



Office of Sarah Bentley  
Chief Executive Officer  
REDACTED

21<sup>st</sup> September 2022

Rt Hon Ranil Jayawardena MP  
Secretary of State  
Department of the Environment, Food and Rural Affairs

**SENT VIA EMAIL**

Dear Secretary of State,

During your recent meeting with water company chief executives, you set out your five priorities for the sector and asked us to write with our plans to address them. I share your determination to improve performance and have pleasure in enclosing a summary of Thames Water's approach.

As I outlined in my letter of congratulations last week, my focus is to take urgent action and transform Thames Water from a place of poor performance to a company that delivers for customers and the environment.

To do that, shortly after I joined Thames Water I launched a comprehensive Turnaround Plan stretching from now to 2030. We are almost 18 months into the Plan and, while we have a long way to go, we have made significant progress. We have greatly reduced complaints; supply interruptions have fallen by 19% and we have delivered against more of our regulatory targets.

You asked how we can work faster to address the priority issues you highlighted. We are significantly increasing investment for 2020-25 from the £9.6bn Ofwat permitted us to recover from our customers to £11.5bn, enabling more rapid progress in line with our turnaround than would otherwise have been possible. The majority of this increase is being funded by our shareholders who have agreed to a new equity investment of at least £1.5bn with the first £0.5bn committed unconditionally so that we can quickly accelerate the delivery of our Turnaround Plan.

The root cause of many of the challenges in the sector is a lack of resilience in the face of the realities of our ageing infrastructure, changing climate and growing population. Beyond the work companies must do to invest and improve, the sector needs impactful, targeted interventions by government to turbo-charge reform in the way we manage our water and waste. Opportunities exist to take immediate action without the need for primary legislation, and this will enable companies to make more rapid progress and deliver better value to customers.

I am setting these interventions alongside the work we are doing and am very keen to discuss them with you and your team. In summary:

#### **Environmental performance**

The latest Environmental Performance Assessment from the Environment Agency shows that there is much more we must do to protect the health of our rivers and meet the expectations of our customers and the organisations we work with. We recognise that our performance is not good enough.

We are more than half-way to achieving our target of a 40% reduction in pollution incidents against a 2016 baseline, with our overall pollutions figure this year so far ahead of target. The additional equity that our shareholders are making available will, among other things, support our work to reduce serious pollution incidents, which remain too high and present a serious challenge in improving our overall EPA score.

Half of asset failures with the potential to affect the environment are caused by blockages, and 85% of blockages are caused by items that should go in the bin. Government could significantly reduce pollution risk preferably by introducing a ban for wet wipes or, at a minimum, a ban for those that do not meet the sector's 'Fine to Flush' standard.

### Sewage discharges

We regard any discharge of untreated sewage as unacceptable, even those which are permitted, and have committed to a 50% reduction in the duration of discharges by 2030 and, within that, an 80% reduction in sensitive catchments. In the immediate term the Thames Tideway Tunnel, arguably this country's largest-ever sewage discharge reduction project, has completed its tunnelling phase and will go live at five key sites from November 2023.

The biggest single driver of discharge of untreated sewage into the environment is excess rainfall coming through our sewage treatment works, overwhelming them. By choosing to enact schedule 3 of the Flood and Water Management Act 2020 government can significantly reduce the rate of surface water discharging to our network, meaning more available capacity for new connections for new development and a lower risk of spills from combined sewer overflows.

### Water scarcity and drought

As you know, this year has been exceptionally dry and hot, which has affected both supply of and demand for water across the whole of the south and south east of England. We are taking a range of actions to minimise the need for a Temporary Use Ban or any additional measures to limit water use next year. These include bringing online drought schemes, returning our Gateway Water Treatment Works to service and increasing to their highest ever levels the resources we are deploying to tackle leakage.

The Water Resource Management Plan we publish this autumn will set out ambitious proposals for once-in-a-generation water resource infrastructure that could transform our resilience to drought. We need urgent action by government to formally designate the National Policy Statement needed to avoid delays to progress. Even with this, the UK's track record on large projects suggests that it is simply too difficult to build the infrastructure we need to support economic growth. Strong and active political support will be needed to drive through the work we need to secure the country's water supply resilience for the future. We would be keen to work with the government to explore the potential for a Thames Tideway-style financial and regulatory model to enable the efficient, competitive delivery of the kind of large infrastructure projects that are likely to be needed to secure our water future in the south east.

We would also urge you to review the planned approach to implementing the National Water Target required by the Environment Act which, as currently planned, risks a decade of lost progress by focussing solely on water companies rather than creating a sense of 'national mission' to recognise water scarcity and build water efficiency into thinking throughout our economy and society. Government can also support increased water efficiency by rapidly progressing existing plans for mandatory water labelling.

Ofwat can unlock greater value for customers by introducing longer-term regulatory settlements on priority issues where companies will need to sustain high levels of investment beyond a five-year period – such as renewing London's water network. In the energy sector, longer term approaches have already been adopted in respect of electricity transmission. In water Ofwat has provided a high degree of certainty in respect of its regulation of Thames Tideway, which was key to unlocking fierce competition for the project, ultimately driving value for customers. More widespread use of longer term regulatory approaches in water would open up different solution choices, offering greater value over the longer term, and avoid the inefficient stop-start of the short-term regulatory cycle.

### Leakage

Leakage is too high and reducing it is a priority. We have hit our last three leakage targets and cut leakage by 10% over the last three years. Beyond the sector-wide target of a 15% reduction we are targeting an acceleration of this progress to reach a 20% reduction by 2025. In the medium term, a transition from the current focus on patching up our ageing network to an ongoing programme of renewal will be needed to support continued, sustainable reductions in leakage.

Leakage is roughly one third from our pipes, one third from customers' own private pipes and the remainder consumption that can't yet be measured at homes that are not yet metered. Smart metering will help us more clearly understand the balance between usage and leakage, and target action accordingly, and we are on

track to install around 700,000 smart meters between 2020-25, our biggest ever programme which comes off the back of the government's Green Economic Recovery programme.

#### Dividends and reward

Our shareholders are putting money into the company to prioritise improvements for customers and the environment, and the £1.5bn of additional equity they are making available will enable more rapid progress on your priority issues.

Shareholders have not taken a dividend for the last five years, and our dividend policy requires that any potential dividend payment should be assessed against the impact it could have on our ability to meet our obligations to deliver for customers and the environment.

Bonus payments for managers are tightly linked to performance against environmental, customer service and other measures. There is no reward for failure - if targets are not hit, bonuses are not paid.

As I said in my previous letter, I appreciate that this is an incredibly busy time for you but, given the significance of the challenges facing the sector at present and the impact that Thames Water has in serving a quarter of the population, including the capital, I would very much welcome the opportunity to meet with you one-to-one at your earliest convenience. I would be delighted to host you at one of our ongoing projects. This could include our renewable energy installation at Deephams in London, our work to improve water supply resilience by undertaking a massive mains replacement across the Oxfordshire-Wiltshire border, or potentially a visit to the Thames Tideway Tunnel during we could explain how one of the country's largest and most challenging infrastructure projects will improve life in London for decades to come.

Yours sincerely,

A handwritten signature in black ink that reads "Sarah Bentley". The script is cursive and fluid, with the first name "Sarah" and last name "Bentley" clearly distinguishable.

Sarah Bentley  
**Chief Executive Officer**

## Key targets within our Turnaround Plan for 2022/23 include:

- Reducing complaints by 25%, year on year
- Cutting leakage by 14.1%
- Reducing pollution incidents by 7%
- Fitting 148,185 smart meters
- Ramping up capital delivery to £630m over the year
- Delivering £200m of gross opex savings

## Environmental performance

The latest EPA shows that there is much more we must do to protect the health of our rivers and meet the expectations of our customers and the organisations we work with. We recognise that our performance is not good enough.

The most recent EPA rated Thames Water as green against two measures, amber against two and red against two. We have plans in place to ensure green performance in the next EPA against five of the six measures, and are broadly on track to meet them.

This includes the measure of total pollutions, where we reduced numbers by 10% two years ago; 7% last year and are forecasting a 7-10% reduction this year, turning the metric green for the first time in seven years. Our target for the year is a 7% reduction in pollutions. Our progress in this area is also putting us on track to deliver the 40% reduction in the number of pollution incidents we are targeting against a 2016 baseline, where we have so far achieved a 24% reduction.

We have also put a range of measures in place to improve our performance on self-reporting, where performance had deteriorated in our last two assessments. We are forecasting a return to green this year.

Despite this progress on key measures, achieving green status on serious pollutions – which will be required for us to move from 2\* to 3\* status - remains a very significant challenge. This partly reflects changes in the way performance is assessed, including a new definition of what constitutes a serious pollution incident; tougher targets and a move from a measure reflecting the sewer length of the company being assessed to an absolute number of incidents.

Serious pollution incidents have historically been linked to both above and below-ground assets. We have made significant progress in improving the performance of above-ground assets, with upper quartile performance for our pumping stations and sewage treatment works, but problems on our network remain the most stubborn to address.

There are no clear and identifiable geographic patterns or repeated incidents, which makes trying to predict where incidents might occur on our 116,000km network particularly challenging. The sewer network is largely unmonitored, and most of our network pollutions are caused by blockages in remote or inaccessible locations that are challenging to identify.

One of our key areas of focus is increasing the use of remote, digital monitors to provide early warning of potential problems and the opportunity to intervene, and we have accelerated their installation this year. We are also using Artificial Intelligence to predict where blockages may occur and so we can proactively intervene.

Some serious pollution incidents are linked to asset failures, and we have also committed to an extensive programme to replace pumped rising mains. This is a long-term programme which will, over a period of years, significantly reduce the risk of pollutions from these assets.

However, 83% of serious pollutions on our network are caused by blockages, mainly because of items flushed into the sewer network which it was never designed to handle. These include wet wipes and fat and oil from cooking, as well as blockages caused by 3rd party misuse of the network, such as fly tipping or the illegal disposal of waste, such as concrete. Government action will help to reduce the risk to the environment from these problems and this is addressed in the next section exploring opportunities.

In a smaller number of instances blockages are caused by operational or maintenance failures. In addition to our normal planned and reactive maintenance programme, we have placed a greater emphasis in our plan for 2022-23 on proactive interventions to reduce the risk of or prevent problems occurring. These include:

- Improving the condition of 23km of sewers and lining a further 30km
- Cleaning 440km of sewers
- Installing 5,500 sewer depth monitors – 100 every week, an acceleration from 3,700 last year

Additional funding to support this work has been made available as a result of the additional equity provided by shareholders.

Serious pollution incidents are our biggest challenge and highest priority in improving the company's environmental performance and we continue to work on our strategy and plans to reduce them to the levels required to move to 3\* performance.

Looking more widely at sewage treatment works compliance, the EPA considers only the quality of the continuous sewage treatment works discharge, a measure we have met for six of the last seven years and are on track to meet again. Our absolute priority, however, is to ensure that all our sites are 100% legally compliant with all aspects of their permits, particularly flow conditions, and we are investing heavily to improve in this area.

In spite of past reductions nutrient levels continue to pose a significant challenge to river water quality. In the Thames catchment, phosphorus is the main problem with a large proportion from the wastewater reaching our works. By 2020 we had reduced phosphorus levels from historic levels by 74%, and our current plans, once delivered, will take this to 80% in the first years of our next business plan period, which starts in 2025.

We are also undertaking chemical investigations with the EA to assess the effectiveness of removal through sewage treatment and potential for additional treatment processes, as well as stepping up work to ensure we have full monitoring in place of both flows to be treated and overflows.

The table below, taken from our River Health Plan, shows WINEP activities relating to our sewer system and sewage treatment works.

Table 2: WINEP Activities relating to our sewerage system and sewage treatment works

Activity	Workstream	2022/23	2023/24	2024/25	Impact
STW upgrades/new limits - phosphorus	Waste Treatment	0	0	70	Installation of new treatment processes to meet new or tighter standards for phosphorus
STW upgrades/new limits - sanitary parameters	Waste Treatment	1	0	7	Installation of new treatment processes to meet new or tighter standards for suspended solids, biochemical oxygen demand or ammoniacal nitrogen
STW flow capacity and storm tank increases	Waste Treatment	19	14	27	Ensuring treatment capacity and storage of storm flows is sufficient to meet forecast population growth so that river quality does not deteriorate
Protected area improvements	Waste Treatment	0	0	4	Improvements to reduce phosphorus levels in rivers and lakes with special conservation status
New overflow monitors (Event Duration Monitors or EDMs)	Waste Treatment	29	20	21	Monitors to record the frequency and duration of storm overflows to ensure that these are within acceptable limits
STW flow monitoring and investigations	Waste Treatment	19	17	27	Monitors to record the quantity of incoming sewage that is receiving full treatment and investigations to assess whether existing monitors at other stages of the treatment process are adequate for assessing the flow that is receiving full treatment
STW upgrades/new limits - chemicals	Waste Treatment	15	0	2	Installation of new treatment processes to remove certain chemicals or verification that existing processes meet required limits
Chemical investigation programme inc. monitoring	Waste Treatment	0	0	5	Investigations to understand the extent of removal of certain chemicals by existing treatment processes
Water quality investigations	Waste Treatment	9	0	0	Investigations to understand the impact of specific wastewater activities on river and lake quality

Source: Thames Water analysis of live WINEP as at 26/04/22

Our plan to reduce harm to water quality in the River Thames catchment is documented through our River Health report. It covers our approach to improving many aspects of the EPA, pollutions, spills, discharge compliance and WINEP, and can be found here: <https://www.thameswater.co.uk/media-library/home/about-us/performance/river-health/river-health-report.pdf>.



### Opportunities to accelerate progress and offer greater value

Government could significantly reduce the risk of pollution incidents by tackling the harm caused by wet wipes, which cause flooding at customers' homes and damage the environment:

- Across the UK 11 billion wet wipes are wrongly flushed each year, causing 300,000 potentially spill-triggering blockages at an annual cost to bill payers of £100m.
- 83% of serious pollutions on the network are caused by blockages, and 85% of the 75,000 blockages we clear annually from our sewers are caused by items that should go in the bin.
- Every day the screens at our Beckton Sewage Treatment Works in East London remove around 30 tonnes of material that should not be flushed. This problem is replicated at works across our region.

The sector has provided a positive incentive for the market through the creation of a 'Fine to Flush' standard, which has seen a number of manufacturers develop products that pass tests to ensure they will safely break down in the sewer network. Some, however, are not rising to the challenge.

Government could significantly reduce pollution risk by introducing a ban for wet wipes that do not meet the standard or, at the least, exerting pressure on manufacturers who have chosen not to take responsibility for the environmental harm of their products.

Manufacturers should also be required not to mislead consumers by using the term 'flushable' on wipes if their products do not meet the Fine to Flush standard.

### Sewage discharges from storm overflows

We regard any discharge of untreated sewage as unacceptable, even those which are permitted, and have committed to a 50% reduction in the duration of discharges by 2030, with an 80% reduction in sensitive catchments.

Based on Environment Agency data we are currently ranked third on the basis of the total hours of sewage discharge events, marginally behind two smaller companies, and we had the lowest number of spill events in England in 2021. We also have among the highest coverage of Event Duration Monitors in the sector.

We have set out our plans for the period to 2030 on our website at <https://www.thameswater.co.uk/media-library/home/about-us/performance/river-health/river-health-report.pdf>. This includes making significant improvements at a number of our sites, both through delivering existing commitments under the Water Industry National Environment Plan (WINEP) and, with additional funding recently committed by our shareholders, further work to ensure robust compliance with all aspects of site permits.

The improvements being delivered under WINEP require us to design and deliver infrastructure projects of significant scale. This ongoing programme of work has been reviewed and, where possible, we are bringing work forward, including at our Chesham sewage treatment works (STW) which discharges to the River Chess, a chalk stream of high environmental value. Work at one of our largest STWs, Mogden in west London, and at Witney STW in West Oxfordshire, is also proceeding at speed.

The Thames Tideway Tunnel, arguably this country's largest-ever sewage discharge reduction project, has completed its tunnelling phase and will go live at five key sites from November 2023. The tunnel will intercept at least 94% of the millions of tonnes of sewage overflowing into the tidal Thames every year from London's overloaded Victorian sewer system. It will also capture all of the 'first flush' from the sewers after heavy rain. This contains all the sediment that is built up during periods of drier weather and causes the most damage. Instead of over 50 sewage spills a year, in an average year there will only be three or four - mostly surface water runoff after heavy storms.

Outside the combined sewer networks of central London, the principal root cause of discharges of untreated sewage is infiltration of surface water into the foul network. We have brought forward significant programmes of work to reduce infiltration into two key catchments, around Chesham in Buckinghamshire and Bourton on the Water in Gloucestershire and are making good progress.

Additional funding has been committed to this programme and work is about to start in the catchments serving Clanfield in Oxfordshire and Hampstead Norreys in Berkshire, with planning underway for a further two areas of concern.

In addition to these infrastructure projects, we are making a significant improvement for our customers and stakeholders in the important area of transparency. From the end of this year we will issue live notifications of any discharges from our 468 permitted locations. We believe we will be the first company to do this, having pre-empted what is now an Environment Act requirement. A pilot programme of notifications of six sites around Oxford, conducted with local stakeholders, as part of the Oxford Rivers Project, was successfully completed and we are now finalising the design of our website interface.

### **Opportunities to accelerate progress and offer greater value**

Population growth, the concreting over of green space and the increased incidence of convective rainfall events as a result of climate change are increasing the pressure on our sewers. In particular, the loss of 'spongy' surfaces and green areas which can absorb water is contributing to the risk of flooding at customers' homes and sewage overflowing from combined sewers.

The independent report into the floods in London in July 2021 found that the sewers operated as intended but that the intensity of the rainfall (a one in 197-year event) significantly exceeded their design standard (to handle a one in 30-year event). One of the report's central recommendations is to significantly increase the use of sustainable drainage to slow the flow of surface water.

The uptake of sustainable drainage systems remains low and is not a requirement of developers by planning authorities. The non-statutory approach to promoting Sustainable Urban Drainage Systems (SuDS), alongside the existing automatic right to connect surface water to public sewers, is worsening the situation. The surface water run-off from one 6 square metre patio has the same impact as the wastewater from 100 homes.

Government can address this by enacting schedule 3 of the Flood and Water Management Act 2020 to ensure developers do not connect new buildings to sewers in a way that risks overloading them. The multiple benefits of implementing Schedule 3, which is widely supported, include a significant reduction in the rate of surface water discharging to our network, meaning more available capacity for foul connections and less risk of spills from combined sewer overflows.

When SuDS are built properly, they also improve the water quality within run-off, reducing the risk of highway pollutants entering our network and then watercourses via our outfalls. SuDS also offer important opportunities to create amenity value for local communities and boost biodiversity.

## **Drought and water security**

Please note leakage is covered in the subsequent section.

### **Temporary Usage Bans**

Ten of the last twelve months have seen below average rainfall, with only two thirds of normal levels in the last six months. At the same time, demand for water was higher than average throughout July and August, with smart meter data indicating an increase of up to 50% in some properties. River and groundwater levels declined to well below average and reservoir storage in London fell to levels not seen for around 30 years. It was a decision we did not take lightly, but this is why we introduced a Temporary Use Ban (TUB).

We have since seen a reduction in demand through the introduction of the TUB and arrival of cooler, wetter weather, but it will take several months of rainfall to replenish our supplies and the wider environment, and we are planning on the basis of a continuation of the dry conditions.

We are taking a range of actions, in line with our statutory Drought Plan, to ensure we are in the healthiest possible water resource position next year. Collectively they will minimise, as far as possible given our reliance on the natural environment, the need to continue the TUB or for additional measures. Key actions include:

- Bringing into use water sources developed for droughts, including an aquifer recharge scheme in north London that draws on underground supplies we proactively replenish during times of surplus,

and other schemes in Chingford and Stratford. They are providing c.170 million litres a day (Ml/d) – 9% of the capital's daily needs.

- Working closely with the Environment Agency (EA) to start using their West Berkshire Ground Water scheme to bring more water into the Thames Catchment. This should provide 100 Ml/d – 4% of our average daily supply. With the EA's agreement we have also increased abstractions from the Thames.
- Accelerating planned maintenance work at our Gateway Desalination Water Treatment Works in London to return it to operation in early 2023, providing an additional 100 Ml/d.
- Increasing resources to tackle leakage, fixing up to 1,100 leaks a week – roughly one every ten minutes. We have reprioritised activity across the company onto leak repair, doubled weekend working and boosted repair teams to their highest ever number.
- Launching a £1.1m campaign to reduce household water consumption that included our first broadcast TV campaign, which reached 34.7m individuals over a 6-week period – 78% of our audience. We are extending the campaign into the autumn and writing to all customers.
- Visiting businesses to identify and tackle water-wasting appliances and install water-saving devices and working with water retailers to share information with businesses to help them to reduce wastage.
- Introducing a drought incentive scheme for non-household customers through which we are matching the financial savings made by customers as a result of reductions in consumption.

We are also investigating a range of other options that, if the drought continues, could reduce the need for more severe restrictions on water use.

### **New water resource infrastructure**

We welcome the introduction of a National Framework for water resource planning, and the collaborative development for the first time of regional plans that inform companies' statutory Water Resource Management Plans. We are among the six companies to have developed Water Resources South East's regional plan, which is due to be published on 14 November, at the same time as our own plan.

These plans will propose new strategic infrastructure including a water recycling plant in London in the early 2030s, and the South East Strategic Reservoir Option, a major new reservoir that would serve customers in London, the Thames Valley and across the wider region. These strategic options are on critical paths to be completed for these dates, but we are and will continue to do all we can to meet these deadlines without compromising quality or safety.

We are also developing plans to ensure our water network, which was developed to serve a city whose population was centred further to the west, can cater for growth in the east, and ensure a greater resilience in water supplies.

For future water resources, government can take action in two areas, set out below, that would support speed of delivery and offer better value.

### **Opportunities to accelerate progress and offer greater value**

There are two key opportunities for government:

1. Designating the Water Resources National Policy Statement

National Policy Statements (NPS) are critical in setting objectives for the development of nationally significant infrastructure and providing the legal and policy framework for decisions by the Secretary of State on applications for developments deemed "nationally significant" under the Planning Act 2008. Most importantly, by establishing the need for a project in government policy this does not have to be revisited when the project is examined by the Planning Inspectorate.

While 12 other sectors - ranging from energy to transport and hazardous waste - have a NPS to support the development of their critical infrastructure, the NPS for Water Resources Infrastructure remains in draft and



not yet formally designated. It has been repeatedly delayed since consultation on the draft closed in January 2019, with planned publication timescales pushed back every few months. We would urge you to rapidly designate the draft NPS, and to name strategic water supply options in our Water Resource Management Plan in the document (as the Thames Tideway Tunnel was in the wastewater NPS). Once in force this will provide the clarity and confidence needed to progress the development of key strategic schemes.

Without the NPS in place there is a very real risk of a major delays in progressing the strategic options in the Thames Water and south east regional plans. We would expect it to be extremely challenging for a project promoter to obtain consent for a project as, with no NPS the question of need would be reopened, with the risk that we become mired in debates around whether critical projects are required at all.

## 2. Amending Specified Infrastructure Project Regulations

The Thames Tideway Tunnel points the way forward. The biggest project in the sector since privatisation, it will prevent millions of tonnes of sewage entering the river, protecting it for at least 100 years. It is a transformative endeavour that shows what can be done when a holistic and integrated approach is taken to planning and regulation, driven by the mobilising and underwriting power of Government.

Tideway is the first and so far only project to use the sector's Specified Infrastructure Project Regulations, introduced in 2013. The regulations allow for the creation of a new separately-licensed entity and enable competitive tendering for project financing as well as construction. This has made it possible to deliver the project for £20-£25 on the average Thames Water customer's bill, compared to initial projections of £70-£80 under the conventional regulatory approach. Progressing the Tideway project did not benefit shareholders but was clearly the right thing to do.

We see very real potential for it to unlock better value for customers, including a new strategic reservoir for the south east, and strongly support Ofwat's recommendation to remove the existing 'size and complexity' test for SIPR projects. This states that the provisions can be used "only in relation to projects or works that in the Secretary of State's opinion are of a size or complexity that threatens the undertaker's ability to provide services for its customers". While this test applied in the case of the Thames Tideway Tunnel, there are other projects that would not meet this particular test but would benefit from the use of the regulations, and the size and complexity test is currently limiting the wider use of these game-changing regulations.

### Promoting household water efficiency

Smart metering and water efficiency are essential in ensuring our long-term security of supply and both are a core part of our current five-year programme and plan for the following cycle. Metering is also critically important in understanding the balance of usage and leakage, with consumption that can't yet be measured accounting for around one third of all reported leakage.

We are continuing to roll out smart meters to all households and businesses in our region and are on track to install around 700,000 smart meters between 2020-25, our biggest ever programme which comes off the back of the government's Green Economic Recovery programme. We plan to further accelerate this to 1m installations in the following five years, and beyond that aim to install smart meters at all household and business connections to our network by 2035. This will help ensure that demand management measures provide half of the extra one billion litres of water we project will be needed in our region by 2050.

We have delivered the UK's largest water efficiency programme, retrofitting water efficiency devices and fixing water-wasting appliances. We have helped more than 300,000 households and 15,000 businesses with free installation of water efficient devices and personalised water use audits, and are promoting our online household and business water saving calculator tools to all customer and water retailers

The insights from smart meter data are a game-changer in helping us pinpoint and drive leakage reduction on our own network, as well as fast-tracking wastage fixes in customers' homes – saving water and reducing bills. Key insights include:

- Approximately 10% of all homes have a continuous flow of water, indicating wastage through leaky loos or leaks on customers' own private supply pipes.
- The average loss per leaky loo, where water is continuously overflowing, ranges from 250-400 litres/day - enough to double an average family's total daily water use.

- Smart meter data shows us that c.25% of all of the water supplied to businesses is being used in a continuous flow, with most of this likely to be wastage through leaky loos and uncontrolled urinals, at an average of 2,000 litres each a day.

Water efficiency also has a little-understood and surprisingly important role to play in tackling the upward pressures on energy bills. Hot water use is the second largest component of the average UK household's combined energy bill, and after turning the thermostat down, installing a water-efficient shower is the joint most effective way to reduce a household gas bill.

### Opportunities to accelerate progress and offer greater value

We have worked closely with your officials to maximise the impact of these insights, which have supported the development of policy and regulation including Defra's consultations on national water targets, water labelling and WC performance and Ofwat's PR24 Draft Methodology. They have also supported the work of Defra's Senior Water Demand Reduction Group and the sector's Retailer-Wholesaler Group on water efficiency.

There are three critical opportunities to significantly influence the UK's approach:

#### 1. Mandate a National Water Target

The Government incorporated powers in the Environment Act to set a national water target. The consultation on environmental targets closed on 27 June and we await the Government's response. However, the per capita consumption target currently proposed will lead to a decade of lost progress as it will be largely meaningless for any organisation that is not a water company, disregarding the critical role landowners and businesses need to play in saving water.

Instead, we need a national water target based on percentage reduction of total abstraction (water company 'distribution input' to the water network, and all private abstractors) over time with appropriate complimentary local targets for water into supply for specific regions. This would drive behavioural change across the economy – ensuring every sector, organisation and individual takes responsibility for improving water efficiency.

#### 2. Introduce mandatory labelling of consumer products

Defra's current consultations on WC performance and water labelling provide a critical opportunity to harness markets to influence the quality of appliances on the UK market, which we would urge you to take. At present none of us knows if our taps, showers, loos, dishwashers and washing machines are designed to deliver water efficient flows and volumes. Mandatory water labelling in the same way that is currently done for energy efficiency has the potential to be the single largest water saver at a national level. It could save 30 litres per person per day by 2045 - a reduction of everyday water use in homes of over 20%.

Labelling energy-using devices has been a game-changer because manufacturers don't want their products to be rated lower than their competitors and customers prefer to buy the better performing item. Both of these factors drive markets to change and educate consumers at point of purchase. The same can be done for water. The legal power to introduce water labelling already exists in the Environment Act and the government committed to this in 2021.

#### 3. Requiring building developments to meet higher water efficiency standards

Currently our buildings are not built to a high enough water efficiency standard, which is making the issue of water scarcity worse. Building Regulations include two water performance levels: a standard 125 l/p/d and an optional stricter limit of 110 l/p/d, and two options to measure whether these levels are being achieved: a calculation approach (based on an indicative calculator using averages) and a fittings approach (based on the water actually used by specific devices).

As the calculations approach is based on estimates it grossly underplays actual water use. We know through smart meter data that new homes built to the 110l/p/d optional standard using the calculation approach are actually using up to 62% more water. A crucial first step to tackling water scarcity is introducing the 110l/p/d standard for all new buildings, delivered through the "fittings approach". These changes can be embedded through the Future Homes Hub and should be expanded to include commercial development. This change does not need new primary legislation so the Government can take it forward quickly following consultation.

## Leakage

Leakage is too high and reducing it is a priority. We have hit our last three leakage targets and reduced leakage by 10% over the last three years. Beyond the industry target of a 15% reduction over five years we are targeting an acceleration of this progress to reach a 20% reduction by 2025 and, beyond that, to halve leakage by 2050 (against 2017/18 levels).

Our work during the current five-year investment cycle is focussed on:

- Increasing real-time awareness by investing in data and insight, meaning that we can more effectively measure consumption and identify and target leakage on a day-to-day basis.
- Investing in detection to develop options that improve our ability to detect leaks accurately and quickly.
- Fixing leaks more efficiently, ensuring high productivity of our repair gangs so leaks are repaired quickly and efficiently using the right technique.
- Calming damaging pressure fluctuations that can cause bursts and leaks.

Leakage is roughly one third from our pipes, one third from customers' own private pipes and the remainder consumption that can't yet be measured as around half of our customers are not yet metered. This clearly limits the extent to which we can influence leakage as only one third is currently available to be addressed. It also means that the rapid rollout of smart metering will help us more clearly understand the balance between usage and leakage, and target action accordingly.

At present the primary method of controlling leakage is finding and fixing leaks. We have more than 280 people working round the clock to detect leaks and 320 – more than ever before - working to fix 1,100 leaks a week, or one every ten minutes, 24 hours a day.

Reducing leakage, managing pressure fluctuations and increasing metering will all help in the short to medium term – but transitioning to an ongoing programme of mains renewal will offer better value over the longer term. Current industry replacement rates of 0.6% for water mains per annum imply that it will take almost 170 years to replace existing assets, which is clearly unrealistic. The age and material of our network in London present a particular challenge. Our pipes in the capital average 85 years old and are mostly cast iron; a brittle material that reacts badly to environmental stresses such as cold or hot weather or traffic loading.

### Opportunities to accelerate progress and offer greater value

Ofwat can unlock greater value for customers by introducing longer-term regulatory settlements. This could be suitable for programmes of work where it is clear that they will take several cycles to complete – such as tackling sewage spills; reducing flood risk in the capital – and renewing London's water mains network.

By setting an expectation that price limits beyond the five-year cycle would continue to allow for investment in these areas, it would provide certainty to customers, stakeholders, companies, investors and the supply chain. In practice:

- Companies would consider a wider range of options / approaches than would normally be the case, offering better value over the longer time period.
- It would reduce the inefficient stop/start as supply chains have to be mobilised and then activity ramped down at the start and end of the five-year cycle.
- Customers would have the confidence of knowing that there would be continued investment focussed on the issues they cared about most, and organisations like local authorities would have a clearer picture of what work would be needed in their areas.

By striking a balance between the need to provide evidence to support the regulator's decisions, and the confidence and certainty a longer-term settlement would provide, this approach could unlock greater value for customers in the future.

## Dividends and rewards

### Dividends

Our shareholders are putting money into the company to prioritise improvements for customers and the environment. Shareholders not taken a dividend for the last five years, with only internal distributions made to service debt obligations of our ultimate holding company, Kemble Water Finance Limited.

Our Board and shareholders have approved plans to significantly increase investment from the £9.6bn Ofwat permitted us to recover from our customers at PR19 to £11.5bn. The majority of this increased spending is being funded by our shareholders, who have agreed a new equity investment of at least £1.5bn. The first £0.5bn has been committed unconditionally so that we can quickly progress the delivery of our Turnaround Plan. This includes accelerating work to renew our Victorian water infrastructure and tackle leakage, as well as investment to prevent sewage spills.

We are almost 18 months into the Plan and, while we have a long way to go, significant progress has been made. We have greatly reduced complaints and supply interruptions and have delivered against more of our regulatory targets.

Our dividend policy, which is summarised below, ties the payment of dividends to company performance and delivery of our commitments, including for customers and the environment. In assessing the payment of any dividend, our Directors are required to ensure that:

- Payment should not impair short term liquidity or compliance with our covenants;
- Payment should not impair the longer-term ability to finance the Company's business, including access to both debt and equity capital;
- An assessment is made to determine if the payment reflects the Company's performance against the final determination for AMP7 and its commitments to customers and other stakeholders;
- An assessment is made of the impact that payment of the dividend may have on commitments and obligations to customers and other stakeholders as a supplier of essential services, which includes customer commitments, environmental commitments, community commitments, employees and pension members; and
- An assessment is made of the long-term financial resilience of the Company.

### Reward

Bonus payments for managers are tightly linked to performance against environmental, customer service and other measures. There is no reward for failure - if targets are not hit, bonuses are not paid.

Within our bonus scheme for managers 90% of the bonus opportunity is linked to company targets, with the remainder tied to delivery of personal objectives. My bonus and the bonus of the Chief Financial Officer are determined entirely by performance against company targets.

Within the basket of measures used to determine bonus payments, delivery for customers and the environment both feature prominently. Progress against our Turnaround Plan, health and safety and financial performance complete the range of measures we use.

We also operate a three-year incentive scheme for around 50 of our most senior leaders, with 100% of the bonus opportunity determined by the achievement of company targets. 25% of this is linked to our performance for customers, including on leakage, with a further 25% tied to environmental measures, including water quality compliance and pollution. The remainder of the bonus opportunity is linked to an Integrated Performance Assessment, reflecting our return on regulated earnings.

The targets in the two schemes are aligned with our business plan to deliver our Turnaround Plan performance against the outcomes required to deliver the Final Determination from Ofwat at PR19, as well as requirements set by the Environment Agency and Drinking Water Inspectorate.

We want all our employees, not just those at management grades, to be incentivised to deliver better service for customers and the environment. We are currently in discussions with our Trade Unions to introduce a performance-related pay incentive for employees not eligible for the bonus schemes outlined above, with the intention to introduce this in the next full financial year.