained during 2021/22).

The Board concludes that the internal control procedures are working effectively and that the Internal Audit team has the appropriate skills and qualifications it requires to monitor and improve controls across the company. The Board concludes that the work of the Audit, Risk and Assurance Committee [detailed on pages 146 to 155 of our Annual Report and Financial Statements 2021/22] overseeing the systems of planning and internal control is sufficient.

Rights and resources other than financial resources:

- the company principles, which are the values of the company that underpin how it delivers its underlying purpose and encourages an integrated approach to working; and
- the assets available to the company, including ensuring that it has effective operational systems, and resourcing plans and schedules in the operational business, that enable a continued supply of water, the maintenance and insurance of these systems, and sufficient physical resources through our abstraction licences and water levels.

The Board concludes that the company principles and clearly defined purpose drive the company and conclude that this and the assets available are sufficient to enable it to carry out the Regulated Activities.

Contracting:

- the work of the Contracts Committee, attended by the CFO, which operates to review and award significant contracts with suppliers; and
- no guarantees or cross-default obligations given without Ofwat's written consent.

The Board concludes that the position and status of key contracts in place contain all necessary provisions and requirements in respect of the standard of service to be supplied to the Appointee, to ensure that it is able to carry out its Regulated Activities and it is compliant with cross subsidy obligations.

Material issues or circumstances:

- there are no other material issues or other circumstances that have been taken into account when assessing the sufficiency of financial resources.

In giving this certificate the main factors which the directors have taken into account in relation to contracts entered into with any Associated Company are:

- an examination of the contracts with Associated Companies;
- considerations made by the company's Market Oversight Committee; and
- leaving aside the company's contract to supply wholesale water to and the service agreement with its former associated company Castle

Water (Southern) Limited (formerly Affinity for Business (Retail) Limited) until its sale from the Affinity Water group in April 2020, the limited contractual arrangements with Associated Companies.

Any transactions with Associated Companies are disclosed in the Non-audited regulatory information section of the company's regulatory Annual Performance Report for the year ended 31 March 2022 [refer to page 128], which is subject to external assurance under Regulatory Accounting Guideline 5.07; Guideline for transfer pricing in the water and sewerage sectors [refer to our Board statement on the completeness and accuracy on information on page 22 for details on controls and the levels of assurance obtained during 2021/22].

In this certificate, the terms 'Appointment', 'Associated Company' and 'Regulated Activities' have the meanings given in the Appointee's Instrument of Appointment, also referred to as the company's licence.

The Board obtained third-party assurance from the company's external Auditor in relation to the sufficiency of financial resources. A full report of the external Auditor's work on the ring-fencing certificate has been provided to Ofwat with no issues noted.

The Board confirms that it will inform Ofwat in writing if it becomes aware of any circumstances which would change the opinion such that it would not give the opinion contained in this certificate.

Paragraph P14 of Condition P of the company's licence requires the company to ensure at all times, so far as reasonably practicable, that, if at any time, a special administration order were made in relation to it, it has available to it sufficient rights and resources (other than financial resources) so that a special administrator would be able to manage the affairs, business and property of the appointed business of the company in accordance with the purposes of the special administration order.

The company hereby certifies that at 31 March 2022 it was in compliance with paragraph P14 of Condition P.

Statement of disclosure of transactions with Associated Companies

With respect to the disclosure of transactions with Associated Companies, the directors declare that to the best of their knowledge:

- all appropriate transactions with Associated Companies have been disclosed;
- transactions with Associated Companies are at arm's length (except where agreed with Ofwat) with no cross-subsidy occurring; and
- no directors have acted as both purchaser and supplier in any transaction with an Associate Company.

Statement of directors' responsibilities

In addition to their responsibilities to prepare financial statements in accordance with the Companies Act 2006, Condition F of the Instrument of Appointment requires the company to prepare a set of regulatory accounting statements records which are in accordance with the Regulatory Accounting Guidelines (RAGs) published by Ofwat under Condition F.

In the case of each of the persons who are directors of the company at the date when this report was approved, so far as each of the directors is aware there is no relevant audit information of which the company's Auditor is unaware; and each of the directors has taken all the steps that he/she ought to have taken as a director in order to make himself/herself aware of any relevant information and to establish that the company's Auditor is aware of that information.

Relevant audit information means information needed by the company's Auditor in connection with preparing its report. This confirmation is given and should be interpreted in accordance with the provisions of section 418 of the Companies Act 2006.

This certificate was approved unanimously at the Board meeting on 12 July 2022 by

Ian Tyler <i>Chair</i>	Ann Bishop <i>Independent Non-Executive</i>	Trevor Didcock <i>Independent Non-Executive</i>
Mark Horsley <i>Independent Non-Executive</i>	Chris Newsome <i>Independent Non-Executive</i>	Justin Read <i>Independent Non-Executive</i>
Jaroslava Korpanec <i>Non-Executive</i>	Michael Osbourne <i>Non-Executive</i>	Angela Roshier <i>Non-Executive</i>
Roxana Tataru <i>Non-Executive</i>	Stuart Ledger <i>Executive Director, Interim CEO</i>	

Signed on behalf of the Board members listed above,

Ian Tyler
Chair

Compliance with

Condition P, paragraph

P14

Statement of risk and compliance

Purpose of this statement

The purpose of this statement is:

- to confirm that we have a full understanding of, and are meeting, our relevant statutory, licence and regulatory obligations;
- to confirm that we have taken steps to understand and meet customer expectations;
- to confirm that the company is taking appropriate steps to manage or mitigate the material risks it faces; and
- to explain any significant matters relevant to the company's performance in 2021/22, as presented in section 3 of the regulatory Annual Performance Report.

The statement explains the company's approach to regulatory compliance and assurance and sets out its statement of compliance. It should be read alongside the company's Annual Report and Financial Statements for the year ended 31 March 2022, which include a summary of the company's operational performance for 2021/22 from page 66 of our Annual Report and Financial Statements 2021/22 and set out how the company manages risk and uncertainty from page 98 of our Annual Report and Financial Statements 2021/22.

Regulatory compliance and assurance

The company's approach to achieving and assuring compliance with its licence and regulatory obligations is based on a sound system of internal controls and governance. To inform themselves about the company's compliance, the company's Board and Audit, Risk and Assurance Committee members carried out a range of activities throughout 2021/22 to satisfy themselves as to the proper functioning of those systems. The company's Director of Regulation and Strategy is responsible for monitoring regulatory compliance and is supported in discharging this

responsibility by employees in the Regulation, Assurance, Legal and Internal Audit teams.

The company continues to employ an external reporter (the 'Reporter') to scrutinise, challenge and give independent advice on the procedures the company uses to collect and report the information underpinning this compliance statement. The Reporter has highlighted that the company has full understanding of and has sufficient processes and internal systems of controls to meet its reporting obligations. The Reporter also highlighted that the majority of reporting processes continue to demonstrate either consistent good practice or improvements from previous years, and in the few cases where areas of inadequacy in reporting procedures were noted in previous years, these have now been addressed, and clear written procedures are in place for all the 2020–2025 Performance Commitments.

The Reporter's report is available on the company's website: affinitywater.co.uk/reports-publications.

Understanding and meeting customers' expectations

The company supplies a diverse customer base with a range of expectations for service. It undertakes appropriate activities to inform itself about customers' expectations including customer research, consultation with consumer representatives and proactive communication with customers to seek feedback. It aims to provide services that it judges will best fulfil those expectations, remaining mindful of the need to balance customers' expectations with those of its other stakeholders, its environmental protection objectives and considering customers' acceptability and ability to pay water bills.

Regulatory outputs

The Board has reviewed the performance of the company against its regulatory outputs set at the Final Determination 2019. This regulatory Annual Performance Report identifies differences between the outputs that the company has delivered in 2021/22 and those that were assumed in its Final Determination 2019.

Compliance statement

As a Board, we confirm that:

- we have a full understanding of, and are meeting, our relevant material statutory, licence and regulatory obligations;
- we have taken steps to understand and meet customers' expectations;
- we are satisfied that we have sufficient processes and internal systems of control to meet our obligations; and
- we have appropriate systems and processes in place to allow us to identify, manage, mitigate and review our material risks.

On behalf of the Board

Stuart Ledger
Interim CEO

Justin Read
Independent Non-Executive Director

Exceptions

The following exceptions to achieving our obligations have been shared with Ofwat:

Duty/Obligation	Disclosure	Actions being taken to improve
Performance Commitments	For 2021/22, out of our 28 performance commitments, we have not met the following targets: <ul style="list-style-type: none"> • Water quality compliance • Leakage • Per capita consumption • Properties at risk of receiving low pressure • Unplanned interruptions to supply • Customer contacts about water quality taste, odour and appearance • Risk of severe restrictions in drought • Value for Money Survey. 	Details of our performance and the actions we are taking are detailed in section 3 of our Annual Performance Report.
Leakage and Per Capita Consumption reporting	For 2021/22, we have not achieved full compliance with the Leakage and Per Capita Consumption reporting checklist. Details of our reporting can be found in the performance commitment commentary checklist on pages 64 to 68.	We are implementing improvements in reporting for 2022/23, including improving the representativeness of our sample size to reflect our overall population.
Utilities Contract Regulations 2016	Following an internal review of our procurement process, historic compliance issues were identified in connection with two procurements.	We have addressed the issues and corrective action has been taken to ensure ongoing compliance in the future.
GDPR	We identified some breaches of GDPR with one of our suppliers. There had been no breach of security or loss of personal data and the events were not notifiable to the Information Commissioner's Office.	We have reviewed our controls and measures and are making improvements to reduce the risk in future.

Independent Auditors' Report

to the Water Services Regulation Authority (the WSRA) and the Directors of Affinity Water Limited

Opinion

We have audited the tables within Affinity Water Limited's Regulatory Annual Performance Report for the year ended 31 March 2022 ("the Regulatory Accounting Statements") which 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 cashflows (table 1D), the net debt analysis (appointed activities) (table 1E), the financial flows (table 1F) and the related notes; and
- the regulatory price review and other segmental reporting tables comprising the Segmental income statement (table 2A), the Totex analysis – wholesale (table 2B), the Cost analysis – retail (table 2C), the Historic cost analysis of tangible fixed assets (table 2D), the Analysis of 'grants and contributions' – water resources, water network+ and wastewater network+ (table 2E), the Residential retail (table 2F), the Revenue analysis (table 2I), the Infrastructure network reinforcement costs (table J), the Infrastructure charges reconciliation (table 2K), the Analysis of land sales (table 2L), the Revenue reconciliation - wholesale (table 2M), the Residential retail – social tariffs (table 2N), the Historic cost analysis of intangible fixed assets (table 2O) and the related notes.

We have not audited the Achievement against performance-related measures (annual bonus) table in Section 1, the Outcome performance tables (3A to 3I) and the additional regulatory information in tables 4A to 4R, 5A to 5B, 6A to 6F, 9A and 11.

In our opinion, Affinity Water Limited's Regulatory Accounting Statements have been prepared, in all material respects, in accordance with Condition F, the Regulatory Accounting Guidelines issued by the WSRA (RAG 1.09, RAG 2.09, RAG 3.13, RAG 4.10 and RAG 5.07) and the accounting policies (including the Company's published accounting methodology statement(s), as defined in RAG 3.13, appendix 2), set out on pages 42 to 45.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)"), including ISA (UK) 800, and applicable law, except as stated in the section on Auditors' responsibilities for the audit of the Regulatory Accounting Statements 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 & Wales.

Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the Regulatory Accounting Statements within the Annual Performance Report section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit, including the Financial Reporting Council's (FRC's) Ethical Standard, and we have fulfilled our ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion

Emphasis of matter – special purpose basis of preparation

We draw attention to the fact that the Regulatory Accounting Statements have been prepared in accordance with a special purpose framework, Condition F, the Regulatory

Accounting Guidelines, the accounting policies (including the Company's published accounting methodology statement(s), as defined in RAG 3.13, appendix 2) 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. As a result, the Regulatory Accounting Statements may not be suitable for another purpose. 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. In addition, we are not required to assess whether the methods of cost allocation set out in the accounting methodology statement are appropriate to the circumstances of the Company or whether they meet the requirements of the WSRA.

The Regulatory Accounting Statements are separate from the statutory financial statements of the Company and have not been prepared under the basis of United Kingdom Generally Accepted Accounting Practice ("UK GAAP"). Financial information other than that prepared on the basis of UK GAAP 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 31 to 134 have been drawn up in accordance with Regulatory Accounting Guidelines with a number of departures from UK GAAP. A summary of the effect of these departures in the Company's statutory financial statements is included in the tables within section 1.

Our opinion is not modified in respect of this matter.

Conclusions relating to going concern

In auditing the Regulatory Accounting Statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the Regulatory Accounting Statements is appropriate.

Our evaluation of the directors' assessment of the company's ability to continue to adopt the going concern basis of accounting included:

- testing the mathematical accuracy of the base case going concern model prepared by management and agreeing this to Board approved budgets;
- assessing the inputs and underlying assumptions of the base case model;
- assessing the accuracy of the cash flow forecast prepared in the prior year so as to obtain assurance of the ability of management to prepare accurate forecasts;
- assessing the downside scenario which has been used to sensitise the base case model, including consideration of the underlying assumptions; and
- reviewing management's analysis of both liquidity and covenant compliance to ensure there is sufficient liquidity and no forecast covenant breaches during the going concern period.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report

Other information

The other information comprises all of the information in the Annual Performance Report other than the Regulatory Accounting Statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the Regulatory Accounting Statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the Regulatory Accounting Statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Regulatory Accounting Statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the Regulatory Accounting Statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report based on these responsibilities.

Responsibilities of the Directors for the Annual Performance Report

As explained more fully in the Statement of Directors' Responsibilities set out on page 25, 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 as defined in RAG 3.13, appendix 2).

The directors are also responsible for such internal control as they determine is necessary to enable the preparation of the Annual Performance Report that is free from material misstatement, whether due to fraud or error.

In preparing the Annual Performance Report, the directors are responsible for assessing the Company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

Independent Auditors' Report continued

to the Water Services Regulation Authority (the WSRA) and the Directors of Affinity Water Limited

Auditors' responsibilities for the Audit of the Regulatory Accounting Statements within the Annual Performance Report

Our objectives are to obtain reasonable assurance about whether the Regulatory Accounting Statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the Regulatory Accounting Statements.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

We considered the nature of the company's industry and its control environment and reviewed the company's documentation of their policies and procedures relating to fraud and compliance with laws and regulations. We also enquired of management about their own identification and assessment of the risks of irregularities.

We obtained an understanding of the legal and regulatory frameworks that the company operates in, and identified the key laws and regulations that:

- had a direct effect on the determination of material amounts and disclosures in the Regulatory Accounting Statements. These included Regulatory Accounting Guidelines as issued by the WRSR, UK Companies Act, pensions legislation and tax legislation; and
- do not have a direct effect on the Regulatory Accounting Statements but compliance with which may be fundamental to the company's

ability to operate or to avoid a material penalty. These included the company's operating licence, regulatory solvency requirements and environmental regulations.

In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override. In addressing the risk of fraud through management override of controls, we tested the appropriateness of journal entries and other adjustments; assessed whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluated the business rationale of any significant transactions that are unusual or outside the normal course of business.

In addition to the above, our procedures to respond to the risks identified included the following:

- discussions with management, internal audit and the company's legal team, including inquiring of known or suspected instances of non-compliance with laws and regulation and fraud, and review of board minutes and internal audit reports;
- discussions with the General Counsel and Head of Ethics & Compliance to discuss both the litigation report and summary of whistleblowing matters arising;
- challenging assumptions made by management when preparing accounting estimates, in particular those that involve the assessment of future events, which are inherently uncertain – the key estimates determined in this respect are those relating to the measured income accrual and loss allowance for trade receivables; and
- identifying and testing journal entries posted, such as those with unusual account combinations or those posted by senior management.

A further description of our responsibilities for the audit of the Regulatory Accounting Statements is located on the Financial Reporting Council's website at www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Use of this report

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.

Our opinion on the Regulatory Accounting Statements is separate from our opinion on the statutory financial statements of the Company for the year ended 31 March 2022, 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.

PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
Watford

13 July 2022

Section 1 – Regulatory financial reporting

1A - Income statement for the 12 months ended 31 March 2022

	Adjustments				Total appointed activities £m
	Statutory £m	Differences between statutory and RAG definitions £m	Less: non- appointed £m	Total adjustments £m	
Revenue	319,747	[10,055]	-	[10,055]	309,692
Operating costs	(304,156)	(2,168)	(4,698)	2,530	(301,626)
Other operating income	18,972	(4,048)	11,741	(15,789)	3,183
Operating profit	34,563	[16,271]	7,043	[23,314]	11,249
Other income	-	16,271	-	16,271	16,271
Interest income	14,555	-	-	-	14,555
Interest expense	(102,873)	-	-	-	(102,873)
Other interest expense	1,488	-	-	-	1,488
Profit before tax and fair value movements	[52,267]	0.000	7,043	[7,043]	[59,310]
Fair value gains/(losses) on financial instruments	(3,307)	-	-	-	(3,307)
Profit before tax	[55,574]	0.000	7,043	[7,043]	[62,617]
UK Corporation tax	-	-	(1,338)	1,338	1,338
Deferred tax	(41,331)	-	-	-	(41,331)
Profit for the year	[96,905]	0.000	5,705	[5,705]	[102,610]
Dividends	-	-	-	-	-
Tax analysis					
Current year	-	-	1,338	(1,338)	(1,338)
Adjustments in respect of prior years	-	-	-	-	-
UK Corporation tax	-	-	1,338	[1,338]	[1,338]
Analysis of non-appointed revenue					
Imported sludge	-	-	-	-	-
Tankered waste	-	-	-	-	-
Other non-appointed revenue	11,741	-	-	-	11,741
Revenue	11,741	-	-	-	11,741

Section 1 – Regulatory financial reporting continued

The table below summarises the differences between statutory and RAGs definitions:

	Revenue recognition £m	Connection charges income £m	Amortisation of deferred grants and contribution £m	Gain on disposal of fixed assets £m	Meter reading commission £m	Rental and sundry income £m	Total £m
Revenue	3,234	[7,989]	[5,300]				[10,055]
Operating cost	[3,234]			0,837	0,229		[2,168]
Other operating income				[0,837]		[3,211]	[4,048]
Other income		7,989	5,300		[0,229]	3,211	16,271
Total	-	-	-	-	-	-	-

£3,234,000 of the difference between statutory and RAG-defined revenue relates to the disapplication in the Regulatory Accounts of the provision of IFRS 15, which states that revenue should only be recognised when it is probable that the economic benefits associated with the transaction will flow to the entity (refer to the revenue recognition accounting policy note on page 42). This is offset by the reclassification of £7,989,000 of connection charges income and £5,300,000 of amortisation associated with deferred grants and contributions, which are presented within other income in the Regulatory Accounts.

The difference between statutory and RAG-defined operating costs consists of the revenue recognition adjustment described in the previous paragraph of £3,234,000, offset by the reclassification of a £837,000 net loss on disposal of fixed assets, which is presented within other operating income in the Regulatory Accounts, and £229,000 of meter reading commission included within other income is offset against operating costs in the Regulatory Accounts.

The difference between statutory and RAG-defined other operating income consists of the reclassification of the net gain on disposal of fixed assets from operating costs described in the previous paragraph of £837,000 and the reclassification of £3,211,000 of rental and sundry income, which is presented within other income in the Regulatory Accounts.

The difference between statutory and RAG-defined other income consists of the reclassification of £7,989,000 of connection charges income, £5,300,000 of amortisation associated with deferred grants and contributions, £3,211,000 of rental and sundry income offset by £229,000 of meter reading income.

The non-appointed business activities include services performed on behalf of the sewerage companies in our supply area, including meter reading, billing, cash collection and infrastructure commission. We also have support services and receive unregulated income for value added services.

Analysis of the interest charge

The appointed interest expense of (£102,873,000) and other interest expense of £1,488,000 shown in table 1A is broken down as follows:

	£m
Interest charged on external borrowings, excluding those relating to Direct Procurement for Customers arrangements	[29,574]
Interest payable on intra-group borrowings	[73,958]
Interest payable in relation to other leases under IFRS16	[0,313]
Amortisation of debt issuance costs	[0,288]
Amortisation of any debt premiums/discounts	1,628
Any other financing costs/interest charges	[0,368]
Total	[102,873]
Interest paid in relation to pension scheme liabilities	[8,942]
Expected return on pension scheme assets	10,430
Total other interest (expense)/credit	1,488

1B - Statement of comprehensive income for the 12 months ended 31 March 2022

	Adjustments				Total appointed activities £m
	Statutory £m	Differences between statutory and RAG definitions £m	Less: non-appointed £m	Total adjustments £m	
Profit for the year	[96,905]	0,000	5,705	[5,705]	[102,610]
Actuarial gains/(losses) on post-employment plans	28,749	-	-	-	28,749
Other comprehensive income	[7,187]	-	-	-	[7,187]
Total comprehensive income for the year	[75,343]	0,000	5,705	[5,705]	[81,048]

Section 1 – Regulatory financial reporting continued

1C - Statement of financial position for the 12 months ended 31 March 2022

	Adjustments				Total appointed activities £m
	Statutory £m	Differences between statutory and RAG definitions £m	Less: non-appointed £m	Total adjustments £m	
Non-current assets					
Fixed assets	1,625.011	-	-	-	1,625.011
Intangible assets	43.266	-	-	-	43.266
Investments – loans to group companies	-	-	-	-	-
Investments – other	70.279	(70.179)	-	(70.179)	0.100
Financial instruments	7.342	-	-	-	7.342
Retirement benefit assets	104.247	-	-	-	104.247
Total non-current assets	1,850.145	(70.179)	-	(70.179)	1,779.966
Current assets					
Inventories	4.348	-	-	-	4.348
Trade and other receivables	103.821	-	0.302	(0.302)	103.519
Financial instruments	20.646	-	-	-	20.646
Cash and cash equivalents	135.604	70.179	7.071	63.108	198.712
Total current assets	264.419	70.179	7.373	62.806	327.225
Current liabilities					
Trade and other payables	(165.533)	14.268	0.433	13.835	(151.698)
Capex creditor	(21.587)	-	-	-	(21.587)
Borrowings	(3.317)	-	-	-	(3.317)
Financial instruments	-	-	-	-	-
Current tax liabilities	(3.481)	-	(2.101)	2.101	(1.380)
Provisions	(5.697)	5.697	-	5.697	-
Total current liabilities	(199.615)	19.965	(1.668)	21.633	(177.982)
Net current assets/(liabilities)	64.804	90.144	5.705	84.439	149.243
Non-current liabilities					
Trade and other payables	-	-	-	-	-
Borrowings	(1,282.117)	(38.866)	-	(38.866)	(1,320.983)
Financial instruments	(106.818)	38.866	-	38.866	(67.952)
Retirement benefit obligations	-	-	-	-	-
Provisions	(3.107)	-	-	-	(3.107)
Deferred income – grants and contributions (G&Cs)	(247.074)	(19.965)	-	(19.965)	(267.039)
Deferred income – adopted assets	-	-	-	-	-
Preference share capital	-	-	-	-	-
Deferred tax	(231.530)	-	-	-	(231.530)
Total non-current liabilities	(1,870.646)	(19.965)	-	(19.965)	(1,890.611)
Net assets	44.303	-	5.705	(5.705)	38.598
Equity					
Called up share capital	30.506	-	-	-	30.506
Retained earnings and other reserves	13.797	-	5.705	(5.705)	8.092
Total equity	44.303	-	5.705	(5.705)	38.598

1C - Statement of financial position for the 12 months ended 31 March 2022

continued

The £70,179,000 difference between statutory and RAG-defined investments – other and cash and cash equivalents consists of a reclassification of short-term deposits, treated as investments in the statutory accounts and cash and cash equivalents under RAG terminology.

The £14,268,000 difference between statutory and RAG-defined trade and other payables consists of the reclassification of payments received for costs incurred in relation to the High Speed 2 (HS2) rail programme, which will cross the Affinity Water supply area, that have not been commissioned yet for use.

In line with our accounting policy for grants and contributions received in respect of property, plant and equipment, which include contributions received for diversions, in the company's statutory financial statements income received is treated as deferred income and released to cost of sales and administrative expenses over the useful economic life of the property, plant and equipment to which it relates once these assets are commissioned (as at 31 March 2022, £98,478,000 of our property, plant and equipment had been commissioned and therefore £98,478,000 of associated payments received have been recognised in deferred income. We have an additional £14,268,000 of contributions received for property, plant and equipment that hasn't been commissioned and therefore these contributions are included within payments in advance in trade and other payables). Given assets constructed by the company under the HS2 programme may not be commissioned for several years, adopting this accounting policy in the Regulatory Accounts would lead to a mismatch of costs incurred and payments received in relation to these costs in the totex tables in sections 2 and 4 of these Regulatory Accounts (tables 2B, 4C and 4D). Therefore, the payments received in relation to HS2 within statutory payments in advance have been reclassified to deferred income – G&C's in the Regulatory Accounts and £20,829,000 of payments received in 2021/22 are included in the totex tables to offset the expenditure incurred in 2021/22. The payments received in 2021/22 have also been included in the diversions lines within the analysis of capital contributions for both Water Resources and Water Network+ (table 2E).

The £5,697,000 difference between statutory and RAG-defined provisions within current liabilities relates to the reclassification of current deferred G&C's to deferred income – G&C's.

The £19,965,000 difference between statutory and RAG-defined deferred income – G&C's relates to the reclassifications detailed in the previous paragraphs.

The £38,866,000 difference between statutory and RAG-defined borrowings and financial instruments relates to the reclassification of accretion on the inflation-linked swap from financial instruments to borrowings.

Section 1 – Regulatory financial reporting continued

1D - Statement of cashflows for the 12 months ended 31 March 2022

	Adjustments				Total appointed activities £m
	Statutory £m	Differences between statutory and RAG definitions £m	Less: non-appointed £m	Total adjustments £m	
Operating activities					
Operating profit	34,563	[16,271]	7,043	[23,314]	11,249
Other income	-	16,271	-	16,271	16,271
Depreciation	75,257	-	-	-	75,257
Amortisation – G&C's	[5,300]	-	-	-	[5,300]
Changes in working capital	[3,779]	-	1,511	[1,511]	[5,290]
Pension contributions	[3,017]	-	-	-	[3,017]
Movement in provisions	3,072	-	-	-	3,072
Profit on sale of fixed assets	0,484	-	-	-	0,484
Cash generated from operations	101,280	-	8,544	[8,554]	92,726
Net interest paid	[41,807]	-	-	-	[41,807]
Tax paid	[0,130]	-	[1,502]	1,502	1,372
Net cash generated from operating activities	59,343	-	7,052	[7,052]	52,291
Investing activities					
Capital expenditure	[139,896]	-	-	-	[139,896]
Grants and contributions	25,771	-	-	-	25,771
Disposal of fixed assets	0,435	-	-	-	0,435
Other	[38,160]	55,046	-	55,046	16,886
Net cash used in investing activities	[151,850]	55,046	-	55,046	[96,804]
Net cash generated before financing activities	[92,507]	55,046	7,052	47,994	[44,513]
Cashflows from financing activities					
Equity dividends paid	-	-	-	-	-
Net loans received	143,345	-	-	-	143,345
Cash inflow from equity financing	-	-	-	-	-
Net cash generated from financing activities	143,345	-	-	-	143,345
Increase/(decrease) in net cash	50,838	55,046	7,052	47,994	98,832

The cash flow has been prepared in accordance with the RAG templates and resultant net cash generated from operating activities in the table above does not align to the statutory cash flow. £25,771,000 of capital contributions are treated as operating cash flows in the statutory cash flow and are shown within investing activities in table 1D.

The £16,271,000 difference between statutory and RAG-defined operating profit consists of the reclassification of £7,989,000 of connection charges income, £5,300,000 of amortisation associated with deferred grants and contributions and £3,211,000 of rental and sundry income, all of which are shown in other income, offset by the reclassification of £229,000 of meter read commission, which is presented within other income in the Statutory Accounts. The £55,046,000 difference between statutory and RAG-defined other investing activities is the movement in short-term deposits treated as investments in the statutory accounts and cash and cash equivalents under RAG terminology.

1E - Net debt analysis (appointed activities) at 31 March 2022

	Fixed rate £m	Floating rate £m	Index linked		Total £m
			RPI £m	CPI/CPIH £m	
Interest rate risk profile					
Borrowings (excluding preference shares)	212,433	-	614,445	465,620	1,292,498
Preference share capital					-
Total borrowings					1,292,498
Cash					[128,533]
Short term deposits					[70,179]
Net debt					1,093,786
Gearing					
Gearing					73.99%
Adjusted gearing					73.04%
Interest					
Full year equivalent nominal interest cost	7,430	-	56,625	26,503	90,558
Full year equivalent cash interest payment	7,430	-	12,844	4,751	25,025
Indicative interest rates					
Indicative weighted average nominal interest rate [%]	3.665%	-	9.243%	5.537%	6.999%
Indicative weighted average cash interest rate [%]	3.665%	-	2.097%	0.993%	1.934%
Time to maturity					
Weighted average years to maturity	16.102	-	13.400	14.134	14.095

Capitalised debt issue costs and bond premiums/discounts, and amortisation thereon, have been excluded from total borrowings presented in the above table. A reconciliation to total borrowings as presented in table 1C is provided below:

	£m
Total borrowings (excluding preference shares) presented in table 1C	1,324,300
Less: capitalised bond premium/issue costs - Fixed	[8,965]
Less: capitalised bond premium/issue costs - RPI	[6,906]
Less: capitalised bond premium/issue costs - CPI	[15,931]
Net debt presented above	1,292,498

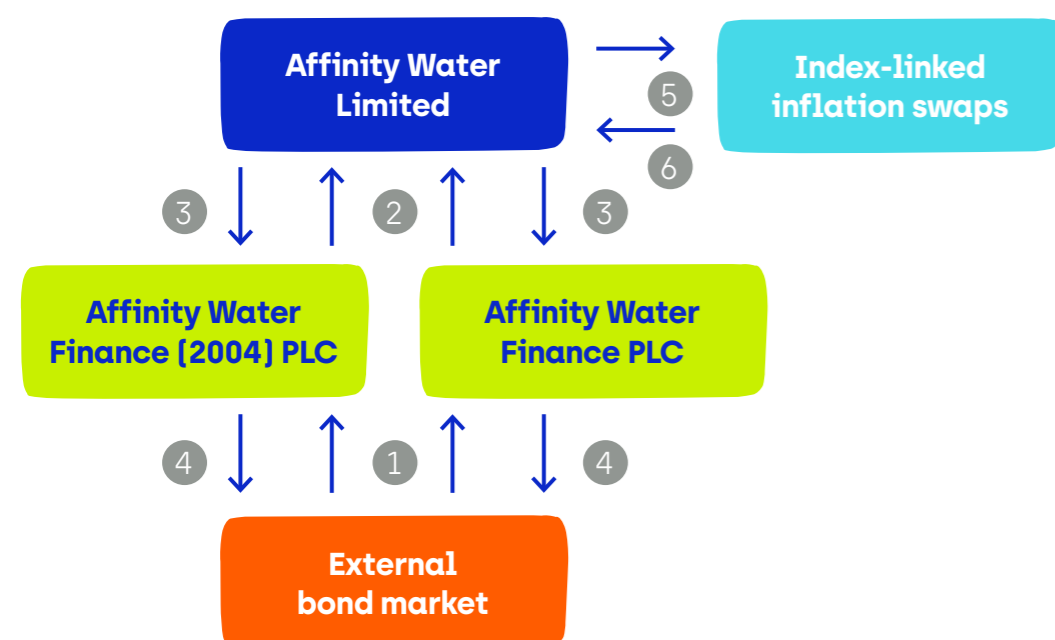
Adjusted gearing is calculated using the definition of net debt set out in the company's WBS documentation, as presented in the following table.

	Fixed rate £m	Floating rate £m	Index linked		Total £m
			RPI £m	CPI/CPIH £m	
Borrowings (excluding preference shares)	202,788	-	614,445	465,653	1,282,886
Preference share capital					-
Less: loan from intermediate parent company					[3,550]
Add: accrued interest on borrowings					6,266
Total borrowings					1,285,602
All cash and short-term deposits					[205,783]
Net debt					1,079,819

Section 1 – Regulatory financial reporting continued

1E - Net debt analysis (appointed activities) at 31 March 2022 continued

Affinity Water Limited has two financing subsidiaries which have issued bonds listed by the UK Listing Authority. Affinity Water Finance (2004) PLC has issued an external bond of £250.0m and Affinity Water Finance PLC has issued external bonds totalling £894.2m, the proceeds of which have been lent on to and are guaranteed by Affinity Water Limited, as shown in the diagram below:



- Affinity Water Finance (2004) PLC and Affinity Water Finance PLC have raised debt from the external sterling bond market in the form of several bond issuances.
- The two financing subsidiaries have on-lent the debt to Affinity Water Limited on the same terms.
- Affinity Water Limited pays interest payments annually to the financing subsidiaries and will repay the principal debt upon maturity of the bond.
- Affinity Water Finance (2004) PLC and Affinity Water Finance PLC pay interest payments annually to the bondholders, and will repay the principal debt upon maturity of the bond.
- Affinity Water Limited receives a fixed interest payment annually for the index-linked inflation swap.
- Affinity Water Limited pays index-linked interest payments annually for the index-linked inflation swap and will make a final accretion payment based on the mark to market valuation at maturity.

1F – Financial flows for the 12 months ended 31 March 2022 and for the price review to date - (2017-18 financial year average CPIH)

	12 months ended 31 March 2022					
	%			£m		
	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity
Regulatory equity						
Regulatory equity	514.385	514.385	328.616	514.385	514.385	328.616
Return on regulatory equity						
Return on regulatory equity	4.09%	2.61%	4.09%	21.043	13.443	13.443
Financing						
Impact of movement from notional gearing	-	1.48%	1.13%	-	7.600	3.715
Gearing benefits sharing	-	0.08%	0.13%	-	0.433	0.433
Variance in corporation tax	-	[0.16%]	[0.25%]	-	[0.813]	[0.813]
Group relief	-	-	-	-	-	-
Cost of debt	-	[6.57%]	[11.82%]	-	[33.805]	[38.835]
Hedging instruments	-	2.79%	4.37%	-	14.363	14.363
Return on regulatory equity including financing adjustments	4.09%	0.24%	[2.34%]	21.043	1.221	[7.694]
Operational Performance						
Totex out / (under) performance	-	1.88%	2.95%	-	9.679	9.679
ODI out / (under) performance	-	[0.76%]	[1.19%]	-	[3.913]	[3.913]
C-Mex out / (under) performance	-	[0.30%]	[0.47%]	-	[1.545]	[1.545]
D-Mex out / (under) performance	-	[0.02%]	[0.03%]	-	[0.094]	[0.094]
Retail out / (under) performance	-	[0.17%]	[0.26%]	-	[0.863]	[0.863]
Other exceptional items	-	0.04%	0.06%	-	0.200	0.200
Operational performance total	-	0.67%	1.05%	-	3.465	3.465
Return on Retained Earnings (RoRE)	4.09%	0.91%	[1.29%]	21.043	4.686	[4.229]
Regulatory Capital Value (RCV) growth	7.20%	7.20%	7.20%	37.042	37.042	23.665
Voluntary sharing arrangements	-	[0.02%]	[0.03%]	-	[0.100]	[0.100]
Total shareholder return	11.29%	8.09%	5.88%	58.085	41.628	19.336
Dividends						
Gross dividend	0.82%	-	-	4.218	-	-
Interest received on intercompany loans	-	-	-	-	-	-
Retained value	10.47%	8.09%	5.88%	53.867	41.628	19.336
Cash impact of 2015-20 performance adjustments						
Totex out / under performance	-	[0.00%]	[0.00%]	-	[0.013]	[0.013]
ODI out / under performance	-	[0.54%]	[0.84%]	-	[2.758]	[2.758]
Total out / under performance	-	[0.54%]	[0.84%]	-	[2.771]	[2.771]

Section 1 – Regulatory financial reporting continued

1F – Financial flows for the 12 months ended 31 March 2022 and for the price review to date (2017-18 financial year average CPIH) continued

	Average 2020-2025					
	%			£m		
	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity
Regulatory equity						
Regulatory equity	497,541	497,541	295,388	497,541	497,541	295,388
Return on regulatory equity						
Return on regulatory equity	4.06%	2.41%	4.06%	20,224	12,007	12,007
Financing						
Impact of movement from notional gearing	-	1.65%	1.10%	-	8,217	3,630
Gearing benefits sharing	-	(0.18%)	(0.28%)	-	(0,936)	(0,936)
Variance in corporation tax	-	(0.53%)	(0.83%)	-	(2,712)	(2,712)
Group relief	-	-	-	-	-	-
Cost of debt	-	(4.79%)	(8.37%)	-	(24,641)	(27,518)
Hedging instruments	-	2.67%	4.18%	-	13,726	13,726
Return on regulatory equity including financing adjustments	4.06%	1.23%	(0.14%)	20,224	5,661	(1,803)
Operational Performance						
Totex out / (under) performance	-	1.76%	2.75%	-	9,050	9,050
ODI out / (under) performance	-	(0.87%)	(1.36%)	-	(4,482)	(4,482)
C-Mex out / (under) performance	-	(0.15%)	(0.24%)	-	(0,773)	(0,773)
D-Mex out / (under) performance	-	(0.01%)	(0.01%)	-	(0,047)	(0,047)
Retail out / (under) performance	-	(0.35%)	(0.54%)	-	(1,782)	(1,782)
Other exceptional items	-	0.06%	0.10%	-	0,313	0,313
Operational performance total	-	0.44%	0.69%	-	2,279	2,279
RoRE	4.06%	1.68%	0.56%	20,224	7,940	0,476
RCV growth	4.11%	4.11%	4.11%	20,435	20,435	12,132
Voluntary sharing arrangements	-	(0.02%)	(0.03%)	-	(0,100)	(0,100)
Total shareholder return	8.17%	5.76%	4.63%	40,659	28,274	12,508
Dividends						
Gross dividend	0.82%	-	-	4,080	-	-
Interest received on intercompany loans	-	-	-	-	-	-
Retained value	7.35%	5.76%	4.63%	36,579	28,274	12,508
Cash impact of 2015-20 performance adjustments						
Totex out / under performance	-	0.00%	0.00%	-	(0,013)	(0,013)
ODI out / under performance	-	(0.55%)	(0.92%)	-	(2,719)	(2,719)
Total out / under performance	-	(0.55%)	(0.92%)	-	(2,732)	(2,732)

1F – Financial flows for the 12 months ended 31 March 2022 and for the price review to date (2017-18 financial year average CPIH) continued

12 months ended 31 March 2022

The return on regulatory equity was 4.09% as determined at PR19. It increases to 5.22% after adjusting for the company's actual capital structure (1.13%, as reported in the gearing line of this table). The PR19 determination was carried out on a notional capital structure with 60% net debt to RCV gearing, the actual average level of gearing of 75.5% creates an adjustment of +1.13%. There was a favourable gearing benefits sharing adjustment of 0.13%. There was an adverse adjustment before hedging instruments of -11.82% resulting from the company's actual cost of debt underperforming against the 2.24% allowed in the PR19 determination after taking into account the movement in average CPIH during 2021/22 of 3.66%. Our hedging instruments have partially offset the adverse adjustment by +4.37%. The variance in corporation tax (calculated as the difference between the amount allowed for corporation tax in the PR19 determination and actual tax payable, before any fair value adjustments, after taking into account adjustments for capital allowances and prior year adjustments, refer to the reconciliation on page 132) decreases the adverse adjustment further by -0.25%.

The adverse -2.34% regulatory return on equity including financing adjustments is improved by 1.05% when considering the impact of operational performance, such that RoRE is -1.29%. Totex outperformance in the year results in a +2.95% increase (refer to table 4C), ODI underperformance in the year (refer to table 3A, including the estimated PCC penalty for the year) results in a -1.19% reduction with C-MeX and D-MeX underperformance resulting in a further -0.50% reduction. The performance of the retail business unit (refer to table 2C) also creates a -0.26% adverse adjustment. There was a further adjustment of +0.06% for other exceptional items which included 50% of the share of protected land sales in the year as per table 2L.

After factoring in RCV growth due to indexation and voluntary sharing arrangements, the total shareholder return for the year is 5.88%. No dividend was paid out by the regulated business, which equates to a 0.00% adjustment.

Average 2020-2025

Average figures have been calculated using the average of 2020/21 and 2021/22 tables. Gross dividends – notional returns and notional regulatory equity for the year ended 31 March 2021 has been updated following the publication of financial flows data for the year ended 31 March 2022.

Section 1 – Regulatory financial reporting continued

Statement of accounting policies

Basis of preparation

These accounts have been prepared in accordance with the relevant RAGs.

Accounting policies used are the same as those adopted in the statutory accounts, except as set out below.

Regulatory accounts are prepared to enable Ofwat to monitor the financial performance of the regulated water business. Note that tables 2G, 2H, 4E, 4G, 4K, 4M, 4O, 4S and 4U have not been presented as they are not applicable for Affinity Water Limited.

Standards and interpretations which are not yet effective

There are no new standards and interpretations, which are not yet effective and have not been early adopted by the company, that will have a material effect on future years.

Revenue recognition

Revenue represents the fair value of income receivable in the ordinary course of business from the regulated activities of the business in 2021/22 exclusive of value added tax. The company recognises revenue when the amount of revenue can be reliably measured, when it is probable that future economic benefit will flow to the entity and when specific criteria have been met.

The company's core revenue stream is derived from the supply of clean water. The UK Government has contracted with the company on behalf of customers by granting the company its water supply licence, where the underlying performance obligation is the development and maintenance of the network and ensuring its continued availability to customers. Revenue is recognised as the customer receives the benefit of this through consuming the water:

- for metered customers, the amount which the company has a right to receive is determined by the volume of water consumed; and
- for unmetered customers, the amount which the company has a right to receive is determined by the period of time during which a customer occupies a property to which water is supplied by the company.

The company has contracts with third parties operating in the non-household retail market for the supply of clean water (wholesale supply). The underlying performance obligation is the development and maintenance of the network, and ensuring its continued availability to third party retailers on behalf of non-household consumers. Revenue is recognised at the point in which the company has a right to receive the revenue. For non-household retailers, the amount which the company has a right to receive is determined by non-household consumption volume data.

For metered household customers, a receivable is recognised when the customer is billed for usage. At this point, the consideration is unconditional because only the passage of time is required before the payment is due. Where the company has provided the service before payment is due, an accrual for the consumption of water that has not yet been billed is recognised within trade and other receivables (refer to the measured income accrual section below).

Unmetered customers pay a fixed amount determined by the transaction prices set out in the company's charging scheme and tariff documents. If the payments received exceed the amount the company has the right to receive, the company recognises a payment received in advance within trade and other payables.

Where non-household retailers are billed in advance monthly for wholesale charges, as determined by billing/volume reports created by the market operator, the company recognises deferred income in relation to these accounts and discloses this within trade and other payables.

The company does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and the payment terms exceeds one year. The company therefore does not adjust any of its transaction prices for the time value of money.

Charges on income arising from court, solicitor and debt recovery agency fees are recognised in revenue.

Statement of accounting policies

continued

Revenue recognition continued

Measured income accrual

The measured income accrual is an estimation of the amount of mains water unbilled at year ending 31 March 2022. The accrual is estimated using a defined methodology based upon weighted average water consumption by tariff, which is calculated based upon historical information. No changes have been made to the methodology in calculating the measured income accrual during 2021/22. The measured income accrual is recognised within revenue.

Revenue for the year ended 31 March 2021 included a measured income accrual of £36,719,000. The value of billing recognised in the year ended 31 March 2022 for consumption in the prior year was £39,431,000. This resulted in an increase of £2,712,000 in 2021/22 year's revenue due to the underestimation of the prior year's revenue. This represented 0.85% of 2021/22 revenue and is within acceptable tolerance for accounting estimates.

Adjustments from statutory to regulatory accounts

The Regulatory Accounts disapply the provision of IFRS 15 which states that revenue should only be recognised if it is probable that it will be received, considering the customer's ability and intention to pay that amount of consideration when it is due. For regulatory reporting purposes, companies are required to assume that where an amount is billed it is probable that cash will be collected, thereby deviating from the IFRS 15 requirement in that there is no judgement applied to the probability of collection. Therefore, in the Regulatory Accounts the company does not derecognise revenue where historical evidence indicates that the company will probably never be able to collect the revenue billed.

No further differences exist between the revenue recognition policies in the statutory accounts and in the Regulatory Accounts.

Charging policy

Water charges are payable in full from the date of connection or change of customer on all properties at which it is recorded that water is being used or required. Exceptions to this, where the company waives water charges at its discretion on being informed by customers, include where the customer is in a care home; in long-term hospitalisation; in prison; overseas long-term; or in the event of the death of the customer.

Definition and treatment of properties

The company classifies unoccupied bulk owner properties as 'occupied' if they are empty for less than 26 weeks for short-term situations such as refurbishment or change of tenancy. These properties are billed in full and then a percentage is deducted from the amount owed to recognise that some properties will have been empty. Where properties are unoccupied for more than 26 weeks, the agreement with the bulk owner provides that the local authority will notify the company so that the property can be formally recorded as 'empty' on the company's billing system and, therefore, will not be billed.

The company no longer raises bills addressed to 'The Occupier' when there is no consumption detected at the property. The company's assumption is that these properties are not occupied. The company makes further enquiries and when it receives information that the property has become occupied the status of the account is amended, the customer's name applied to the account and billing commences.

In each of the above cases, if a bill is sent, the company would recognise it within revenue in the Regulatory Accounts.

All new properties are metered. Charges accrue from the date at which the meter is installed. The developer is billed between the date of connection and first occupancy, and this is recognised as revenue. If the developer is no longer responsible for the property and no new occupier has been identified the property management process referred to above is followed to identify the new occupier. Until the new occupier has been identified the property is treated as unoccupied and is not billed.

Section 1 – Regulatory financial reporting continued

Statement of accounting policies

continued

Capitalisation policy

Expenditure on infrastructure assets relating to increases in capacity, enhancements or material replacements of network components is capitalised where it can be reliably measured, and it is probable that incremental future economic benefits will flow to the company. Expenditure generally will only meet the criteria for capitalisation when it relates to specific planned works. Where this work does not involve a mains pipe exceeding a diameter of 300mm [considered qualitatively material due to its strategic importance in the generation of future economic benefits], replacement is considered quantitatively material when the pipe involved is at least 2km long and uses a new material for that location, which enhances the section of network being re-laid.

Costs of day-to-day servicing of network components are recognised in the income statement as they arise.

The company does not capitalise any borrowing costs relating to the purchase of property, plant and equipment, right-of-use assets or intangible assets in its statutory accounts, as the costs do not meet the criteria for capitalisation set out in IAS 23: 'Borrowing Costs'.

Bad debt

At each reporting date, the company evaluates the collectability of trade receivables and records a loss allowance based on experience. The loss allowance is charged to operating costs to reflect the company's assessment of the risk of non-recovery of trade receivables.

The loss allowance is calculated by applying a range of different percentages to trade receivables of different ages. These percentages also vary between categories of receivable. Higher percentages are applied to those categories of receivables which are considered to be of greater risk and also to trade receivables of greater age. The value of the loss allowance is sensitive to the specific percentages applied. The specific percentages applied are updated annually to reflect the latest collection performance data from the company's billing system. All trade receivables greater than five years old are fully provided for. Actual amounts recovered may differ from the estimated levels of recovery which could impact on operating results.

The company applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables and contract assets. To measure the expected credit losses, trade receivables and contract assets have been grouped based on shared credit risk characteristics and the days past due. The contract assets relate to unbilled metered consumption and have substantially the same risk characteristics as the trade receivables for the same types of contracts. The company has therefore concluded that the expected loss rates for trade receivables are a reasonable approximation of the loss rates for the contract assets.

Our bad debt provision decreased during 2021/22 as a result of a debt sale that took place, where fully provided for debt was sold outside of the company. Partially offsetting this was an increase in the provision in 2021/22 as a result of the increased cost of living currently impacting our customers. There has been a decrease in the provision from £34,027,000 at 31 March 2021 to £33,037,000 at 31 March 2022 as a result of the above reasons.

The company's policy is to write-off closed and live accounts that fall under the following categories: bankruptcy, liquidation, debt relief orders, deceased accounts where there is no estate, failed legal action and receivable amounts from customers who have moved out of the property with no forwarding address or are no longer responsible for payment of a water bill.

Accounts are written off following all internal recovery activity and subsequent external debt collection agency activity, except as follows:

- Closed accounts under £15 are written off without any internal recovery activity.
- Closed accounts under the name of 'the Occupier' are written off without any internal recovery action.
- Closed accounts under £50 are written off following all internal recovery activity where there is a forwarding address for the customer.
- Closed accounts under £100 are written off following all internal recovery activity where there is no forwarding address for the customer.

Amounts are also written off on accounts where the company is still supplying the customer and where all reasonable internal and external debt collection activities have been undertaken. Under these circumstances, if the total debt contains amounts over six years old, the amount over six years old is written off.

The company's write-off policy has remained unchanged and has been consistently applied in 2021/22 compared with the previous year. The amount of debt written off decreased from £9,094,000 in 2020/21 to £8,541,000 in 2021/22.

There has been an increase in trade receivables during 2021/22 (£25,268,000 at 31 March 2022 £24,505,000 at 31 March 2021) due to increased billing partially offset by an improvement in collection rates seen in March 2022 compared to in March 2021.

Statement of accounting policies

continued

Grants and contributions

Grants and contributions received in respect of property, plant and equipment (including infrastructure charges, and contributions for diversions and requisitioned mains/extensions), where the performance obligation is deemed to be satisfied over time, are treated as deferred income and released to revenue over the useful economic life of the property, plant and equipment to which they relate once these assets have been commissioned.

For contributions received in respect of diversions and requisitioned mains/extensions, the assets constructed are considered to have no economic value without the promise to provide ongoing supply of water services; therefore, the performance obligation is considered to be satisfied over the period that the property, plant and equipment constructed are in service.

Infrastructure charges are charges levied on developers for network reinforcement, which is not site specific, i.e. to fund expenditure which will contribute towards wider network reinforcement work away from the development site. There is an implied ongoing performance obligation to improve and maintain the wider network in order to provide an ongoing supply of water services.

Grants and contributions considered to be given in compensation for expenses incurred with no future related costs, including charges billed to developers for new connections (connection charges), are recognised in revenue in the income statement in the period that they became receivable; the performance obligation has been identified as the connection of a service pipe to the main. Once the connection is made, the performance obligation is fulfilled, and the income recognised immediately in the income statement.

These grants and contributions are not government grants within the scope of IAS 20: 'Accounting for Government Grants and Disclosure of Government Assistance' and fall within the scope of IFRS 15, as, while there may not be a written contract with the customer, the legal duties of a company under the Water Industry Act 1991 would seem to constitute a legally enforceable contract with the transaction prices set out in the company's charges scheme, tariff documents and invoices.

Statement of directors' remuneration and standards of performance

Executive directors' remuneration comprises a package of base salary together with an annual performance-related bonus and a long-term incentive plan. Executive directors' bonuses paid by the company are linked to the standards of performance of the company and are therefore in accordance with RAG 3.13. The elements of the 2021/22 remuneration arrangements for executive directors were established by the company's Remuneration Committee in 2021/22.

No changes have been made to the remuneration policy for executive directors, or targets and their weighting for the AMP7 annual bonus plan and LTIP for executive directors and senior management, since the publication of the Annual Report and Financial Statements for the year ended 31 March 2021, except as outlined in the following table, which sets out all elements of executive director remuneration.

Given the tough challenges the company faces in AMP7, the executive directors did not receive a salary increase for the year 2020/21 or 2021/22.

Section 1 – Regulatory financial reporting continued

Statement of directors' remuneration and standards of performance continued

Purpose and link to strategy	Policy and approach	Maximum potential value (as percentage of base pay)	Performance metrics	Changes for 2022/23
LTIP				
To incentivise executives to achieve long-term shareholder value while achieving high levels of customer experience performance, although both award and payment are discretionary.	<p>Base awards are granted as a percentage of salary and are paid out in cash at the end of a three-year performance period, with 33% of the amount earned paid at the end of year four, 33% paid at the end of year five and 33% paid at the end of year six subject to the achievement of performance conditions.</p> <p>The scheme is based on three-year targets that are aligned to strategic delivery for AMP7. The targets for each metric are set in each year of the AMP.</p> <p>No award will be made for a metric if performance is below target/plan and additional award will be made if the company meets its stretch targets.</p> <p>Base awards include clawback and malus provisions, as detailed below. The awards do not automatically vest on change of control of the business.</p>	Up to 100% of base salary for the CEO and 83.33% of base salary for the CFO for on target performance, and up to 150% of base salary for the CEO and 125% of base salary for the CFO if stretch targets are achieved.	<p>The award is determined based on the performance of the company over the three years. For the 2020/21 LTIP, 40% of the scheme pay-out is based on financial targets, including cash generated from operations and investment targets; 50% based on customer service and stakeholder commitments, including C-MeX [6.25%] and D-MeX [6.25%] position, water quality [6.25%], helping vulnerable customers [6.25%], leakage [6.25%], consumption [6.25%], mains bursts [6.25%] and environmental innovation [6.25%]; and 10% based on employee commitments, including culture surveys [5%] and safety [5%].</p> <p>These arrangements were formally agreed during the February 2021 Remuneration Committee meeting.</p> <p>These arrangements were formally agreed during the Remuneration Committee meeting on 28 June 2022.</p>	<p>For 2022/23 in order to meet the Ofwat guidance that 60% of incentives should be based on achievement of customer measures, it has been agreed that the scheme metrics will be as follows:</p> <p>Financial:</p> <ul style="list-style-type: none"> Regulated totex (15%) Non-regulated EBITDA (5%) <p>Customer & Responsible business:</p> <ul style="list-style-type: none"> Our Top 8 Performance Commitments (40%) Net Zero, abstraction reduction, river restorations (10%) <p>People:</p> <ul style="list-style-type: none"> Employee engagement (10%) <p>Long-term plan:</p> <ul style="list-style-type: none"> AMP8 plan quality (10%) AMP8 readiness (10%) <p>There will also be an underpin based on safety performance.</p> <p>It has also been agreed that targets will be set by reference to end of AMP performance rather than on an annual basis. The rest of the scheme remains unchanged. Further work will also take place during 2022/23 to further refine the scheme for next year as performance targets for the next AMP will not be agreed making a three-year scheme challenging for next year.</p> <p>These arrangements were formally agreed during the Remuneration Committee meeting on 28 June 2022.</p>

Statement of directors' remuneration and standards of performance continued

Purpose and link to strategy	Policy and approach	Maximum potential value (as percentage of base pay)	Performance metrics	Changes for 2022/23
Base salary				
To provide competitive fixed remuneration that will attract and retain key employees and reflect their experience and position in the company.	To target around market median, dependent on experience in the role.	N/A	N/A	No changes have been made to the policy for 2022/23 up to the date of approval of the Annual Report and Financial Statements.
Other taxable benefits				
To provide market competitive benefits.	Private health care insurance cover and life assurance are provided, together with a fully expensed company car (or car allowance).	N/A	N/A	No changes have been made to the policy for 2022/23 up to the date of approval of the Annual Report and Financial Statements.
Annual bonus plan				
The annual bonus plan is designed to provide a direct link between executive and company performance and the level of bonus awarded, although award and payment remain discretionary.	<p>Maximum bonus potential is set at a market-competitive level.</p> <p>The bonus is based on budgeted non-financial and financial targets that are aligned to the company's AMP7 commitments, plus individual targets.</p>	Up to 100% of base salary for the CEO and up to 75% of base salary for the CFO.	<p>40% of the total bonus is determined on the achievement of the financial performance target, which is based on net cash outflow before taxation and financing.</p> <p>40% of the total performance is on customer service and stakeholder commitments including C-MeX [5.7%], leakage [5.7%], consumption [5.7%], water quality [5.7%], water pressure [5.7%], interruptions to supply [5.7%] and safety [5.7%].</p> <p>20% of the total bonus is determined on the achievement of personal objectives.</p> <p>No payment will be awarded if achievement is below the target/plan for that metric. There is also the introduction of a check that considers pay-out of the bonus if either the customer or the financial elements of the bonus fall below a set level to ensure equal focus across all metrics.</p> <p>Reduction in the discretion of the Committee to award any bonus outside performance delivery targets.</p> <p>This was approved by the Remuneration Committee in April 2021.</p>	<p>For 2022/23 in order to meet the Ofwat guidance that 60% of incentives should be based on achievement of customer measures, it has been agreed that the scheme metrics will be as follows:</p> <ul style="list-style-type: none"> Regulated totex & working capital [20%] Non-regulated cash [5%] Our Top 8 Performance Commitments [6.25% each]: <ol style="list-style-type: none"> C-MeX D-MeX, Low pressure Mains repairs Interruptions to supply Water quality Leakage Per capita consumption Safety [5%] Personal performance against objectives [20%].

Section 1 – Regulatory financial reporting continued

Affinity Water Limited

Section 1 – Regulatory financial reporting continued

Statement of directors' remuneration and standards of performance continued

Purpose and link to strategy	Policy and approach	Maximum potential value (as percentage of base pay)	Performance metrics	Changes for 2022/23
Pension related benefits				
To provide competitive post-retirement benefits.	Under the defined contribution scheme, executives who joined the company before 1 April 2020 contribute at a rate of 7% of salary and the company contributes 20%. Executives who joined the company after this date are aligned to contributions made by the general employee population, with the company doubling contributions made by the executive up to a maximum company contribution of 12%.	20% of executive salary for executives appointed before 1 April 2020, 12% of executive salary for executives appointed after this date. Where executive directors are not members of the defined contribution scheme, the directors received a taxable allowance in lieu. This only applies currently to the interim CEO who receives an allowance of 12% of his combined salary and acting up allowance.	N/A	It has been agreed that any permanent appointments into the CEO and CFO roles will be at a maximum of 12% employer contribution.
Compensation for the forfeit of variable remuneration from previous employer				
To provide compensation for forfeited remuneration from previous employers.	The Committee may make additional cash awards if deferred pay is forfeited by an executive director on leaving a previous employer. Such awards would take into account the nature of awards forfeited (i.e. cash or shares), time horizons, attributed expected value and performance conditions.	N/A	N/A	No changes have been made to the policy for 2022/23 up to the date of approval of the Annual Report and Financial Statements.

Statement of directors' remuneration and standards of performance continued

Remuneration implementation report

Directors' remuneration 2021/22 (audited)

The following table shows directors' remuneration in respect of 2021/22.

	Base salary/fees ¹		Taxable benefits ²		Annual bonus		LTIP ³		Pension-related benefits ⁴		Other ⁵		Total fixed remuneration		Total variable remuneration		Total		
	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	
	21/22	20/21	21/22	20/21	21/22	20/21	21/22	20/21	21/22	20/21	21/22	20/21	21/22	20/21	21/22	20/21	21/22	20/21	
Non-executive																			
Current																			
Ann Bishop	44	44	-	-	-	-	-	-	-	-	-	-	-	44	44	-	-	44	44
Trevor Didcock	51	51	-	-	-	-	-	-	-	-	-	-	-	51	51	-	-	51	51
Susan Hooper	49	49	-	-	-	-	-	-	-	-	-	-	-	49	49	-	-	49	49
Mark Horsley	44	44	-	-	-	-	-	-	-	-	-	-	-	44	44	-	-	44	44
Chris Newsome	49	49	-	-	-	-	-	-	-	-	-	-	-	49	49	-	-	49	49
Justin Read	50	35	-	-	-	-	-	-	-	-	-	-	-	50	35	-	-	50	35
Former																			
Patrick O'D Bourke	-	25	-	-	-	-	-	-	-	-	-	-	-	-	25	-	-	-	25
Company Chair																			
Current																			
Ian Tyler	195	44	-	-	-	-	-	-	-	-	-	-	-	195	44	-	-	195	44
Former																			
Tony Cocker	-	159	-	-	-	-	-	-	-	-	-	-	-	-	159	-	-	-	159
Executive																			
Current																			
Stuart Ledger	263	210	4	6	114	57	120	76	42	42	-	-	309	258	234	133	543	391	
Former																			
Pauline Walsh	710	365	4	8	76	125	362	206	63	78	80	-	777	451	518	331	1,295	782	
	1,455	1,075	8	14	190	182	482	282	105	120	80	-	1,568	1,209	752	464	2,320	1,673	

The remuneration policy operated as intended during 2021/22. Executive director bonuses are only being paid where operational targets were met and base salaries were set at a level that attracted and retained key employees, reflecting their experience and position in the company. Given the tough challenges the company faces in AMP7, the executive directors did not receive a salary increase for the year 2020/21 or 2021/22. The Remuneration Committee believes this was appropriate.

In addition to the bonus outlined on the following page, in his role as interim CEO, Stuart Ledger received an additional bonus of £69,043 relating to the achievement of specific personal objectives awarded at the discretion of the Remuneration Committee in lieu of an increased LTIP or bonus for the period he is acting up as CEO (refer to page 182 of the Annual Report and Financial Statements 2021/22 for further information).

¹ Base salary in 2021/22 for Pauline Walsh includes an amount of £466,250 for payment in lieu of notice.

² Taxable benefits comprise company car allowance, and healthcare and travel insurance.

³ The LTIP amount disclosed for Stuart Ledger relates to the 2019/20 LTIP which fully vested in the year ended 31 March 2022. This amount will be paid in equal instalments over the three years ending 31 March 2023, 31 March 2024 and 31 March 2025. The LTIP amount disclosed for Pauline Walsh relates to the 2019/20, 2020/21 and 2021/22 LTIPs in respect of payments already accrued for her period in office.

⁴ Pension related benefits for Stuart Ledger and Pauline Walsh comprised amounts paid in lieu of being a member of the pension scheme; there were no amounts outstanding at year-end.

⁵ Other remuneration in 2021/22 for Pauline Walsh related to compensation for loss of office.

Section 1 – Regulatory financial reporting continued

Statement of directors' remuneration and standards of performance continued

Achievement against performance-related measures (annual bonus)

The annual bonus scheme is designed to provide a direct link between executive and company operational, customer and financial performance, and the level of bonus awarded, although award and payment remain discretionary. The table below shows the percentage of maximum annual bonus potential awarded in relation to the 2021/22 year for Pauline Walsh as CEO (paid on pro rata basis for period in office) and Stuart Ledger as CFO for each of the performance measures. No amounts in relation to these bonuses have been deferred.

Performance measure	Link to Alignment of culture, purpose, values and strategy	2021/22 target	2021/22 actual	Maximum weighting for 2021/22 (as a % of base salary)		2021/22 achievement (as a % of base salary)		
				Target met	Pauline Walsh	Stuart Ledger	Pauline Walsh	Stuart Ledger
Financial measure	Cash generated by operations: net cash outflow before taxation and financing ¹	Targeting sufficient cash generated by operations ensures we can invest in our assets and provide a great service that customers value	-£22m or higher	£[28.2]m	40.0% £97,333	30.0% £63,000	0.0% £nil	0.0% £nil
Operational measures	Leakage: volume of water lost through leaks on the network (Ml/d)	Targeting a continued reduction in leakage will ensure customers have enough water, while leaving more water in the environment	11.1% reduction from base or less	9.3%	5.7% £13,870	4.3% £8,977	0.0% £nil	0.0% £nil
	Water quality: CRI score	Targeting a low CRI score ensures customers have high-quality water they can trust	2.0 or less	1.1	5.7% £13,870	4.3% £8,977	5.7% £13,870	4.3% £8,977
	Interruptions to supply: minutes interrupted above 3 hours	Targeting few interruptions to supply ensures we can minimise disruption for customers and the community	9 mins or less	3.5 mins	5.7% £13,870	4.3% £8,977	5.7% £13,870	4.3% £8,977
	Customer consumption: PCC litres per day	Targeting customer consumption ensures we can make sure customers have enough water while leaving more water in the environment	29.86 Ml/d reduced through activity	23.0 Ml/d	5.7% £13,870	4.3% £8,977	0.0% £nil	0.0% £nil
	Properties at risk of low pressure: per 10,000 properties	Targeting reducing properties at risk of lower pressure ensures we can minimise disruption for customers and the community	1.513 or less	54.277	5.7% £13,870	4.3% £8,977	0.0% £nil	0.0% £nil
Customer and community measures	C-MeX ² : position in the league table	Targeting an improvement in the C-MeX positions ensures we focus on providing a great service that customers value	11th or higher	13th	5.7% £13,870	4.3% £8,977	0.0% £nil	0.0% £nil
Safety and health measure	Accident frequency rate (annual target): number of lost time injuries per 100,000 hours worked	Targeting a low accident frequency rate ensures our people can work to deliver our customer outcomes effectively	0.22 or lower	0.23	5.7% £13,870	4.3% £8,977	0.0% £nil	0.0% £nil
Personal performance ³					20.0% £48,667	15.0% £31,500	20.0% £48,667	12.8% £26,776
Total % of base salary					100.0%	75.0%	31.4%	21.3%
Base salary							£243,333	£210,000
Bonus paid							£76,407	£44,730

¹ This "non-GAAP" measure is the total of the following line items per the statement of cash flows (refer to page 210 of the Annual Report and Financial Statements 2021/22): cash generated from operations; purchases of property, plant and equipment; proceeds from sale of property, plant and equipment; purchase of intangible assets; and principal elements of lease payments. The bonus measure has been adjusted for the impact of timing on revenues earned and capital spend and is before statutory adjustments.

² C-MeX is the industry's measure of customer experience.

³ The Remuneration Committee exercised discretion in determining the level of bonus awarded in relation to the personal performance element of the executive directors' annual bonus within the pre-agreed base salary percentage cap. The Committee considered achievement of personal objectives set at the start of the year in exercising its discretion together with events occurring during 2021/22.

Section 2 – Price review and other segmental reporting

Accounting policy for price control segments

The tables in this section have been prepared in accordance with RAG 2.09, as detailed in the company's Accounting Separation Methodology Statement, which can be found on the company's website: affinitywater.co.uk/reports-publications. The methodology statement explains the basis for the allocations of costs and assets and has been updated for changes to the requirements in 2021/22. Changes to the methodology are also explained within the company's Accounting Separation Methodology Statement on the company's website. Wherever possible, direct costs and assets have been directly attributed to business units. Where this is not possible, appropriate cost allocations have been applied and assets have been allocated to business units based on an assessment of the principal user, as described in the methodology.

2A - Segmental income statement for the 12 months ended 31 March 2022

	Residential retail £m	Business retail £m	Water resources £m	Water network+ £m	Total £m
Revenue – price control	29,045	-	43,198	235,049	307,292
Revenue – non price control	-	-	-	2,400	2,400
Operating expenditure – excluding PU recharge impact	(28,009)	-	(18,567)	(179,793)	(226,369)
PU opex recharge	(0,421)	-	-	0,421	-
Operating expenditure – including PU recharge impact	(28,430)	-	(18,567)	(179,372)	(226,369)
Depreciation – tangible fixed assets	(0,001)	-	(2,700)	(61,431)	(64,132)
Amortisation – intangible fixed assets	(0,248)	-	-	(10,877)	(11,125)
Other operating income	2,324	-	0,070	0,789	3,183
Operating profit	2,690	-	22,001	(13,442)	11,249

Section 2 – Price review and other segmental reporting continued

2B - Totex analysis for the 12 months ended 31 March 2022 – wholesale

	Water resources £m	Water network+ £m	Total £m
Base operating expenditure			
Power	4.740	30.322	35.062
Income treated as negative expenditure	-	-	-
Service charges / discharge consents	4.041	-	4.041
Bulk supply / bulk discharge	1.200	7.208	8.408
Renewals expensed in year (Infrastructure)	-	22.248	22.248
Renewals expensed in year (Non-Infrastructure)	-	-	-
Other operating expenditure	6.196	82.089	88.285
Local authority and Cumulo rates	1.973	13.198	15.171
Total base operating expenditure	18.150	155.065	173.215
Other operating expenditure			
Enhancement operating expenditure	0.417	11.915	12.332
Developer services operating expenditure	-	10.273	10.273
Total operating expenditure excluding third party services	18.567	177.253	195.820
Third party services	-	2.119	2.119
Total operating expenditure	18.567	179.372	197.939
Grants and contributions			
Grants and contributions – operating expenditure	-	6.933	6.933
Capital expenditure			
Base capital expenditure	3.025	70.150	73.175
Enhancement capital expenditure	5.480	30.540	36.020
Developer services capital expenditure	18.077	14.658	32.735
Total gross capital expenditure (excluding third party)	26.582	115.348	141.930
Third party services	-	3.457	3.457
Total gross capital expenditure	26.582	118.805	145.387
Grants and contributions			
Grants and contributions – capital expenditure	19.424	6.836	26.260
Net totex	25.725	284.408	310.133
Cash expenditure			
Pension deficit recovery payments	-	-	-
Other cash items	[0.046]	[0.418]	[0.464]
Totex including cash items	25.679	283.990	309.669

Table 2B above shows our total wholesale expenditure in 2021/22 is split across Water resources and Water network+, after deducting for grants and contributions received. For analysis of the totex compared to our allowed expenditure, please see table 4C. For a breakdown of base capital expenditure, enhancement capital expenditure and developer services capital expenditure, see tables 4J, 4L and 4N respectively.

2C - Cost analysis for the 12 months ended 31 March 2022 – retail

	Residential £m
Operating expenditure	
Customer services	7.806
Debt management	2.813
Doubtful debts	7.061
Meter reading	1.443
Services to developers	-
Other operating expenditure	8.641
Local authority and Cumulo rates	0.245
Total operating expenditure excluding third party services	28.009
Depreciation	
Depreciation (tangible fixed assets) on assets existing at 31 March 2015	0.001
Depreciation (tangible fixed assets) on assets acquired after 1 April 2015	-
Amortisation (intangible fixed assets) on assets existing at 31 March 2015	0.026
Amortisation (intangible fixed assets) on assets acquired after 1 April 2015	0.181
Recharges	
Recharge from wholesale for legacy assets principally used by wholesale (assets existing at 31 March 2015)	-
Income from wholesale for legacy assets principally used by retail (assets existing at 31 March 2015)	-
Recharge from wholesale assets acquired after 1 April 2015 principally used by wholesale	0.421
Income from wholesale assets acquired after 1 April 2015 principally used by retail	-
Net recharges costs	0.421
Total retail costs excluding third party and pension deficit repair costs	28.638
Third party services operating expenditure	-
Pension deficit repair costs	-
Total retail costs including third party and pension deficit repair costs	28.638
Debt written off	
Debt written off	8.541
Capital expenditure	
Capital expenditure	0.906
Other operating expenditure includes the net retail expenditure for the following household retail activities which are part funded by wholesale	
Demand-side water efficiency – gross expenditure	4.653
Demand-side water efficiency – expenditure funded by wholesale	4.409
Demand-side water efficiency – net retail expenditure	0.244
Customer-side leak repairs – gross expenditure	1.004
Customer-side leak repairs – expenditure funded by wholesale	-
Customer-side leak repairs – net retail expenditure	1.004
Comparison of actual and allowed expenditure	
Cumulative actual retail expenditure to reporting year end	59.579
Cumulative allowed expenditure to reporting year end	57.916
Total allowed expenditure 2020-25	162.282

Total retail costs including third party and pension deficit repair costs were £28,638,000 in 2021/22 against allowed expenditure of £29,830,000 in current year prices, resulting in an underspend in 2021/22 of £1,192,000. This was primarily due to cost efficiencies recognised and delivered by our business excellence and process improvement programme, including multiskilling our contact centre and reducing headcount. Allowed revenue for the year was £27,651,000 as per table 2F, resulting in an overspend to revenue of £987,000.

Section 2 – Price review and other segmental reporting continued

2D - Historic cost analysis of tangible fixed assets at 31 March 2022

	Residential retail £m	Water resources £m	Water Network+ £m	Total £m
Cost				
At 1 April 2021	4.834	129.558	2,247.829	2,382.221
Disposals	-	(0.004)	(2.512)	(2.516)
Additions	0.906	26.582	112.215	139.703
Adjustments	-	-	-	-
Assets adopted at nil cost	-	-	-	-
At 31 March 2022	5.740	156.136	2,357.532	2,519.408
Depreciation				
At 1 April 2021	(1.027)	(19.453)	(811.284)	(831.764)
Disposals	-	-	1.499	1.499
Adjustments	-	-	-	-
Charge for the year	(0.001)	(2.700)	(61.431)	(64.132)
At 31 March 2022	(1.028)	(22.153)	(871.216)	(894.397)
Net book amount at 31 March 2022	4.712	133.983	1,486.316	1,625.011
Net book amount at 1 April 2021	3.807	110.105	1,436.545	1,550.457
Depreciation charge for year				
Principal services	(0.001)	(2.700)	(60.335)	(63.036)
Third party services	-	-	(1.096)	(1.096)
Total	(0.001)	(2.700)	(61.431)	(64.132)

The net book value includes £159,469,000 in respect of assets in the course of construction.

Capital expenditure in 2021/22 was incurred principally in our leakage, mains renewals, trunk main replacement, water treatment and integrated water savings programmes. Water resources additions in 2021/22 largely relate to the construction of assets by the company under the HS2 programme.

2E - Analysis of 'grants and contributions' for the 12 months ended 31 March 2022 – water resources, water network+ and wastewater network+

	Fully recognised in income statement £m	Capitalised and amortised [in income statement] £m	Fully netted off capex £m	Total £m
Grants and contributions – water resources				
Diversions – s185	-	-	-	-
Other contributions [price control]	-	-	-	-
Price control grants and contributions	-	-	-	-
Diversions – New Roads and Street Works Act 'NRSWA'	-	-	-	-
Diversions – other non-price control	-	19.327	-	19.327
Other contributions [non-price control]	-	0.097	-	0.097
Total	-	19.424	-	19.424
Value of adopted assets	-	-	-	-
Grants and contributions – water network+				
Connection charges	6.933	-	-	6.933
Infrastructure charge receipts - new connections	-	3.380	-	3.380
Requisitioned mains	-	2.021	-	2.021
Diversions – s185	-	0.584	-	0.584
Other contributions [price control]	-	-	-	-
Price control grants and contributions before deduction of income offset	6.933	5.985	-	12.918
Income offset	-	1.043	-	1.043
Price control grants and contributions after deduction of income offset	6.933	4.942	-	11.875
Diversions – NRSWA	-	0.391	-	0.391
Diversions – other non-price control	-	1.503	-	1.503
Other contributions [non-price control]	-	-	-	-
Total	6.933	6.836	-	13.769
Value of adopted assets	-	2.270	-	2.270

£20,829,000 of payments received in 2021/22 for costs incurred in relation to the HS2 rail programme are included in the diversions – other non-price control lines in the above table, with £1,503,000 included within Water Resources and £19,327,000 included within Water Network+.

	Water resources	Water network+	Total £m
Movements in capitalised grants and contributions			
Brought forward	67.479	178.605	246.084
Capitalised in year	19.424	6.836	26.260
Amortisation [in income statement]	0.173	(5.473)	(5.300)
Carried forward	87.076	179.968	267.044

Section 2 – Price review and other segmental reporting continued

2F – Residential retail for the 12 months ended 31 March 2022

	Revenue £m	Number of customers 000s	Average residential revenues £
Residential revenue			
Wholesale charges	227.132		
Retail revenue	29.045		
Total residential revenue	256.177		
Retail revenue			
Revenue Recovered	29.045		
Revenue sacrifice	-		
Actual revenue (net)	29.045		
Customer information			
Actual customers		1,417.202	
Reforecast customers		1,427.474	
Adjustment			
Allowed revenue	27.651		
Net adjustment	(1.394)		
Other residential information			
Average residential retail revenue per customer			20.495

Total average residential retail revenue per customer has increased from £19.94 in the prior year.

A number of customers have moved onto measured tariffs from unmeasured as part of our Water Savings Programme.

2I - Revenue analysis for the 12 months ended 31 March 2022

	Household £m	Non- household £m	Total £m	Water resources £m	Water network+ £m	Total £m
Wholesale charge – water						
Unmeasured	92.169	2.588	94.757	14.771	80.046	94.757
Measured	134.963	48.527	183.490	28.487	155.003	183.490
Third party revenue	-	-	-	-	-	-
Wholesale total	227.132	51.115	278.247	43.198	235.049	278.247
Retail revenue						
Unmeasured	9.323	-	9.323			
Measured	19.722	-	19.722			
Retail third party revenue	-	-	-			
Total retail revenue	29.045	-	29.045			
Third party revenue – non-price control						
Bulk supplies - water			2.400			
Other third-party revenue – non-price control			-			
Principal services – non-price control						
Other appointed revenue			-			
Total appointed revenue			309.692			

Section 2 – Price review and other segmental reporting continued

2J – Infrastructure network reinforcement costs for the 12 months ended 31 March 2022

	Network reinforcement capex £m	On site / site specific capex (memo only) £m
Wholesale water network+ (treated water distribution)		
Distribution and trunk mains	6.119	-
Pumping and storage facilities	0.608	-
Other	-	-
Total	6.727	-

2K – Infrastructure charges reconciliation for the 12 months ended 31 March 2022

	Total £m
Impact of infrastructure charge discounts	
Infrastructure charges	3.380
Discounts applied to infrastructure charges	-
Gross infrastructure charges	3.380
Comparison of revenue and costs	
Variance brought forward	(1.987)
Revenue	3.380
Costs	(6.727)
Variance carried forward	(5.334)

Costs in 2021/22 were significantly higher than revenue received for the second year running, with a low number of new connections for the year being the driver for infrastructure revenue. We anticipate that we will see higher connections activity and infrastructure charges over the remainder of the AMP.

No discounts have been applied to infrastructure charges during 2021/22 that would require presentation in the above table. The company's policy is to apply a discount if the new connection was a reconnection and had been disconnected within the past five years.

2L – Analysis of land sales for the 12 months ended 31 March 2022

	Water resources £m	Water network+ £m	Total £m
Land sales – proceeds from disposals of protected land	-	0.435	0.435

Proceeds from disposals of protected land are shared with customers on a 50% sharing basis.

2M – Revenue reconciliation for the 12 months ended 31 March 2022 - wholesale

	Water resources £m	Water network+ £m	Total £m
Revenue recognised			
Wholesale revenue governed by price control	43.198	235.049	278.247
Grants & contributions (price control)	-	11.875	11.875
Total revenue governed by wholesale price control	43.198	246.924	290.122
Calculation of the revenue cap			
Allowed wholesale revenue before adjustments (or modified by Competition and Markets Authority (CMA))	40.315	219.364	259.679
Allowed grants and contributions before adjustments (or modified by CMA)	-	17.064	17.064
Revenue adjustment	-	-	-
Other adjustments	-	5.784	5.784
Revenue cap	40.315	242.212	282.527
Calculation of the revenue imbalance			
Revenue cap	40.315	242.212	282.527
Revenue Recovered	43.198	246.924	290.122
Revenue imbalance	[2.883]	[4.712]	[7.595]

The variance between allowed and actual revenue under the wholesale price control relates to higher household revenue, higher non-household revenue and lower grants and contributions.

Higher levels of measured household consumption than anticipated, driven by enduring changes in post-lockdown behaviours and consumption trends, has driven household revenue up by £10.6m.

Final settlement runs for non-household income relating to early in the Covid-19 pandemic have been higher than our estimations and have unwound in the year resulting in additional revenue recognised of £2.2m.

There has been £5.2m lower grants and contributions received than allowed in the determination.

Section 2 – Price review and other segmental reporting continued

2N – Residential retail – social tariffs

	Revenue £m	Number of customers 000s	Average amount per customer £
Number of residential customers on social tariffs			
Residential water only social tariffs customers		85.797	
Residential wastewater only social tariffs customers			
Residential dual service social tariffs customers			
Number of residential customers not on social tariffs			
Residential water only no social tariffs customers		1,331.405	
Residential wastewater only no social tariffs customers			
Residential dual service no social tariffs customers			
Social tariff discount			
Average discount per water only social tariffs customer			77.066
Social tariff cross-subsidy – residential customers			
Total customer funded cross-subsidies for water only social tariffs customers	6.612		
Average customer funded cross-subsidy per water only social tariffs customer			4.666
Social tariff cross-subsidy – company			
Total revenue forgone by company to fund cross-subsidies for water only social tariffs customers	-		
Average revenue forgone by company to fund cross-subsidy per water only social tariffs customer			-
Social tariff support – willingness to pay			
Level of support for social tariff customers reflected in business plan			4.823
Maximum contribution to social tariffs supported by customer engagement			4.823

During 2021/22, we have been proactive in providing more support for vulnerable customers. We have publicised our Priority Services Register and partnered with organisations such as National Debtline, Citizens Advice, Money Advice Service and StepChange. As at 31 March 2022, we were supporting more than 96,000 households in our region with social tariffs.

2O - Historic cost analysis of intangible fixed assets

	Retail residential £m	Water resources £m	Water Network+ £m	Total £m
Cost				
At 1 April 2021	10.658	4.632	86.623	101.913
Disposals	-	-	-	-
Additions	2.018	-	6.590	8.608
Adjustments	-	-	-	-
Assets adopted at nil cost	-	-	-	-
At 31 March 2022	12.676	4.632	93.213	110.521
Amortisation				
At 1 April 2021	(5.936)	-	(50.194)	(56.130)
Disposals	-	-	-	-
Adjustments	-	-	-	-
Charge for the year	(0.248)	-	(10.877)	(11.125)
At 31 March 2022	(6.184)	-	(61.071)	(67.255)
Net book amount at 31 March 2022	6.492	4.632	32.142	43.266
Net book amount at 1 April 2021	4.722	4.632	36.429	45.783
Amortisation for year				
Principal services	(0.248)	-	(10.877)	(11.125)
Third party services	-	-	-	-
Total	(0.248)	-	(10.877)	(11.125)

Included in the additions above is £12,532,000 of capitalised intangible assets under construction, which is not amortised. Expenditure in 2021/22 related primarily to computer software development costs.

Section 3 – Performance summary

3A - Outcome performance – Water common performance commitments

Unique reference	Unit	Decimal places	Performance level - actual	PCL met?	Outperformance or under-performance payment £m	Forecast of total 2020-25 outperformance or under-performance payment £m	
Financial							
Water quality compliance (CRI)	PR19AFW_W-A1	number	2	0.87	No	-	-
Water supply interruptions	PR19AFW_W-D1	hh:mm:ss	n/a	00:03:43	Yes	1.273	2.811
Leakage	PR19AFW_W-B1	%	1	10.5	No	(0.176)	0.401
Per capita consumption	PR19AFW_R-B1	%	1	-4.1	No	-	(9.134)
Mains repairs	PR19AFW_W-D4	number	1	100.2	Yes	-	(0.995)
Unplanned outage	PR19AFW_W-D3	%	2	1.19	Yes	-	-
Bespoke PCs – Water and Retail (Financial)							
Environmental innovation - delivery of community projects	PR19AFW_W-B2	nr	n/a	3	Yes	0.429	2.002
Reducing the total number of void properties by identifying false voids	PR19AFW_R-C4	%	2	2.23	Yes	0.049	0.343
River restoration	PR19AFW_W-B3	nr	n/a	20	Yes	0.104	0.418
Abstraction reduction	PR19AFW_W-B4	nr	2	-	Yes	-	-
Number of sources operating under the Abstraction Incentive Mechanism	PR19AFW_W-B5	nr	n/a	-430	Yes	0.040	0.079
Properties at risk of receiving low pressure	PR19AFW_W-D5b	nr	3	48.204	No	(0.903)	(4.691)
Number of occupied properties not billed (Gap sites)	PR19AFW_W-C2	nr	n/a	74	Yes	-	-
Unplanned interruptions to supply over 12 hours	PR19AFW_W-N1	nr	n/a	477	No	(0.520)	(3.035)
Customer contacts per 1,000 population for Water Quality (taste, odour & appearance)	PR19AFW_W-N2	nr	2	0.75	No	(0.163)	(0.490)
Financial water performance commitments achieved		%					60
Overall performance commitments achieved (excluding C-Mex and D-Mex)		%					71

3A - Outcome performance – Water common performance commitments

continued

As part of our PR19 final determination for AMP7 we committed to 28 stretching performance commitments that would ensure we deliver our four customer outcomes. Each of these have financial rewards, penalties, or impact us reputationally. Table 3A shows our financial performance commitments and table 3E shows our reputational commitments.

We have met 20 of our 28 performance commitments of which 9 are financial and 11 are reputational.

Table 3A shows we have received rewards totalling £1.895m during 2020/21 for our performance on water supply interruptions, environmental innovation – delivery of community projects, reducing the total number of void properties by identifying false voids, river restoration and number of sources operating under the Abstraction Incentive Mechanism. We have received penalties totalling £1.762m for our performance on leakage, properties at risk of receiving low pressure, unplanned interruptions to supply over 12 hours and customer contacts per 1,000 population and for water quality (taste, odour & appearance). This resulted in a net reward of £0.133m which will form part of the revenue adjustment mechanism in two years' time.

Water quality compliance (CRI)

Our performance commitment for CRI was not met in 2022 with a score of 0.87 against a target of 0.00. However, our performance was well within the deadband of 2.00 and we achieved our best performance ever against this measure. We believe our score will place us firmly in the upper quartile for performance in the industry and continues the improving trend in our score seen over the last four years. The number of results that did not meet the relevant standard remained low in 2021/22 and we investigated each case thoroughly, resulting in very few recommendations from Drinking Water Inspectorate (DWI). The Covid-19 related lockdown in 2021 meant that until September 2021, samples could not be taken from water supply zones in a randomised way as normal. We assess that our performance would still have remained within the deadband if we had been able to take all of our water supply zone samples in the normal, randomised way.

We remain focused on managing risks that can affect CRI, such as reservoir inspections, sample lines, site hygiene and staff awareness. This work has been instrumental to the improvements in our CRI score.

Water supply interruptions

We have outperformed our target of 00:06:30 minutes lost for this metric with an outturn of 00:03:43. This is an improvement by over two minutes on our 2020/21 performance. It is a significant achievement and reflects the focus and hard work that has taken place to reduce interruptions to customers' supplies.

This is only the second year that Affinity Water Limited has operated the regulatory performance commitment for average minutes of supply interruptions of three hours or greater (we were the only company at AMP6 to not have this performance commitment). Despite this, we have tracked our performance against this metric for several years. We have improved considerably since its inception. Our adoption of a 'water-always-on mentality' and our approach to prioritising restoration of supply over repair has significantly reduced the inconvenience of supply interruptions for our customers. To put this performance into perspective, over 13 minutes per customer were lost in 2019/20 and over 32 minutes in 2017/18.

We confirm we are 'green' against all the checklist elements contained in Ofwat's reporting guidance for water supply interruptions. In line with the clarification, we also confirm we are using the definition of connected properties which removes cattle troughs from the denominator for this metric, as reported in table 4R.

Section 3 – Performance summary continued

3A - Outcome performance – Water common performance commitments continued

Leakage

Our performance commitment for leakage required a step change reduction in the second year of AMP7. It is the largest year-on-year percentage reduction over the whole AMP7 period as shown in the table below and represented a demanding performance challenge. Our target was to have reduced our three-year rolling average by 11.1% by the end of 2021/22, over halfway towards the 20.0% reduction for the whole AMP.

Regulatory Year	2020/21	2021/22	2022/23	2023/24	2024/25
% Reduction in 3yr rolling average value performance commitment	2.7	11.1	14.0	17.0	20.0
Annual reduction %	2.7	8.4	2.9	3.0	3.0

We started the AMP with a 1.7% reduction in 2020/21 against the target of 2.7%. This meant that as well as the largest annual reduction, we also needed to catch up the first-year shortfall. We invested to fund an accelerated reduction plan and benefited from a milder than average winter period. Both factors contributed to our reducing leakage by 17.1 Ml/d compared to 2020/21. We assess that the milder winter accounted for 1.9 Ml/d of the improvement, while additional leakage activity accounted for 15.2 Ml/d. This represents an impressive single-year reduction of 10.0%. Even so, this has not been sufficient to meet our performance commitment. We have achieved an annual value of 154.3 Ml/d which equates to a 10.5% reduction in our three-year rolling average.

Our AMP7 leakage figures are based on a different reporting methodology to those reported during AMP6 and cannot therefore be directly compared to those published for prior years. AMP6 additionally worked on single year targets while AMP7 is reported as a three-year average. Comparisons for single year figures should be made against prior years' shadow reported figures which we show in table 3F.

Leakage control is very important to us and our customers, and we are very disappointed not to have met our target. Nevertheless, we remain committed to reducing leakage by 20.0% over AMP7 as set out in our Water Resources Management Plan (WRMP). As we have made such a significant reduction in 2021/22, the further annual reductions required to meet the overall AMP commitment are more evenly phased, which gives us confidence in our ability to deliver the performance commitment in future. We will continue operating at the higher levels of activity in 2022/23 that have contributed to the large reduction in 2021/22.

Leakage and PCC component checklist

Leakage Line	PCC Line	Description	2021/22 RAG	Reasons for non-compliance [2021/22]	Actions / comments
1. Coverage					
1a		95.0% of all properties have continuous night flow monitoring through the year.	Amber	88.9% of all properties have continuous night flow monitoring through the year.	We have a two-year programme of work that started in 2021/22 and is planned for completion by the end of year three of AMP7 to increase our coverage to 95.0%.
2. Availability					
2a		At least 90.0% of all properties within continuous night flow monitoring networks available for reporting night flow data through 2021/22.	Amber	89.0% of all properties within continuous night flow monitoring networks was available for reporting night flow data through 2021/22.	We have committed investment in year three to rectify some of the issues that have caused the availability to deteriorate.
3. Properties					
4. Night flow period and analysis					
5. Household night use					
6. Non-household night use					

Key

Red Amber Green

Leakage Line	PCC Line	Description	2021/22 RAG	Reasons for non-compliance [2021/22]	Actions / comments
6d		Stratification of non-households to a number of groups and consumption bands is representative of the varying characteristics of commercial and industrial properties.	Amber	The model that derives the coefficients has not been updated since 2018. The representativeness of the current set of non-household sample properties was assessed and found to be unrepresentative of some of the cohorts and ABV distribution.	We have invested in a programme to install 1,500 permanent loggers across a representative sample of the non-household population. This will allow annual updating of the model.
6e		Sample size is sufficient to capture night use by stratification with reasonable confidence.	Amber	See 6d	See 6d
6f		Reliable and representative average billed volume (ABV) model based on data logging of the representative sample sufficient to capture demand variations with further seasonal logging where relevant. Continuously logged properties not part of the sample.	Amber	See 6d	See 6d
6g		ABV model linked to billing system or replacement database of billed volumes. Average billed volumes updated at least annually.	Amber	The ABV data used in the non-household night use (NHHNU) model is derived from Central Market Operating System (CMOS), which may include some estimated reads thus reducing the accuracy of the data. There is a lack of confidence in the Market Operator Services Limited (MOSL) CMOS data. However, as this is the only consumption data available for all commercial properties in the Affinity Water regions, this is currently the best data available to build the model. The data is updated each year, hence the yearly NHHNU models are based on recent data. The night use data used in the model is obtained from property-level logging, which is updated every year. The accuracy of this data is high, and is therefore used in the model.	The non-household model is linked to the billing data provided by CMOS. However, there is an error introduced by using the CMOS data. Hence, Affinity Water plans to use the continuously logged commercial sample from the task above, and determine how closely related the CMOS reads and logged consumption is for each of the properties. This can be used to enhance the data validity, and to understand the error so that a correction can be put in place.

Section 3 – Performance summary continued

3A - Outcome performance – Water common performance commitments continued

Leakage and PCC component checklist continued

Leakage Line	PCC Line	Description	2021/22 RAG	Reasons for non-compliance [2021/22]	Actions / comments
		7. Hour to day conversion	●		
		8. Annual distribution leakage	●		
		9. Trunk main losses (only applicable if the District Meter Area [DMA] level leakage assessment used)	●		
		10. Service reservoir losses (only applicable if DMA-level leakage assessment used)	●		
		11. Distribution input [DI]	●		
11b		Meters are appropriate size for the flow to be measured and located at appropriate inputs to the network confirmed by record plans. Any treatment works take-off downstream of a meter are excluded from the DI calculations.	●	We do not have a signed-off schematic that confirms that all meters are at appropriate locations and that any Treatment Works Operational Use (TWOU) after the DI meter is deducted.	Confirm system arrangements with appropriate documentation and sign off.
11c		Data validity checks are carried out at least monthly.	●	Data checks have not been conducted at least monthly. There has been issue with ownership of validation.	This has been addressed. Ownership has been established and routine checking is in place.
11f		Flow checks are carried out on DI meters consistent with the principles of the document 'EA Abstraction Good Metering Guide' and in particular the frequency of flow checking defined in table 6.2 of the EA guide.	●	Not all meter verification checks are up to date to meet the requirements of the 'EA Abstraction Good Metering Guide'.	DI meters will continue to be calibrated.
		12. Measured consumption	●		
12c		Inclusion of any leakage allowance is included where a rebate has been applied to a customer's bill.	●	We are unable to verify the base data to understand if leakage allowances are included. As the report is a billed volume report it is suspected that they are not included.	We are in the process of deconstructing the reporting to understand how the overall value is calculated and confirm what is/isn't included
12d		Meter under-registration [MUR] is applied consistent with own estimates. Evidence of MUR available especially for MUR above 3.0%.	●	Meter under-registration testing has not been updated in 2021/22 and so remains above 3.0%.	Funding has been approved for the analysis for 2022/23 of AMP7.

Key

● Red ● Amber ● Green

3A – Outcome performance – Water common performance commitments continued

Leakage and PCC component checklist continued

Leakage Line	PCC Line	Description	2021/22 RAG	Reasons for non-compliance [2021/22]	Actions / comments
		13. Unmeasured consumption	●		
13a	4a	Monitors follow principles set out in the UK Water Industry Research (UKWIR) Report 'Best Practice for unmeasured per-capita consumption monitors 1999' and the more recent report 'Future Estimation of Unmeasured Household Consumption', UKWIR 2017.	●	The guidance requires that water delivered unmeasured should be based on PCC monitors according to the UKWIR Report "Best Practice for Unmeasured Per Capita Consumption Monitors" [1999] and the more recent report "Future Estimation of Unmeasured Household Consumption" [2017]. This stipulates that the monitor is representative of the unmeasured pool and is of a satisfactory sample size. WATCOM does not currently satisfy these requirements.	In our Annual Performance Report 2019/20 we made a commitment to address the shortfall in representation for the demographics we had identified earlier in 2021/22. A business case was written to seek funding for the upgrade however due the Covid-19 restrictions enforced by the government the programme was placed on hold. The programme will be re-started and a decision made on whether an individual household monitor (IHM) is the most appropriate method for estimating per household consumption (uPHC) or whether we can use the WSP/DMA models in its place in year three.
13b	4b	Consumption is derived from own individual household monitor or small area surveys.	●	See 4a.	See 4a.
13c	4c	Evidence that survey is representative (based on demography, property type or other factors) of the company as a whole; valid data available from at least 80.0% of monitors as an annual average measure.	●	See 4a.	See 4a.
13d	4d	For companies using small area monitors (SAMs) – SAM comprises a representative sample of customer' characteristics. The sample size is sufficient to provide a statistically representative sample after allowing for outages. Where the proportion of metered properties in an area exceeds 50.0% of total properties then further data validity tests are applied. For companies using IHMs – IHM comprises representative sample of customer characteristics. The sample is at least 1,000 properties.	●	See 4a.	See 4a.
13f	4f	There is continual monitoring and maintenance of IHMs and SAM monitors.	●	See 4a.	See 4a.

Section 3 – Performance summary continued

3A - Outcome performance – Water common performance commitments continued

Leakage and PCC component checklist continued

Leakage Line	PCC Line	Description	2021/22 RAG	Reasons for non-compliance [2021/22]	Actions / comments
14. Company own water use					
14a		All sewage treatment sites, and other sites and assets supplied downstream of the DI meters using greater than 10 m ³ /d (0.01 Ml/d) are metered.		See 11b.	See 11b.
15. Other water use					
16. Water balance and Maximum Likelihood Estimation					
16e		Water balance discrepancy: <2.0% – Green >2.0% and <3.0% – Amber >3.0% – Red		2.5%	Full review of each component to be carried out in 2022/23.

Per capita consumption

See table above for component checklist.

We have not been able to meet the Average Water Use performance commitment reduction target for 2021/22 of AMP7. Our cumulative target for 2021/22 was a reduction of 4.9% against the base year. Our reported figure is 157.9 l/p/d against a target of 147.7 l/p/d; a variance of 6.5%.

Our 2021/22 results represent a reduction of 8.0% on our 2020/21 reported figure of 171.6 l/p/d. This is the largest single year percentage change in performance the company has ever achieved for PCC. We have achieved this despite the continuing delivery challenges associated with the pandemic.

These results are in line with our revised Demand Management delivery plan for the AMP (2020-25) which has been updated to account for the impact of Covid-19. We continue to target our end of AMP performance forecast of 12.5% PCC reduction, equivalent to household consumption of 135.9 l/p/d, the largest performance challenge of any company. Our Outcome Delivery Strategy describes how we will continue to drive forward with measurable water efficiency activity to mitigate the impact of Covid-19 and deliver against our ambitious stretch target.

The Covid-19 pandemic has brought unprecedented challenges in accurately forecasting household consumption, primarily due to domestic water use behaviour radically changing post pandemic. We have continued to use our AI machine learning COVID-19 model which represents best possible behavioural science practice. We have also drawn on a range of sources, using the best available data to understand and predict current and future needs, e.g., travel or location-based data as a proxy for occupancy data.

We have continued to see people spending more time indoors due to working from home arrangements, and taking holidays in the UK rather than abroad. We have worked to limit the impact of Covid-19 as far as possible, given that some restrictions remained in place during 2021/22.

We have done this through a series of activities which engage our customers in a targeted manner with communications, advice and practical devices best tailored to their needs and circumstances.

We have worked continuously to reduce overall demand throughout the year via water efficiency device installation and innovative behavioural change campaigns. We have developed water sector, national and community partnerships to support the delivery of our challenging demand-reduction target. These partnerships have allowed us to target our demand reduction campaigns, intervention and support to specific communities and geographies.

In total, we have achieved savings for demand-side improvements for 2021/22 of 21.6 Ml/d. This figure comprises of activity which includes:

Home Water Efficiency Checks (HWECs) which we have carried out throughout the report year. HWEC visits are completed across all Water Resource Zones and all customer types. We offer face-to-face as well as virtual customer visits. Our highlights were:

- 8,015 HWEC visits were completed during this period, with technicians installing devices and offering water-saving tips and advice to customers.
- The total savings attributed to the HWECs project in 2021/22 is 170,000 litres saved per day (140,000 litres per day for face-to-face visits and 30,000 litres per day for virtual checks).
- Our Customer Satisfaction Score (CSAT) for these appointments has averaged 9.03 out of 10 over the course of the pandemic.

3A – Outcome performance – Water common performance commitments

continued

Per capita consumption continued

Our Save Our Streams (SOS) campaign is our flagship behavioural change campaign, which launched on 17 April 2021 and continues to run today. The campaign has resulted in:

- Attributable savings of 20.2 Ml/d which we have measured via industry-leading AI machine learning models.
- One billion litres of water were saved across July and August 2021. This is the equivalent to one maximum peak day's demand saved over a two-month period.
- We have seen over 191,000 sign-ups to the campaign with over 91,000 of those ordering free water-saving devices, making SOS the UK's biggest measurable water-saving campaign movement ever.
- Through national and regional media coverage, cleverly targeted social media, billboards, adverts and high-profile events, SOS has reached 39.7 million people. Nearly 75% of people that came across the campaign said it has caused them to take some form of action to cut their water-wasting habits and save money on their bills.

This year we have also started the largest AMR trial in the UK. The project is a data-driven behavioural change trial which works with over 200,000 metered customers to assess the impact of varying levels of meter reads and communications on customers' water usage.

- The trial is continuing until September 2022, but interim results show the total savings to date is 730,000 litres per day.

Alongside huge efforts from our customers, it has been very important to show joint responsibility through our efforts to reduce non-household wastage:

- Working with non-household customers in the Clacton region our Water Smart Holiday Parks project installed water efficiency devices at holiday park sites during the summer of 2021. Overall, the five sites reduced their water consumption by 42.0% during peak demand in summer 2021 compared with previous years. They also received far fewer complaints from holiday makers about low water pressure. A new partnership with Whitbread Group is currently underway across our area, targeting hotel chains such as Premier Inn to expand the project.

We support these projects with our most robust and ambitious metering programme to date. We have increased meter installation activity every year since 2018/19 despite the impact of the pandemic. To continue this progress, we need to support customer acceptability of metering. While in 2018/19 we received one complaint for every 49 meters installed, in 2021/22 we have reduced this to one complaint for every 177 meters installed. By carefully targeting our metering rollout programme and increasing the metering volumes we have been able to increase the demand reduction benefit to 2.98Ml/d in 2021/22.

Mains repairs

We have achieved our 2021/22 target of no more than 148.6 mains repairs per 1,000km of mains, with a year-end figure of 1,694 repairs, equivalent to 100.2 mains repairs per 1,000km of mains. This is a significant improvement on 2020/21's figure of 2,726 repairs. Our improving performance was influenced by different weather conditions in 2021/22 compared to 2020/21, as there were no significant weather events, (particularly freeze/thaws in winter which have an adverse effect on the network). As well as benign weather conditions, our result was influenced by a range of improvement activities.

Following underperformance in 2020/21, we looked to improve our strategies to drive down bursts. In order to design a targeted action plan, we acted to understand fully the causality of our bursts.

During 2021, we initiated an extensive deep dive investigation into past burst data to close the gaps we had on likely causes. This piece of work will conclude shortly, and we are in the process of receiving the outputs of the analysis to use for future strategy and investment. The investigations looked at the last five years of burst data, along with soil type, traffic loading, weather, pressure and other factors to build a model showing likely primary and secondary causes of bursts across our area. This will be uploaded as a geospatial layer onto our Geographical Information System (GIS) and identify specific areas to target for further network calming and improvement activities.

In addition, we have enhanced our hydraulic expertise. Historically, investigations into root causes have occurred days after burst events when time allows, but our new hydraulic experts will be able to perform root cause failure analysis in near real-time, to detect and remedy any issues with pumps or Pressure Regulating Valves (PRV) causing transient conditions, helping to eliminate repeat bursts from clusters and address 'hot spots' caused by underperforming assets.

We have been working with the Met Office to use their Secli-firm tool, which is a long-range weather pattern predictor. This correlates historic weather patterns with demand and can give a longer-term view of upcoming changes in demand. The tool has been successful in predicting weather events weeks in advance, enabling better planning and resource management. It allows us to postpone planned works without incurring last-minute contractor costs, promotes steady and calm network operations through high-risk periods and enables deployment of more staff to be on hand to react to an increase in bursts, leading to less disruption to our customers. We are continuing to improve the accuracy of the tool with the Met Office for our demand patterns and are working with them and the rest of the industry to explore other applications for the tool as part of the Innovation competition.

We continue to improve our end-of-year forecasting. We have been developing a burst prediction model, which uses previous burst data and real time weather to predict at DMA level where bursts are most likely to occur and at what rate. This will enable us to forecast more accurately, enable us to plan jobs more effectively and have a pre-emptive view of risk and customer impact. This work is nearing completion with background work and algorithms completed, and we are now integrating the model into our Situational Awareness tool for visualisation.

Section 3 – Performance summary continued

3A – Outcome performance – Water common performance commitments

continued

Mains repairs continued

We are looking at other technology, such as mobile applications that track valve operations and guide operatives on how slowly they should be turned, as well as high frequency loggers that detect transient spikes in pressures at DMA level. These improvement activities are in addition to the existing AMP7 mains renewal programme.

The PC is already challenging and with a steadily tightening target. With weather being one of the primary factors for success or failure we actively manage risks to prevent bursts from occurring. By detecting and remedying root causes, rather than relying on repairing once mains have burst, we anticipate continued performance improvement.

We can confirm that we are 'green' against all the elements of the checklist contained in the Ofwat reporting guidance for mains repairs.

Unplanned outage

Our performance target for 2021/22 was 2.34% for unplanned outage, as a percentage of Peak Week Production Capacity (PWPC) and we have successfully achieved this with a performance of 1.19%. This is a flat target for all years in AMP7.

We have developed an internal target for planned outage of less than 3.00% of PWPC, which we are using to drive internal improvements in how we plan, manage and record planned site outages. Planned outage for 2021/22 was 2.57%.

Following internal challenge and feedback from our auditors we have reviewed how we record the transition from unplanned to planned outage, and vice versa, to improve consistency of the assessments. We are also developing a new internal system to manage the capture of planned outage, with consistent meta data being supplied for onward reporting. Our Planned Work Portal (PWP) is a collaborative effort across our business, designed to bring efficiency to operations, provide a better view of Dynamic Operational Risk Assessment (DORA) and improve delivery planning with appropriate standards attached around capability and competency.

While the development of PWP is a priority, timely availability of unplanned outage performance data is also an area of continuous improvement, and we are building an automated solution for site-level data capture from our telemetry systems. This work has highlighted areas where automation would be a challenge, such as reliance on end-of-life telemetry systems which do not easily allow for automated data extraction. To improve this position, we have initiated two programmes of work:

- Resilience 21 [R21] - review production sites in our Dour region for ICA standards, transfer the command-and-control function to our central Schneider system (Serck)
- Resilience 22 [R22] - as above but for our Brett region.

When completed, all our performance data will come from a single source with standard time stamping and flow recording as Ml/d or m³/hr. R21 has been completed and we are on target to deliver R22 in the first quarter of 2022/23, as planned.

With the completion and successful delivery of these three key improvements, we will be less reliant on manual processes and benefit from improved consistency and timeliness of data provision.

Outage measures can allow an assessment of asset health, so we have developed internal drivers around asset availability from an operational delivery perspective. This feeds into DORA, which is an assessment of forecast demand against production capability in average and peak conditions. While we use unplanned outage information in areas such as capital investment and capital maintenance, it is equally important to how we maintain and operate sites and how we model supply and demand to ensure a high-quality service for our customers and minimisation of disruption in the communities we serve.

We have applied a continuous improvement approach to our unplanned outage activities and in 2020/21 and 2021/22 have delivered improvements in how we capture and report the Measure, but also how we use the insight to drive operational improvements.

Areas where we have been challenged have been around our ability to demonstrate the effectiveness of our Water Quality Operating Bands exclusion criteria. This has been down to stable performance of our Ground and Surface water sites, related directly to weather and ground water recharge, which have resulted in consistent quality of our raw product outside of normal seasonal variation in turbidity, for example.

Where we anticipated we might see challenges were around areas such as pesticides or new emerging risks. We have put in place a workstream under the CRI programme with our Catchment Management Team working with local communities, landowners and land users to identify pollution risks in addition to their substantive engagement activities and support alternative land management strategies. This will deliver benefits in the short and longer term and give us more certainty around water quality (WQ) variation and how we build and monitor the exclusion categories.

Improvements to our planned work processes have been previously discussed and we are seeing better consistency in this area prior to delivery of the new PWP, as we have used the opportunity to raise the profile of the measure and its requirements. This engagement in the end-to-end process requirements has demystified some areas of the measure and allowed us to create line-of-site objectives for our teams so they can understand the cause and effect of their everyday actions and decisions.

Our assessment of PWPC has dropped from 1,365.82Ml in 2020/21 to 1,353.99Ml in 2021/22, a reduction of 11.83Ml or 0.87%. We have seen a number of challenges to our assessments related to work for the multiyear HS2 activities being delivered across areas where groundwater sites are situated. We have undertaken a large number of pumping trials and yield tests that have improved PWPC, in other areas we are seeing restrictions introduced by site treatment and configuration changes which have resulted in a downgrading of PWPC. While the overall assessment is not considered to be significant and will not affect operability, it is nonetheless an area where we will closely monitor future planning, as we had not forecast this impact on our assessments.

3A – Outcome performance – Water common performance commitments

continued

Unplanned outage continued

Another area of improvement is the peak performance of our groundwater sites following two good recharge years. We have seen noticeably increased utilisation at sites historically restricted during low groundwater periods, and while this reporting is focused on asset health as an outcome, we want to enhance tracking of our groundwater position to better understand how to translate this into the DORA model.

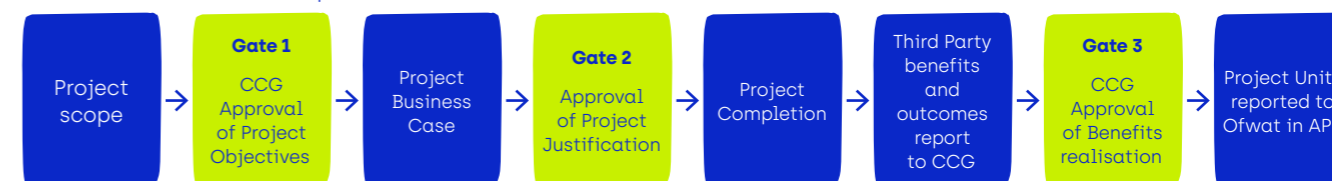
Covid-19 period

While we have faced number of challenges related to Covid-19 over the last two years, we are pleased to report that maintenance and operation of our sites has remained consistent and to a high standard throughout. We have successfully delivered a full programme of capital improvement and maintenance outages, working with our supply chain and supply partners. The costs and availability of fuel and chemicals and increasing energy costs have challenged us and the wider industry and we have worked together to understand the implications of the risks to mitigate or overcome them.

While Covid-19 has presented a challenge to workforce availability, we ensured we undertook cross skilling and training to improve capability and site familiarity, co-located our teams to ensure geographic coverage and reduce travel times and operated working from home for non-frontline roles to protect our teams.

The company level PWPC (Ml/d), the unplanned outage (Ml/d) and planned outage (Ml/d) are reported within 3F.8 and 3I.1 of the data tables. We confirm we are 'green' against all the checklist elements contained in Ofwat's reporting guidance for unplanned outage.

The CCG have followed the process as laid out below:



We are pleased to report three completed EIPs in 2021/22. Each of the three projects are worth one project unit. The benefits of the three projects have been verified externally by an appropriately qualified external third party and have been verified and signed off by our CCG.

The projects have delivered innovative ways to engage with customers, stakeholders and partners to provide information and/or water efficiency knowledge and interventions. All of the projects have findings that are useful to ongoing company activities and are being used to inform potential changes to business-as-usual activities or aligned activities and may have wider applications outside of Affinity Water in the future. We summarise each innovation project below.

Environmental innovation – delivery of community projects

Affinity Water has a programme to deliver eight EIPs amounting to 14 project units during AMP7. The projects vary in size and cost, with seven projects each worth one unit and one larger project worth seven units. The goal of the programme is to bring together sector experts, charities, community and environmental groups and other stakeholders to trial a range of innovative multi-party projects, linked to different environmental themes and water use behaviours.

As part of the programme's delivery process, a project is only considered complete when "3 gates" have been completed:

- Gate 1: delivery of project scope
- Gate 2: presentation of a business case
- Gate 3: completion of the project with sign-off of benefits created.

In line with the reporting requirements for this commitment, projects are only considered complete once the third gate is signed off and the Customer Challenge Group (CCG) has provided assurance for it.

Our CCG is an independent group, with an independent chair, who advise, challenge and support us as we develop our plans, to ensure they reflect the priorities of our customers.

The CCG have over the last two years scrutinised and helped us refine each of the three projects. Providing question and challenges, they have prompted several significant changes and improvements for customers within these projects. At each quarterly meeting they have reviewed project milestones and the gated stages of the process to ensure that projects remain on track and are delivering in the best interests of our customers.

Affordable Housing: Water efficiency in social housing - Partnering with social housing providers to help vulnerable customers reduce their water use and bills (CoIne)

We wanted to help our more vulnerable customers become more water efficient by working in partnership with their social housing providers. We also wanted to understand better how to meet the needs of social housing tenants to support our ambition to create widespread, sustainable water savings in social housing stock.

Section 3 – Performance summary continued

3A – Outcome performance – Water common performance commitments

continued

Environmental innovation – delivery of community projects continued

Our projects in 2021/22 investigated and trialled water-efficiency activity with social housing customers, using a blend of water-efficiency methods. Through strong, collaborative working relationships with several social housing providers we were able to develop and pilot water-efficiency engagement and installation processes, including partner-led water-efficiency activity such as flow control regulation. The pilots enabled us to reach out to our more vulnerable customers living in social housing. Many customers welcomed the opportunity to reduce their water use and bills. Some of our social housing partners are now routinely incorporating water-efficiency upgrades.

Highlights of the projects included:

- Estimated water savings of four million litres between September 2021 and February 2022 working with four social housing partners (Welwyn-Hatfield Borough Council, Harrow Council, Watford Community Housing Trust and Luton Borough Council);
- Reached customers in vulnerable circumstances that would not have been engaged at the same rate using standard engagement methods, as over half of customers who received a Home Water Efficiency Check were vulnerable customers classified as 'feeling the strain'; and
- Partner-led water-efficiency activity has been established that can support long term and wider reaching water savings for social housing properties.

Education Methods: Gaming in education Using a game-based learning platform to help children learn about water efficiency

Children today use many sources to learn about the environment. However, water efficiency can be overshadowed by topics like recycling and climate change. Minecraft is a child-friendly, trusted digital platform. We were keen to explore how we could use it, to blend gaming and water-efficiency learning in a dynamic, fun and exciting way for children between 7 and 13 years old.

We built a platform to deliver a Minecraft Water World for child-led or teacher-led learning. This is a first for the water industry. It supports and enhances child-led learning at home and teacher-based lessons in school. It helps children develop their water knowledge online, so they can apply their learnings in real life. With educational material delivered by certified teachers, curriculum-ready online lessons can blend seamlessly into the classroom. Our young testers explored the Water World virtually, learning by simulating everyday water-use decisions.

The platform provides a uniquely interesting way for children to engage with water-saving and boost their awareness and knowledge of water efficiency for life. It's an easy-access tool that supports the curriculum and encourages multidisciplinary learning (especially in science, technology, engineering and mathematics [STEM] subjects). Local children who tested the new platform provided feedback to further develop, refine and improve it. We plan to roll it out to our customers, our SOS: Save Our Streams community and our local schools in summer 2022.

The highlights of the project were:

- A new learning method for schoolchildren that combines play and STEM learning;
- The learning platform combines popular children's game Minecraft with educational content that was created with certified teachers. Introduces lessons on STEM, problem solving and water efficiency that can be delivered online or in person;
- The Minecraft platform helped transition from static approach to teaching on STEM subjects, water cycle and water efficiency into a dynamic online platform for schoolchildren between 7 and 13 years old; and
- The solution has a potential to be scaled up for wider audiences.

New Developments project: Using a NAVs delivery model to support competitive markets. [Stort]

Competition in markets can deliver benefits for customers and the wider water sector by incentivising cost efficiencies and delivering improved service and innovation. However, Ofwat's Review of Incumbent Support for Effective Markets (RISE) report (August 2020) stated that water companies weren't doing enough to help new entrants shake up the market, to give customers more choice.

Working collaboratively over a six-month period, we developed a framework to make it easier for NAVs to work with their water company at a new development site. The partnership encompassed legal, regulatory, and operational aspects of working.

Key outcomes of the project were:

- Stimulating environmental innovation by using our innovative delivery model;
- Significantly improving our relationship with our NAV providers – we now have a better understanding of these businesses and the site-specific challenges they face;
- Developing an Ofwat Innovation bid (Water Neutrality at NAV sites) with our NAV partners. The project was one of nine Breakthrough Challenge winners. It will address some of the challenges identified in our EIP, and
- Applying learning points relating to the installation of water harvesting and greywater recycling at a NAV new development to our project on water neutrality.

Further information on each of the projects together with a full copy of the third-party benefits delivered report can be found at affinitywater.co.uk/innovation.

3A – Outcome performance – Water common performance commitments

continued

Reducing the total number of void properties by identifying false voids

Our void property rate was 2.23%, outperforming our commitment of 2.27%. We classify a property as void if it is within our supply area and connected to the water network but does not receive a charge as it is unoccupied. To identify false voids and achieve this result, we have increased our proactive lettering to empty properties providing information on how to register, with follow up letters to suspected occupied 'empty' properties. We have increased the frequency of our void checking processes for unmetered properties and found better ways to use credit agency data to detect occupation. We also increased resources and adjusted our ways of working between our site investigators and office-based teams, allowing more time for office staff to cleanse and analyse occupation data.

We use credit agency data where we do not receive responses to our letters after four weeks. For unmetered customers and customers where meter readings show consumption over 5m³ that provides evidence of occupation, we use third party credit agencies to ascertain if there is any credit activity at the property. Where there is credit activity, we obtain occupier details to bring the customer into charge. We use two different third parties to conduct our credit activity searches who use different data sources to maximise the activity. Where third party credit checks do not provide occupier details or the confidence score of occupation is low, our site investigators make physical visits to the property to establish occupancy and gather customer details. We aim to improve performance further and during 2021/22, trialled a system for home move alerts, to support proactive communication with customers on how to register with customers on how to register with Affinity Water.

The current void metric unfortunately only takes account of the number of properties which have been removed from the void list as false. This does not reflect the significant work we undertake confirming properties as true voids. As noted in our 13 January 2022 consultation response to 'Performance Commitments at Future Price Reviews', we support the suggestion that in future price controls, company performance on empty properties could be assessed relative to government empty property statistics.

Section 3 – Performance summary continued

3A – Outcome performance – Water common performance commitments continued River restoration

We have a programme to deliver 36 river restoration projects during AMP7. The aim of these projects is to improve the quality of local rivers, preventing deterioration of the river environment. Through improvements in ecological health deliver benefits in education, amenity, recreation and wellbeing for customers and communities.

We have outperformed our 2021/22 performance commitment, having completed 13 project units against a target of seven for the year.

We delivered seven project units in 2020/21 and at the end of 2021/22 had written confirmation from the EA that we had successfully delivered a further 13 projects. This brings the total to 20 project units and that the cumulative target of 14 units by April 2022 has been accomplished.

Several projects (Homeward Farm, Water End Road Bridge, Osbourne Rd and Walkern Rd) originally scheduled for 2021/22, could not be delivered in 2021/22 due to a variety of issues materialising on them. These projects will now be delivered prior to 31 March 2023. To mitigate the delays to these projects, deliverables originally scheduled for 2022/23 were brought forward into 2021/22 with the agreement of the EA.

The table below shows the projects delivered and signed off by the Environment Agency between 1 April 2021 and 31 March 2022, including the number of project units accounted for by each project.

River	Project/scope	Benefits of project	Project units	Date of Environment Agency confirmation
Misbourne	Amersham to Quarrendon Mill channel realignment, fencing, in-channel habitat improvements. Approx. 400m of channel realignment to improve morphological characteristics and improve groundwater connectivity. Gravel berms added downstream to narrow overwide section of river and create flow variation.	Aim to improve the ecological health and potential of the river Misbourne. River more resistant to low flow conditions. Improvements in Water Framework Directive (WFD) assessment.	4	July 2021
Ver	Hedges Farm, fencing, tree works and cattle crossings. Fencing installed along section of the river Ver to exclude cattle from the river channel to stop poaching and allow in-channel vegetation to establish. Tree works along river to reduce overshadowed and encourage the development of in-channel vegetation.	Aim to improve the ecological health and potential of the river Ver. River more resistant to low flow conditions. Improvements in WFD assessment.	3	July 2021
Beane	Downstream of Winters Lane tree works (Approximately 500m)	Aim to improve the ecological health and potential of the river Beane. River more resistant to low flow conditions. Improvements in WFD assessment.	2	March 2022
Mimram	Sherrardswood School tree works	Aim to improve the ecological health and potential of the river Mimram. River more resistant to low flow conditions. Improvements in WFD assessment.	1	March 2022
Beane	Fencing to exclude cattle at Whitehall and prevent further poaching	Aim to improve the ecological health and potential of the river Beane. River more resistant to low flow conditions. Improvements in WFD assessment.	1	March 2022
Upper Lea	Tree works at Osborne Rd, central Luton	Aim to improve the ecological health and potential of the Upper Lea. River more resistant to low flow conditions. Improvements in WFD assessment.	2	March 2022
Total			13	

3A – Outcome performance – Water common performance commitments continued

Abstraction reduction

Our abstraction reduction performance commitment is zero for the first four years of AMP7. At the end of the fifth year, our commitment is 27.33Ml/d abstraction reduction. The WINEP measure completion date for all Affinity Water abstraction reductions is 22 December 2024.

Our 2021/22 performance, 0Ml/d, is in line with our performance commitment and WINEP requirements and we are on track in terms of delivering the assets and changes to our network required to implement the abstraction reductions in 2024. We will assess our performance against Quarterly and Annual Source Performance Reports at the end of AMP7, when we have implemented the abstraction reductions.

Number of sources operating under the Abstraction Incentive Mechanism (AIM)

The table below shows our AIM performance scores since AIM came into effect in April 2016. Our target for each financial year is 0 Ml. Negative AIM scores signify improved performance compared to historic droughts, as they indicate that average abstraction was lower than the baseline when AIM was active. The table provides a short description of the annual AIM score, including the number of sources active during the respective financial year and brief commentary on the background groundwater level situation.

Year	AIM score (Ml- million litres)	Score description
2016/17	-1,622.21	AIM active in 7 catchments; Groundwater levels (GWLs): average to dry year
2017/18	-3,046.95	AIM active in all catchments; GWLs: dry year
2018/19	-2,383.84	AIM active in 5 catchments (10 sources). GWLs: dry year
2019/20	-2,057.70	AIM active in 10 catchments (16 sources). GWLs: dry year
2020/21	-304.31	AIM active in 2 catchments (3 sources). GWLs: above average; increasing trend from summer 2020
2021/22	-429.63	AIM active in 1 catchment (2 sources). GWLs: above average; declining trend

Higher negative scores are accumulated during dry years such as 2019/20, where background groundwater levels are below the long-term average and AIM triggers are active in most catchments.

The table shows that we outperformed the AIM baseline figures for each of the respective financial years, 2016/17 to 2021/22. Our performance is driven by low groundwater levels which provide frequent opportunities to abstract lower volumes than baseline, and long-term outages at our Oughton Head and Runleywood Chalk sources. Reporting requirements changed in 2020/21 so we are no longer required to report the AIM performance for each source; therefore, we report company-wide AIM performance in the table.

The company-wide performance is based on the sum of scores for all the sources that are included within AIM. We included 23 sources in the mechanism in 2016, and reduced this to 19 in 2018, following sustainability reductions at three sources and removal of another source that was no longer deemed environmentally sensitive. Each AIM site has a trigger, which is typically set at downstream gauging stations in catchments where the AIM sites are located. The only exception is our Denge source which is assessed under AIM based on a groundwater level trigger.

The number of active AIM triggers varies each year with groundwater levels, meaning that scores between years are not directly comparable. Year-on-year variances are to be expected and it is not possible to infer improving or declining trends over time.

Section 3 – Performance summary continued

3A – Outcome performance – Water common performance commitments

continued

Number of sources operating under the Abstraction Incentive Mechanism continued

Managing AIM performance

The Environment Agency communicate weekly to notify us if an AIM trigger(s) has been activated. We respond by checking that abstraction at the respective source(s) is below the volume/flow trigger point. We also have early warning triggers in place for each source which typically provides us with one month's notice of an AIM trigger being activated which helps our operational teams with planning.

From 2021/22 onwards we began to calculate and track AIM performance each month. We undertake assessment and assurance of data so we may detect and address erroneous data that may influence the calculation, both in our data and in that provided by the Environment Agency, for example as experienced for flow data in the Hiz catchment in 2021/22.

Properties at risk of receiving low pressure

In our Annual Performance Report for 2020/21 we said: we believe a maximum of 30,311 properties (equivalent to 197,453 per 10,000 connections) would be impacted, but it may prove to be considerably less. In our Annual Performance Report for 2021/22 we proposed to restate the 2020/21 performance to reflect the actual number of properties that continued to receive low pressure in 2021/22. Water demand in summer 2021 proved to be very different to that experienced in the 'lockdown' summer of 2020. Only 4,654 of the properties that received low pressure in 2020/21 continued to do so in 2021/22. Therefore, we wish to restate our 2020/21 performance against W-D5b to 30,225 properties per 10,000 connections (equivalent to 4,654 properties in total).

We identified 9,297 properties as receiving low pressure during 2021/22. In the context of this measure, 'low pressure' means less than 15 metres head in the main for a period of an hour or more in 2021/22, after allowable exclusions have been applied. This was a considerable decrease on the 43,237 properties seen in 2020/21, which was in part due to cooler and wetter weather conditions and Covid-19, both having had a more benign effect on demand and pressures in 2021/22.

Our performance remained significantly above the reporting threshold despite our continued efforts to reduce low pressure. Our activities in 2020/21 focused most heavily on persistent low pressure locations, requiring capital intensive schemes to improve pressure performance. These however make up only part of the range of solutions required to resolve all low pressure incidents, a high proportion of which require more responsive dynamic action to tackle through system and asset optimisation. Our activities in 2021/22 have increasingly recognised and altered our focus to these areas.

During 2021/22 we carried out works/actions benefiting 1,804 properties, such that we believe they are not likely to experience low pressure again. We have made more ambitious plans to focus additional activity on the system optimisation approach for 2022/23 and expect to see further significant reductions in the reporting year.

This measure requires us to report performance as the number of properties that have received low pressure and are likely to continue to do so. We are unable to say with certainty how many of the 9,297 properties that received low pressure in 2021/22 will continue to do so in 2022/23. In our Annual Performance Report 2022/23 we propose to restate the 2021/22 performance to reflect the actual number of properties that continued to receive low pressure in 2022/23. We propose to follow a similar approach for the remaining years of AMP7, to 'true-up' reported numbers to reflect actual performance. We will do this irrespective of whether actual numbers prove to be lower or higher than forecast. In theory, this could result in the need to seek a redetermination of penalties through the in-period ODI process.

Late in the AMP6 period we quadrupled the number of permanent critical-point data loggers in our network (from around 300 to 1,200), allowing for at least one logger in every district meter zone. We installed these loggers to increase leakage reduction through pressure management, to give 'early warning' of supply interruptions and other events affecting customers, and to have better data on the service our customers experience through 2021/22. Installing the loggers has, however, had an adverse effect on reported performance against this measure; in simple terms, the more loggers we install the more likely we are to identify incidences of low pressure. It appears likely that Affinity Water has adopted a different approach to the measurement of low pressure than our peers within the industry. This has been identified both by our external assurer and through our own analysis.

Over 2021/22 we have reviewed our current approach in comparison with other water companies' approaches, to better understand the reasons behind Affinity Water presenting as an outlier. In response to the recent Ofwat consultation, 'PR24 and beyond: Performance commitments for future price reviews', we have set out our thoughts on our performance to the existing metric and our ideas for preferred alternative approaches which will benefit customers.

The improvement in company low pressure performance in 2021/22 is also seen in our other low-pressure performance measure, 'average hours of low pressure'. The average length of time properties experienced low pressure in 2021/22 was 01:35:05 hh:mm:ss, compared with 05:02:48 in 2020/21.

3A – Outcome performance – Water common performance commitments

continued

Properties at risk of receiving low pressure

continued

In contrast to the 'properties at risk' measure, increasing the number of critical-point data loggers has revealed our performance to be considerably better than the >12:00:00 we believed at the time of the business plan. Increasing the intensity of coverage has improved the accuracy of the overall reporting and revealed large areas where no incidence of low pressure was experienced. Both measures use the same data and 15 metres-head reporting thresholds but use different approaches for assessing the significance of low-pressure events. The 'average hours' measure focuses on frequency of low pressure that properties experience across the whole year, rather than simply identifying the worst-case incidence recorded in 2021/22. The only difference in the reporting criteria is that the 'average hours' measure does not exclude low pressures that result from 'one-off' events such as burst mains, and therefore is a more comprehensive measure of what our customers experience across the year.

Number of occupied properties not billed (Gap sites)

A property is considered a gap site if it is occupied and not billed. Reducing the number of gap sites results in fairer charging and lower bills for customers who already pay their water bills. In 2021/22 we successfully placed 74 gap sites into charge, outperforming our target of 50 sites.

We address gap sites primarily through site visits to establish the existence and occupation status of unbilled properties and outperformed our target by improving ways of working between our site investigators and office-based team. We also prioritise activity towards properties likely to have the largest revenue yield, to maximise customer benefits from the resources we devote to gap site activity.

Audit and Assurance

Our external assurer, Atkins confirmed that in line with the fair disclosure reporting and assurance requirements, we have rigorous processes that are correctly implemented to identify and bill newly built properties:

"There were no material issues identified. The Company's methodology for identifying Gap Sites is comprehensive and it is accurately documented. Our audit checks on the data were satisfactory in all cases and we concluded that the reporting is robust."

Unplanned interruptions to supply over 12 hours

Although we improved our performance compared to 2020/21, it was not sufficient to achieve our target for unplanned interruptions lasting greater than 12 hours. This is a disappointing result as we have been working hard to focus our resources to a 'water always on' mindset.

The work that we have undertaken in respect to supply interruptions has borne considerable improvements in the industry common metric of average minutes per connected property; however, the number of individual properties with supply interruptions over 12 hours is still above committed performance. 421 of the total 477 properties resulted from a single major burst incident where there was no other option for maintaining the mains water supply to those customers or providing alternative supplies. A further 26 properties were the result of one-off property events such as defective meters and boundary stopcocks left turned-off.

Our focus for the coming year remains on improving response times, increasing local resources and alternative methods of maintaining the water supply to customers properties.

Customer contacts per 1,000 population for Water Quality (taste, odour and appearance)

Our performance commitment for customer contacts per 1,000 population for water quality (taste, odour and appearance) was not met in 2021 with the contact rate being 0.75 against a commitment of 0.67. This was made up of 1,895 [0.50] contacts regarding appearance and 969 [0.25] contacts regarding taste and/or odour. This is still our best performance for this measure and continues the downward improving trend observed until the first Covid-19 related lockdown in 2020.

The contact rate in the first half of 2021 remained at elevated levels seen in the second half of 2020, then reduced significantly in the second half of 2021. We consider that the higher rate of contact seen in this period was caused by the impact of the pandemic-related lockdown periods with more people at home observing more quality issues with their water supply. The reduced number of contacts seen in the second half of 2021 has continued into the first quarter of 2022 and we are currently performing below the target contact rate.

During 2021/22 we carried out mains flushing in a number of higher risk DMAs across our area to remove mains corrosion deposits and aluminium deposits that had accumulated in the mains network. This work has helped to keep customer contacts relating to discoloration low.

Section 3 – Performance summary continued

3C – Customer measure of experience (C-MeX) table

Item	Unit	Value
Annual customer satisfaction score for the customer service survey	Number	74.81
Annual customer satisfaction score for the customer experience survey	Number	78.33
Annual C-MeX score	Number	76.57
Annual net promoter score	Number	12.00
Total household complaints	Number	9,485
Total connected household properties	Number	1,482,418
Total household complaints per 10,000 connections	Number	63.983
Confirmation of communication channels offered	TRUE or FALSE	True

Our overall C-MeX full-year ranking improved by one place compared to 2020/21, ranking us 14th against other companies and narrowly missing 13th place. We recognise that we can improve our comparative position and are encouraged by the 4th quarter 2021/22 performance having achieved 13th position, up from 15th in the 3rd quarter providing momentum for 2022/23.

There is evidence that post pandemic, it is becoming more challenging to achieve customer satisfaction. This is shown in C-MeX across our sector, with the industry on average recording a year-on-year CSAT decline of -2.5%. We have seen a similar shift in customer satisfaction locally although we have recorded a lesser decline than the industry average, -1.7%.

Our performance with experience (CES) has been encouraging, as we recorded a year-on-year improvement of +0.6% overall where the industry average declined by -3.4%. Our focus continues to be service performance, as the year-on-year variance was greater than the industry average [-4.0% vs -1.6%]. We note however, that more recent observations in the 4th quarter results saw our ranking improve.

To enhance our capabilities, we have invested in market-leading data service platforms to improve our ability to monitor experiences in real time and conduct significantly enhanced data analysis of hotspots which could be impacting our performance. With the deployment of this platform across our company in 2022, we expect to see the benefit begin to flow through to our C-MeX performance.

We remain concerned at the volatility and lack of robust sample size for the C-MeX metric, alongside its ability to be positively influenced by activities completed prior to AMP7, such as those companies who have in the past set up marketing campaigns to build customer trust and awareness of their brand are now benefiting within the Customer Experience Survey (CES). The metric itself, which is a slow indicator, does not provide the relevant rigour to manage experience on a daily, monthly, or even quarterly basis. As such, we and other water companies are finding alternative metrics to triangulate and manage experience. It is our view that the UK Customer Satisfaction Index (UKCSI) will provide a better measure for PR24 as it is a more consistent metric. As it is widely used across other sectors it would allow inter-industry as well as intra-industry comparisons.

We confirm that we offered at least five communication channels for receiving customer contacts and complaints and at least three online channels throughout the reporting year.

3D – Developer services measure of experience (D-MeX) table

Item	Unit	Value
Qualitative component annual results	Number	71.32
Quantitative component annual results	Number	99.76
D-MeX score	Number	85.54
Developer services revenue (water)	£m	12.918

Water UK performance metric	Unit	Reporting period (1 April to 31 March)	Quantitative score (annual)
W1.1 Pre-development enquiry – reports issued within target	%	100.00%	
W3.1 s45 quotations – within target	%	99.98%	
W4.1 s45 service pipe connections – within target	%	95.17%	
W6.1 Mains design <500 plots – quotations within target	%	99.50%	
W7.1 Mains design >500 plots – quotations within target	%	100.00%	
W8.1 Mains construction within target	%	100.00%	
W17.1 Mains diversions (without constraints) – quotations within target	%	100.00%	
W17.2 Mains diversions (with constraints) – quotations within target	%	100.00%	
W18.1 Mains diversions – construction/commissioning within target	%	100.00%	
W26.1 Self-lay water for pressure/bacteriological testing – provided within target	%	100.00%	
W27.1 Self-lay permanent water supply – provided within target	%	100.00%	
W30.1 Self-lay plot references and costing details – issued within target	%	100.00%	
WN1.1 % of confirmations issued to the applicant within target period	%	100.00%	
WN2.2 % Bulk supply offer letters issued to the applicant within target period	%	100.00%	
WN4.1 % of main laying schemes constructed and commissioned within the target period	%	100.00%	
Self-lay Provider Metric (SLPM) – S1/2 Point of Connection (POC) (Stage 1C) – Water Company – SLPM – S1/2 – Review PoC proposal	%	100.00%	
SLPM – S2/2a Design Self-Laid Main (Stage 2) – Water Company – SLPM – S2/2a – Provide design	%	100.00%	
SLPM – S2/2b Design Self-Laid Main (Stage 2) – Water Company – SLPM – S2/2b – Water Company to Provide design acceptance	%	100.00%	
SLPM – S3 Execute Water Adoption Agreement (Stage 3) – Water Company – SLPM – S3 – Review / revise Water Adoption Agreement	%	100.00%	
SLPM – S4/1 Delivery Date (Stage 3 / 4) – Water Company – SLPM – S4/1 – Source of Water Delivery Date	%	100.00%	
SLPM – S5/1a – Connect Self-Laid Main – (Stage 5) – Water Company – SLPM – S5/1a – Review request and carry out Final Connection	%	100.00%	
SLPM – S7/1 Make Service Connections (Stage 7 – Part 2) – Water Company – SLPM – S7/1 – Validate notification and provide consent to progress with connection	%	100.00%	
D-MeX quantitative score (for the relevant reporting period)	%	99.76	
D-MeX quantitative score (annual)	Number		1.00

D-MeX is a mechanism to incentivise water companies to provide an excellent customer experience for developer services customers. These customers include small builders, large and national housing developers, self-lay providers (SLPs), NAVs and residential customers that have new water connections installed.

We finished 2020/21 in 10th position with an overall D-MeX score of 84.71. For 2021/22, we targeted an overall D-MeX position of 7th in the industry, and have finished in 8th. Although we have missed our internal ambition of 7th place, we consider we have made good progress in closing the gap to the top performing companies while overcoming challenges.

We have improved our quantitative performance to a score of 99.76 compared to 98.69 in 2020/21. This score placed us 3rd in the industry league table for the quantitative element of D-MeX score. At the start of the year, our Developer Services team started with a new construction partner. By working collaboratively with our delivery partners, we managed to work through the bulk of the impacted works and have consistently improved our quantitative performance.

Our qualitative performance has increased from 70.72 in 2020/21 to 71.32 in 2021/22. This increase is linked to improvements made to timescales and moving to more proactive communication.

Section 3 – Performance summary continued

3E – Outcome performance – Non financial performance commitments

	Unique reference	Unit	Decimal places	Performance level -actual	PCL met?
Common					
Risk of severe restrictions in a drought	PR19AFW_W-D2	%	1	61.5	No
Priority services for customers in vulnerable circumstances – PSR reach	PR19AFW_R-N3	%	1	6.5	Yes
Priority services for customers in vulnerable circumstances – Attempted contacts	PR19AFW_R-N3	%	1	90.4	Yes
Priority services for customers in vulnerable circumstances – Actual contacts	PR19AFW_R-N3	%	1	46.6	Yes
Bespoke PCs					
Average time properties experience low pressure	PR19AFW_W-D5a	nr	0	01:35:05	Yes
Customers in vulnerable circumstances satisfied with our service (receiving financial help)	PR19AFW_R-C2	%	0	97%	Yes
Customers in vulnerable circumstances who found us easy to deal with (receiving financial help)	PR19AFW_R-C3	%	0	96%	Yes
BSI accreditation	PR19AFW_R-N4	text	0	Maintained	Yes
IT resilience	PR19AFW_R-N6	nr	0	948.54	Yes
Customers in vulnerable circumstances satisfied with our service (not receiving financial help)	PR19AFW_R-N7	%	0	96%	Yes
Customers in vulnerable circumstances who found us easy to deal with (not receiving financial help)	PR19AFW_R-N8	%	0	95%	Yes
Value for Money Survey	PR19AFW_R-N9	nr	2	7.16	No
WINEP Delivery	PR19AFW_NEP01	text	0	Met	Yes
Non-financial performance commitments achieved		%			85

We have not met our targets for risk of severe restrictions in a drought or our Value for Money Survey, which have reputational implications.

3E – Outcome performance – Non financial performance commitments continued

Risk of severe restrictions in a drought

The Performance Commitment 'Risk of severe restrictions in a drought' is defined as the percentage of the customer population at risk of experiencing severe restrictions, for example, standpipes or rota cuts as part of Emergency Drought Orders in a 1-in-200-year drought, on average, over 25 years. The population is considered to be 'at risk' if the supply-demand balance calculation in each water resource zone (as used for water resource planning) for the 1-in-200-year drought event results in a shortfall (deficit).

In our final PR19 submission to Ofwat, performance commitment levels were set for the 2020-2025 period. In their calculation the annual forecast, rather than the 25-year average, was used to calculate the expected future performance and associated targets. Future schemes that were selected in the Water Resources Management Plan 2019 (WRMP19) to manage supply and demand between 2020 and 2045 (25-year period) were also included with their expected benefits reported in future years. This inclusion resulted in the target falling to 0% by the start of AMP7 with the net movement of schemes and demand changes forecast in the WRMP keeping the target at 0% for each year of the AMP period.

Following scrutiny from our external Auditors this interpretation of the reporting guidance was challenged and reporting is conducted against the 'revised' methodology, taking on board the above revisions. This has resulted in the reported figure diverting from the way performance commitment levels were originally set at PR19. Therefore, it should be noted that the reported figures are not directly comparable with the commitment levels set.

In addition, the following data sources have changed since the performance commitment levels were originally set:

Element	Previous data source	Current data source
Outage	WRMP19 – Water Resources Planning Tables	Latest WRMP24 Outage Forecast
Target headroom	WRMP19 – Water Resources Planning Tables	Revised values from WRP Tables
Distribution input	EA Table (reporting year)	Water Resources Planning Tables – WRMP19 or EA Table (reporting year)
Transfers	WRMP19 – Water Resources Planning Tables	EA Table (based on capacities)

The use of the WRMP24 outage allowance has slightly worsened the Supply Demand Balance in certain zones while improving it in others, resulting in a negligible net effect when considering the performance for the company as a whole. The change to the 25-year average is mainly due to the exclusion of the expected benefits from future supply-side and demand-side schemes.

Given these changes, a new set of commitment levels have been calculated to assess what the equivalent targets would be, had we set them using the equivalent approach and data at PR19.

Target levels	Unit	2020/21	2021/22	2022/23	2023-24	2024-25
Final Determination Performance Commitment (FDPC) levels set in PR19	%	0.0	0.0	0.0	0.0	0.0
Revised PC Levels – Annual Report 2021/22	%	63.9	60.6	51.9	36.6	26.0

Performance for 2021/22 has failed in the year due to high demand and leakage, if compared with both the PR19 and the revised baseline. If these high levels of demand are sustained in AMP7, the number of customers at risk will be higher than forecast with the revised performance commitment levels.

To mitigate this, several options are being 'fast tracked' to improve performance:

- The acceleration of a trading scheme;
- The acceleration of the second stage of Supply 2040 combined with a potential reduction of our bulk export to South East Water; and
- Non-household demand management activities.

A breakdown of the main elements that contribute to the overall metric performance is presented within Table 3I (Figure 4). As there is no guidance for these lines, the following assumptions have been made:

- Deployable output is reported as the declared baseline deployable output in the WRMP Tables without any impact from climate change, sustainability reductions, treatment losses, etc;
- Elements 4 to 8 (from deployable output to total population supplied) are reported as in-year figures rather than averages; and
- Customers at risk is reported as the 25-year average to be consistent with the percentage of customers at risk that is reported in Table 3E.

Section 3 – Performance summary continued

3E – Outcome performance – Non financial performance commitments continued

For comparison, the two sets of performance figures calculated using the different methodologies are noted below:

Methodology	Year 1 (2020/21)	Year 2 (2021/22)
Final Determination (as per target setting)	44.0%	34.2%
Revised methodology	67.7%	61.5%

It is worth noting that had the 2021/22 annual performance (as reporting in line with the FD target setting) used the 25-year average in its calculation, the reported figure would be around 3.0%. Considerably closer to the PR19 target of 0%.

We have not formerly requested the change in the performance commitment targets via the change protocol but will do so following the Annual Performance Report. As such, we have reported the figures in 3E and 3I on this revised basis.

It is important to emphasise that the severe restrictions in a drought metric does not represent the percentage of customers who are at risk of severe restrictions in a 1-in-200-year drought event in the current reporting year (2021/22). Rather, this metric takes a long-term approach and shows the proportion of customers at risk over a 25-year period. In addition, the methodology adopted is very conservative as planned future schemes selected in the WRMP do not contribute to the 25-year average supply-demand balance with their expected benefits. This has the effect of overestimating the percentage of customers who are and will be at a real risk of experiencing severe restrictions. Our overall security of supply remains robust, and we maintain that the security of supply that we provide to our customers is in line with our WRMP19 planned levels.

Priority services for customers in vulnerable circumstances

We have achieved the three PSR targets for the year and are on track to achieve the 2024/25 target of 7.2% of customers on the register ahead of schedule in 2023.

PSR reach

We continue to work to an internal stretch target and add on average 500 households per week to the PSR register. This is achieved mainly by our front-line colleagues identifying triggers during the calls that could indicate a customer is in a vulnerable circumstance and will proactively offer the PSR to households. We have data sharing agreements in place with both electricity distribution network operators in our area UK Power Networks (UKPN) and Scottish and Southern Electricity Networks (SSEN). We have also advertised PSR in an NHS publication in the Barnet area and have completed a joint awareness campaign for PSR and affordability support with UKPN.

We have changed our legal basis for PSR registrations to 'legitimate interest' which means that in the future, trusted organisations such as Fire and Rescue and local authorities can register for PSR on behalf of a household. We anticipate that during 2022/23 we will be able to join a data-sharing network with other utilities and trusted organisations in our area.

In 2021/22, 32,912 households were added to the register and 6,667 were removed.

The breakdown for 2021/22 is noted below against those originally forecasted in our PR19 Business Plan:

Category	Communication	Mobility and access	Other	Security	Supply
2020/21	15,457	43,542	5,409	38,019	75,125
Forecasted at PR19	16,174	14,196	4,181	35,249	16,724

We have exceeded the predicted breakdown in all categories except communication. We are satisfied alternative methods of communications are offered when it is appropriate to do so as PSR is part of our quality assurance strategy and we have not identified any trends to indicate any concerns.

PSR attempted contacts and actual contacts

We continue to reach customers by 'scheduled contacting' which is a continuous process of identifying customers as they approach the renewal date. We also conduct ad-hoc contact attempts targeting customers who have passed the renewal date and do not fit into the scheduler.

We attempted scheduled contacts by email and SMS throughout 2021/22.

We made ad-hoc attempts by letter where customers received two letters three weeks apart if they had not updated their PSR.

For 2022/23, due to the growing number of households added to the PSR (far exceeding our original forecasts), we will need to significantly increase the level of contacts in order to achieve the standard in the Performance Commitment.

3E – Outcome performance – Non financial performance commitments

continued

Average time properties experience low pressure

Refer to table 3A commentary on page 76.

Customers in vulnerable circumstances

During 2021/22 we received 92,000 survey responses following customer interactions with us, of which 18% were recorded as customers in 'Financially Vulnerable' circumstances and 22% as customers in 'Non-Financially Vulnerable' circumstances. For these customers, over 95% scored us between 7 and 10 (0-10 scale) for 'Customer Satisfaction' and 'Making it Easy', outperforming our 90% commitment.

Although the volume of surveyed customers receiving financial support declined compared to the prior year, we suspect the levels seen in 2020/21 to have been inflated due to the start of the pandemic. We anticipate a similar increasing trend in 2022/23 as a result of the current economic climate.

The survey volume was over 16,000 for Customer Satisfaction and 13,000 for 'Making it Easy', providing a robust sample size for reporting. The percentage of scores received in the 7-10 range has fallen slightly year-on-year for all four 'vulnerable customer' metrics, largely attributable to a change in how the surveys were conducted. In order to align more closely with the C-MeX surveys, additional questions were asked along-side the surveys around resolution of the initial issue raised. The surveys conducted were also delayed by five days to allow resolution of the initial issue which appeared to drive lower CSAT scores given. However, all four metrics are significantly above their respective target of 90%.

Vulnerable customer surveys were audited by our external Auditor, Atkins, and in line with the requirements of the FD, published copies of the surveys can be found on our website at: affinitywater.co.uk/docs/performance/additional-services-performance-v2.pdf

We identified through our external audit process that all contact channels noted in the guidance were not used. This has already been rectified for 2022/23 reporting, with a new contract in place for all lines of contact to use for surveys. Whichever contact channel has been used by the customer will be used for the survey unless they have specifically specified their preferred method of contact.

We proactively conduct our perception survey on a quarterly and annual basis, which targets customers who live in our supply area but may not have contacted us during 2020/21. Within the survey we ask customers questions on how they rate us regarding trust, communication, and value. We have identified, however, that we are unable to breakdown these responses to identify which of these customers are from vulnerable groups. We are looking to amend this report in 2022 so that greater granularity can be gained from the report.

BSI accreditation

We have once again achieved certification to British Standard 18477 (BS 18477) for inclusive services provision, which is valid for one year. We have held verification of certification to the standard since February 2019.

Verification to the standard requires an independent assessment by BSI, to demonstrate that we have the required processes and policies in place for identifying and responding to consumer vulnerability. The outputs of these processes are put to the test during certification to ensure they are working in practice.

BS 18477 covers practices around the identification of customer vulnerability and inclusive design of products and services. Tied into the ongoing improvements we are making across all our customer metrics, BS 18477 gives our customers confidence that we are committed to treating vulnerable customers fairly and ensures we maintain the standards set for accreditation.

Following an announcement from the British Standards Institution that BS 18477 will be replaced with ISO 22458 in April 2024, all companies holding the BS 18477 certificate will have the opportunity to transition to the new ISO and kitemark scheme over the coming two years.

We are planning the following transition period to this new ISO standard:

- January 2023 – BS 18477
- January 2024 – ISO 22458
- January 2025 – ISO 22458

In line with the requirement in the Final Determination, we will formally write to Ofwat to request a change to the BSI standard assigned to our performance commitment.

IT resilience

As part of our external assurance process IT resilience was audited by our external assurers, Atkins, and in line with the FD requirement, their statement is below:

"As part of Affinity Water's Final Determination for 3E.10 IT Resilience the company must provide an assurance statement. Below is our assurance summary specifically in relation to 3E.10 for use in Affinity Waters Annual Performance Report commentary:

The Company's methodology for reporting IT Resilience is comprehensive and is in line with the guidance set out in the Company's Final Determination. The Company is following the same methodology as last year so the reporting is consistent.

We did not identify any issues when undertaking our data checks. We believe the reporting of this performance commitment is robust."

The IT resilience metric monitors priority 1 and 2 incidents to ensure services are restored in a timely manner ensuring unplanned interruptions to services, and therefore disruption to our customers, are kept to a minimum. The impact score for IT systems has improved year-on-year for the past three years. This continued reduction is due to the success of IT resilience initiatives that have been completed, including:

Section 3 – Performance summary continued

3E – Outcome performance – Non financial performance commitments continued

IT resilience continued

- Migration to the 'cloud': All company servers now reside in the cloud, a highly available, highly scalable, and resilient environment which has reduced the number of outages due to server failures;
- Advisor Portal: When rolled out in 2019 we experienced several outages as part of teething troubles, In the past two years through improvements, these have been resolved and regular upgrades have been made to ensure a more robust service; and
- The removal/replacement of several older, less reliable, systems/services in favour of newer integrated systems.

The reported impact score is a total score derived from the availability/outages of all our key systems throughout the year. A summary of availability for these systems for 2021/22 is shown below:

Yearly (April 2021 – March 2022)			
	Total downtime (minutes)	Total available uptime since April 2021 (minutes)	% Uptime for period
Totals	3,919.8	6,832,800	99.94%

Value for Money Survey

Our value for money survey seeks to understand householders' overall satisfaction with value for money of our service.

As part of our Customer Perception Survey, customers are asked to rate the value for money of the services they receive from us. Customers score from 0 to 10, where 0 is 'very poor value for money' and 10 is 'excellent value for money'. The surveys are conducted each quarter by an external market research company and the four quarterly scores are averaged for the overall yearly result.

Our full-year score was 7.16 based on four quarterly averages (Q1: 7.11, Q2: 7.38, Q3: 7.11, Q4, 7.05) compared to our commitment level of 7.65. While we are disappointed that we did not achieve our commitment level, we acknowledge this was particularly stretching against the backdrop of customers facing rising costs in living. Customers often cite increasing household bills, and being unable to compare price and inability to switch suppliers as reasons for lower scores. We are committed to improving our customer perceptions of us and the reflected value for money score. We are planning a number of campaigns during 2022/23 focused on communicating the services and value we provide.

WINEP delivery

All WINEP measures with a completion date between 1 April 2021 and 31 March 2022 have been completed. The table below sets out the WINEP measures delivered and signed off by the Environment Agency between 1 April 2021 and 31 March 2022.

All evidence to support completion of WINEP measures has been submitted to the Environment Agency and we have received formal sign off for the projects.

WINEP scheme ID	Completion date	Project scope	Environment Agency sign-off
7AF10008	19/04/2022	To establish the relative scale of Affinity Water's contribution to flow non-compliance (serious damage) in the River Brett and to establish appropriate options in collaboration with Essex & Suffolk Water and Anglian Water to alleviate low flows and support the achievement of Good Ecological Status by 2027.	31/03/22
7AF200003	27/03/2022	The aim of the investigation is to understand potential pathways of introduction and spread of Invasive Non-Natural Species (INNS) within any new raw water transfer being considered under the WRMP. Understanding the water transfer pathway is key to reducing the risk of deterioration as a result of INNS within the WFD.	27/03/22
7AF200006	29/03/2022	The aim of this scheme is to protect and enhance any Natural Environment and Rural Communities (NERC) section 41 Species and Habitats on Affinity Water Company land holdings, by undertaking a biodiversity survey of the land holdings to identify those which are important for section 41 habitats and species and identifying land management actions/projects to protect and enhance those habitats and species. Sites may also be identified where habitat creation/restoration work could be undertaken to support section 41 habitats and species. i.e., investigation and options appraisal.	31/03/22
7AF200007	29/03/2022	The aim of this scheme is to identify partnership projects in catchments where Affinity Water Limited. Operate and the objectives of the projects aim to enhance and protect wetland biodiversity species and habitats, in situations where the projects will contribute to the principles of Biodiversity 2020 (and its successor) and the NERC Act 2006.	31/03/22

3E – Outcome performance – Non financial performance commitments continued

WINEP delivery continued

WINEP scheme ID	Completion date	Project scope	Environment Agency sign-off
7AF200008	18/03/2022	The aim of this scheme is to develop and deliver a pollinator strategy for Affinity Water Lland holdings to contribute to the National Pollinator strategy.	31/03/22
7AF200012	31/03/2022	Tier three investigation. To investigate the current inputs of nitrate to groundwater and gain a more detailed understanding of the likely long-term trends in nitrate groundwater concentrations at the abstraction. The concentrations of nitrate at the abstraction show rising trend in nitrate concentrations, which has increased rapidly since 2016, posing a risk of exceeding the drinking water standard in the future.	31/03/22
7AF200021	31/03/2022	To investigate the source and migration pathways for a range of agricultural pesticides that affect the quality of water in the Roestock public supply abstraction well. Roestock abstracts raw water which is treated at North Mymms Water Treatment Works (WTW). The source(s) and pathway(s) for metaldehyde were investigated as part of Affinity Water's AMP6 National Environment Programme investigations. Historic landfill was determined as the primary source, but the investigation also identified seasonal increases in pesticide concentrations for Oilseed Rape herbicides that can be attributed to seasonal agricultural use which will be the focus of this investigation.	31/03/22
7AF200022	31/03/2022	To investigate the current inputs of nitrate to groundwater and gain a more detailed understanding of the likely long-term trends in nitrate groundwater concentrations at the abstraction. The concentrations of nitrate at the abstraction show rising trend in nitrate concentrations posing a risk of exceeding the drinking water standard in the future.	31/03/22
7AF200024	31/03/2022	To investigate the source and migration pathways for the current inputs of nitrate to groundwater and gain a more detailed understanding of the likely future seasonal trends in nitrate groundwater concentrations at the abstraction. Due to the known presence of a well-developed karstic drainage network in the catchment, and the rapid deterioration of water quality at the abstraction point following rainfall events North Mymms has observed significant seasonal concentrations of nitrate above the drinking water standard.	31/03/22
7AF300001	31/03/2022	To investigate the current inputs of nitrate to groundwater and gain a more detailed understanding of the likely long-term trends in nitrate groundwater concentrations at the abstraction. The concentrations of nitrate at the abstraction have shown an increasing trend in nitrate concentrations following the reductions in abstraction and subsequent licence change agreed as part of Affinity Water's Restoring Sustainable Abstraction programme in AMP6. This increasing trend poses a risk of exceeding the drinking water standard in the future.	31/03/22

Section 3 – Performance summary continued

3F – Underlying calculations for common performance commitments – water and retail

Performance commitments set in standardised units – Water	Unit	Standardising data indicator	Standardising data numerical value	Performance level – Actual [current reporting year]	Performance level – calculated (i.e. standardised)
Mains repairs – Reactive	Mains repairs per 1000km	Mains length in km	16,911.96	1,294	76.51
Mains repairs – Proactive	Mains repairs per 1000km	Mains length in km	16,911.96	400	23.65
Mains repairs	Mains repairs per 1000km	Mains length in km	16,911.96	1,694	100.17
Per capita consumption (PCC)	lpd	Population	3,868.57	611	157.92

Performance commitments measured against a calculated baseline	Unit	Performance level – actual [2017-18]	Performance level – actual [2018-19]	Performance level – actual [2019-20]	Baseline	Performance level – actual [2020/21]	Performance level – actual [2021/22]	Performance level 3 year average	Calculated performance level to compare against PCLs
Leakage	MI/d	181.2	204.1	181.1	188.8	171.4	154.25	168.9	10.5
Per capita consumption (PCC)	lpd	151.5	158.8	155.0	155.1	171.6	157.9	161.5	-4.1

Water supply interruptions	Unit	Standardising data indicator	Standardising data numerical value	Performance level – actual number of minutes lost	Number of properties supply interrupted	Calculated performance level
Water supply interruptions	Average number of minutes lost per property per year	Number of properties	1,554.49	4,004	16,441	00:03:43

Unplanned or planned outage	Current company level peak week production capacity (PWPC) MI/d	Reduction in company level PWPC MI/d	Outage proportion of PWPC %
Unplanned outage	1,353.99	16.138	1.19

Priority services for customers in vulnerable circumstances	Total residential properties	Total number of households on the PSR [as at 31March]	PSR reach	Total number of households on the PSR over a 2 year period	Number of attempted contacts	Attempted contacts %	Number of actual contacts	Actual contacts %
Priority services for customers in vulnerable circumstances	1,427.38	92,752	6.5%	27,280	24,667	90.4%	12,709	46.6

3H – Summary information on outcome delivery incentive payments

	Initial calculation of performance payments (excluding C-MeX and D-MeX) £m [2017-18 prices]
Initial calculation of in period revenue adjustment by price control	
Water resources	0.29
Water network plus	[1.13]
Residential retail	0.05
Initial calculation of end of period revenue adjustment by price control	
Water resources	[1.21]
Water network plus	[2.83]
Residential retail	-
Initial calculation of end of period RCV adjustment by price control	
Water resources	-
Water network plus	-
Residential retail	-

3I – Supplementary outcomes information

Unplanned or planned outage	Current company level peak week production capacity (PWPC) MI/d	Reduction in company level PWPC MI/d	Outage proportion of PWPC %
Planned outage	1,353.99	34.77	2.57

Risk of severe restrictions in drought	Deployable output	Outage allowance	Dry year demand	Target headroom	Total population supplied	Customers at risk
Risk of severe restrictions in drought	978.30	38.58	945.57	75.98	3,872,769	2,601,359

Section 4 – Additional regulatory information – service level

Accounting separation policy

Tables 4B, 4C, 4D, 4F, 4J, 4L, 4N, 5B, 6D and 9A within sections 4, 5, 6 and 9 have been prepared in accordance with the company's Accounting Separation Methodology Statement, which can be found on the company's website: affinitywater.co.uk/reports-publications. The methodology statement explains the basis for the allocations of costs and assets and has been updated for changes to the requirements in 2021/22. Changes to the methodology are also explained within the company's Accounting Separation Methodology Statement on the company's website. Wherever possible, direct costs and assets have been directly attributed to business units. Where this is not possible, appropriate cost allocations have been applied and assets have been allocated to business units based on an assessment of the principal user, as described in the methodology.

Details on our non-financial reporting methodology in sections 4 to 9 include assumptions made in producing our non-financial numbers and further explanation where necessary.

Table 4B has not been included within Annual Performance Report 2021/22 due to its size as permitted by RAG 3.13 but has still been submitted to Ofwat.

Tables and sections relating to wastewater and bioresources have been omitted from this publication as they are not relevant to the company.

4A – Water bulk supply information for the 12 months ended 31 March 2022

	Volume Ml	Operating costs £m	Revenue £m
Bulk supply exports			
Anglian Water – Chalton	38.462	0.018	-
South East Water – Egham	4,518.595	2.120	2.400
Cambridge Water – Odsey Village	10.742	0.005	-
NAV-C-Kings Langley	0.141	-	-
NAV-C-Wilton Park	3.785	0.002	-
NAV-3-Bidwell	66.163	0.031	-
NAV-3-Bidwell Parcel B	0.496	-	-
NAV-3-Barnfield Avenue	0.141	-	-
NAV-4-Nestles Avenue	1.022	-	-
NAV-5-Silver Leys	84.871	0.040	-
NAV-5-West Road	0.133	-	-
NAV-5-Hadham Road	0.122	-	-
NAV-7-Martello Lakes	23.120	0.011	-
NAV-7-Archers Court	0.221	-	-
NAV-8-Oakwood Park	7.588	0.004	-
Total bulk supply exports	4,755.601	2.231	2.400
Bulk supply imports			
Anglian Water – Grafham	16,837.337	7.295	-
Cambridge Water – Hadstock	14.536	0.034	-
Essex and Suffolk Water – Days Lane	8.150	0.031	-
South East Water – Kingsdown	3.088	-	-
Thames Water – Snakey Lane	30.304	0.003	-
Thames Water – Stonebridge Park	79.606	0.696	-
Thames Water – Fortis Green	117.334	0.254	-
Thames Water – Hampstead Garden	17.383	0.038	-
Thames Water – Ladymead	698.853	0.062	-
Thames Water – Perivale	12.132	0.027	-
Thames Water – raw water	1,633.831	-	-
Total bulk supply imports	19,452.554	8.440	

Bulk supply exports and imports detailed in the tables above are as per the bulk supplies register published by Ofwat for 2021/22.

Where the company has not exported to, or imported from an appointee, this appointee has been excluded from the tables above.

Section 4 – Additional regulatory information – service level continued

4C – Impact of price control performance to date on RCV

	12 months ended 31 March 2022		Price control period to date	
	Water resources	Water network+	Water resources	Water network+
Totex (net of business rates, abstraction licence fees and grants and contributions)				
Final determination allowed totex (net of business rates, abstraction licence fees, grants and contributions and other items not subject to cost sharing)	45.192	221.597	81.590	446.140
Actual totex (excluding business rates, abstraction licence fees, grants and contributions and other items not subject to cost sharing)	19.159	265.581	45.060	481.332
Transition expenditure	-	-	-	-
Disallowable costs	(0.046)	0.457	(0.085)	0.264
Total actual totex (net of business rates, abstraction licence fees and grants and contributions)	19.205	265.124	45.145	481.068
Variance	(25.987)	43.527	(36.445)	34.929
Variance due to timing of expenditure	(27.974)	31.342	(39.134)	16.745
Variance due to efficiency	1.987	12.185	2.690	18.184
Customer cost sharing rate – outperformance	53.5%	53.5%	53.5%	53.5%
Customer cost sharing rate – underperformance	46.5%	46.5%	46.5%	46.5%
Customer share of totex overspend	0.924	5.667	1.251	8.457
Customer share of totex underspend	-	-	-	-
Company share of totex overspend	1.063	6.518	1.439	9.727
Company share of totex underspend	-	-	-	-
Totex – business rates and abstraction licence fees				
Final determination allowed totex – business rates and abstraction licence fees	6.562	13.239	13.125	26.479
Actual totex – business rates and abstraction licence fees	6.014	13.198	11.987	26.945
Variance – business rates and abstraction licence fees	(0.548)	(0.041)	(1.138)	0.467
Customer cost sharing rate – business rates	75.0%	75.0%	75.0%	75.0%
Customer cost sharing rate – abstraction licence fees	75.0%	75.0%	75.0%	75.0%
Customer share of totex over/underspend – business rates and abstraction licence fees	(0.411)	(0.031)	(0.853)	0.350
Company share of totex over/underspend – business rates and abstraction licence fees	(0.137)	(0.010)	(0.284)	0.117
Totex not subject to cost sharing				
Final determination allowed totex – not subject to cost sharing	7.503	9.533	12.601	18.268
Actual totex – not subject to cost sharing	0.506	(1.408)	0.828	(0.617)
Variance – 100% company allocation	(6.997)	(10.941)	(11.773)	(18.885)
Total customer share of totex over/underspend	0.513	5.636	0.398	8.807
RCV				
Total customer share of totex over/under spend	0.513	5.636	0.398	8.807
Pay As You Go rate	34.9%	57.5%	34.9%	57.5%
RCV element of cumulative totex over/underspend	0.334	2.398	0.259	3.748
Adjustment for ODI outperformance payment or underperformance payment			-	-
Green recovery				
RCV determined at FD at 31 March			186.809	1,291.577
Projected 'shadow' RCV			187.068	1,295.325

4C – Impact of price control performance to date on RCV continued

Water resources

Totex (net of business rates, abstraction licence fees and grants and contributions)

Actual totex of £19,205,000 against allowed totex of £45,192,000 resulted in an underspend in the year of £25,987,000 in water resources. This was primarily as a result of the mix of work done between water resources and water network plus assets in our capex programmes, with work on water resources assets to be completed in later years across the AMP. There was an overspend in operating expenditure of £1,987,000 driven by increased energy prices. Disallowable costs relate to fines and investigation costs, including streetworks fines, offset by other cash items as per table 4D.

Totex – business rates and abstraction licence fees

Actual totex of £6,014,000 against allowed totex of £6,562,000 resulted in an underspend in the year of £548,000 in water resources for business rates and abstraction licences, driven by lower abstraction charges.

Totex not subject to cost sharing

Actual totex of £506,000 against allowed totex of £7,503,000 resulted in an underspend in the year of £6,997,000 in water resources. This was as a result of an underspend on our strategic regional water resources expenditure, as per table 4L.

RCV as at 31 March 2022

Our cumulative AMP7 customer share of totex overspend for water resources is £398,000, of which the RCV element is £259,000. Our projected shadow RCV as at 31 March 2022 is therefore £187,068,000 against the RCV determined as part of the final determination of £186,809,000 for water resources.

Water network plus

Totex (net of business rates, abstraction licence fees and grants and contributions)

Actual totex of £265,124,000 against allowed totex of £221,597,000 resulted in an overspend in the year of £43,527,000 in water network plus. £31,342,000 of this overspend is as a result of the mix of work done between water resources and water network plus assets in our capex programmes. There was also an overspend in operating expenditure of £12,185,000 driven by increased energy prices and higher renewals expensed in year (infrastructure) due to the mix of renewals work completed in the year. Disallowable costs relate to bond issuance fees as well as fines and investigation costs, including streetworks fines, offset by other cash items as per table 4D.

Totex – business rates and abstraction licence fees

Actual totex of £13,198,000 against allowed totex of £13,239,000 resulted in a small underspend in the year of £41,000 in water resources for business rates and abstraction licences.

Totex not subject to cost sharing

Actual totex of £(1,408,000) against allowed totex of £9,533,000 resulted in an underspend in the year of £10,941,000 in water network plus. The negative spend in the year is due to HS2 contributions received being higher than our cost, which is a timing difference only. The underspend against our allowance was as a result of an underspend on our strategic regional water resources expenditure, for both opex and capex, as per table 4L.

RCV as at 31 March 2022

Our cumulative AMP7 customer share of totex overspend for water network plus is £8,807,000, of which the RCV element is £3,748,000. Our projected shadow RCV as at 31 March 2022 is therefore £1,295,325,000 against the RCV determined as part of the final determination of £1,291,577,000 for water network plus.

Section 4 – Additional regulatory information – service level continued

4D – Totex analysis for the 12 months ended 31 March 2022 – water resources and water network+

	Water resources	Network+				Total
	£m	Raw water transport £m	Raw water storage £m	Water treatment £m	Treated water distribution £m	£m
Operating expenditure						
Base operating expenditure	18.150	7.465	1.196	24.003	122.401	173.215
Enhancement operating expenditure	0.417	0.015	0.025	0.199	11.676	12.332
Developer services operating expenditure	-	-	-	-	10.273	10.273
Total operating expenditure excluding third party services	18.567	7.480	1.221	24.202	144.350	195.820
Third party services	-	-	-	-	2.119	2.119
Total operating expenditure	18.567	7.480	1.221	24.202	146.469	197.939
Grants and contributions						
Grants and contributions – operating expenditure	-	-	-	-	6.933	6.933
Capital expenditure						
Base capital expenditure	3.025	-	-	30.931	39.219	73.175
Enhancement capital expenditure	5.480	0.791	-	2.844	26.905	36.020
Developer services capital expenditure	18.077	-	-	-	14.658	32.735
Total gross capital expenditure excluding third party services	26.582	0.791	-	33.775	80.782	141.930
Third party services	-	-	-	0.739	2.718	3.457
Total gross capital expenditure	26.582	0.791	-	34.514	83.500	145.387
Grants and contributions						
Grants and contributions – capital expenditure	19.424	-	-	-	6.836	26.260
Net totex	25.725	8.271	1.221	58.716	216.200	310.133
Cash expenditure						
Pension deficit recovery payments	-	-	-	-	-	-
Other cash items	[0.046]	[0.006]	[0.006]	[0.072]	[0.334]	[0.464]
Totex including cash items	25.679	8.265	1.215	58.644	215.866	309.669

	Water resources	Network+				Total
	£m	Raw water transport £m	Raw water storage £m	Water treatment £m	Treated water distribution £m	£m
Atypical expenditure						
Company restructuring	0.250	0.031	0.026	0.470	1.718	2.495
Total atypical expenditure	0.250	0.031	0.026	0.470	1.718	2.495

4F – Major project expenditure for wholesale water by purpose for the 12 months ended 31 March 2022

	Expenditure in report year					Total
	Water resources	Water network+				
	£m	Raw water transport £m	Raw water storage £m	Water treatment £m	Treated water distribution £m	
Major project capital expenditure by purpose						
Brett AMP7 investigations	0.084	-	-	-	-	0.084
South Lincolnshire reservoir	0.655	-	-	0.218	0.218	1.091
Anglian to Affinity transfer	-	-	-	-	0.176	0.176
Southeast strategic reservoir	0.504	-	-	-	-	0.504
Thames to Affinity transfer	-	0.208	-	0.420	-	0.628
Grand Union canal transfer	-	0.559	-	0.420	-	0.979
Minworth reuse Strategic Reservoir Option (SRO)	0.320	-	-	-	-	0.320
Total major project capital expenditure	1.563	0.767	-	1.058	0.394	3.782

	Cumulative expenditure on schemes completed in the report year					Total
	Water resources	Water network+				
	£m	Raw water transport £m	Raw water storage £m	Water treatment £m	Treated water distribution £m	
Major project capital expenditure by purpose						
Brett AMP7 investigations	-	-	-	-	-	-
South Lincolnshire reservoir	-	-	-	-	-	-
Anglian to Affinity transfer	-	-	-	-	-	-
Southeast strategic reservoir	-	-	-	-	-	-
Thames to Affinity transfer	-	-	-	-	-	-
Grand Union canal transfer	-	-	-	-	-	-
Minworth reuse SRO	-	-	-	-	-	-
Total major project capital expenditure	-	-	-	-	-	-

Section 4 – Additional regulatory information – service level continued

4H – Financial metrics for the 12 months ended 31 March 2022

Financial indicators	Units	Current year	AMP to date
Net debt	£m	1,093.786	
Regulatory equity	£m	384.600	
Regulatory gearing	%	73.99	
Post tax return on regulatory equity	%	-16.96%	
RORE (return on regulatory equity)	%	0.91%	1.68%
Dividend yield	%	-	
Retail profit margin – Household	%	0.16%	
Retail profit margin – Non-household	%	N/A	
Credit rating – Fitch	N/A	N/A	
Credit rating – Moody's	N/A	Baa1 (Stable)	
Credit rating – Standard and Poor's	N/A	N/A	
Return on RCV	%	2.07%	
Dividend cover	dec	-	
Funds from operations (FFO)	£m	57.581	
Interest cover (cash)	dec	2.38	
Adjusted interest cover (cash)	dec	0.82	
FFO/Debt	dec	0.05	
Effective tax rate	%	2.26%	
Retained cash flow (RCF)	£m	57.581	
RCF/Net debt	dec	0.05	
Borrowings			
Proportion of borrowings which are fixed rate	dec	0.1644	
Proportion of borrowings which are floating rate	dec	-	
Proportion of borrowings which are index linked	dec	0.8356	
Proportion of borrowings due within 1 year or less	dec	1.36%	
Proportion of borrowings due in more than 1 year but no more than 2 years	dec	0.21%	
Proportion of borrowings due in more than 2 years but no more than 5 years	dec	21.46%	
Proportion of borrowings due in more than 5 years but no more than 20 years	dec	46.25%	
Proportion of borrowings due in more than 20 years	dec	30.72%	
Movement in RORE			
		Current year	AMP to date
Base return		4.09%	4.06%
Variance in corporation tax		(0.16%)	(0.53%)
Totex out/(under) performance		1.88%	1.76%
Retail cost out/(under) performance		(0.17%)	(0.35%)
ODI out/(under) performance		(1.08%)	(1.03%)
Financing out/(under) performance		(3.78%)	(2.12%)
Other factors ¹		0.12%	(0.11%)
Regulatory return for the year		0.91%	1.68%

See commentary under table 1F for an explanation of the movement in RORE in 2021/22. The regulatory return for the year is shown in the column 'Actual returns and notional regulatory equity'.

¹ Other factors include exceptional items such as land sales

4I – Financial derivatives

	Nominal value by maturity (net) at 31 March			Total value at 31 March	Total accretion at 31 March	Interest rate		
	1 to 2 years	2 to 5 years	Over 5 years			Payable	Receivable	
	£m	£m	£m	Nominal value (net) £m	Mark to market £m	£m	%	%
Interest rate swap (sterling)								
Fixed to index-linked	-	210.000	250.000	460.000	(67.953)	38.866	1.87	5.13
Total financial derivatives	-	210.000	250.000	460.000	(67.953)	38.866		

An RPI-linked inflation swap with a nominal value of £135.0m, which is linked to the maturity of the Class A fixed rate £250.0m bond (maturity July 2026), was entered into in August 2018. A further RPI-linked inflation swap with a nominal value of £75.0m, which is also linked to the maturity of the Class A fixed rate £250.0m bond (maturity July 2026), was entered into in October 2020, backdated to 1 August 2020.

A CPI-linked inflation swap with a nominal value of £25.0m, which is linked to the maturity of the Class A fixed rate £250.0m bond (maturity March 2036), was entered into in March 2020. Further CPI-linked inflation swaps with a total nominal value of £225.0m, which are also linked to the maturity of the Class A fixed rate £250.0m bond (maturity March 2036), were entered into between April 2020 and June 2020.

The £67.953m mark to market valuation of the fixed to index-linked derivative is shown in non-current liabilities, financial instruments in table 1C of the Annual Performance Report 2021/22. In line with RAG guidance, we have reclassified accretion on the inflation-linked swap from financial instruments to borrowings.

Section 4 – Additional regulatory information – service level continued

4J – Base expenditure analysis for the 12 months ended 31 March 2022 – water resources and water network+

	Expenditure in report year					Total £m
	Water resources	Network+			Treated water distribution	
	£m	Raw water distribution £m	Raw water storage £m	Water treatment £m	£m	
Operating expenditure						
Power	4.740	5.347	-	3.433	21.542	35.062
Income treated as negative expenditure	-	-	-	-	-	-
Bulk supply/bulk discharge	1.200	0.259	0.010	1.533	5.406	8.408
Renewals expensed in year (infrastructure)	-	-	-	-	22.248	22.248
Renewals expensed in year (non-infrastructure)	-	-	-	-	-	-
Other operating expenditure	6.196	1.549	1.185	16.240	62.034	87.204
Local authority and Cumulo rates	1.973	0.310	0.001	2.797	10.090	15.171
Service Charges						
Canal & River Trust abstraction charges/discharge consents	-	-	-	-	-	-
Environment Agency / NRW abstraction charges/discharge consents	4.041	-	-	-	-	4.041
Other abstraction charges/ discharge consents	-	-	-	-	-	-
Location specific costs & obligations						
Costs associated with Traffic Management Act	-	-	-	-	1.051	1.051
Costs associated with lane rental schemes	-	-	-	-	0.030	0.030
Statutory water softening	-	-	-	-	-	-
Total base operating expenditure	18.150	7.465	1.196	24.003	122.401	173.215
Capital expenditure						
Maintaining the long-term capability of the assets – infra	1.482	-	-	-	21.520	23.002
Maintaining the long-term capability of the assets – non-infra	1.543	-	-	30.931	17.699	50.173
Total base capital expenditure	3.025	-	-	30.931	39.219	73.175
Traffic Management Act						
Projects incurring costs associated with Traffic Management Act	-	-	-	-	24,441	24,441

4L – Enhancement expenditure for the 12 months ended 31 March 2022 – water resources and water network+

		Expenditure in report year					Total £m
		Water resources	Water network+			Treated water distribution	
		£m	Raw water transport £m	Raw water storage £m	Water treatment £m	£m	
EA/NRW environmental programme (WINEP/NEP)							
Ecological improvements at abstractions	Capex	0.822	-	-	-	-	0.822
Ecological improvements at abstractions	Opex	-	-	-	-	-	-
Ecological improvements at abstractions	Totex	0.822	-	-	-	-	0.822
Eels Regulations (measures at intakes)	Capex	-	-	-	-	-	-
Eels Regulations (measures at intakes)	Opex	-	-	-	-	-	-
Eels Regulations (measures at intakes)	Totex	-	-	-	-	-	-
Invasive Non Native Species	Capex	-	-	-	-	-	-
Invasive Non Native Species	Opex	-	-	-	-	-	-
Invasive Non Native Species	Totex	-	-	-	-	-	-
Drinking Water Protected Areas (schemes)	Capex	1.429	-	-	-	-	1.429
Drinking Water Protected Areas (schemes)	Opex	-	-	-	-	-	-
Drinking Water Protected Areas (schemes)	Totex	1.429	-	-	-	-	1.429
Water Framework Directive measure	Capex	0.212	(0.003)	-	0.875	8.489	9.573
Water Framework Directive measure	Opex	-	-	-	-	-	-
Water Framework Directive measure	Totex	0.212	(0.003)	-	0.875	8.489	9.573
Investigations	Capex	-	-	-	-	-	-
Investigations	Opex	-	-	-	-	-	-
Investigations	Totex	-	-	-	-	-	-
Total environmental programme expenditure	Totex	2.463	(0.003)	-	0.875	8.489	11.824
Supply-demand balance							
Supply-side improvements delivering benefits in 2020-2025	Capex	0.231	0.033	-	0.117	4.543	4.924
Supply-side improvements delivering benefits in 2020-2025	Opex	-	-	-	-	-	-
Supply-side improvements delivering benefits in 2020-2025	Totex	0.231	0.033	-	0.117	4.543	4.924
Demand-side improvements delivering benefits in 2020-2025 (excl leakage and metering)	Capex	-	-	-	-	-	-
Demand-side improvements delivering benefits in 2020-2025 (excl leakage and metering)	Opex	-	0.008	-	-	4.401	4.409
Demand-side improvements delivering benefits in 2020-2025 (excl leakage and metering)	Totex	-	0.008	-	-	4.401	4.409
Leakage improvements delivering benefits in 2020-2025	Capex	-	-	-	-	-	-
Leakage improvements delivering benefits in 2020-2025	Opex	-	0.007	-	-	6.875	6.882
Leakage improvements delivering benefits in 2020-2025	Totex	-	0.007	-	-	6.875	6.882
Internal interconnectors delivering benefits in 2020-2025	Capex	-	-	-	-	-	-
Internal interconnectors delivering benefits in 2020-2025	Opex	-	-	-	-	-	-
Internal interconnectors delivering benefits in 2020-2025	Totex	-	-	-	-	-	-
Supply demand balance improvements delivering benefits starting from 2026	Capex	-	-	-	-	-	-
Supply demand balance improvements delivering benefits starting from 2026	Opex	-	-	-	-	-	-
Supply demand balance improvements delivering benefits starting from 2026	Totex	-	-	-	-	-	-
Strategic regional water resources	Capex	1.899	0.766	-	0.652	0.394	3.711
Strategic regional water resources	Opex	-	-	-	-	-	-
Strategic regional water resources	Totex	1.899	0.766	-	0.652	0.394	3.711
Total supply demand expenditure	Totex	2.130	0.814	-	0.769	16.213	19.926

Section 4 – Additional regulatory information – service level continued

4L – Enhancement expenditure for the 12 months ended 31 March 2022 – water resources and water network+ continued

		Expenditure in report year					Total
		Water resources	Water network+			Treated water distribution	
		£m	Raw water transport £m	Raw water storage £m	Water treatment £m		
Metering							
New meters requested by existing customers (optants)	Capex				1.564	1.564	
New meters requested by existing customers (optants)	Opex				-	-	
New meters requested by existing customers (optants)	Totex				1.564	1.564	
New meters introduced by companies for existing customers	Capex				12.006	12.006	
New meters introduced by companies for existing customers	Opex				-	-	
New meters introduced by companies for existing customers	Totex				12.006	12.006	
New meters for existing customers – business	Capex				-	-	
New meters for existing customers – business	Opex				-	-	
New meters for existing customers – business	Totex				-	-	
Replacement of existing basic meters with smart meters	Capex				-	-	
Replacement of existing basic meters with smart meters	Opex				-	-	
Replacement of existing basic meters with smart meters	Totex				-	-	
Smart meter infrastructure	Capex				-	-	
Smart meter infrastructure	Opex				-	-	
Smart meter infrastructure	Totex				-	-	
Total metering expenditure	Totex				13.570	13.570	
Other enhancement							
Improvements to taste, odour and colour	Capex	(0.007)	-	-	0.021	0.014	
Improvements to taste, odour and colour	Opex	-	-	-	-	-	
Improvements to taste, odour and colour	Totex	(0.007)	-	-	0.021	0.014	
Meeting lead standards	Capex	-	-	-	(0.147)	(0.147)	
Meeting lead standards	Opex	-	-	-	-	-	
Meeting lead standards	Totex	-	-	-	(0.147)	(0.147)	
Addressing raw water deterioration	Capex	-	-	0.145	-	0.145	
Addressing raw water deterioration	Opex	0.417	-	0.025	0.199	1.041	
Addressing raw water deterioration	Totex	0.417	-	0.025	0.344	1.186	
Improvements to river flow	Capex	0.920	-	-	-	0.920	
Improvements to river flow	Opex	-	-	-	-	-	
Improvements to river flow	Totex	0.920	-	-	-	0.920	
Enhancing resilience to low probability high consequence events	Capex	(0.026)	(0.005)	-	0.982	0.035	0.986
Enhancing resilience to low probability high consequence events	Opex	-	-	-	-	-	-
Enhancing resilience to low probability high consequence events	Totex	(0.026)	(0.005)	-	0.982	0.035	0.986
Security – Security and Emergency Measures Direction (SEMD)	Capex	-	-	-	0.073	-	0.073
Security – SEMD	Opex	-	-	-	-	-	-
Security – SEMD	Totex	-	-	-	0.073	-	0.073
Security – Non-SEMD	Capex	-	-	-	-	-	-
Security – Non-SEMD	Opex	-	-	-	-	-	-
Security – Non-SEMD	Totex	-	-	-	-	-	-
Total other enhancement expenditure	Totex	1.304	(0.005)	0.025	1.399	0.309	3.032
Total enhancement							
Total enhancement expenditure	Capex	5,480	0.791	-	2,844	26,905	36,020
Total enhancement expenditure	Opex	0.417	0.015	0.025	0.199	11,676	12,332
Total enhancement expenditure	Totex	5.897	0.806	0.025	3.043	38.581	48.352

4L – Enhancement expenditure for the 12 months ended 31 March 2022 – water resources and water network+ continued

		Cumulative expenditure on schemes completed in the report year					Total
		Water resources	Network+			Treated water distribution	
		£m	Raw water transport £m	Raw water storage £m	Water treatment £m		
Supply-demand balance							
Leakage improvements delivering benefits in 2020-2025	Capex	-	-	-	-	-	-
Leakage improvements delivering benefits in 2020-2025	Opex	-	-	-	-	-	-
Leakage improvements delivering benefits in 2020-2025	Totex	-	-	-	-	-	-
Total supply demand expenditure	Totex	-	-	-	-	-	-

Section 4 – Additional regulatory information – service level continued

4L – Enhancement expenditure for the 12 months ended 31 March 2022 – water resources and water network+ continued

		Cumulative expenditure on all schemes to reporting year end £m	Cumulative allowed expenditure on all schemes to reporting year end £m	Cumulative allowed expenditure on all schemes 2020-25 £m
EA/NRW environmental programme (WINEP/NEP)				
Ecological improvements at abstractions	Totex	1.831	7.294	21.580
Eels Regulations (measures at intakes)	Totex	-	-	-
Invasive Non Native Species	Totex	-	0.175	0.401
Drinking Water Protected Areas (schemes)	Totex	2.442	-	-
Water Framework Directive measure	Totex	11.356	39.770	103.234
Investigations	Totex	-	2.569	6.822
Total environmental programme expenditure	Totex	15.629	49.808	132.037
Supply-demand balance				
Supply-side improvements delivering benefits in 2020-2025	Totex	5.525	27.230	68.076
Demand-side improvements delivering benefits in 2020-2025 (excl leakage and metering)	Totex	6.689	-	-
Leakage improvements delivering benefits in 2020-2025	Totex	12.752	-	-
Internal interconnectors delivering benefits in 2020-2025	Totex	-	-	-
Supply demand balance improvements delivering benefits starting from 2026	Totex	-	-	-
Strategic regional water resources	Totex	5.836	15.823	90.417
Total supply demand expenditure	Totex	30.802	43.053	158.493
Metering				
Total metering expenditure	Totex	20.805	27.801	65.667
Other enhancement				
Improvements to taste, odour and colour	Totex	0.847	-	-
Meeting lead standards	Totex	1.615	3.653	9.134
Addressing raw water deterioration	Totex	2.637	2.857	3.266
Improvements to river flow	Totex	1.279	0.326	0.543
Enhancing resilience to low probability high consequence events	Totex	1.007	9.045	14.725
Security – SEMD	Totex	0.073	-	-
Security – Non-SEMD	Totex	-	-	-
Total other enhancement expenditure	Totex	7.458	15.881	27.668
Total enhancement expenditure	Totex	74.694	136.543	383.865

Table 4L details enhancement capital expenditure to deliver improvements to the supply/demand balance (both supply-side and demand-side), together with expenditure for strategic regional water resource options.

The table was populated by first identifying the relevant projects and then including all associated costs.

4N – Developer services expenditure for the 12 months ended 31 March 2022 – water resources and water network+ [price control]

	Capex £m	Opex £m	Totex £m
New connections	-	10.273	10.273
Requisition mains	8.056	-	8.056
Infrastructure network reinforcement	6.727	-	6.727
s185 diversions	0.839	-	0.839
Other price controlled activities	-	-	-
Total developer services expenditure	15.622	10.273	25.895

4P – Expenditure on non-price control diversions for the 12 months ended 31 March 2022

	Water resources £m	Water network+ £m	Total £m
Totex			
Costs associated with New Road and Street Works Act (NSWRA) diversions	-	0.162	0.162
Costs associated with other non-price control diversions	18.077	(1.126)	16.951
Other developer services non-price control totex	-	-	-
Developer services non-price control totex	18.077	(0.964)	17.113

All the expenditure included in the table above is capex, and is included within the Developer Services capital expenditure line within table 4D. None of the expenditure included in the table above is opex. Affinity Water Limited

Section 4 – Additional regulatory information – service level continued

4Q – Developer services – New connections, properties and mains

	Total number
Connections volume data	
New connections (residential – excluding NAVs)	12,104
New connections (business – excluding NAVs)	396
Total new connections served by incumbent	12,500
New connections – SLPs	2,932
Properties volume data	
New properties (residential – excluding NAVs)	11,630
New properties (business – excluding NAVs)	394
Total new properties served by incumbent	12,024
New residential properties served by NAVs	644
New business properties served by NAVs	-
Total new properties served by NAVs	644
Total new properties	12,668
New properties – SLP connections	1,990
New water mains data	
Length of new mains (km) – requisitions	16
Length of new mains (km) – SLPs	27

Length of new mains (km) – requisitions

We wish to restate the 2020/21 figure for this line. The revised length is 17.6km (reported in our Annual Performance Report 2020/21 as 18.2km). The adjustment is due to detailed 'as-laid' drawings, which confirm lengths laid, not being received until after the date by which figures for the Annual Performance Report 2020/21 were calculated.

Length of new mains (km) – SLPs

We wish to restate the 2020/21 figure for this line. The revised length is 21.3km (reported in our Annual Performance Report 2020/21 as 13.8km). The adjustment is due to detailed 'as-laid' drawings, which confirm lengths laid, not being received from SLPs until after the date by which figures for the Annual Performance Report were calculated.

While some adjustment of lengths reported previously may be necessary in any year, difficulties arising from Covid-19 restrictions contributed to the delays in the collation and handover of 'as-laid' details.

4R – Connected properties, customers and population

	Units	Unmeasured	Measured	Total	Voids
Customer numbers – average 2021/22					
Residential water only customers	000s	513.156	904.046	1,417.202	32.847
Residential wastewater only customers	000s	-	-	-	-
Residential water and wastewater customers	000s	-	-	-	-
Total residential customers	000s	513.156	904.046	1,417.202	32.847
Business water only customers	000s	8.159	53.220	61.379	11.017
Business wastewater only customers	000s	-	-	-	-
Business water and wastewater customers	000s	-	-	-	-
Total business customers	000s	8.159	53.220	61.379	11.017
Total customers	000s	521.315	957.266	1,478.581	43.864
Property numbers – average 2021/22					
Residential properties billed	000s	513.156	904.046	1,417.202	
Residential void properties	000s	-	-	32.847	
Total connected residential properties	000s	-	-	1,450.049	
Business properties billed	000s	8.159	53.220	61.379	
Business void properties	000s	-	-	11.017	
Total connected business properties	000s	-	-	72.396	
Total connected properties	000s	-	-	1,522.445	

Section 4 – Additional regulatory information – service level continued

4R – Connected properties, customers and population continued

Property and meter numbers - at end of year [31st March]	Unmeasured					Total
	No meter	Basic meter	AMR meter	AMI meter [capable]	AMI meter [active]	
Total new residential properties connected in year	0.899	-	-	-	-	0.899
Total number of new business properties connections	0.002	-	-	-	-	0.002
Residential properties billed at year end	429.105	0.174	73.052	-	-	502.331
Residential properties unbilled at year end	-	-	-	-	-	-
Residential void properties at year end	-	-	-	-	-	17.912
Total connected residential properties at year end	-	-	-	-	-	520.243
Business properties billed at year end	8.244	0.002	-	-	-	8.246
Business properties unbilled at year end	-	-	-	-	-	-
Business void properties at year end	-	-	-	-	-	1.393
Total connected business properties at year end	-	-	-	-	-	9.639
Total connected properties at year end	-	-	-	-	-	529.882

Property and meter numbers - at end of year [31st March]	Measured					Total
	No meter	Basic meter	AMR meter	AMI meter [capable]	AMI meter [active]	
Total new residential properties connected in year	-	0.682	15.337	-	-	16.019
Total number of new business properties connections	-	0.001	0.127	-	-	0.128
Residential properties billed at year end	-	587.527	337.520	-	-	925.047
Residential properties unbilled at year end	-	-	-	-	-	-
Residential void properties at year end	-	-	-	-	-	12.260
Total connected residential properties at year end	-	-	-	-	-	937.307
Business properties billed at year end	0.001	43.880	9.356	-	-	53.237
Business properties unbilled at year end	-	-	-	-	-	-
Business void properties at year end	-	-	-	-	-	9.135
Total connected business properties at year end	-	-	-	-	-	62.372
Total connected properties at year end	-	-	-	-	-	999.679

4R – Connected properties, customers and population continued

Property and meter numbers - at end of year [31st March]	Unbilled		
	Uneconomic to bill	Other	Total
Total new residential properties connected in year	-	-	-
Total number of new business properties connections	-	-	-
Residential properties billed at year end	-	-	-
Residential properties unbilled at year end	24.868	-	24.868
Residential void properties at year end	-	-	-
Total connected residential properties at year end	-	-	24.868
Business properties billed at year end	-	-	-
Business properties unbilled at year end	-	0.060	0.060
Business void properties at year end	-	-	-
Total connected business properties at year end	-	-	0.060
Total connected properties at year end	24.868	0.060	24.928

Property and meter numbers - at end of year [31st March]	Totals			Grand Total
	Unmeasured	Measured	Unbilled	
Total new residential properties connected in year	0.899	16.019	-	16.918
Total number of new business properties connections	0.002	0.128	-	0.130
Residential properties billed at year end	502.331	925.047	-	1,427.378
Residential properties unbilled at year end	-	-	24.868	24.868
Residential void properties at year end	17.912	12.260	-	30.172
Total connected residential properties at year end	520.243	937.307	24.868	1,482.418
Business properties billed at year end	8.246	53.237	-	61.483
Business properties unbilled at year end	-	-	0.060	0.060
Business void properties at year end	1.393	9.135	-	10.528
Total connected business properties at year end	9.639	62.372	0.060	72.071
Total connected properties at year end	529.882	999.679	24.928	1,554.489

	Units	Water
Population data		
Resident population	000s	3,921.772
Non-resident population [wastewater]	000s	-

	Units	Resident population	Non-resident population	Total
Household population data				
Household population	000s	3,868.572	-	3,868.572
Measured household population [water only]	000s	2,260.101	-	2,260.101
Unmeasured household population [water only]	000s	1,608.471	-	1,608.471

Total business properties

The overall number of business properties has reduced from 2020/21, as we have undertaken more investigation work around properties which have not had meter reads taken since prior to the market opening in April 2017. These have proven to be where either the property has been demolished or has been converted into residential properties.

While the overall number of business properties is falling, we have seen an increase in the number of unmeasured properties billed. This is due to a project we have undertaken with a third party to visit all our vacant business properties and provide detailed information as to the current occupation of the property. This information is then shared with the relevant retailer, who use it to bring the property into charge.

Section 4 – Additional regulatory information – service level continued

4R – Connected properties, customers and population continued

Total number of new business properties connections

The number of billed new connections has dropped from 2020/21's figure of 148 to 130, however the overall number of new connections including voids has increased from 253 to 282. This reflects one of the issues around the non-household market, namely that the time to get a property into charge from being added to the system takes much longer than the household equivalent. As the line definition here is based on new properties both connected and billed in 2021/22, more than 50% of the actual number of new properties connected are not included in the line.

Residential properties unbilled at year end

24,868 properties have been identified as being uneconomical to bill, and excluded from void calculations.

These are properties that are listed as being billed as a measured property and have an occupancy status of empty/no named customer listed as bill payer in the billing system, where meter reads show that the consumption going through the meter is equal to or less than 5m³. The annual average equivalent used in annual average voids calculations is 26,093. There are no 'other' unbilled properties recorded.

Business properties unbilled at year end

During 2021/22, we have seen an increase in retailers disconnecting customers temporarily for non-payment, rising from 24 in April 2021 to 60 in March 2022. We have reported these 60 properties as 'unbilled – other' at year end, as they do not fit in the uneconomical to bill category. The annual average equivalent number is 47.

Total connected properties – exclusion of cattle trough supplies

In accordance with the new RAG 4.10 guidance, we have removed from the count of total connected properties supplies that are recorded in our billing system as being to a cattle trough. This is a total of 138 connections, all of which are in the 'business' category:

Occupied measured properties excluded as cattle troughs	100
Occupied unmeasured properties excluded as cattle troughs	4
Void properties excluded as cattle troughs	34

Apart from reference to the calculation of supply interruptions, the logic for requiring the removal of this category from the count of overall properties and other supplies is not clear. Water is being consumed but they are no longer identified in the overall count of connections and therefore total connections are no longer reported.

Population

We have purchased from CACI Limited an annual population data update. The data set contained estimates for household, non-household (or communal population), and 'hidden' and 'transient' population estimates. The data sources used for the assessment of household and non-household population are:

Data (England)	Source
Population:	
2019 Local Authority Population Mid-Year Estimates	ONS
2019 LSOA Population Mid-Year Estimates	ONS
2018-2043 2018-based Local Authority Population Projections	ONS
2019-2069 2018-based Principal National Population projections	ONS
2011 Census OA split between communal and household population	ONS
Households:	
2019-2043 2018-based Local Authority Household Projections	ONS
2011 LSOA Census population and households	ONS

The methodology used is as follows:

1. The 2011 census postcode head-count datasets are used to make initial estimate in each postcode.
2. Postcode and Public Audit Forum (PAF) change data are then applied to all postcodes and estimates are rolled forward.
3. ONS Mid-year estimates at Super Output Area level, apply PAF changes year-on-year.
4. Transfer postcode base estimates to most up-to-date geographies. Postcode populations are scaled to match the Local Authority/Unitary Authority projections. By comparison of PAF year-on-year, an estimate is made of the proportion of change in a postcode which is due to communal population, and the proportion due to change of population in households.
5. From postcode link to Water Resource Zone shapes which Affinity Water provided to CACI Limited (04/10/2021), to derive the (Water Resources Zone) WRZ population figures.

4R – Connected properties, customers and population continued

Population continued

An adjustment is made to account for the hidden and transient population. This adjustment includes an estimate for:

1. Short-term residents – Anyone living in England and Wales who was born outside the UK and who intended to stay for a period of between 3 and 12 months, for any reason
2. Second address within the Affinity Water operating area – An address at which a person stays for more than 30 days per year that is not a person's place of usual residence
3. Irregular migrants – The term 'irregular migrants' typically refers to the stock of migrants in a country who are not entitled to reside there, either because they have never had a legal residence permit or because they have overstayed their time-limited permit

Data from our Geographical Information Systems (GIS) is used to make adjustments for:

1. Inclusion of fringe supplies to properties sitting outside the Affinity Water boundary but supplied by Affinity Water.
2. Exclusion of properties supplied from a private well.
3. Exclusion of NAV-supplied properties.

To split out this household population between measured and unmeasured, the following steps are taken:

1. Property numbers are provided by our water balance team.
2. The occupancy rates are multiplied by the number of measured and unmeasured properties at a resource zone level.
3. The results are reconciled with the total household population generated, including hidden and transient populations, thereby maintaining the ratio of measured to unmeasured population numbers through proportionate adjustments.

Section 5 – Additional regulatory information – water resources

5A – Water resources asset and volumes data for the 12 months ended 31 March 2022

Water resources	Units	Input
Water from impounding reservoirs	MI/d	1.07
Water from pumped storage reservoirs	MI/d	24.64
Water from river abstractions	MI/d	291.24
Water from groundwater works excluding managed aquifer recharge (MAR) water supply schemes	MI/d	602.22
Water from artificial recharge (AR) water supply schemes	MI/d	-
Water from aquifer storage and recovery (ASR) water supply schemes	MI/d	-
Water from saline abstractions	MI/d	-
Water from water reuse schemes	MI/d	-
Number of impounding reservoirs	Nr	2
Number of pumped storage reservoirs	Nr	2
Number of river abstractions	Nr	3
Number of groundwater works excluding managed aquifer recharge (MAR) water supply schemes	Nr	113
Number of artificial recharge (AR) water supply schemes	Nr	-
Number of aquifer storage and recovery (ASR) water supply schemes	Nr	-
Number of saline abstraction schemes	Nr	-
Number of reuse schemes	Nr	-
Total number of sources	Nr	120
Total number of water reservoirs	Nr	4
Total volumetric capacity of water reservoirs	MI	3,776
Total number of intake and source pumping stations	Nr	119
Total installed power capacity of intake and source pumping stations	kW	16,101
Total length of raw water abstraction mains and other conveyors	Km	0.96
Average pumping head – raw water abstraction	m.hd	17.59
Energy consumption – water resources (MWh)	MWh	32,083.000
Total number of raw water abstraction imports	Nr	-
Water imported from 3rd parties to raw water abstraction systems	MI/d	-
Total number of raw water abstraction exports	Nr	-
Water exported to 3rd parties from raw water abstraction systems	MI/d	-
Water resources capacity (measured using water resources yield)	MI/d	1,030.76

Volumes abstracted

The volume of water abstracted, and raw water imported, reduced compared to 2020/21 in line with the reduction in Distribution Input. This is the result of progressive easing of COVID-19 restrictions and summer 2021 being notably cooler and wetter than that in 2020.

Number of impounding reservoirs

As in previous years, we have classified Heron Lake and Queensmead Lake as impounding reservoirs. We consider this the most appropriate category for these sources, although they do not strictly fall into that classification.

Number of pumped storage reservoirs

We classify our Chertsey works' river volume as pumped storage. The raw water reservoir receives water abstracted from the River Thames which is then pumped into the treatment works.

- Chertsey raw water reservoir storage capacity – 432.00MI
- Chertsey abstraction volume from river 2021/22 – 9,020.50MI
- Daily abstraction from river – 24.71MI/d
- Number of days of storage capacity for 2021/22 – 17.48 days

5A – Water resources asset and volumes data for the 12 months ended 31 March 2022 continued

Number of groundwater works

The number of groundwater works has reduced by one from 2020/21, as we are no longer abstracting from the Chesham site.

Total installed power capacity of intake and source pumping stations

The overall capacity of intake and source pumping stations increased in 2021/22. Although our Chesham source has now been turned off, there have been several pump replacements at Amersham and The Grove which have increased the capacity. There will always be a slight capacity fluctuation each year as kW ratings that are split across price controls will not have exactly the same Average Pumping Head (APH) percentage each year.

Total length of raw water abstraction mains and other conveyors

Following an internal review, we have included in this line the balancing main from Heron Lake to Queensmead (length 0.96km). We previously reported zero km in this line.

Average pumping head – raw water abstraction

The percentage of total lift at site/pump group level is derived from telemetry output and has been calculated using verified annual abstraction volumes (wherever in context with abstraction source pumps) from 2021/22, which decreased by 39.6 MI/d (total 910.31 MI/d) in comparison with 2020/21 APH abstraction volumes.

The main reasons for the decrease in APH abstraction value are:

- The need to abstract and treat less after Covid-19 lockdown;
- Further decommissioning of sites as part of the Sustainability Reductions project (launched in 2017); and
- The existence of malfunctioning source pump sets on sites.

Despite the slight decrease of abstracted water volume, our Annual Performance Report 2021/22 calculated weighted average pumping head for 'raw water abstraction' increased from 16.99 to 17.59 MI/d.

This 2021/22 rise in raw water abstraction meter head still falls into line with the reported values for our Annual Performance Report 2021/22 forecast, and it is not considered to be exceptional assuming that the abstracted volume reduction might have caused a moderate inefficiency of operating pumps across the business.

The percentage of measured data across the entire company for Raw Water Abstraction price control area was 76.8% (regarding 132 pump sets in total), which is to some degree under the expected average 80% threshold bar for all the price control areas.

For that reason, estimations were made on missing or insufficient data available. The estimation method for pressure data for the price control included using previous years' static head, deducted manufacturer duty heads or accepting 2020/21 models, where there was no evidence of radical interventions at sites/pump sets. Estimations were also made on flow data, where the assessment was about proportionally splitting the validated sum flow data between high and low pressure streams of the same site/pumping group. Increasing the ratio of actual telemetry data used at this price control area therefore will become part of our continuous improvement activities for the upcoming years, where investments in new telemetry measure points will be reviewed closely from this aspect as well.

In Brett (East) region we have not reported any pumped storage volumes from Ardleigh Reservoir. As agreed previously with Ofwat, volumes will be reported by the Ardleigh Reservoir Committee as the licence holder, rather than by Affinity Water and Anglian Water. However, this does not impact on the pumps associated with Ardleigh Reservoir and their head calculation remains part of the APH model for 'treated water distribution'.

Number of raw water abstraction imports and exports

We do not have any raw water abstraction imports or exports.

Section 5 – Additional regulatory information – water resources continued

5B – Water resources operating cost analysis for the 12 months ended 31 March 2022

	Impounding Reservoir £m	Pumped Storage £m	River Abstractions £m	Ground-water, excluding MAR water supply schemes £m	Artificial Recharge (AR) water supply schemes £m	Aquifer Storage and Recovery (ASR) water supply schemes £m	Other £m	Total £m
Power	0.006	0.127	1.502	3.106	-	-	-	4.740
Income treated as negative expenditure	-	-	-	-	-	-	-	-
Abstraction charges / discharge consents	0.005	0.108	1.280	2.648	-	-	-	4.041
Bulk supply	0.001	0.032	0.380	0.786	-	-	-	1.200
Other operating expenditure								
Renewals expensed in year (Infrastructure)	-	-	-	-	-	-	-	-
Renewals expensed in year (Non-infrastructure)	-	-	-	-	-	-	-	-
Other operating expenditure excluding renewals	0.007	0.166	1.963	4.059	-	-	-	6.196
Local authority and Cumulo rates	0.002	0.053	0.625	1.293	-	-	-	1.973
Total operating expenditure (excluding 3rd party)	0.021	0.487	5.751	11.891	-	-	-	18.150

Section 6 – Additional regulatory information – water network plus

6A – Raw water transport, raw water storage and water treatment data for the 12 months ended 31 March 2022

Raw water transport and storage	Units	Input
Total number of balancing reservoirs	Nr	3
Total volumetric capacity of balancing reservoirs	MI	133
Total number of raw water transport stations	Nr	36
Total installed power capacity of raw water transport pumping stations	kW	9200
Total length of raw water transport mains and other conveyors	Km	200.20
Average pumping head – raw water transport	m.hd	19.84
Energy consumption – raw water transport (MWh)	MWh	36188
Total number of raw water transport imports	Nr	1
Water imported from 3rd parties to raw water transport systems	MI/d	4.48
Total number of raw water transport exports	Nr	-
Water exported to 3rd parties from raw water transport systems	MI/d	-
Total length of raw and pre-treated (non-potable) water transport mains for supplying customers	km	36.53

Water treatment – treatment type analysis	Surface water		Ground water	
	Water treated MI/d	Number of works	Water treated MI/d	Number of works
All simple disinfection works	-	-	16.29	4
W1 works	-	-	-	-
W2 works	-	-	16.93	6
W3 works	-	-	10.58	4
W4 works	1.90	-	303.04	57
W5 works	380.96	5	206.65	15
W6 works	-	-	-	-

Water treatment – works size	% of total DI	Number of works
WTWs in size band 1	2.6	21
WTWs in size band 2	4.0	17
WTWs in size band 3	12.4	26
WTWs in size band 4	9.9	11
WTWs in size band 5	18.4	10
WTWs in size band 6	10.0	3
WTWs in size band 7	-	-
WTWs in size band 8	42.7	3

Section 6 – Additional regulatory information – water network plus continued

6A – Raw water transport, raw water storage and water treatment data for the 12 months ended 31 March 2022 continued

Water treatment – other information	Units	Input
Total water treated at more than one type of works	Ml/d	-
Number of treatment works requiring remedial action because of raw water deterioration	Nr	7
Zonal population receiving water treated with orthophosphate	000's	2,971.798
Average pumping head – water treatment	m.hd	12.74
Energy consumption – water treatment (MWh)	MWh	23,232
Total number of water treatment imports	Nr	-
Water imported from 3rd parties to water treatment works	Ml/d	-
Total number of water treatment exports	Nr	-
Water exported to 3rd parties from water treatment works	Ml/d	-

Total number of balancing reservoirs

We include Walton settling reservoirs (x2) in the count as they contain less than 15 days storage, as in the decision tree in RAG 4.09 Appendix 2 February 2021.

Eastbury raw water tank is also included as it contains raw water transported from four other sites as well as raw water from its own source, which is then transported to Clay Lane for treatment.

Total installed power capacity of raw water transport pumping stations

The overall capacity has increased in 2021/22. The Grove has larger pumps which are now responsible for raw water transport. Some of the raw water transport percentage allocation has increased from 2020/21 which has also resulted in an overall increase in the capacity. There will always be a slight capacity fluctuation each year as kW ratings that are split across price controls will not have exactly the same APH percentage each year.

Total length of raw water transport mains and other conveyors

The net reduction in length of around 5km from our Annual Performance Report 2020/21 is due to:

- The main from the Nomansland source to Sherrards Wood Reservoir changing from 'raw' to 'potable' due to new treatment processes.
- 0.96km for the balancing main between Heron Lake and Queensmead Lake is now reported in 5A.22.

Raw water transport

The percentage of raw water transport loss at site/pumping group level (where water abstraction site and water treatment works were not located at the same site) was calculated from telemetry output, pipework information from Infoworks, GIS and hydraulic models.

There was some marginal drop in APH raw water transport volumes in 2021/22, which decreased by 2,044.18 Ml in total since 2020/21. This reduction in APH raw water transport volume is much more a reflection of abstracting and treating less volume, rather than resulting from the continuous site categorisation exercise that we have been carrying out since our Annual Performance Report 2019/20.

The percentage of measured data for this price control area was 81.25% in 2021/22, which is adequate and above the desired average 80% of measured data ratio for all the price control areas. However, there were some estimations still necessary to make by proportionally splitting of validated sum flows between high and low pressure streams of the same pump sets and some models were accepted from 2020/21 on pressure data as well.

Number of raw water transport imports and exports

We have one raw water transport import, which is received from Thames Water into our Iver site for treatment. This is included in table 4A.

6A – Raw water transport, raw water storage and water treatment data for the 12 months ended 31 March 2022

continued

Numbers of treatment works

The following changes have been made to treatment site classifications during report year 2021/22:

- Amersham – Upgraded from GW4 (Ground Water) to GW5 as membrane filters have now been installed on site as part of HS2 project.
- Debden Road – Changed from GW5 to GW4 as the RO membranes on site have not been used for 18 months.
- Grove – Upgraded from GW3 to GW4 as UV treatment has now been installed on site as part of HS2 project.
- Northmoor – Upgraded from GW4 to GW5 as membrane filters have now been installed on site as part of HS2 project.
- Temple End – Upgraded from GW (SD) to GW4 as Granular Activated Carbon (GAC) filters have now been installed on site after pollution incident in 2021.
- West Hyde – Upgraded from GW4 to GW5 as membrane filters have now been installed on site as part of HS2 project
- Wadesmill Road – Changed from GW1 to GW2 following a technical review. The site has hypochlorite dosing and a contact tank as its treatment process, so could not be classified as marginal chlorination.
- We are no longer reporting the following sites as they have been out of action for a period and would need to undergo recommissioning works to be brought back into use:
 - Chesham (GW4) – Site offline since Aug 2020 as no longer needed.
 - Clandon (GW4) – The site has not run since Jan 2019 due to water quality issues and needs work to be undertaken to bring back into supply.

WTWs in size bands 1-8

The numbers in these lines have changed from our Annual Performance Report 2020/21 submission as we are now calculating the numbers in each band against peak week production capacity (to represent maximum production capacity) instead of distribution input, and no longer including bulk imports or bulk exports with the exception of export to South East Water as this is exported directly from Egham.

Number of treatment works requiring remedial action because of raw water deterioration

There are seven treatment works that require remedial action because of raw water deterioration. These are for metaldehyde at Iver, Egham, Chertsey, Walton, Ardleigh (DWI Ref AFW-2019-00002) and North Mymms (DWI Ref AFW-2020-00003), cryptosporidium at Iver (DWI Ref AFW-2020-00005) and Egham (DWI Ref AFW-20209-00006) and microbiological parameters at Windmill Hill (DWI Ref AFW-2021-00004). This is one more than in 2021 following the addition of Windmill Hill in December 2021.

Zonal population receiving water treated with orthophosphate

The number of orthophosphate dosing plants has remained the same and these plants are supplying the same water supply zones as in 2021.

Average pumping head – water treatment

The percentage allocation of treatment head loss at site/pumping group level has been calculated by static height differences or by deducting the 'Pressure available before treatment' from the 'Head available before distribution' values.

Using as much verified total lift and flow data as possible for abstraction or raw water transport price control areas, data thus also helps to indirectly validate the treatment losses for each site/pump sets. Although in 2021/22 there were some pumps added to the treatment price control area, the treatment loss volume in total stayed relatively the same when comparing with 2020/21 figures, increasing by 13.08 Ml/d.

The changes in the treatment price control area mainly concerned relift or interstage pumps, upstream at the treatment process as well as pressurising some of the contact/treated water reservoirs.

The proportion of measured data for this calculated treatment head losses was around 74.77% where the estimates were indirectly related to missing pressure data downstream at the process associated with raw water abstraction and transport price control areas. Therefore, the improvement activities around the measured data ratio for this price control areas would rather focus on raw water abstraction and transport assets than treatment assets.

Water treatment imports and exports

We do not have any water treatment imports or exports.

Section 6 – Additional regulatory information – water network plus continued

6B – Treated water distribution – assets and operations for the 12 months ended 31 March 2022

Assets and operations	Units	Input
Total installed power capacity of potable water pumping stations	kW	53,080
Total volumetric capacity of service reservoirs	Ml	1,526.4
Total volumetric capacity of water towers	Ml	37.8
Distribution input	Ml/d	936.35
Water delivered (non-potable)	Ml/d	0.89
Water delivered (potable)	Ml/d	837.31
Water delivered (billed measured residential properties)	Ml/d	334.40
Water delivered (billed measured business)	Ml/d	140.11
Total annual leakage	Ml/d	154.25
Distribution losses	Ml/d	98.26
Water taken unbilled	Ml/d	23.05
Proportion of distribution input derived from impounding reservoirs	Propn 0 to 1	0.001
Proportion of distribution input derived from pumped storage reservoirs	Propn 0 to 1	0.076
Proportion of distribution input derived from river abstractions	Propn 0 to 1	0.307
Proportion of distribution input derived from groundwater works, excluding managed aquifer recharge (MAR) water supply schemes	Propn 0 to 1	0.616
Proportion of distribution input derived from artificial recharge (AR) water supply schemes	Propn 0 to 1	-
Proportion of distribution input derived from aquifer storage and recovery (ASR) water supply schemes	Propn 0 to 1	-
Proportion of distribution input derived from saline abstractions	Propn 0 to 1	-
Proportion of distribution input derived from water reuse schemes	Propn 0 to 1	-
Total number of potable water pumping stations that pump into and within the treated water distribution system	Nr	276
Number of potable water pumping stations delivering treated groundwater into the treated water distribution system	Nr	82
Number of potable water pumping stations delivering surface water into the treated water distribution system	Nr	1
Number of potable water pumping stations that re-pump water already within the treated water distribution system	Nr	188
Number of potable water pumping stations that pump water imported from a 3rd party supply into the treated water distribution system	Nr	5
Total number of service reservoirs	Nr	109
Number of water towers	Nr	44
Energy consumption – treated water distribution (MWh)	MWh	145,796
Average pumping head – treated water distribution	m.hd	79.91
Total number of treated water distribution imports	Nr	13
Water imported from 3rd parties to treated water distribution systems	Ml/d	48.82
Total number of treated water distribution exports	Nr	15
Water exported to 3rd parties from treated water distribution systems	Ml/d	13.03

6B – Treated water distribution – assets and operations for the 12 months ended 31 March 2022 continued

Total installed power capacity of potable water pumping stations

The overall capacity has decreased in 2021/22. There is a new booster station at Mill Green and upgraded boosters at Woodlands Park. However, Rowley Lane booster station is now decommissioned, and Debden Road boosters are not operational. Also, there are some sources which no longer pump directly into distribution (Chesham, Amersham, West Hyde). There will always be a slight capacity fluctuation each year as kW ratings that are split across price controls will not have exactly the same APH percentage each year.

Total volumetric capacity of service reservoirs

The volumetric capacity has reduced by 2 Ml, from 1,528.4 Ml in 2020/21 to 1,526.4 Ml in 2021/22. Historically the capacities came from a range of sources with slightly different rounding or decimal places. This led to some inaccuracies which we have now resolved following an extensive review of our storage assets.

Total annual leakage

Commentary for leakage is given under 3A.

Total number of potable water pumping stations that pump into and within the treated water distribution system

This overall number has increased by two from our Annual Performance Report 2020/21 – see detail in paragraphs below.

Number of potable water pumping stations delivering treated groundwater into the treated water distribution system

This has increased by two from our Annual Performance Report 2020/21 submission, due to new boosters at Amersham and West Hyde.

Number of potable water pumping stations that re-pump water already within the treated water distribution system

This has decreased by one from our Annual Performance Report 2020/21 submission. Sundon booster station has been reclassified from 6B.23 to 6B.24, Mill Green is a new booster station in 2021/22 year and Rowley Lane booster station was removed from service.

Number of potable water pumping stations that pump water imported from a third party supply into the treated water distribution system

This has increased by one from our Annual Performance Report 2020/21 submission. Sundon reservoir is filled by water from Anglian therefore the booster pumps off the reservoir are for imported water, so this has been reclassified.

Total number of service reservoirs

The total number of service reservoirs has reduced by two. This is due to a more extensive review of our storage assets that identified Arkley Res 3 and Res 4 are one reservoir with two cells. Pin Green Reservoir 1 and 2 also has a dividing wall and is also one reservoir with two cells so our records have been amended accordingly.

Number of treated water distribution exports

This is an increase of seven from our Annual Performance Report 2020/21 due to bulk supplies to new NAV sites. We expect this number to increase further in 2022/23.

Section 6 – Additional regulatory information – water network plus continued

6C – Water network+ - Mains, communication pipes and other data for the 12 months ended 31 March 2022

	Units	Input
Treated water distribution – mains analysis		
Total length of potable mains as at 31 March	Km	16,912.0
Total length of potable mains relined	Km	-
Total length of potable mains renewed	Km	13.3
Total length of new potable mains	Km	58.1
Total length of potable water mains (≤320mm)	Km	15,615.3
Total length of potable water mains (>320mm and ≤ 450mm)	Km	618.3
Total length of potable water mains (>450mm and ≤610mm)	Km	496.3
Total length of potable water mains (> 610mm)	Km	182.0
Communication pipes		
Number of lead communication pipes	Nr	312,153
Number of galvanised iron communication pipes	Nr	246,362
Number of other communication pipes	Nr	512,074
Treated water distribution – mains age profile		
Total length of potable mains laid or structurally refurbished pre-1880	Km	76.9
Total length of potable mains laid or structurally refurbished between 1881 and 1900	Km	203.2
Total length of potable mains laid or structurally refurbished between 1901 and 1920	Km	611.0
Total length of potable mains laid or structurally refurbished between 1921 and 1940	Km	2,521.0
Total length of potable mains laid or structurally refurbished between 1941 and 1960	Km	3,870.3
Total length of potable mains laid or structurally refurbished between 1961 and 1980	Km	3,722.8
Total length of potable mains laid or structurally refurbished between 1981 and 2000	Km	2,754.9
Total length of potable mains laid or structurally refurbished post 2001	Km	3,151.8
Other		
Company area	km ²	4,515
Number of lead communication pipes replaced for water quality	Nr	636
Compliance Risk Index	Nr	0.87
Event Risk Index	Nr	150

Total length of potable mains

The length includes 6km of pipe which was changed in the reporting year from raw to potable water main.

Total length of new potable mains

We wish to restate the 2020/21 figure for this line. The revised length is 45.8km (reported in our Annual Performance Report 2020/21 as 38.9km). This aligns with the revised lengths given in 4Q.13 and 4Q.14. The adjustment is due to detailed 'as-laid' drawings, which confirm lengths laid, not being received until after the date by which figures for the Annual Performance Review for 2020/21 were calculated.

Mains (>320mm and ≤ 450mm)

The length includes 6km of pipe which was changed in the reporting year from raw to potable water main.

6C – Water network+ - Mains, communication pipes and other data for the 12 months ended 31 March 2022 continued

Company area

We have given in the table below the company area inclusive of NAVs. The area excluding NAVs is 4,510km².

Below is a breakdown of the adjustment made to exclude NAVs:

NAV name	NAV location	Area km ²
Bidwell	Houghton Regis [Central]	1.99
Bishops Stortford North	Bishops Stortford [Central]	1.16
Martello Lakes	Hythe [Southeast]	0.46
Wilton Park	Beaconsfield [Central]	0.40
Gade Valley Close	Kings Langley [Central]	0.19
Oakwood Park	Clacton-on-Sea [East]	0.12
Archers Court [Richmond Way]	Whitfield [Southeast]	0.11
Former Nestle Site	Hayes [Central]	0.07
West Road	Sawbridgeworth [Central]	0.06
Barnfield Avenue	Luton [Central]	0.04
Hadham Road [Silver Leys]	Bishops Stortford [Central]	0.04
Total		4.64 km²

Number of lead communication pipes replaced for water quality

Our AMP7 lead communication and supply pipe replacement programme in north Clacton and the surrounding area started during 2021/22 and we replaced 81 lead communication pipes. Currently, DWI has not issued us with a legally binding instrument of works for this programme.

In 2021/22 we continued to identify lead communication pipe replacements from our works management system (Maximo) where the customer has replaced their lead supply pipe and has requested that we replace our lead communication pipe. A significant number of these customer contacts were initiated because of 'flow/pressure' issues but were then processed under Regulation 30(1); where, if the customer replaces their lead supply pipe, we are obliged to replace the communications pipe if it is lead. Consequently, we have included 533 of these communication pipe replacements in this line.

The last element included in the reported number for this line is lead communication pipes replaced after detecting elevated concentrations of lead in samples taken from properties. During 2021/22 we started replacing lead communication pipes when sample results were above 5 ug/l but for the purposes of this line we have only included those communication pipes replaced when sample results were above 10 ug/l, as required by the line definition. We replaced 22 lead communication pipes following results above 10 ug/l. This gives a total of 636 lead communication pipes replaced for water quality reasons. In addition, we also replaced 43 lead communication pipes where a sample result was between 5 ug/l and 10 ug/l, in line with our strategy.

Compliance Risk Index

Commentary for CRI is given under 3A.

Event Risk Index (ERI)

Our (provisional) ERI score for 2021 was 150.384. We had 13 events which were reported to DWI, three of which - the cessation of softening at Debden Road WTW, a taste/odour event in Hitchin and the detection of Enterococci in a sample from Egham WTW - were the largest contributors to our ERI score. The score was above the 2020 level (24.181) but in line with previous years' scores and well below the national industry average of 524.379.

DWI has provided our provisional ERI score for 2021 but we await final confirmation as events can take time to assess. There are seven events from 2021 that DWI have yet to fully assess, however we are not expecting a change to the figures.

Our ERI 2020 score was amended upwards by DWI from 19 (as given in our Annual Performance Report 2020/21) to 24. This was following the completion of their assessment of the event regarding elevated turbidity in the water leaving Batchworth WTW in December 2020.

Section 6 – Additional regulatory information – water network plus continued

6D – Demand management – Metering and leakage activities for the 12 months ended 31 March 2022

	Units	Basic meter	AMR meter	AMI meter
Metering activities – Totex expenditure				
New optant meter installation for existing customers	£m	-	-	1.389
New selective meter installation for existing customers	£m	-	-	12.737
New business meter installation for existing customers	£m	-	-	-
Residential meters renewed	£m	-	-	1.693
Business meters renewed	£m	-	-	0.139
Metering activities – Explanatory variables				
New optant meters installed for existing customers	000s	-	4.503	-
New selective meters installed for existing customers	000s	-	50.374	-
New business meters installed for existing customers	000s	-	0.051	-
Residential meters renewed	000s	-	11.585	-
Business meters renewed	000s	0.013	0.935	-
New residential meters installed for existing customers – supply-demand balance benefit	Ml/d	-	2.98	-
New business meters installed for existing customers – supply-demand balance benefit	Ml/d	-	(0.01)	-
Residential meters renewed – supply-demand balance benefit	Ml/d	-	(0.54)	-
Business meters renewed – supply-demand balance benefit	Ml/d	-	0.16	-
Residential properties – meter penetration	%	41.2	23.6	-

	Units	Maintaining leakage	Reducing leakage	Total
Leakage activities – Totex expenditure				
Total leakage activity	£m	6.882	12.315	19.197
Leakage improvements delivering benefits in 2020-25	Ml/d	-	-	17.19

	Units	Total
Per capita consumption (excluding supply pipe leakage)		
Per capita consumption (measured)	l/h/d	138.56
Per capita consumption (unmeasured)	l/h/d	185.13

Metering activities

We have not installed any Automated Metering Infrastructure (AMI) meters, i.e., meters capable of using 'smart' metering technologies. Wherever possible we install Automated Meter Reading (AMR) meters. With AMR meters, we can obtain a reading from the meter by walking or driving past the property, without the need to lift a cover or enter the property. This makes meter reading more efficient. These meters do not have any 'smart metering' capability.

Leakage activities

See commentary under table 3A for our leakage performance in 2021/22. Activities included within the £6,882,000 maintaining leakage total are for surveys undertaken in 2021/22, stop-tap fitting, major fitting sounding, acoustic sound logging and enforced and free customer repairs.

6D – Demand management – Metering and leakage activities for the 12 months ended 31 March 2022 continued

Business meters renewed

All meter renewals delivered in 2021/22 are the result of requests from retailers, customers or internal recommendations, rather than a dedicated renewal programme.

New residential meters installed for existing customers – supply-demand balance benefit

The supply-demand benefits for new residential meters installed have been calculated using the average savings of Water Saving Programme (WSP) customers who have previously had a meter installed and have switched to a metered tariff in the reporting period 2021/22. Meter read data was analysed, with the switch date as the pseudo 'installation date'. The sample size of customers who have switched to a metered tariff between 2017 and March 2022 is 39,587. The savings for these customers was then extrapolated by the number of new meter installations (both selective and optants) for the year (54,877 in total), taking into account the meter install date.

The benefits associated with new residential meter installations were determined using our PCC models. These models remove the effect on consumption of seasonality and Covid-19, enabling month-by-month comparisons in a fair and reliable way. Savings were calculated for new meter installations and meter replacements by comparing at a property level the median consumption prior to the installation and the median consumption after the installation.

New business meters installed for existing customers – supply-demand balance benefit

Due to the relatively small number of meters involved, we increased the sample size for the analysis of benefits by including meters for two years (2020/21 and 2021/22). The savings were then extrapolated for the number of new meter installations in report year 2021/22.

Non-household consumption was analysed using a similar approach to that previously explained. To calculate the consumption of newly metered businesses, the unmeasured use of these customers was compared to the metered use, while also using the PCC models to account for weather, seasonality, and Covid-19 effects.

While this figure was positive in 2020/21 (0.131 Ml/d), the small volume of new business meter installations means that it may change from positive to negative year on year.

Residential meters renewed – supply-demand balance benefit

The supply-demand benefit for residential meter replacements was calculated using pre and post renewal meter reads data. The figure was then adjusted for seasonality and weather changes, as well as being passed through our Covid-19 impact model, to account for changes in customer behaviour due to lockdowns and subsequent easing of restrictions.

Business meters renewed – supply-demand balance benefit

The benefit has been calculated in the same way as described for residential meters above.

Section 6 – Additional regulatory information – water network plus continued

6F – WRMP annual reporting on delivery – non-leakage activities

Activity – Classification	Delivery year (in use)	2020/21	2021/22	2022/23	2023-24	2024-25	After 2024-25
Capital expenditure							
AFF-CTR-WRZ4-4001: Egham to Iver – Internal interconnectors delivering benefits in 2020-2025	2023/24	-	0.121	1.331	1.200	0.742	-
AFF-RTR-WRZ7-0639: Deal Continuation After 2020 – Supply-side improvements delivering benefits in 2020-2025	2020/21	-	-	-	-	-	-
Sundon – Supply-side improvements delivering benefits in 2020-2025	2023/24	0.396	3.996	5.611	3.580	0.076	-
Customer side demand – Demand-side improvements delivering benefits in 2020-2025 [excl leakage and metering]	2020-25	1.641	5.191	6.000	5.300	5.000	-
Total		2.037	9.308	12.942	10.080	5.818	-
Opex costs							
AFF-CTR-WRZ4-4001: Egham to Iver – Internal interconnectors delivering benefits in 2020-2025	2023/24	-	-	-	0.136	0.272	0.272
AFF-RTR-WRZ7-0639: Deal Continuation After 2020 – Supply-side improvements delivering benefits in 2020-2025	2020/21	-	-	-	-	-	-
Sundon – Supply-side improvements delivering benefits in 2020-2025	2023/24	-	-	-	0.278	1.112	1.112
Customer side demand – Demand-side improvements delivering benefits in 2020-2025 [excl leakage and metering]	2020-25	0.024	1.045	1.300	1.300	1.300	-
Total		0.024	1.045	1.300	1.714	2.684	1.384
Benefits							
AFF-CTR-WRZ4-4001: Egham to Iver – Internal interconnectors delivering benefits in 2020-2025	2023/24	-	-	-	17.00	17.00	17.00
AFF-RTR-WRZ7-0639: Deal Continuation After 2020 – Supply-side improvements delivering benefits in 2020-2025	2020/21	0.07	0.07	0.07	0.07	0.07	0.07
Sundon – Supply-side improvements delivering benefits in 2020-2025	2023/24	-	-	-	41.00	41.00	41.00
Customer side demand – Demand-side improvements delivering benefits in 2020-2025 [excl leakage and metering]	2020-25	0.56	21.16	51.96	81.91	91.76	-
Total		0.63	21.23	52.03	139.98	149.83	58.07

Activity – Classification	Delivery use (in year)	Length (km)	Diameter (mm)	Pipe material	Pumping capacity installed (kW)	Storage capacity installed (m3)
AFF-CTR-WRZ4-4001: Egham to Iver – Internal interconnectors delivering benefits in 2020-2025	2023/24	N/A	N/A	N/A	747	N/A

6F – WRMP annual reporting on delivery – non-leakage activities continued

Internal interconnectors delivering benefits in 2020-2025

We have one scheme, AFF-CTR-WRZ4-4001: Egham to Iver, which is captured under this category. This is for the installation of a new booster pump to enable an additional 17Ml/d to be transferred from our Wey community to Pinn community. The scheme is still in the concept phase and has recently gone out for tender for the build and design contract.

- Capex: The reported capex for 2021/22 is based on actual spend. Future capex expenditure has been estimated based on the project cashflow forecast. This will be further refined as it moves into the next phase of the project and we have the detailed proposal from the design and build contract.
- Opex: Expenditure has been based on an initial assessment reported carried out by external advisors, Stantec. This estimate has been used to forecast the future annual opex expenditure. The scheme is expected to be delivered in October 2023 so the opex has been applied on a pro-rata basis for that year.
- Benefit: The scheme will enable us to transfer 17Ml/d at average and up to 30Ml/d at peak. For the purpose of reporting, the annual average capacity has been used.
- Interconnector: There is existing pipe infrastructure, but this scheme is to install a booster pump so that we can increase the capacity that can be transferred. Therefore, there is no new pipe or storage capacity. The pumping capacity to be installed is based on the assessment carried out by Stantec.

Supply-side improvements delivering benefits in 2020-2025

We have two schemes that fall within this category, Sundon conditioning plant and the continuation of the Deal transfer agreement.

AFF-RTR-WRZ7-0639: Deal Continuation After 2020. This is the continuation of an existing bulk transfer agreement. The transfer agreement only entitles us to use it under emergency conditions and therefore it does not have an associated opex cost. As there is no new infrastructure required, there are also no capex costs associated with the scheme. The benefits have been included for all years at 0.07Ml/d as per the terms of the agreement.

Sundon conditioning plant refers to the work required to upgrade the existing conditioning plant at Sundon, with the upgraded plant scheduled to become operational in 2024/25. The project will remove water quality constraints that currently prevent the full use of our bulk import from Anglian Water into WRZ3, enabling us to increase our use of the Anglian Water Grafham bulk supply up to its full 91Ml/d capacity [pre climate change impact], which is currently capped at 50 Ml/d.

- Capex: The reported capex for 2021/22 is actual expenditure. Future capex expenditure has been estimated based on the current forecast and is in line with the project cost report
- Opex: Based on an estimation by our contractor at the time of tender. It is based on an average flow of 50Ml/d and average chemical dose. As well as the increase in opex due to the conditioning process, the figure also accounts for increase in use of the import by 33 Ml/d with a use factor of 0.1 to reflect additional need under dry year conditions. The plant is due to become operational by January 2024 therefore, a quarter of the opex increase has been applied for 2023/24.
- Benefit: The design maximum flow for the conditioning plant will be 109Ml/d which is our maximum entitlement for the Grafham import via Sundon. The annual average entitlement is 91Ml/d. Within the WRMP we capped current use to 50Ml/d therefore the benefit has been assumed to be 41Ml/d to enable us to use the full annual average license.
- This scheme is not an internal interconnector, so the final set of columns have not been completed.

Supply-side improvements delivering benefits starting from 2026

We have no schemes included under this category.

Demand-side improvement delivering benefits in 2020-25 (excluding leakage and metering)

We have worked continuously to reduce overall demand throughout the year via water efficiency device installation and innovative behavioural change campaigns. We have developed water sector, national and community partnerships to support the delivery of our challenging demand reduction target. These partnerships have allowed us to target our demand reduction campaigns, intervention and support to specific communities and geographies.

In total, we have achieved savings for demand-side improvements for 2021/22 of 21.6 Ml/d. Please refer to our PCC commentary on page 68 for more information.

Schemes not included in Table 6F

We had three schemes in our WRMP19 which have not been captured within this table. Two of which sit within our WRZ7/ Dour community. These schemes are not required for security of supply as we have a surplus in Dour (Affinity Water's Southeast region), so we have not progressed them. The two schemes are:

1. AFF-EGW-WRZ7-0629: Lye Oak Licence Variation – Scheme not required due to the surplus in WRZ7.
2. AFF-RNC-WRZ7-0900: Dover Constraint Removal – Scheme not required due to the surplus in WRZ7.

The other scheme not included is AFF-NGW-WRZ4-0624: Canal & River Trust and GSK Slough Boreholes. This was selected in WRMP19 for delivery in 2025/26. Through the preparation of our draft WRMP24 we have continued to investigate this option and the need for it. Our current modelling is not suggesting the option will be required in 2025/26 so it is not being progressed outside of the WRMP optioneering process.

Section 9 – Additional regulatory information – innovation competition

9A – Innovation competition

	Current year £m
Allowed	
Allowed innovation competition fund prize control revenue	1.014
Revenue collected for the purposes of the innovation competition	
Innovation fund income from customers	1.014
Income from customers to fund innovation projects the company is leading on	0.008
Income from other water companies to fund innovation projects the company is leading on	0.344
Income from customers that is transferred to other companies as part of the innovation fund	0.044
Non-price control revenue [eg. Royalties]	0.000

	Total amount of funding awarded to the lead company through the innovation fund	Forecast expenditure on innovation fund projects in year [excl 10% partnership contribution]	Actual expenditure on innovation fund projects [excl 10% partnership contribution]	Difference between actual and forecast expenditure	Forecast project lifecycle expenditure on innovation fund projects [excl 10% partnership contribution]	Cumulative actual expenditure on innovation fund projects [excl 10% partnership contribution]	Difference between actual and forecast expenditure	Allowed future expenditure on innovation fund projects	Allowed future expenditure on innovation fund projects	Cumulative expenditure on innovation projects funded by shareholders
Water neutrality at NAV sites	2.898	0.332	-	[0.332]	2.898	-	[2.898]	-	-	-
Smarter tanks	0.095	0.095	-	[0.095]	0.105	-	[0.105]	-	-	0.010
Project Seagrass	0.253	0.101	0.056	[0.045]	0.281	0.056	[0.225]	-	-	0.020
Total	3.246	0.528	0.056	[0.472]	3.284	0.056	[3.228]	-	-	0.030

Administration	
Administration charge for innovation partner	0.048

As at 31 March 2022, three awards had been granted under the innovation competition scheme with £3,246,000 awarded to fund the projects. Actual expenditure of £56,000 had been incurred on projects funded through the scheme to date.

Section 11 – Additional regulatory information – Greenhouse gas emissions

11A – Operational greenhouse gas emissions reporting for the 12 months ended 31 March 2022

	Water (tCO ₂ e)
Scope one emissions	
Burning of fossil fuels	1,870.000
Process and fugitive emissions	2,417.000
Vehicle transport	1,996.000
Total scope one emissions	6,283.000
Scope one emissions; Greenhouse Gas (GHG) type CO ₂	3,822.000
Scope one emissions; GHG type CH ₄	52.000
Scope one emissions; GHG type N ₂ O	2,407.000
Scope two emissions	
Purchased electricity – location based	46,735.940
Purchased electricity – market based	-
Purchased heat	-
Electric vehicles	-
Removal of electricity to charge electric vehicles at site	-
Total scope two emissions [location based]	46,735.940
Scope two emissions; GHG type CO ₂	46,854.190
Scope two emissions; GHG type CH ₄	176.090
Scope two emissions; GHG type N ₂ O	301.550
Scope three emissions	
Business travel	109.400
Outsourced activities	2,581.060
Purchased electricity; transmission and distribution – location based	4,135.870
Purchased electricity; transmission and distribution – market based	-
Purchased heat; transmission and distribution	-
Total scope three emissions [location based]	6,826.330
Scope three emissions; GHG type CO ₂	4,244.740
Scope three emissions; GHG type CH ₄	1,321.780
Scope three emissions; GHG type N ₂ O	1,152.320
Gross operational emissions [Scope 1,2 and 3]	
Gross operational emissions – location based	59,845.270
Gross operational emissions – market based	-
Emissions reductions	
Exported renewables [market based]	-
Exported biomethane [market based]	-
Green tariff electricity offsets	-
Other emissions reductions	-
Total emissions reductions	-
Net annual emissions	
Net annual emissions – location based	-
Net annual emissions – market based	13,108.810
Net annual emissions	13,108.810
	Water (kgCO₂e/Ml)
GHG intensity ratios [location based]	
Emissions per Ml of treated water	38.169

Section 11 – Additional regulatory information – Greenhouse gas emissions

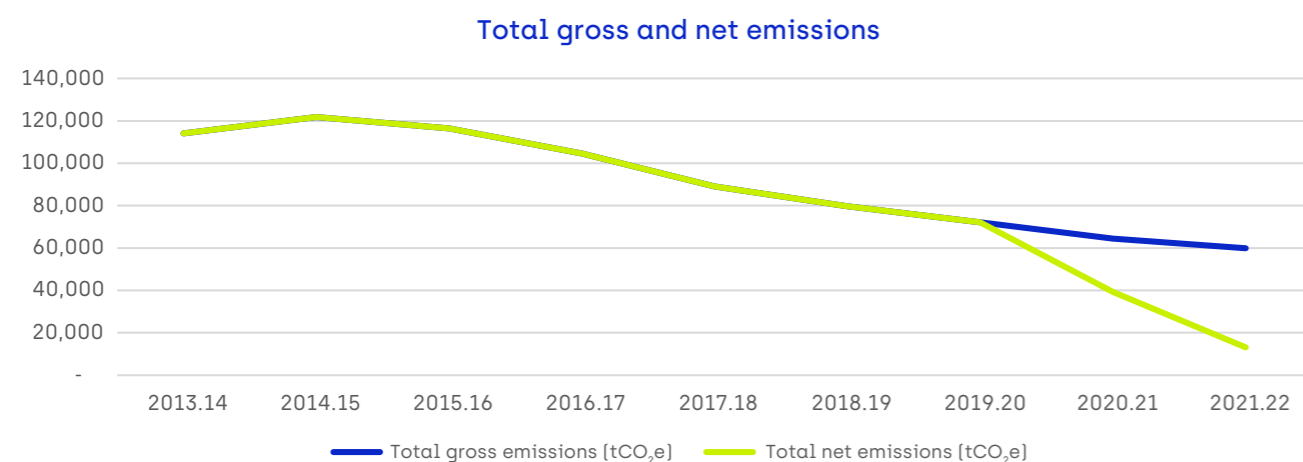
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Section 11 – Additional regulatory information – Greenhouse gas emissions

continued

We used the UKWIR CAWv16 to calculate emissions. We include in our company total water treatment works sludge disposal to others' land and lagoons, disposal of water and wastewater treatment waste to landfill, and disposal of waste from administrative activities. Use of purchased chemicals used in our water treatment processes has also been included in the CAW.

Net operational emissions in 2021/22 was 13,108.810 tCO₂e. This compares to 39,200.927 tCO₂e in 2020/21, which is a 67% reduction. The gross reduction is 89%. The reduction reflects our total purchased electricity being from 100% renewable energy.



Gross greenhouse gas emission decreased by 7% from 2020/21.

The total energy consumption in 2021/22 was 237,298 MWh, compared to 249,556 MWh in 2020/21, which is a 5% decrease.

Line	Description (electricity, gas, liquid fuels, self-generated, fleet, excluding export energy, including admin)	Unit	2020/21	2021/22
5A.24	Energy consumption – raw water resources (abstraction)	MWh	30,196	32,083
6A.7	Energy consumption – raw water transport	MWh	33,216	36,188
6A.32	Energy consumption – water treatment	MWh	23,333	23,232
6B.27	Energy consumption – treated water distribution	MWh	162,835	145,796

Scope 1 (direct emissions) increased by 20% on 2020/21. This was due to the increase in normal operational activities after the Covid-19 restrictions in 2020, and the use of generators at Iver Water Treatment Works to power the works during recent projects.

From 1 October 2021, our purchased electricity is from 100% renewable electricity, and therefore our electricity usage for pumping and treating water accounts for 0% of our gross emissions, reported market based.

Electricity consumption and emissions from outsourced activities, IT Services, administration services and courier mileage have been included and in line with the Ofwat net zero road map, it is envisaged this will continue to expand.

There has also been increases in the conversion factors for grid electricity, LPG, diesel, fuel oil, petrol, natural gas, national rail and London underground as documented in Business, Energy & Industrial Strategy (BEIS) 21 guidance documents.

Business travel, particularly rail mileage, has increased with the easing of Covid-19 restrictions.

Section 11 – Additional regulatory information – Greenhouse gas emissions

continued

We have also included in our Scope 3 emissions:

- Water treatment waste recycled to land;
- Water treatment waste sent to landfill; and
- Other wastes including scrap metals, plastics, cardboard and glass.

A small amount of solar generation occurred at the end of the reporting year. Our solar programme is being rolled-out further, and it is envisaged that this will make a significant difference to our emissions in the future.

Embedded carbon emissions

We are committed to reducing carbon emissions both in our operations and in the delivery of our capital programmes. This is the first year we have reported on embedded carbon.

We have calculated the total quantity of greenhouse gas (GHG) emissions in tCO₂e (embedded carbon), for the following capital programmes where projects have been completed in 2021/22:

- Below ground asset installations ; and
- Solar photovoltaic (PV) installations

We have separated capital works into base and enhancement based on expenditure type.

To generate a more comprehensive overview of our carbon footprint we have also extended reporting of Scope 3 emissions to include chemical use and waste. Table 11A includes Scope 3 emissions for business travel, outsourced activities and purchased electricity transmission and distribution. For ease of reference, those activities where we have calculated Scope 3 GHG emissions for the 2021/22 period are presented below, along with carbon figures for capital works.

GHG emission source	2021/22 Gross [tCO ₂ e]
Scope 3	
Business travel in other vehicles	109.00
Outsourced IT activities	2,511.00
Electricity - transmission and distribution	4,136.00
Chemical stock used	277,278.49
Waste from treatment works	2,433.31
Capital Programme	
Below-ground asset works	3,525.00
Solar PV ¹	825.00
Capital Carbon Total	4,350.00
BGA Base	1,400.40
BGA Enhancement	2,124.64
Total	290,817.80

¹ Average of calculated embedded carbon in solar PV panels based on range of 750-900 tCO₂e/kWp

We have used UKWIR Carbon Accounting Workbook (CAW) CAWv16, BEIS and emission conversion factors being developed for our new carbon calculator tool (due for completion in summer 2022), alongside other referenced information.

Where it has not been possible to report on embedded carbon for other construction and maintenance activities, we have undertaken a review to ensure we understand the scope of this work and identify necessary steps to support reporting in future years.

We will review the need to reassess the embedded carbon in 2021/22 activities, to help ensure consistency with reporting in future years, as and when new methodologies become available.

Section 11 – Additional regulatory information – Greenhouse gas emissions

continued

Section 11 – Additional regulatory information – Greenhouse gas emissions

continued

Where no emissions calculations have been possible for the 2021/22 period, we have included some detail on the scope of these activities to provide an insight into what would otherwise have contributed to the overall embedded emissions figures for our Scope 3 reporting in 2021/22. The areas considered are:

- Above ground asset and river restoration projects completed in 2021/22;
- Outsourced services for which no emissions calculations have been provided for activities undertaken on behalf of the company;
- Chemical use for which no emissions calculation has been possible due to there being no conversion factors available;
- Meter installations, as no conversion factors were available;
- Production & Supply reactive and planned maintenance activities; and
- Embedded emissions associated with the use of our leased and owned fleet vehicles and any associated plant.

Summary of projects where no calculations have been possible:

Programme/business area	Description
Above ground assets	Eight projects have been completed
River restoration	Six projects have been completed on five different rivers in Central region
Demand management (meter installations)	54,877 meters installed
	<ul style="list-style-type: none"> • Meter reading • Bill printing • FM support • Traffic management • Waste management
Outsourced services	
Chemical use	No conversion factors available for four types of chemicals
Planned and reactive maintenance	Replacement and repair of equipment

Section 11 – Additional regulatory information – Greenhouse gas emissions

continued

SWOT based explanatory statement

In line with Ofwat's Consultation on Regulatory Reporting for 2021/22 Response Document we have undertaken a SWOT analysis on our accounting and reporting processes, as well as carbon performance and impact.

Embedded carbon	
Strengths	Opportunities
<ul style="list-style-type: none"> • GHG accounting of Scope 1 and 2 operational emissions well understood and incorporated into business reporting • Understanding of Scope 3 emissions developed for business travel, outsourced services (only data support) established • Electricity transmission and distribution emissions accounted for in Scope 3. • Understanding of chemicals use and embedded carbon developed. • Carbon accounting requirement for construction projects built into new framework contracts • Carbon models being developed for future optioneering and PR24 option development. • Dedicated resource to plan, manage and monitor activities on emissions reduction in place. This will include development and implementation of robust accounting methodology for embedded emissions reporting in 2022/23. • Plan for electronic vehicle transition in company's vehicle fleet in place to assist in transition from diesel/petrol fuel use to electricity and lower overall emissions. • Company focus on PCC reduction and leakage will support overall emissions reduction and lead to lower energy use. 	<ul style="list-style-type: none"> • Work being undertaken to enable carbon accounting for capital projects to support understanding of embedded emissions in project development and design. • Work on carbon reporting for capital projects to be developed (Sept 22) with proformas and guidance. This will be supported with supply chain engagement. • Requirements for carbon reporting to be built into contracts, identification of significant outsourced service contracts being undertaken to aid prioritisation for required engagement. • Methodology for full Scope 3 emissions foot-printing still to be developed so all options are available to the company. • Development of carbon literacy for project managers will aid understanding and support journey to a low carbon business. • Governance of carbon issues being developed and when in place should deliver a wider company perspective on requirements and programme. • Opportunity for innovation to support low carbon approach to companies' activities. • Overall governance of programme to lower emissions being extended from energy management to cover all carbon activity.
Weaknesses	Threats
<ul style="list-style-type: none"> • Full Scope 3 emissions assessment to be completed • Identification of asset base for which embedded emissions should be accounted for not complete and in need of development (for example, vehicle fleet and leasing arrangements). • Data availability for capital projects is a concern and may need adjustment in what we are collecting to enable full accounting to be undertaken. • Limitations on current levels of carbon literacy may hamper understanding of carbon consequences of projects. • Additional resources may be required to ensure administration of carbon accounting for Scope 3 emissions is managed. 	<ul style="list-style-type: none"> • Identification of Scope 3 carbon footprint could raise concerns over ability to manage the level of carbon that the organisation is responsible for. • Timeline for Scope 3 emissions identification and reporting is limited (mandatory for 2022/23) so may need some retrofit for activities in this reporting year. • Limited understanding of carbon consequences of decisions in the short-term may result in locking in of carbon consequences in future years. • Regulatory drivers around water resourcing could lead to increased embedded emissions being locked into future projects (for example, shift to more surface water intake as a result of abstraction reduction requirements).

Non-audited additional regulatory information

Transactions with Associated Companies

Service received	Company	Turnover of associate £000	Terms of supply	Value £000
Interest paid on loan	Affinity Water Capital Funds Limited*	-	Market rate at time of loan inception	0.160
Interest paid on loan	Affinity Water Finance (2004) PLC*	-	At market rate, on-lent by associate on the same terms	14,186
Interest paid on loan	Affinity Water Finance PLC*	-	At market rate, on-lent by associate on the same terms	58,272

Service provided	Company	Turnover of associate £000	Terms of supply	Value £000
Support services	Affinity Water Capital Funds Limited*	-	No market – services charged at a fixed annual fee based on actual cost or recharged by time allocation	0.240

* these companies do not have turnover.

The company has applied a materiality threshold of £100,000 for disclosing transactions with individual related parties. No contracts individually exceeded this threshold.

Transactions with Associated Companies continued

In 2004, Affinity Water Limited borrowed £200,000,000 from its wholly owned subsidiary, Affinity Water Finance (2004) PLC, the loan being the proceeds of the latter's £200,000,000 Class A bonds issued in that year and maturing in July 2026 with an annual coupon of 5.875% and lent on the same terms.

On 16 July 2014 Affinity Water Finance (2004) PLC completed a tap issue of £50,000,000 on the same terms as the existing £200,000,000 bond.

The net proceeds of both the bond and the tap issue have been lent to the company on the same terms. The amount outstanding at year end, net of amortised debt issuance costs, was £252,498,000 (2021: £252,999,000).

As part of the WBS in February 2013, all existing loans and revolving credit facilities, except for the above £250,000,000 bond, were replaced by the following four new bonds issued on 4 February 2013 by the company's former subsidiary, Affinity Water Programme Finance Limited: £80,000,000 Class A Guaranteed Notes maturing in September 2022 with a coupon of 3.625%, £250,000,000 Class A Guaranteed Notes maturing in March 2036 with a coupon of 4.500%, £150,000,000 Class A Guaranteed RPI linked Notes maturing in June 2045 with a coupon of 1.548% and £95,000,000 Class B Guaranteed RPI linked Notes maturing in June 2033 with a coupon of 3.249%.

On 29 October 2015 Affinity Water Programme Finance Limited completed a tap issue of £40,000,000 on the same terms as its existing £150,000,000 Class A Guaranteed RPI linked Notes.

On 19 February 2016 Affinity Water Programme Finance Limited issued £10,000,000 Class B guaranteed RPI linked Notes maturing in June 2033 with a coupon rate of 1.024%.

On 22 August 2016, Affinity Water Programme Finance Limited exchanged £65,800,000 of its 3.625% Guaranteed Notes due 2022 for a new issue of 3.278% Guaranteed Notes

due 2042. An additional £19,200,000 of 3.278% Guaranteed Notes due 2042 were issued at the same time.

On 22 November 2017, Affinity Water Programme Finance Limited issued £60,000,000 Class A Guaranteed Notes maturing in November 2033 with a coupon of 2.699% and £60,000,000 Class A Guaranteed CPI linked Notes maturing in November 2042 with a coupon of 0.230%.

On 22 January 2019, the assets and liabilities of Affinity Water Programme Finance Limited were transferred to the company's subsidiary Affinity Water Finance PLC.

On 20 October 2021, Affinity Water Finance PLC issued £130,000,000 Class A Guaranteed CPI linked Notes maturing in September 2038 with a coupon rate of 0.010%.

The net proceeds of the bond issues and the tap issue have been lent to the company on the same terms.

The amount outstanding at year end, net of amortised debt issuance costs, was £1,019,706,000 (2021: £838,496,000).

On 4 February 2013, the company borrowed an amount of £3,550,000 from Affinity Water Capital Funds Limited, the company's intermediate parent company. The final repayment date of this loan is 31 March 2036, with interest terms having been set at 4.500%.

There are no loans to group companies.

Non-audited additional regulatory information continued

Dividend policy

Our dividend policy was approved in January 2022, with changes from our previously published dividend policy, relating to dividends from the non-appointed business being permissible subject to the company's economic gearing being below that of its internal business plan and a reduction in the base dividend for the appointed business from 5% to 4%.

The dividend policy of Affinity Water Limited is to pay a dividend commensurate with the long-term returns and performance of the business and allowing shareholders to earn an appropriate return from an investment in the company, whilst not impairing the company's longer term financeability and taking into account commitments to its stakeholders and customers. In determining the level of dividend, the financial performance of the appointed and non-appointed businesses are considered separately.

The base dividend for the appointed business will be set in reference to the company's internal Business Plan and will not exceed a nominal 4% yield on equity as an annual average over the AMP, based on the company's actual financial structure. Dividends can be increased or lowered from the base depending on the actual performance of the company. An assessment will be completed by the Board to determine if the payment or part payment of the dividend reflects and/or would compromise the long-term social, financial and operational commitments made to stakeholders, such assessment includes the following areas: customer service; operational commitments; community commitment; and employees and the health of the pension plans. This assessment also demonstrates that the dividend policy for AMP7 takes account of obligations and commitments to customers and other stakeholders, including performance of delivery against the final determination for AMP7. This includes in particular assessment of performance commitments with associated

ODIs as set in the final determination and any ODI penalties or rewards earned. It will also require an assessment of the long-term financial resilience of the company in relation to liquidity, distributable profits of the company, cash facilities available and financial ratios.

Finally, the Board tests any proposed dividend payments against legal and regulatory requirements and restrictions, including the management of economic risk and compliance with financial covenants.

We are restricting dividends to our shareholders throughout AMP7 to enable the substantial investments to improve resilience and protect the environment. Equity dividends of £nil were paid from our non-appointed business (the parts of our business not regulated by Ofwat) during the year (2021: £1.0m), in order to service group debt, reflecting the shareholders' commitment to re-invest all planned returns from the company's appointed business for the benefit of our customers.

Viability statement

The Board's consideration of the company's longer-term viability and prospects is an extension of our business planning process. This includes financial budgeting and forecasting, and a robust risk management process. Our strategy aims to enhance our long-term prospects by making sure that our operations and finances are sustainable.

The directors have assessed the company's long-term prospects in the context of our WRMP, which sets out our plan to secure the long-term provision of resilient and sustainable water supplies for customers from 2020 to 2080. The results of financial modelling presented to the Board over this period to enable the assessment of the company's long-term prospects reflect the expected level of investment implied by this plan and recovery of this investment from customers.

The directors have assessed the company's financial viability over a shorter ten-year period to 31 March 2032 (the 'lookout period'). The company's viability statement, including information on the company's approach to producing this statement, can be found within the strategic report on pages 112 to 115 of our Annual Report and Financial Statements 2021/22. The sensitivities used in stress-testing the base case cash flow forecast were in some instances more severe than the sensitivities specified by Ofwat to be used in stress-testing AMP7 Business Plans.

Stress-testing was performed on a Board approved base case cash flow forecast prepared by management. The base case has taken into consideration the impact of COVID-19, supply chain cost pressures and the energy price crisis on the company, and reprofiled capital expenditure from projects delayed during the first year of AMP7 into later years of AMP7.

The Audit, Risk and Assurance Committee considered and provided input into the determination of which of the company's principal risks and combinations thereof might have an impact on the company's financial viability, and reviewed the results of management's stress testing of the company's base cash flow forecasts. The results of management's stress-testing and the viability statement were reviewed by the Board in approving the strategic report.

To address Ofwat's previous feedback relating to our 2018/19 viability statement, cross references have been added to the viability statement linking key risks to further details provided in our strategic report on operational activities. The viability statement also includes mitigating actions the company might put in place for the scenarios in the stress testing. Following a further query from Ofwat in 2020/21, we conclude that our higher levels of gearing do not impact our viability. Our stress test scenarios indicate sufficient headroom against the trigger or default levels in all but four years for the interest cover ratio, and all but two years for the gearing ratio, of the viability period when no mitigating actions are taken, and show sufficient headroom in all years when the appropriate mitigating actions are taken. The base case has also taken into consideration our forecast gearing against notional gearing, using a gearing sharing mechanism consistent with methodology prescribed by Ofwat in our final determination with a one AMP delay.

Details of the third-party assurance obtained over the viability statement, which included assurance over the accuracy of the underlying calculations for the stress testing underpinning the viability statement, can be found within our Assurance Plan for AMP7, which is published on our website: affinitywater.co.uk. Pricewaterhouse Coopers (PwC) did not include any matters in its independent Auditors' report on pages 198 to 205 of our Annual Report and Financial Statements 2021/22 in relation to the viability statement. The Board has signed the Board statement on the completeness and accuracy of information confirming it is satisfied the data and assumptions made are accurate and complete.

Non-audited additional regulatory information continued

Current tax reconciliations

The appointed current tax charge assessed for the period is lower than the standard rate of corporation tax in the UK of 19% for the year ended 31 March 2022. The differences are explained below:

	£000
Loss on appointed activities before tax and fair value movements	(59,310)
Tax calculated at the standard rate of tax in the UK of 19%	(11,269)
Tax effects of:	
– Adjustments in respect of prior years	-
– Expenses not deductible for tax purposes	228
– Accelerated capital allowances	12,642
– Other timing differences - pension	(184)
– Other timing differences – grants and contributions	(794)
– Fair value movements	(0,628)
Appointed current tax charge	-

Significant variations between the appointed current tax charge and the total current tax charge for the year ended 31 March 2022 allowed in the company's price limits are explained below:

	£000
Appointed current tax charge	-
Variance in profit before tax excluding fair value movements	11,827
Variance in fair value movements	0,628
Adjustments in respect of prior years	-
Variance in assumptions - capital allowances	(12,006)
Other timing differences – pensions	115
Other timing differences – grants and contributions	1,120
Variance due to increase in tax rate	(0,157)
Other	(0,190)
Total current tax charge allowed in price limits	1,337

Factors affecting future tax charges

In the Spring Budget 2021, the UK Government announced that from 1 April 2023 the corporation tax rate would increase to 25% (rather than remaining at 19%, as previously enacted). This new law was substantively enacted on 24 May 2021. Deferred taxes at the balance sheet date have been measured using these enacted tax rates and reflected in these financial statements.

Tax strategy related to the appointed business

Our approach to tax is based on the values incorporated in the 'Behave ethically' section of Affinity Water's Code of Conduct:

We always act honestly, openly and responsibly, so that we are trusted. We uphold our Standards of Conduct together by complying with the law and regulatory requirements, making decisions with integrity, and speaking up when we believe that conduct falls short of our Principles.

We are transparent in our dealings with government and regulators, fulfilling our obligations honestly and promptly. We don't hide information that should be in the public domain, and we don't disclose information that we shouldn't. We are clear and honest about our services, processes, policies, achievements and prospects. We encourage people to speak up whenever they see conduct that falls short of our Principles and we take their concerns seriously.

Our tax strategy includes the following:

1. Approach to risk management and governance
2. Attitude to tax planning
3. Level of acceptable risk in relation to UK tax
4. Approach to dealing with Her Majesty's Revenue and Customs (HMRC)

Approach to risk management and governance

Stuart Ledger, the Interim Chief Executive Officer (CEO) is ultimately responsible for our tax strategy. Responsibility for day-to-day tax matters, and for reporting to the Audit, Risk and Assurance Committee and the Board on the Group's tax position, is delegated to the Group Tax Manager.

The Head of Risk and Insurance reports key risks to the Executive Management Team, this includes tax risks where necessary.

We consider our main tax risk to be the introduction of new legislation or changes in tax practice, which could result in increased tax payments that have not been included in the current regulatory settlement.

Attitude to tax planning

We do not use artificial tax avoidance schemes or tax havens to reduce our tax liabilities, and we always comply with what we understand to be both the letter and the spirit of the law. We operate solely in the UK and all our customers are based here. All our profits are reported and taxed in the UK. No funds are held off-shore, and all finance is raised and held within the UK.

While we do not interpret tax legislation aggressively, we try to minimise our tax liability so that our customers are not funding excessive and unnecessary charges through increased bills.

We seek external advice when necessary, in order to ensure that our interpretation of current tax law and practice is correct.

Level of acceptable risk in relation to UK tax

Our approach to tax risk is part of our wider risk management framework, in the context of our regulatory settlement.

Dealing with HMRC

We have an open relationship with HMRC, and we advise them of any complex issues so that we can work with them to determine the correct amount of tax due. We actively engage with HMRC and other relevant authorities on proposed changes to tax legislation, either directly or as part of our industry group.

Assurance

The data presented in this regulatory Annual Performance Report has been subject to the company's governance, risk management and internal control framework as set out in the governance section of the annual report and financial statements on page 151 of our Annual Report and Financial Statements 2021/22.

For further information on our assurance procedures and results, please refer to our Assurance Plan for AMP7, which is published on our website: [affinitywater.co.uk](https://www.affinitywater.co.uk).

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