



Industry and Regulators Committee

Corrected oral evidence: The work of Ofwat

Tuesday 18 October 2022

10.30 am

Watch the meeting

Members present: Lord Hollick (The Chair); Lord Agnew of Oulton; Baroness Bowles of Berkhamsted; Lord Burns; Lord Cromwell; Baroness Donaghy; Lord Eatwell; Baroness McGregor-Smith; Lord Reay; Lord Sharkey; Baroness Taylor of Bolton.

Evidence Session No. 10

Heard in Public

Questions 104 - 118

Witnesses

I: Sarah Bentley, CEO, Thames Water; Peter Perry, CEO, Welsh Water; Lawrence Gosden, CEO, Southern Water.

Examination of witnesses

Sarah Bentley, Peter Perry and Lawrence Gosden.

Q104 **The Chair:** Good morning, and welcome to the 11th session of the Industry and Regulators Committee inquiry into Ofwat and the water industry more generally. I am delighted to welcome three chief executives from the water industry: Sarah Bentley, CEO of Thames Water, Peter Perry, CEO of Welsh water, and Lawrence Gosden, CEO of Southern Water, who I think was appointed only a few months ago but who has been with the water industry for some time. Thank you very much for joining us today.

It will come as no surprise to you that the evidence we have taken shows that there is great dismay among those in the industry and among the public generally as to why the water industry has apparently for decades been polluting rivers and beaches. It seems to have accelerated over the last decade, but perhaps now the situation is getting slightly better.

The question that has been asked of us is: how has this been allowed to happen? The regulatory situation is a little complex, because there are two, the Environment Agency and Ofwat. But it is clear that Ofwat's remit, which was set out in its statutory duties in 1991, is to "secure that water companies can ... finance the proper carrying out of their statutory functions" and to "secure that water supply licensees and sewerage licensees properly" carry that out.

That was emphasised again in the 2019 *Time to Act, Together: Ofwat's Strategy*, which calls for "water companies to leave the environment in a better condition for our grandchildren" and to provide "reliable, resilient, safe and good quality water and wastewater services for everyone". That has manifestly not been achieved. Why is that?

Lawrence Gosden: Thank you very much for inviting us here. There are two really important issues that are worth separating.

First, the company where I have recently taken up the post of chief executive has had a significant turnaround in its performance. Our performance has not been good enough; there is no doubt about that at all, and it is an unacceptable position. We are charged with turning that performance around and improving it, as measured by the Environment Agency's league table—its star rating system. That turnaround will take another two years.

The Chair: How many stars do you have?

Lawrence Gosden: Last year, we were rated one star out of four. We need to get that to three stars over the next two years. That is the plan that we have put in place, and we might like to talk about that later.

The second issue that goes alongside that is the very important topic of storm overflows. Much of the entirely correct public outcry over the summer was related to storm overflows. They are not different from a public point of view; it is entirely right that this is all dealt with as one big

topic. But in terms of dealing with the problem, storm overflows are changing an aged Victorian system into something fit for purpose. It is a change to the design of the system. There are two issues that we need to tackle here.

The Chair: Sarah, you have been in post for two years. What is your take on this situation?

Sarah Bentley: To some degree, I echo what Lawrence was just talking about. I have been quite outspoken since I joined that Thames Water's performance in particular is unacceptable, particularly as it relates to sewage discharges. I am sure there will be an opportunity to talk about the clean water network, whether that is too many leaks, too many customer complaints or too many pollutions.

That is precisely why I was brought in by our new shareholders to turn the business around, and I am fully committed to doing that. The scale of some of the challenges that we have is quite substantial. Despite having come in, listened to a lot of our customers and stakeholders, formed a new team and a turnaround plan that lasts over the next eight years and is focused primarily on fixing a lot of the basics which you rightly point out are unacceptable, even when we get there that will not be enough.

Part of the challenge, when we look at the impact of population growth, climate change and the much drier summers and much stormier downpours that we are having, is looking at the whole system and how it works together. Too much rain is getting into the sewers, and we are using too much clean water. Whatever turnaround I am able to execute over the next eight years—it is a term that I am fully committed to do to get our performance back from being a laggard into the pack—there is still quite a lot more to do.

The Chair: How many stars did you have last year?

Sarah Bentley: We had two stars last year. We were a three-star company, and we moved back to being a two-star company, although we have done quite a bit to reduce the total number of pollutions. They went down by 10% in my first year and 7% last year. We are really struggling to pinpoint serious pollutions quickly enough across the 109,000 kilometres of sewer networks, so we have a way to go in that regard.

Peter Perry: The situation is somewhat different in Wales. First and foremost, we can point to year-on-year improvement, with no complacency at all from our perspective. There is definitely more to do. In terms of the outcry about storm overflows, we have carried out quite a bit of research with our regulators in Wales, and they are not the main form of pollution in our part of the UK. That said, we certainly recognise that our customers and society at large are concerned about this, and we are investing in it.

The real issue in Wales is nutrients. The First Minister called water companies and regulators together this summer so that we can focus on

tackling nutrient pollution as the main issue. We currently have around 41% compliance with the European water framework directive on good standards for rivers.

The situation is quite different. Again, there is no hint of complacency—there is a lot more for us to do—but it is a very different position from what you might find in England and other parts of the UK.

Q105 **The Chair:** Do you think that Ofwat's remit and the way it implements that remit is clear enough to ensure that the objectives it sets itself can be met and that companies are clear on what they are supposed to do?

Peter Perry: I think so. There is considerable alignment between doing the right thing for current customers and doing the right thing in the long term. In terms of setting objectives, whether it is services to customers or to the environment, getting the balance between doing the thing for the long term and making it affordable are pretty much aligned.

Baroness Taylor of Bolton: Can we pick up on that? The price review mechanisms have been criticised quite widely, and Ofwat now has a long-term delivery plan. You were talking about how long some of these issues will take as it is a backlog of problems from previous company policies, although people might dispute what the actual reason is. How do you think we can balance the price mechanism in order to get the kind of long-term investment that you are talking about?

Sarah Bentley: I appreciate the comment. As the Chair mentioned, Ofwat's objectives are clear, but there are two things that could be helpful. The first is the strategic policy statement which the Government set. Other regulators, such as Ofcom, set very clear direction when it comes to the trade-offs and the balance of investment versus the bill profile. We have very clear direction in the strategic policy statement about the environmental destination, but how Ofwat can then interpret that in the way the investment gets funded in a particular period can be more challenging.

I read that Ofcom's version of the SPS makes it very clear that the Government state that "promoting investment should be prioritised over interventions to further reduce retail prices in the near term" and is "key to improving consumer outcomes, in terms of choice, service quality, and innovation". That sets quite a clear steer in the Ofcom example, which I think Ofwat would benefit from.

Obviously the long-term delivery plans are a very welcome move, and across the sector we welcome the opportunity to look more long term. Just yesterday I was at Tideway, which we may get on to later. It is a brilliant example of a great longer-term investment, but it was outside of a five-year cycle just because of the nature of the programme of investment. If we are looking at replacing more of the Victorian water mains or things such as greater investment in our sewage treatment works to improve river health, which we have just been talking about, these are things for which we can plan longer-term programmes.

The key for me as we look forward with Ofwat is how we can interpret that sort of directional statement into something more akin to a multi-AMP settlement, a 10 to 15-year settlement, so that there is some clear direction and certainty for us to execute these improvement initiatives.

Baroness Taylor of Bolton: When saw the water privatisation process was going through Parliament, this was precisely why we were told that we needed privatisation: to get that continuity of long-term investment. Clearly, that has not happened.

Sarah Bentley: In these five-year cycles, we can see up to five years. There are some things that rightly can be managed in a five-year period, such as more of the in-year performance delivery.

When we are talking about some of these step changes of investment that we need to make, such as replacing the Victorian clean water mains or taking other big initiatives such as Tideway, which is a good example, or water resources—we are in a water stressed period of drought at the moment—which are programmes of national significance, these transfer schemes throughout the country to move water around or these larger storage schemes last beyond a five-year period and require a lot of collaboration and more than five-year certainty to deliver them. So it is a question of balance; some things can, appropriately, be done in five years, and others probably take a longer-term horizon.

Baroness Taylor of Bolton: Your colleague was nodding. Can we perhaps come on to the other end of this, which is the consumer who pays the water bill? I do not think anyone would deny that we are in a cost of living crisis, and water bills are a big factor for a lot of people. How do you balance that? Do you think the water companies, or individual companies, have a responsibility to have a social tariff rather than a single one? Perhaps we could get all three of you to comment on that.

Peter Perry: Looking after those in society who struggle to pay is a priority for us. I will talk about what we do in Dŵr Cymru. Our social tariff scheme is one of the largest by proportion in the sector. About 144,000 of our customers, mainly those receiving means-tested benefits, are on the scheme, and it cuts the bill broadly in half. We have another scheme, WaterSure, for people who have medical conditions, which reduces the bill, particularly for those who have large families where water use is incredibly important for them.

Currently we find that there is an emerging group in society that we need to help. It is not a very nice term, but it is the working poor. We are looking to trial in January the idea of supporting people who have negative budgets, who effectively are the people who would turn up to a food bank, and we will put them on to a reduced tariff as well. We have a pretty substantial scheme in its own right, called HelpU, and we have WaterSure, which helps people with medical conditions, but we are now moving into another place, which is the emergence, which is very sad to see, of this group of people who are working but just not getting by.

Baroness Taylor of Bolton: Thank you. It is interesting to hear that, and quite purposeful. I wonder what your colleagues are doing in their areas.

Lawrence Gosden: Presently we offer a similar social tariff as well. Our social tariff is a variable one that will be standardised at about 45%, but practically it means that it goes from about 20% to some customers even receiving 90% reductions on their water bills. That is to help those in society who are struggling to pay their bills. However, we certainly welcome moves, which the entire industry is working with the Consumer Council for Water on, to put a single social tariff in place across the entire sector.

Baroness Taylor of Bolton: So you prefer a single one.

Lawrence Gosden: I think it provides consistency for anywhere in the country. Provided that it is put in place with the right entry mechanisms so that people are well supported, we would support that and are working with the CCW on it.

Baroness Taylor of Bolton: What proportion of your current customers benefit from the reduction that you mentioned?

Lawrence Gosden: We have just over 100,000 customers receiving that support now and we are looking to grow that to 130,000 over the coming year, but we are keen to grow that as far as possible. It is difficult to understand the full scale of the number, but it is important that we keep working with local authorities and other support groups to keep widening the envelope for those who can access that important service.

Sarah Bentley: We have similar schemes to Peter and Lawrence. At the moment, we have 282,000 customers who are eligible for a social tariff. Like Peter's, they receive a 50% discount off their bill, and we also have payment matching schemes that help people with arrears, so where they have debt payments, and we have a trust fund, which we have put over £10 million into over the last decade, which provides debt advice, not just on water debt but on broader household debt. We are very supportive of a single social tariff so that there is not a postcode lottery for help.

There are a number of features that could really help it to make a difference. In our area, we have identified that about 10% of customers have water bills that are over 5% of their income, and the Consumer Council for Water suggests that that is the threshold for where people need help. Recently we have secured support for increasing the number of customers, so we should be able to reach 360,000.

The single social tariff means being able to actively share data in an appropriate way with HMRC or the DWP so that we can really ensure that it is going to people who need it most. I know it is complicated to make sure that, from a GDPR perspective, that data is protected, but we would need to do that. It is about trying to help as many households as

possible, making sure that the design of it is as open as possible to help households.

The other piece is that there are very significant cost of living differences across the country, so those need to be borne in mind. Some thoughtful design needs to be there, but we are in talks at the moment as a potential pilot. Obviously we are the largest provider of water and wastewater services, so the scale and support that we have should be a good industry pilot for the single social tariff that we are actively supporting.

Baroness Taylor of Bolton: You mentioned 280,000 eligible customers.

Sarah Bentley: No, they receive it today. We estimate—we do not have the data that I mentioned from HMRC or the DWP—that in our region there are probably 360,000 people who would hit that 5% threshold, and the recent support that we have just secured means that we should be able to extend it, which is why we are now opening up the pilot.

Q106 **Lord Reay:** We have already touched on the widespread concern at the state of the water environment, particularly in relation to sewage discharged from storm overflows. How has the situation been allowed to deteriorate to such an extent? Is there a need to tighten the permits that allow the use of storm overflows?

Lawrence Gosden: I will quickly recap to where the focus of the industry has been over the last 30 years and then go on to look at how we solve storm overflows. The industry and the company that I lead, Southern Water, has been focused on improving the proportion of sewage that is treated through wastewater treatment works. That has improved from less than 50% being fully treated on the south coast 30 years ago to now 95% of all the wastewater that is collected from people's homes going through fully treated processes, entirely correctly and properly.

The important point now is to tackle that last 5%, and it is that last 5% that is released through storm overflows when it rains heavily—although sometimes it is actually more to do with the amount of rain that can access the sewer system. Those storm overflows had a purpose in their original design: they were there to protect customers' properties from flooding. So we have to be very careful and thoughtful about how we fix the problem, because we do not want to just move the problem elsewhere.

We have been delivering five pilot projects that look at separating the stormwater away from the sewage system and recycling that more safely back into the environment, while providing local storage at customers' properties. I am satisfied now that we understand what needs to be done to be able to tackle the problem sustainably. That sustainable point is really important. If we just built storage, that would increase the carbon footprint of the industry dramatically, and we do not want to be doing that. We believe that separating the storm flows and providing some storage is the optimum solution.

Those pilot projects are nearing conclusion and will form the proposals that we put forward not just to Ofwat but to Ofwat, the Environment Agency and the water companies working as one regulatory system. We will be putting all of that forward at PR24 and working with the Government to seek ways that we might be able to accelerate that work.

Lord Reay: Do you have a handle on what the costs might be for Southern Water for that?

Lawrence Gosden: This is an early estimate based on the five projects, but we estimate that we would make an 80% reduction, in the order of £2 billion.

Peter Perry: Much of the industry has been working on storm overflow discharges for the best part of the last two AMP cycles; we certainly have. We recognise that the investment prior to that was targeted primarily on quality, compliance with the European water framework directive, the bathing water directive and so on. In that time, we recognised that the next area to tackle was flow—the amount of wastewater that was retained in the system that ended up being fully treated. We have two AMP cycles of targeted, prioritised investment on overflows that cause the most environmental impact.

I think the debate has moved on somewhat, because there is a general unacceptance of overflows in any event. That is something that we as an industry and we as a company will tackle, but it will become long term. Because of the river catchments in Wales, the bill for us over the long term is actually £9 billion, because we have more catchments and, because of the sparse population, we have more lengths of sewer.

So the idea that we have not been alive to overflows and tackling them is not quite correct. We have been attempting to tackle that issue among our other priorities. We can certainly point to the last two AMP periods where although we lacked monitors—the ability to measure how much overflow or how much wastewater was being treated—we have been tackling that issue.

Sarah Bentley: I shall add a Thames perspective. I have been quite outspoken since I took up the post and joined Thames Water in saying that we find that unacceptable. That is certainly a corporate change in position about the unacceptability of them.

The issues are quite different in London from the rest of the Thames Valley region that we serve and the home counties. That is partly because here in London we have a combined surface water and sewerage system, which was brilliantly built by Bazalgette during the Great Stink and has served London well, albeit that it was designed for a population of 2 million people and we are now stretching its availability.

The other piece is that in London we are losing about two and a half Hyde Parks a year of surface area: that is, permeable surface area where rainwater can go. In the last 10 years to 2015, over 50% of London's

front gardens have been concreted, so the amount of rainfall getting in and mixing with sewage is the issue. This is a dialogue that has been going on for some time, which is why we have Tideway—as I mentioned, I was there yesterday—and that will have a substantial effect on significantly reducing the volume of sewer discharges by 95%.

We have six very large works here in London, but we have over 350 works in Thames Valley. There the issue has been, as Peter said, very much focused on chemical components and reducing things like ammonia phosphorus and other chemicals in the discharge as opposed to the flow. On a normal given day, the treatment works cope with sewage, but when we get a deluge of rain or high groundwaters, then groundwater enters the sewage network and mixes with sewage, that is when our works are overwhelmed and discharges are inevitable. That is why we have been working since about 2016 on a programme called Go to Green, to improve the amount of flow that we are treating and, ultimately, reduce that over the next eight years.

Lord Reay: What are your thoughts on the Government's final storm overflows discharge reduction plan? Are the targets sufficiently ambitious and deliverable?

Sarah Bentley: The targets have just come out and we are assessing them. Part of the challenge is getting some alignment on the targets: the Defra targets are about the number of sites that are improved, while Ofwat has a proposal out at the moment for the number of events per storm overflow.

Our suggestion is slightly different and that it should be the about duration, because we believe that the length of time these things are discharging for is the real issue. One event in a 24-hour period might last for 15 minutes or might discharge for five hours, for example, so we are trying to set targets on duration. We have said that there should be an 80% reduction in duration for sensitive watercourses and 50% for all watercourses over the next eight years, and they should be reduced entirely by 2050.

A helpful discussion will be the various bodies involved in agreeing on these targets coming together to ensure that what we all want to see, which is an improvement to help river health and the environment, is successfully achieved by these targets.

Lord Reay: Lawrence, would you like to comment on the Government's plan?

Lawrence Gosden: When you step back from the entire situation, you can see that it is clearly unacceptable, as my colleagues have mentioned. The entire regulatory system—not necessarily any individual body, but the Government, the water companies, the Environment Agency and Ofwat—has been overtaken and not kept pace with the demands from our customers, and we have to recognise that.

The Defra storm overflow reduction plan is a welcome point of clarity in setting a standard. Our opportunity is to see what can be done to accelerate against that plan. In our view, it sets out a minimum plan—that is how I describe it—and we owe it to our customers and the environment to see what we can do, working with all the organisations in that regulatory system, to accelerate the plan and action for customers and the environment.

Peter Perry: To come back to my earlier point, Wales is somewhat different, because the First Minister has been very clear through the strategic direction statement for PR24 that nutrient pollution is the key issue. If we tackle that, we will see that 40% compliance with the water framework directive increase. If our focus is on CSOs, it will be absolutely marginal and we will not make the same level of progress.

Having said that, for clarity we get the idea that storm overflows discharging is no longer as acceptable as it may have been in the past. We will continue to focus on phosphorus, get the nutrient-pollution levels down, improve river quality and work with other sectors in doing that, and tackle CSOs that have the highest environmental impact. If we targeted storm overflow numbers in Wales, there would be a perverse outcome, in the sense that we would not be improving river quality as much as if we concentrated on nutrients, but I do not want to downplay CSOs at all. They are no longer the route that we can use that we probably had available to us in the past, but for us it would not be the right target to make the maximum environmental improvement to our Welsh rivers.

Lord Reay: If your water company is found to have breached your responsibilities in relation to CSOs, will you commit to returning to a state of compliance as rapidly as possible—by 2025, for instance—rather than spending considerable time contesting enforcement action?

Lawrence Gosden: Entirely so. We are very happy to commit to making that true. We are already making good progress in setting out to have less than 20 overflows per CSO per year. I would not necessarily call it a target, but it is certainly a number that the industry is focused on with Defra by 2025, and we are already looking to go beyond that in our plans.

Sarah Bentley: In terms of becoming compliant, absolutely; that is without question something that we need to do. That is why the targetry and making that in a sensible and achievable way is absolutely critical. I will take something like Mogden, the sewage treatment works in Twickenham, which obviously has been in the press a lot for some of its significant discharges. There was a discharge back in 2020 when there was a significant amount of rain—I think it was a one in 137 years storm—and we would have needed another 150 storm tanks to be able to contain that rainfall event, or to have built another treatment works the size of the one in Twickenham, which serves around 2 million people, obviously neither of which are either desirable or achievable by 2025.

Actually, what we need to do is work with the community there and with the whole catchment in these proper catchment partnerships to keep the rain out. Rain has no place getting into the sewage system in those areas. I am really keen that we find the right solutions to resolve the problem and that we absolutely should be compliant with all the requirements on us as water and wastewater companies, but in a sensible and achievable timeframe. That is why taking that average of number of discharges per outfall is not necessarily the best target to go for.

Lord Reay: The question may be less relevant for Welsh Water, but was there anything you wanted to add?

Peter Perry: I go back to the idea that we have a framework to prioritise investment in overflows, and that is what we work through. When we have enough measurement equipment to say that an overflow is operating outside its permit, we then agree a prioritised investment programme with Natural Resources Wales or the Environment Agency, depending on where it is.

Lord Sharkey: Lawrence, I think you mentioned a cost of £2 billion or so to address these storm overflow problems, and I wondered how that is to be funded. One reason why I wonder is an article in the *Financial Times* at the end of last month, which pointed out that your net debt has risen from £5 billion to £6 billion in the last year, and already one-fifth of typical household bills goes into paying interest. Where is the money coming from?

Lawrence Gosden: I will pick up on two areas in that question. First, on the status of Southern Water's finances, we have recently brought on board new shareholders; indeed the recent chair of Ofwat may have talked to the Committee about that before. With those new shareholders came £1 billion of equity, which has reduced the gearing of the operating company down to 64%, which is getting back towards where it really should be. So we have seen a significant improvement in the gearing of the company and the reduction of that ratio of debt to equity.

That has enabled us to bring forward investment plans and accelerate work in the current five-year period, and indeed we plan to use that to spend over £250 million, in fact nearly £300 million, over and above the regulated allowance for this AMP period as part of us accelerating, making good and getting the company into its turnaround position. That is the perspective from where we are now, so a lot of that has largely been corrected.

Our shareholders are not taking any dividends; there are no external dividends leaving the company. There have not been any external dividends for six years, which means that all the profits of the organisation are going back into the investment programmes for correcting and turning around the company's performance. But as we look to the future, the sheer scale of the infrastructure change across 40,000 kilometres of network to disentangle this combined sewerage

system, keeping stormwater out, keeping it safely contained in the environment as clean water and keeping the sewage where it needs to be, in the sewage pipes going to the treatment works, all gives rise to those large numbers. So, in context, £2 billion is the same as our current capital programme, where we invest £2 billion every five years in all these environmental improvements, some of which Peter has been talking about, such as removing nutrients. So that is doubling our capital programme.

In future, having got the company back into a not necessarily perfect but certainly considerably better place in terms of its debt and its equity ratio, this big step change involves changing the design of the sewerage system, and we will need to find its way through the price review process with Ofwat and will need to be sensitive to the discussions we had earlier about ensuring that customers who struggle to pay are well supported if there is a need to increase bills at all.

Lord Cromwell: I have a quick question for Sarah. If I heard correctly, Southern Water is looking for £2 billion, Wales for £9 billion. I do not think we had a number from you, Sarah. I know it is a “how long’s a piece of string?” question, but can you give us an idea of the sort of money we are talking about to put things right?

Sarah Bentley: To make the reductions that we talked about by 2030, which is not a complete elimination of sewage discharge, the current estimate is a similar number of £2.5 billion. As I mentioned, we are significantly advantaged by the fact that Tideway will resolve a substantial part of London’s infrastructure when that comes online, but the remainder is for the Thames Valley and home counties area that we serve.

Q107 **Lord Burns:** I declare an interest, as Peter Perry and I worked together at Welsh Water some 10 years or more ago at a rather early stage in Peter’s career. I would like to turn to the issue of ensuring future water supply. We discussed earlier, and you mentioned, the impact of climate change and population growth, et cetera. What kind of strategic solutions do you think are needed to ensure future water supply?

Sarah Bentley: The strategic solutions that we need are well set out. The companies have been working together for some time; I think the committee has already heard about the Regulators’ Alliance for Progressing Infrastructure Development—or RAPID, as it is known—where there are 18 schemes nationally. Primarily, they are to do one of two things. One is to move the water around from the wetter north and west to the dryer south-east, and the other is to ensure that there is sufficient storage available.

So the solutions exist; the challenge is moving those through to getting them acted upon. Things like the national policy statement, which I mentioned earlier, could deem some of these things of national significance, such as the large reservoir schemes or the large transfer schemes that we are desperately in need of. Thinking about London and

the south-east, we have about a month's worth of storage of raw water in London, and if I compare that to somewhere like Perth, which has six years, or Melbourne, which has three years, you can tell that we are disadvantaged. You might think that London is wetter, as we like to talk about the rain quite a lot, but I think we are twice as dry as Sydney and roughly as dry as Jerusalem, and climate change is exacerbating that problem. The time for action is absolutely now. If we had had those reservoirs available, we would not have had some of the restrictions that we saw this summer.

Lord Burns: Could you enlarge on what reservoirs and ability to transfer water you need for London?

Sarah Bentley: In London and the Thames Valley, we are working very closely with colleagues at Southern Water as well as at Affinity Water and South East Water. The six regional companies have joined together to form this group, which is independently chaired, called Water Resource South East—the clue is in the name.

We have identified a number of schemes. There is a transfer scheme from the River Severn to the Thames, a transfer scheme from Thames Water to Affinity Water, another scheme from Thames Water to Southern Water, and two reuse schemes—that is, effluent reuse, piping the effluent that comes out of these large treatment works, either from Mogden, which is the one in Twickenham that I mentioned, or at Deephams, up to the Lee Valley reservoirs. Obviously, it is then retreated via the clean water process for that effluent reuse. The final scheme is the South East Strategic Reservoir, a very large reservoir that has been proposed for some time and which would serve Thames Water, Affinity Water and Southern Water.

Lord Burns: How close are they to being financed and worked through? When will work begin?

Sarah Bentley: There are various schemes that have an opportunity to be built over the next period of time. I think the earliest one is due to come online by 2030, right the way through to 2050. It is an adaptive planning schedule. The challenge now is a bit like Tideway, where we have identified what the programmes are, but some of them need to be deemed nationally significant infrastructure projects so that they can go through the appropriate planning and accelerate through. At the moment, the water resource plan they are part of is about to go out for consultation, but it is almost as if we now need to get the political will to say, "Actually, these schemes are of national significance and they need to be moved forward".

Lawrence Gosden: A really important document that all the water companies will consult on shortly is the water resource management plan, which sets out all the major strategic choices. That will go into consultation as we go into the autumn. It takes a 50-year time horizon and a long-term view, and has done so in previous successive five-year AMP periods as well. So the industry is taking a long-term view.

In terms of practical solutions, a really important different feature now is the cross-connection and interconnection between water companies. Sarah has already mentioned the reservoir at Thames and how that connects to the Southern region. Even closer to home for us is the Havant Thicket reservoir just outside Portsmouth, which is being paid for and used for Southern Water's purposes but built by Portsmouth Water. So water companies are working together across the wider water system to ensure that we have resilient supplies.

My final point concerns the demand side. Reducing demand is really important. It is not just about increasing supply but about reducing demand. The company that I lead has nearly 90% metering, and the important change that that has made is quite astounding. Thirty years ago, Southern Water was putting into supply 700 megalitres a day—700 million litres of water a day. Now we are putting into supply 500 million litres, and that is against the increasing pressure of population growth. So over that 30-year period we have reduced the amount. That reduction has been from leakage reduction and from reduction in demand—water efficiency and getting less usage in people's houses—both by giving customers metering information so that they can moderate their own use and by reducing leakage by about a third over that period.

The demand side of the equation has been important historically, but it will be even more important in future, because a lot of the early gains over the coming decade or so will be made through demand-side reduction.

Peter Perry: Representing the company that is already the biggest exporter of water across the border into the Midlands, I have a couple of points to make. We are one of the wetter parts of the UK—although it certainly has not felt like it in 2022—so we would be in a slightly different position. With Welsh Government approval, we would support water transfers, but you will know how politically and culturally sensitive the whole idea of water is in Wales following the issues that occurred back in the 1960s over supplies to large English cities. We would be supportive but there are some criteria that we would make sure were in place. First and foremost, there must be no detriment to our customers or our environment. We would also want to make absolutely certain that the commercial rate for that transfer was appropriate.

Then I would move on to the point that Lawrence touched on, which is demand management. That is significant. All of us will be tackling leakage, and that needs to continue; we need to do as much as we can to get leakage down on our networks. On work with customers, we have a scheme called Cartref—the Welsh for home—where we go in and repair customer-side leaks. These days, to get into the detail a bit, toilet cisterns now leak into the toilet pan so people are not inconvenienced by what happens. We have a scheme where we go in and fix those, because half of our total leakage, and I think this is much the same across the UK, is actually on customer supply pipes while half of it is on our networks. When we talk about 20% leakage or thereabouts, broadly half of that is

network and the other half is on customers. So we have to engage with customers to encourage them to use less, and we have to support them in that, and we have to do our bit on leakage as well.

Lord Burns: Is there any worry about the transfer of water from different parts of the country? I remember when I was involved that the Environment Agency had concerns at that stage about large-scale transfers. Is that still the case, or has it gone away as an issue?

Peter Perry: It is still the case, but it is manageable. It is about making sure that one river catchment does not contaminate another. As long as the environmental safeguards are in place, and that would have to be one of the key criteria that we would apply, they can take place.

Q108 **Lord Sharkey:** We have touched on the role that consumers might play in managing demand, but I wonder whether water companies really have any incentive to reduce demand, given the potential for lowering their revenue. I also wonder whether water companies are the best advocates when it comes to speaking to consumers about this issue, given the reputation that those companies have right now.

Sarah Bentley: I will happily answer that. I shall step back and look at this from two perspectives. The first perspective is that we absolutely want to reduce demand, but part of that is that there is no incentive for water companies to produce less water. In fact it works the other way in the operational delivery: because of the revenue correction mechanism, we have a fixed revenue settlement over the five-year period irrespective of consumption for customers who are metered. We are about 50% of the way through the rollout of our metering programme; like other companies in the south-east, we have a designated compulsory metering programme.

We are absolutely incentivised to roll out metering and reduce demand. There are various different operational delivery incentives, penalties and rewards. One of those is per-capita consumption, where we are targeted with a reduction in demand, but it does not affect revenues because the correction mechanism kicks in. I just thought I should clear that up.

On the question of working with consumers to influence their behaviour, certainly in Thames's case this goes back to the fact that we just need to fix the basics and sort out our performance. I have to deliver the turnaround plan to improve performance and earn back trust and credibility with consumers.

The second piece is that we have some really interesting insight from the smart meters. We have rolled out about 700,000 smart meters, and the insight, as Peter alluded to, is really telling. Dual-flush loos, which ironically are there to reduce water consumption, were designed with a valve that perishes over time, and these leaky loos can waste 250 to 400 litres per day, which is like a family of four moving into your home. We have that insight now, so we need to be able to share it.

I agree that we need to work with other bodies. Nationally we are working together with the Consumer Council for Water and other bodies to encourage better water consumption. If there is better water labelling or water targets that the Government and other people can introduce, we would be all in favour of that. We have also started an incentive for developers. We have a three-phase incentive for developers to build water-efficient homes, both in terms of the water that is used and then the surface water and how that is managed so we do not get the rainwater.

So we are doing the bits that we can, but we need to wake up nationally to this amazingly precious resource in the same way that we have woken up to carbon and its impact. If we could wake up to the impact that water can have and put water and wastewater right at the heart of planning considerations, whether in retrofitting existing homes or in new homes, that would be all the better. I think we would all concur that the more we can reduce consumption, the better.

Peter Perry: There is another dimension to the whole issue of our cost base. These days, with energy costs and chemical costs, which are intrinsically linked, producing less water actually benefits us in cost efficiency. That is a significant driver. Lawrence's reduction of 200 megalitres a day would be a significant saving in costs. The opposite end to revenue, our cost efficiency, is worth us producing the amount of water that we produce.

On signalling and messaging customers, you have a very fair point. We have seen our regulators—the Consumer Council for Water, Ofwat, the Environment Agency and Natural Resources Wales—begin to message. Dare I say it, I wonder whether the Government should start doing it. There has been a focus on energy reduction but, based on what we are seeing in terms of climate change—I have said this half-jokingly about 2022, but we really are an industry at the forefront of dealing with climate change—we should look at water consumption too. I think it is about joined-up messaging from the Government to the companies through our regulators.

Lord Sharkey: The Government have not shown much inclination to favour public information campaigns recently, but of course they may change their minds.

Lawrence Gosden: I agree with everything that my colleagues have said and I will not repeat any of that. I will just build on two further points linked to that. First, water companies are full of thousands of hard-working people who really care about customers and the environment. There is a huge degree of empathy there and they want to do the right thing by customers—in difficult conditions, I would say. Naturally, the people in the water companies who are working hard every day want to be able to help customers to save water, want to be able to support customers to afford their bills and want to save the environment.

I point to one plan that we put in place when we had to put a temporary-use ban in place this last summer, and it is still in effect now. That plan was put in place to protect two precious chalk streams in our area. Our customers responded magnificently: demand reduced by between 5% and 10% almost instantaneously, which played a material part in helping to protect those streams.

We also, entirely voluntarily, put in an incentive scheme for business customers called You Save, We'll Pay, which basically meant that if business customers—we are talking window cleaners and all sorts of small businesses—could find ways to be water efficient by their own voluntary action, not only would they save by not paying for that water on their water meter but we would double the return, so we paid them the same money again. We did that entirely of our own accord, so we are deeply connected as a company to wanting to support customers.

Q109 Lord Sharkey: Could I ask about meters? I heard 90% from Southern and 50% from Thames. I do not know whether Peter mentioned a percentage.

Peter Perry: It is broadly 50% for us too.

Lord Sharkey: Is it going to be more difficult to get from 50% to 90% than it was to get to 50% itself? I have in mind here electricity meters, which have been spectacularly unsuccessful in generating rollout. What is the barrier, if there is one?

Sarah Bentley: We are quite confident that we will get to the 75% level by the end of the next regulatory cycle. That is the plan that we have put forward, and we have already accelerated it substantially in this period through the government's green economic recovery programmes that were kicked off a couple of years ago after Covid, so we have accelerated the rollout.

As to where the challenge comes, I believe you heard from the new chair of the Environment Agency last week when he referred to the problems in blocks of flats. Obviously we have a disproportionately higher number of those in the Thames region. There is also the question of some of the old supply areas. Some rows of terraced houses are run on what is called a shared supply, so three or four or a small terrace row will all be on one supply. The job there is not just to put a meter in; we then have to separate out all the supplies and get co-ordination across a number of homeowners and tenants.

So that last 25% is going to be difficult, but since I joined I have set a clear mission for our team to eradicate unmeterable properties. I am delighted that we have a new trial that is just starting to look particularly at blocks of flats. I think that when people think of blocks of flats, they look at some of those beautiful flats on the river that are incredibly modern, but it is the old Victorian houses that have been split up into multiple dwellings that are more challenging.

Do not forget that these meters are not a thermostat display on the wall. The cost of water is substantially lower than the cost of energy. Our average bill is £423 a year, so a little over £1 a day. We want to target the excessive usage that comes from things like using clean drinking water to wash cars or water lawns. These meters should be able to provide information digitally that we could make available through mobile devices and other things, rather than some of the challenges that the energy companies have had with the thermostat-type meter in people's homes.

Peter Perry: There are no two ways about it: metering helps to manage water demand. We are at 50%. From 2025 onwards we will be making some changes to the rules about how people move to meters, while always making sure that the people who make those changes are protected from an affordability perspective. Ironically, most people moving on to meters generally see their bills come down, but we will look at that. At the moment we install meters in all new properties or when people choose to go on to meters—apart from commercial premises, of course, which are always metered. From 2025 onwards we will move to change of occupancy as a mechanism to get people on to meters. If we are going to deal with the kind of climate change challenge that we are seeing now, metering certainly plays a part in that, and we are gearing up more to move towards the world that Lawrence is in.

Q110 **Lord Cromwell:** I have three areas of questions: investment, certification and co-ordination. Let us start with investment. As has already been covered, there is a lot to do. We have had a figure of £13 billion from you three today, and other figures are what I think our current Chancellor would call “eye-watering” multiples of that amount. So where is the money going to come from? Will the public purse have to be touched for this, or is it all going to be raised from the private sector?

Sarah Bentley: An important to make is about funding and financing. Whether through bills and tariffs or through taxation, customers pay for the infrastructure that we provide. With regard to our plans, we are in an unusual situation where we have patient shareholders who recognise that Thames's performance is unacceptable and who have chosen to invest money. They are doing so in two ways: first, shareholders have not had a dividend for five years, and, secondly, we announced just before the summer that they would be making an equity investment to back the improved funding plans. Those are a recognition of our turnaround to make sure that we turn around the performance and improve things for customers and for the environment, to get back in the pack.

I want to distinguish between our new, patient shareholders who are improving the turnaround at Thames and the broader challenge of saying that we need to make a step change in the infrastructure that we are investing in, whether that is to make clean healthy rivers or to secure the water resources that we need—I think the National Infrastructure Commission said that we need 4 billion litres more water per day by 2050—so we will have to invest quite substantially. That is where we need radical reform, which is what I have been calling for.

That can happen in small ways. As I said, if water and wastewater management are put the heart of planning decisions then we will not be putting more rain into the sewerage system and the investment scale will be less needed. A six-by-six patio, if misconnected to the sewerage system, creates as much flow to a foul sewer as the sewage from 100 homes. By being really thoughtful about how we can cope with the sewerage and how we build the sewerage that we need for population growth, putting water and wastewater management at the heart of planning would make a difference.

Lord Cromwell: That is all good sense and part of appropriate planning, but I do not think you are disagreeing that large-scale investment will have to happen, and I am curious as to where the money is going to come from.

Sarah Bentley: Reducing the scale of what is needed is my point about putting it in planning. When we look at these long-term large infrastructure plans, Tideway is an incredibly good example of a large-scale infrastructure programme that is being delivered very effectively. The original numbers that were talked about for Tideway were £70 or £80 on the bill, but by setting it as a programme of national significance, with a national policy statement around it, we were able to compete it out effectively, and that is now between £20 and £25 on the bill—I think in the current year it is £21—for a substantial piece of investment that is going to lead to a 95% reduction in storm discharge volumes.

So we know how to do this stuff; we just have to identify which of those large nationally significant projects fall into that category and which ones can be appropriately afforded through the bill profile, obviously with the right support for customers who need social tariff support.

Lord Cromwell: It is my understanding that inflation will increase the value of your asset base. Will that create a windfall and, if so, what are you going to spend that on?

Sarah Bentley: Unfortunately, in the case of Thames Water it is not creating a windfall, for two reasons. First, we have a large amount of debt, which is one of the big parts of the turnaround—to reduce our gearing and reduce the impact of the debt burden that we have.

Another important point is that revenues are inflated by CPIH and the cost of the basket of goods that we need for our services is substantially more than that. We have some chemicals on which we have spent more than 600% above what was budgeted for. We all know the impact of energy prices, which are far greater than CPIH. If I look at the basket of goods, unfortunately inflation is causing a quite a negative impact on our finances as opposed to the windfall it might be creating in other areas.

Lawrence Gosden: Thank you. I have three points, building on Sarah's points. First, this is the key question for the regulatory system, which consists of government, water companies, the Environment Agency, the Drinking Water Inspectorate and Ofwat. It is going to be the big

conundrum that we have to work to find a solution for because the investment need is clear, and it is required.

I would just point out that there is some strong appetite for capital in the private sector, so it is out there. One of the reasons for privatising the water sector in the first place was the ability of private capital to, in effect, double the investment power. For every pound that the customer would be paying through a bill, the private sector would put another pound in for investment and pay that back over the long term. That was put in place at that time to be able to deal with the huge investment wave coming from Europe back then. It strikes me that we might be in the same place again. Vehicles such as the one in Tideway that Sarah has described could be the right kind of solution to find a halfway house through all of that.

Peter Perry: I do not have a huge amount to add to what Sarah and Lawrence have said. We have had a system since privatisation which, through our ability to raise finance, charge customers bills and to get that balance right, has delivered. That needs to continue.

The issue is that we have a coalescence of a cost of living crisis at a time when we need more investment. What I see is that, if you get around a table and approach this in a sensible way, recognising that affordability is a real issue for many of our customers but that we have an investment need, we will get through it. We have proven that, and I see the current system being able to deliver. There is room for these additional large-scale investment schemes. The Thames Tideway is a good example. We have direct procurement for one of our large treatment works in the current period, which we will be delivering after 2025. That is a £500 million investment.

We will see how that progresses, but on paper at the moment it appears to deliver the best value for customers. We will keep a close eye on it as we hope it does. I am more optimistic that there is a mechanism which enables us to deal with increases in investment and making things affordable as well.

Lord Cromwell: Thank you. As water companies, you have to certify to Ofwat that you have adequate resources to meet your maintenance requirements. Have you ever considered saying to Ofwat "I'm sorry, we can't give that certification"?

Sarah Bentley: We take certification incredibly seriously as a board and have some of the most detailed certification statements. We are very specific and very clear. As it relates to the current situation, I have been quite clear and open that we have performance challenges. We have been quite direct about the nature of those performance challenges, the impact that they have and the type of investment that is needed.

When we are in a state where our private pension fund shareholders are putting equity into the business—the tide is flowing in the other

direction—clearly, we do not have sufficient resources to meet our requirement. That would not ordinarily be the case.

Lord Cromwell: Sorry to interrupt, but in that case would you say to Ofwat “We are not prepared to certify that we can meet our legal obligations”?

Sarah Bentley: We have not said that we would not be prepared to, but in the statements that we made in June we were very clear that they were conditional upon the investment we are getting from our patient shareholders who are putting money into the business. We were quite transparent about the nature in which we were able to certify the progress we are making.

Lawrence Gosden: It is a very similar position for me; Southern Water is in a turnaround position, as we explored earlier. Therefore, the certification process, which is treated very seriously in the company, is set in the context of that turnaround. The second point relates to that change in the system design of storm overflows. That is moving the industry to a new permitted and design standard.

Peter Perry: In the same way as Sarah said, the level of scrutiny we put into this as a board is very thorough. On that basis, we have never thought about not being prepared to certify.

Lord Cromwell: If you certify—I assume that you all have to at some point—but fail to meet those requirements, who should pay for the ramifications of that? Should the water companies pick up the bill or the consumers?

Sarah Bentley: As I mentioned before, our shareholders are picking up the bill in order to meet those certification requirements. If, as those regulations and requirements evolve—which comes back to a point I made earlier, with sufficient time and funding to address those issues—they are not met, then the balance of responsibility is quite clear. However, we need to ensure we have sufficient funding and a timeframe in which to deploy that, as obviously our systems are live 24/7. Part of it is just getting the work done.

Lawrence Gosden: I would echo that; our shareholders are supporting the turnaround of Southern Water’s performance with £1 billion of equity and by not taking any external dividends through any shareholder route over the last six years. All of that has been ploughed back into the business to support the turnaround.

Peter Perry: Briefly, as a responsible business, we would not get into that place.

Lord Cromwell: Points for brevity. Finally, on co-ordination, do we need a national water strategy? There are various funding sources and policies. We have been advised that that can lead to a certain amount of contradiction. Is a national strategy needed or just another plan?

Sarah Bentley: As I mentioned earlier, the regulators' alliance group—Lawrence rightly included the Drinking Water Inspectorate because having good quality drinking water is as important as protecting the environment and the economic regulation that Ofwat provides—has an aligned plan with these various schemes which is effectively a national water strategy.

Being able to select schemes for a national policy statement that exists in many other infrastructure areas is why we have been able to get the rollout of fibre and why Tideway was built. Being able to look at these programmes of national significance would be a very good and helpful step forward by government to support those very large schemes that need extra help and designation to move forward. We have got the ideas and a strategy, but it is now about getting the political will and the national policy statement, which is drafted, put down.

Lawrence Gosden: I would always support anything which brings all the different organisations, thoughts and opinions around the water sector together to make sense of the entire picture and provide direction for the industry. I would support that in principle. I would go further by saying that for me the most important step is that the next price review is a very clear and demonstrable step forward in investment to meet the demands of other strategies. It is all very well having a strategy, but it is delivering and executing the steps toward that strategy which is important.

Peter Perry: I agree very much with what my colleagues have said. It is important that we tackle some of these big issues together. RAPID, which you touched on a little earlier, is a great example. We need to do more of that.

Q111 **Baroness Bowles of Berkhamsted:** Thank you. We have already strayed a little bit into the area that I wanted to explore first: the greater use of competition and different funding models to provide infrastructure, such as the Thames Tideway project, which has already been mentioned.

This could help to reduce costs, increase efficiency and enable more innovation, or so we have been told in previous sessions, and it has been referenced here already. Do you think that competition should play a greater part in providing new infrastructure and bringing down costs, and are there any barriers to providing infrastructure in that way? In particular, how does it fit in if other things are having to move on a five-year plan and the envisaged timescale is much longer than that? I cannot see where you are sitting so I do not know who is nodding most. Possibly, as I mentioned Thames Tideway, I should go to Sarah first, as that is a sort of in-house project.

Sarah Bentley: I am fully supportive of increased competition. The Tideway is an excellent model, for two reasons. The first is that it was competed effectively; as I mentioned earlier, the impact on bills came from an initial £70 or £80 per bill down to £20 or £25, and throughout the life of that project that has been effectively done. For clarity,

although it was originally a Thames Water idea, and Thames Water engineers supported coming up with it, and some of our colleagues who I work with today saw that starting in 2000, it is a separate company with separate shareholders; we are not involved in that at all, and competition has really had an effect. The second part that makes it attractive is, as you say, that it is a sizeable, £4.9 billion project, which has a £20 impact on bills. Because it has been done over a longer timeframe, appropriately, the costs are spread over a more appropriate life of the asset rather than these five-year regulatory cycles.

On barriers, a number of programmes could be competed in that way. An obvious one is the reservoir that we were talking about earlier which would serve the whole south-east region; just because it would happen to be in the service area that Thames Water supports, there is no reason why we should be involved in building or owning that infrastructure in the same way as the Thames Tideway tunnel. So where programmes can be easily identified and separated, it makes sense. If we are looking at other types of large, long-term investment programmes—I think we are talking about this strategic, urgent need for reform, with things such as replacing the Victorian clean water network that we have in London, that probably is a little harder to compete because those are all live systems today. Being able to change the valves and move them around, flowing water in different ways and ensuring that we have sufficient water for all the homes—and it is a densely populated area with lots of connections coming off it—that is quite integrated with our operating controls, that makes it a bit harder to be able to provide the assets to a third party in order to do it. So there are some operational boundaries but with these substantial bits of infrastructure that we are talking about to improve the health of our rivers or provide better water security, there is plenty of opportunity to use the Tideway model, which sets the way forward for competition.

Baroness Bowles of Berkhamsted: What do you actually have to do? If you perceive that there is a necessity for something initially in your area, do you have to get approval for it then to be put out as a stand-alone, separate thing, or does Ofwat have to get involved? How does that work?

Sarah Bentley: There are two aspects to that. In terms of its designation, there is a special infrastructure projects regulation which was established for Tideway, but quite deliberately, the people who established it for Tideway provided some flexibility so that other projects could be run through this SIPR model, as it is called, which allows the competing of these large-scale projects. So there was some forethought in terms of that project about how other models could be done in that way, although we support Ofwat's recommendation for changes that would allow its wider use. In addition to these regulations, the national policy statement which I mentioned earlier, where these specific projects of national significance need to be designated with a policy statement in that way, will also help ensure projects are delivered. That is exactly what happened with Tideway; as I said, it was initially conceived, the

need for it was created, and then this SIPR regulatory model was created. In addition, Tideway was put into a national policy statement, and then it took off—if you like, it was released on its own trajectory to be progressed at pace. That is what can happen with some of these national schemes that I know the committee has heard about from various people.

Baroness Bowles of Berkhamsted: You have explained quite well how you could not use it for replacing pipework and so on where it is on live systems, whereas it could do reservoirs and new stand-alone things. Do you think that that would apply to all pipework everywhere or could you do large chunks somewhere? Cities such as London are different from when you go out into more countryside areas which you cover, or do you think that that would be the same?

Sarah Bentley: It is horses for courses. There are definitely areas in the more rural or semi-rural landscape; it is just the intensity and integration of the London system that makes it unique in that way. However, we are looking at things such as the surface water management plan, which could be designated in that way. We talk about spongifying London in the same way as happened to Copenhagen to deal with surface water, and it is possible that the sustainable urban drainage and the infrastructure that is required to make London spongier again, as it used to be, to deal with surface water more effectively, could be bundled up, because it is dealing with rainwater. So I am optimistic that we can be as creative and thoughtful as possible about the types of things that competition can be used for. It is in the interests of our customers, the environment, and, therefore, ultimately, our shareholders, to ensure that we get the right outcomes, not irrespective of the impact that it has on the infrastructure that we actually build and own.

Baroness Bowles of Berkhamsted: Does anybody else want to add something to that before I move on to a slightly different point?

Peter Perry: On your question on the issue of long term, the current Ofwat mechanism, which is predominantly described as direct procurement at the moment, allows it to span multiple investment periods. Therefore, as regards having a long-term plan that had to be delivered for affordability and durability reasons, that mechanism exists.

Lawrence Gosden: I would add one further point which is related to partnership working as well. I support everything that my colleagues have said, and I particularly underline the point around segregated assets—it is easier to do with simpler segregated assets. I would also underline partnership working. The five pilot projects I talked about earlier in relation to reducing overflows have been done in partnership with local authorities and charities. When you pull together different companies with a single outcome, which is managing surface water better—which is similar to the point that Sarah made about spongifying London—you can do that through partnerships by bringing agencies together.

Q112 Baroness Bowles of Berkhamsted: I want to go back to another subject that has also been touched on already: leakage and reducing leakages; targets have now been set by Ofwat in the last price review. However, there are still a lot of leakages, and consumers get very upset when they see a leakage and then they are told to economise on water. It will be very difficult to turn that culture around if they still think that not enough is being done by the water companies. What more can be done? I heard what you said earlier about a lot of it being on the customer side—I think Peter and Sarah explained that, talking about the double-flush toilets and things having valves that are not exactly helpful. Do you run encouragements or even the funding of replacements for those?

Lawrence Gosden: It is really important that we make even more progress. We have reduced leakage by one-third over the last 30 years but we have to go some way further. Companies are committed to going to another 50% reduction over the next 25 years, but clearly if we can accelerate that, we need to do so.

Leakage is subject to the law of diminishing returns. The majority of leakage is found by using anything from satellite imagery to drones to all sorts of different acoustic technology to try to find the leaks that are underground, because those are the biggest part by volume and are the most difficult to find.

Soon we will get to the position where we need to need to start ramping up the replacement of these cast-iron mains with new plastic ones that are fit for the future. The second part of the investment to replace the Victorian infrastructure of cast-iron mains is on the water side, and that is going to be part of this difficult conundrum that we are going to have to balance alongside prices as we go through this price-control period. Mains replacement is a really important investment need that we need to face into even more strongly.

Baroness Bowles of Berkhamsted: Surely there are a lot of individuals in my position: we have several hundred yards of cast-iron mains on our property from the 1890s or whenever, and we and our neighbours are notionally responsible for them. Is there not going to be a hefty bill for individuals to take on in order to replace them, when they were not owned by them in the first instance? What are you going to do about those?

Lawrence Gosden: There is quite a lot of debate about the ownership of the private side of customers' supply pipes. That is something that we welcome, but alongside that we need the ability to invest in replacing them—that is, the money needs to come from somewhere. We would welcome the opportunity to replace those, but we need to deal with the cost of the huge investment programme that will still be required in order to replace our cast-iron pipes with plastic ones.

Baroness Bowles of Berkhamsted: Does anyone else want to comment?

Sarah Bentley: First, leaks are just unacceptable. We have to stop wasting water; we are not going to encourage anyone to reduce their consumption if we do not stop wasting it. Still, we are making substantial progress. Obviously Thames has had poor performance in this area historically, but for the last three years we have actually met our leakage reduction targets. We have reduced it by 10% and we are on track to reduce it by 20% during this period—we were rightly required to go further than the industry average of 15%. Just to hold flat, we are repairing about 400 million litres' worth of leakage every year, and then obviously we have to go further than that to get to the reductions that I have been talking about. At the moment, particularly given the drought that we have had, we are fixing a leak every 10 minutes. We are absolutely throwing resources at fixing these leaks, and we have to do that. It is an absolutely core part of the turnaround plan.

However, if I step back and talk about our infrastructure investment, we have talked about cleaner rivers and talked about not just spongifying London but sorting out surface water management, but replacing our Victorian infrastructure is crucial. Our pipes are 75 years old on average, and the figure is 84 years old for London. The average life expectancy of a pipe is 80 years. These trunk mains, these large-diameter pipes that are like the A roads or motorways of pipes, can be up to six feet wide. The London average is 100 years old, and about 15% of them are 150 years old, so the replacement rate for these things has been about 0.5%. I talked earlier about needing outcome-based regulation, which we do because it will drive innovation in sustainable urban drainage and other nature-based solutions, but we also need to get these input rates right and make sure that we are replacing our pipework in a way that keeps the asset health up to date. That will require a sustained uptick in investment, and that is where these types of programmes can be bundled together—again, over a multi-regulatory-cycle period, 15 or 20 years, so that we can spread the cost of replacing this Victorian infrastructure that so urgently needs it.

Baroness Bowles of Berkhamsted: Should there be some penalty on those water companies that are not at the forefront of meeting targets and which have perhaps been negligent in the past by not already starting to replace them at a greater rate?

Sarah Bentley: The targets that are set are about leakage. There are different ways in which you can address leakage. Peter mentioned customer supply-side leakage, which we all support customers with. Another one is reducing pressure in the pump supply, so that where there are leaks there is less pressure to force them out.

In terms of addressing the leakage targets that have been set, companies are required to meet those targets and they face hefty penalties, as Thames has done in the past, when they miss them. That is different from the underlying infrastructure or asset health, meaning the replacement rates that Lawrence was talking about, which at the moment happens at a lower scale than I believe it needs to, particularly with the

demands of climate change and the need to protect these precious water resources.

Baroness Bowles of Berkhamsted: It sounds a bit like cheating to me that you would reduce the pressure to meet the target rather than going out and repairing the problem.

Sarah Bentley: If you think about some of the network in London, we have these big cast-iron mains that have a lot more connections than when they were built in Victorian days, with lots of small sections joined together. Over a period of time, some of the seals on those joins start to deteriorate. In cold weather you can see that when the water temperature gets to just below six degrees, these pipe sections contract slightly and more water leaks out of the pipes. Then, when the water warms up after a couple of days of a cold snap, the pipes come back together and the leakage is magically down. Leakage is recorded in our leakage number but the integrity of the pipe, for the purposes of most of the time when the water is not cold, is okay.

Over time, these things need to be resealed or relined, which would be a much less disruptive way of enhancing and replacing that pipework. There are eight such trunk mains that go along Piccadilly alone, so you can imagine what it would be like to replace some of this pipework across London. Yes, they need to be replaced, and yes, we need to get around to it, but we need to be quite thoughtful about the way that we replace that pipework in order to have the least disruption and the biggest effect possible.

The Chair: We must move on from leaks. We could spend a lot of time on them.

Q113 **Baroness Donaghy:** Despite water companies' poor environmental performance, we know that—at least up to the last five years—they have become increasingly leveraged in order to pay out dividends to shareholders. How can high levels of dividends and executive pay be justified when the environmental performance of the sector is so poor? To what extent is your own remuneration defined by environmental performance? I appreciate that the mood music is slightly different now from five years ago—you have certainly indicated that, certainly at Thames Water and Southern Water, shareholders are now being asked to pay more rather than getting the bonanza that they received earlier—but, even so, you are paying the price to some extent for the overleveraging of the companies in the past.

Sarah Bentley: I am happy to answer that first. I have a couple of points. On dividends, we have not paid a dividend for the last five years. Our new shareholders are patient and responsible, and recognise that that is not appropriate at the moment given the performance and the investment that is needed. With the recent announcement of the equity injection, money is coming into the business, not going out. Would you start from here, with the level of leverage that we have? Absolutely not, and that is why our new shareholders are determined to improve our

performance. First and foremost we need to fix the basics and sort out our performance. Then we need to improve our resilience, both the asset resilience and the financial resilience of the business.

That all forms part of the turnaround plan, and part of that is absolutely about being responsible with regard to executive pay. A substantial proportion of the bonus that I and the management team at Thames Water receive is on environmental and customer measures, and when we achieve those goals, as we did last year on leakage, that portion pays out, and when we do not achieve those goals, as we did not with blockages and sewer flooding, it does not pay out. The targets are quite clear and black and white in that way. They are published in our annual report, and we are being transparent about what we are delivering.

Lawrence Gosden: I would just build on that by saying that our position is largely similar. The £1 billion of equity that came into the company about a year and a half ago has deleveraged us down to 64%, which is a substantial difference from where we were. That has increased the ability of the company to financially support the turnaround plan that I and the team are using in our work presently. Three-quarters of my own pay and the remuneration of our senior managers is directly linked to performance on environment, drinking water quality and customer service. Lastly, just to confirm the point I made previously, we have not paid a dividend to shareholders in six years and are not presently planning to do so until the company's performance has improved.

Baroness Donaghy: Peter, I appreciate that perhaps the issues in Welsh Water are slightly different. What is Welsh Water's experience of attracting investment without paying profits or dividends, and are there any drawbacks to the non-profit model?

Peter Perry: I think it is worth explaining that we badge ourselves as not for profit and not for shareholder but we run as a conventional company and we generate a profit from time to time; we just retain it for the benefit of the customers—all gains go to customers in that sense. We have not had a problem raising finance as a company. We are funded via debt on the bond market. We try to make ourselves as attractive as possible; we have one of the best credit ratings in the utilities sector, never mind the water sector, and there has never been a problem in attracting investment; we have been oversubscribed every time we have gone to the market.

Baroness Donaghy: We have heard suggestions that private equity ownership may have played a role in increasing debt and dividends and creating complex financial structures in water companies. What benefits does private equity ownership bring to the water sector and how would you respond to the proposals for a licence condition requiring all water companies to be listed on the London Stock Exchange, with at least 25% of shares publicly traded?

Lawrence Gosden: Within our current licence, although we are not publicly listed, we are required to act as if we were from a transparency

point of view, which you will see in the way we report the business performance through our annual reporting process, et cetera. The point I would highlight is that the private sector has the ability, in well-managed companies, to put in another £1 of investment for every £1 of a customer's bill. Albeit that £1 is paid back over the long term, it is still much cheaper than putting in £2 for customer bills, so that opportunity enables the private sector to soften bill increases with that kind of metric.

Sarah Bentley: As I said earlier, you would not start from here; our performance is not acceptable and our level of gearing is too high. I think the new shareholders we have recognise that, which is why they appointed me to turn the business around, and that is what we are absolutely committed to doing. I care passionately about the environment and improving things for our customers, which is why I decided to take the role on. We could debate at length the pros and cons of different ownership models.

From my perspective, if I look at what is critical to turn around and improve Thames, it is to have the right level of patient, long-term investors. I need investors who are looking over the long term. When infrastructure investment became popular, people were looking at a much shorter timeframe than the public markets typically have and going over 10 years. As you can see from the discussion today, we need 15- or 20-year timeframes to really look at these long-term periods. I know that our pension fund investors similarly look over those sorts of timeframes. For me it is all about the characteristic of a patient, responsible, long-term investor, and they are the types of investors who are going to help us turn around and sustain the performance of the business. So I would be more interested in the characteristics than the actual mechanism.

Peter Perry: We have seen with the equity companies that they have been able to step in and deal with times of trouble. In our scenario, over the 20 years that we have existed as a not for profit we have retained some of our profits and have also made sure that we have very solid liquidity. For times of trouble, in the same way as the equity companies can step in, we have what I would describe as a reserve fund that we can draw on to deal with those shocks, which works very well.

Lord Eatwell: I have a couple of follow-ons from Baroness Donaghy's questions. First, on the £1 billion investment that you attracted, Mr Gosden, you pay no dividends. I would fire the fund manager who invested in you. What sort of deal did you offer him when you said, "I am not going to pay you anything but we're going to take £1 billion of your money"?

Lawrence Gosden: Our shareholders are here for the long term; they are not linked to any short-term fund and are very much here for the long term. They see their job of work to support me and the leadership team of the company in turning the company's performance around over the next two to three years. Having done that, having got the company to a position where it is performing properly, that is the point where credibly they might be able to start returning to dividends. You are right

that in the long term it is not sustainable to have zero dividends but they are absolutely supporting that in the short term, until the company has turned its performance around properly.

Lord Eatwell: I see. So it is a public utility, and they feel therefore that in due course, the money will flow.

Lawrence Gosden: Once the company's performance is back to where it should be—I emphasise their support and buy into that approach.

Lord Eatwell: The other follow-up question is that I was very struck in the discussion of remuneration just now by how obviously remuneration and bonuses are fixed by some form of contractual basis—that seems fine. But Ms Bentley has regularly described the performance of her company as unacceptable—you used the word time after time. It seems to me that it is not possible to enumerate all the notions of social utility and social responsibility in the contract; it goes too widely. So what role do you think social responsibility in general should play in the determination of your remuneration, but especially bonuses?

Sarah Bentley: We as a board have been looking at public value more broadly and how to measure that in terms of both putting it into our corporate objectives but also, obviously, translating that into personal objectives. The current way that the remuneration committee has been thinking about this so far is that we have a turnaround plan and we need to improve the unacceptable performance that I have regularly referred to and work out how to improve that. On a number of the regulatory measures we are underperforming but we have plans in place that improve that, so our complaint reduction record, for example, is the journey along doing it. I see it as two stages: the first is identifying tangible measures in terms of the turnaround plan so that we can demonstrate that we are improving, and then, as we move into getting these measures of public value and being able to quantify that in an objective way, factoring that into our overall corporate plan. So we are starting to explore public value and how we can actually quantify it in an objective manner.

Q114 **Lord Eatwell:** Going on from this and changing to the area I was asked to ask you questions about, which I am afraid is regulatory penalties and fines, some witnesses have suggested or claim that the regulatory penalties and even criminal fines are seen by water companies as just part of the cost of doing business. Do these penalties really channel compliance? Can we see that there is a relationship between them? The Environment Agency has called for potential prison sentences for chief executives. You guys would be going to jail. How do you react to these suggestions for serious and deliberate pollution incidents?

Lawrence Gosden: The legal process is the legal process. That should always be followed, and we would entirely support that. My job in leading the turnaround of Southern Water is to ensure that it gets into a position where it is able to provide the right level of service to customers and to

the environment. That is entirely what I and the team I am building around me at Southern Water are committed to.

The penalties that are levied as part of the regulatory system are extremely important in deterring companies from taking potential shortcuts. We are committed to reducing that penalty rate year on year, getting it to zero by the time we get to the end of this AMP period, and potentially getting to the place where we are therefore providing the service that our customers and the environment demand.

My job is to ensure in this turnaround that this company gets back to that kind of position. Without any doubt, the penalty and the legal systems around that are important to ensure that it is well-known and felt.

Lord Eatwell: I have been a financial services regulator. A financial services company which had the penalties that your company has had would lose its licence; you would no longer be in the business. Do you think that Ofwat should be a little more aggressive in saying "Let's change these people around; these people are failing; their performance is unacceptable; let's get rid of them and find somebody who can do the job properly"?

Lawrence Gosden: I will point to the list of really important actions that the company has put in place to respond and turn it around. That is a tangible action which shows that the company is making the right progress. We have delivered a root and branch ethics and transparency programme across all 2,000 employees. We have deployed hundreds of millions of pounds' worth of capital in increasing the size and capacity of wastewater treatment plants and replacing the infrastructure required to enable them to perform better.

We are delivering and have delivered a whole series of turnaround measures driven towards getting the company back to where it needs to be. As the newly appointed chief executive of Southern Water, that is the entire mission and purpose of what I am here to do.

Q115 **Lord Eatwell:** Mrs Bentley, turning to the unacceptable performance of your company, why is your company a fit and proper company to look after the water in the Thames Valley?

Sarah Bentley: In terms of the legal process, I absolutely agree that if laws are broken then sanctions should be applied. The level of penalties that Thames Water has had over many years reflects that poor performance. If we go back a little way to when our chairman was appointed, it was very clear from both the regulator and other key stakeholders that the performance of Thames Water was unacceptable. That is when we had different shareholders and an independent board put in and a change of chief executive. I have put in place a new team.

Unfortunately, the challenges that I have found and the level of basics that need fixing at Thames Water are significant. This is why the turnaround plan—I have been as clear as I can be—will take eight years. Nobody wants the performance of Thames Water to improve more than I

do. We have thousands of people who are trying to improve things for customers and the environment. We have substantial changes which require significant investment in order to improve. We definitely need to get these milestones so that you, our customers and other stakeholders can be confident that we are taking steps along the path.

Actions have been taken, interventions have been made and the penalties are very serious. I would much rather that that money goes into investing in our critical assets. That is why we have this eight-year plan, but it will take time. Unfortunately, I cannot fix the problems of a decade or two overnight. We have built a team and a plan. We are just carefully working through and making sure it is implemented.

Peter Perry: I have three points. The first is: do not underestimate the reputational impact of fines on the sector. We as a company and others are hurt when that happens—the idea of being fined, whether for environmental or other issues.

The second point is that we use the term “fines”. I wonder whether, in terms of the environment, the idea of enforcement undertakings is far better. Fines go to the Treasury; enforcement undertakings go to local environmental projects. That should be a prerequisite in my mind because, if you may have caused the problem in a specific area, then the idea that the penalty helps rectify that has some clear logic.

The third point was about prison sentences. I draw the comparison with health and safety legislation, where a director is deemed negligent or to have done something deliberately. There seems to be a logic there, but in all my time in the industry, I do not think we get out of bed in the morning looking to cause deliberate pollutions. I see the parallel with health and safety, which I think has some degree of logic to it.

Lord Eatwell: As a final comment, Mr Gosden, I see that you went to university in Brighton, so you know the south coast very well. Mrs Bentley, you were at Kent, so you know that county pretty well. You have spent your career in south Wales, Mr Perry. Where would you take your children to swim on the south coast?

Lawrence Gosden: I am happy to pick up that question. You are entirely right that I was born and bred on the south coast. When we started monitoring storm overflows, we made all the information transparent to the public at exactly the same time. On our website we also provide a direct portal so customers can see when there has been a storm overflow and, importantly, see 72 hours later when we believe the seas will be safe and clear again.

Alongside that are the Environment Agency’s pollution warnings. It is important to understand that this is not just about storm overflow releases but about urban run-off and agricultural run-off into rivers. It is about the entire spectrum which can cause deterioration in water quality. All of these points are reported to let people know so that they can make their own choices. This is very much an interim measure until we are able

to put in place all of the solutions that we were talking about earlier to solve and make radical reductions in storm overflows. We are making all of that information fully publicly available through a really easy to use portal on our website. We also have that portal directly electronically connected to the Surfers Against Sewage app. We are doing everything we can, while we are working out how to fix the problem, to ensure that we are being fully transparent about it.

Sarah Bentley: I care about my children as much as any of our customers care about their children and I take the issues of river health very seriously. Obviously, we do not have any coastline at Thames Water, but I am sure you would be as interested to know about our response to inland rivers. I was really pleased that we got the second area in the UK designated as an inland bathing water in Oxford. We are working with citizen scientists there and an incredible group of people who petitioned me in my second month in post. We have been working openly and transparently with them.

The key for me at the moment, while we are working so hard to try to fix this problem, is being transparent. We have 100% of our outflows monitored. We are working through a live monitoring pilot which will be completed by the end of this year. We are on track for that and have committed to providing live discharge notifications. We have worked with an interface that is accessible so that people can make safe and informed choices to keep themselves and their loved ones protected if they choose to go in rivers.

Peter Perry: In Wales we have 15% of the UK coastline and 30% of its blue flags. We are incredibly proud of that and have worked with lots of other agencies to achieve it. The warning systems that my colleagues have applied would influence where I, my children or my grandchildren swam.

Lord Eatwell: I mentioned Kent, because there was a week this summer when no beaches were available in Kent.

Lawrence Gosden: The beaches across the entire south coast are utterly stunning, beautiful beaches. Bathing water quality has never been better. Thirty years ago, only 30% of beaches were rated as satisfactory. Across the entire south coast now, 96% are rated as good or excellent, with only three as satisfactory. There has been an enormous change in the quality of the bathing water across the entire south coast. It really is of the highest quality. We are just making sure that when a storm overflow does occur, people know about it.

Q116 **Lord Agnew of Oulton:** We are back to sewerage again. In the interests of time, I will not ask all of you to answer each of my questions. We met the former chair of Ofwat in one of our evidence sessions, and he asserted that it would have been easy for you to know about the effluent coming into the system without these monitors and that you could have

volunteered data much earlier in the process. How do you respond to those comments? Lawrence, when did your company first become aware of the problem?

Lawrence Gosden: The monitors were put in place about four years ago. They are not just monitors at individual wastewater treatment works; they are monitors within the catchment, the local area, that are designed to protect people from flooding. Those monitors started going in four years ago and we are at about 98% coverage now. I really do not see how before that four-year period we could have understood exactly what was occurring in some of those places out in the network. It is only very recently that we have had a handle on measuring what the problem is, which is of course very important for working out what the solution needs to be.

Lord Agnew of Oulton: Do you think your answer is convincing?

Lawrence Gosden: The important point is that we have started measuring this. We are making all that information transparent to customers so that people can see it. We made it immediately transparent and have not waited any time at all. The simple answer is that before four years ago storm overflows did not have measuring on them; they did not have electronic devices. We now have that information and can use it positively to work out how to fix the problem and improve this for customers and the environment.

Lord Agnew of Oulton: I accept that you were not in post then but your answer sounds totally disingenuous to me. The idea that equipment was not available more than four years ago to monitor foul drainage going on to the beaches or wherever else beggars belief.

Lawrence Gosden: As you rightly pointed out, I am relatively recently in post; I have been in post for three months now. I joined the company a year and a half before that to put in place the roots of the operational turnaround; I was not in post at the time that you are talking about. My commitment is to use that information now for the positive good, in that it enables us to understand how we fix this problem now for both our customers and the environment.

Lord Agnew of Oulton: Sarah, I will try a slightly different wording with you. Why do you think companies have waited for the Government and regulators to act, rather than taking it on themselves to comply with their licences and permits?

Sarah Bentley: First, I entirely sympathise with what you are saying. Standing where we are today, why these things have not been measured is a significant question. It seems to have been the case that the measuring that was done was on some of the quality parameters that Peter mentioned earlier regarding levels of ammonia and phosphorus, not levels of flow. A number of the treatment works and storm discharge points are not manned, so there is no one there looking at these things. Why that was not the case is a significant question. I know that Thames

raised this issue some time ago, and the Go to Green programme that I referenced was developed. It was at that point that the measurement and monitoring of the amount of flow going through the treatment works was started, so for the last two years—as I think was implied in your question—we have not been compelled to do it. It was identified, but why it was not identified sooner I am at a loss to explain. We now need to make sure that those monitors are in place and that we respond accordingly by reducing the amount of flow.

Lord Agnew of Oulton: Peter, do you think that water companies would be willing to fund the greater monitoring of the water environment in return for the licences and permits?

Peter Perry: Water monitoring is critical. We started our programme back in 2014, and 99% of our overflows are now monitored. To understand why it has been a long-term issue, we should remember that we focused on those quality-compliance issues first of all. We have had a long-term programme to get to understand what is happening. Monitoring is critical for the environment; we should know when we have had a discharge, whether it affects bathing, as one of your colleagues mentioned earlier, or just in terms of environmental impact.

This issue needs to be seen in the round. Having full monitoring as standard across our wastewater assets seems to be very reasonable thing that you would expect to be in place. Whether that flows through to licences you could look at in the round, but, for the avoidance of doubt, monitoring our impact on the environment and bathing waters is critical.

Q117 **Baroness McGregor-Smith:** I declare an interest: I am a non-executive director on the Thames Tideway programme. My question today is really about whether Ofwat works well with other regulators. We hear occasionally that, for example, the Environment Agency may decide to give you one set of messages as water companies that may not always agree with what Ofwat tells you. Could you please tell us how consistent you think Ofwat and other regulators are across the industry?

Peter Perry: In my experience of many price reviews, I must say I do not recognise that disconnect. In Wales the primary environmental regulator is Natural Resources Wales, which comes up with the national environment programme in agreement with us, and then Ofwat allows funding for it. Because that is generally legislative, that funding is allowed. If I look at the Drinking Water Inspectorate, which has a primary public health responsibility, again its requirements are legislative so those are delivered. I do not recognise that degree of conflict taking place that has resulted in the company, and de facto its customers and the environment, not getting the right deal.

Sarah Bentley: I think I mentioned earlier that there is plenty of evidence of effective collaboration in the discussions that take place between the Environment Agency, the Drinking Water Inspectorate—it is right that we keep remembering that having wholesome water is critical—and Ofwat, working together. Where the challenges could come, and

perhaps this is more about looking forward than looking back, is in the sense of prioritisation.

I mentioned earlier the strategic policy statement that exists and being clear and direct about the trade-offs and priorities. We tend to find that things that have a legislative or compliance nature clearly get a priority, whether that is about drinking water quality or environmental protection. The challenge is then how that is balanced with affordability but also things such as resilience, which obviously was a newer requirement on Ofwat. Quite often people find it difficult to quantify resilience but we have talked about some of those issues, such as resilience to population growth and the demands for security of water supply, or resilience towards environmental pressure, such as the substantial intense rainfall that we are seeing and the impact that it has on storm discharges and flows, where resilience is measured in that prioritisation stack. As we look forward, we are going to require greater co-ordination between the Environment Agency, the Drinking Water Inspectorate and Ofwat, probably led by the Government in their direction through that strategic policy statement to be quite prescriptive about affordability and these competing pressures for investment.

Baroness McGregor-Smith: Are you saying that we do not really have the right priority order because there are too many inconsistent messages between the regulators?

Sarah Bentley: The strategic policy statement today sets out quite clearly the environmental destination, particularly with regard to river health. It is less specific about the resilience requirements regarding water security and, as I said, some of the asset health measures that we talked about regarding replacement rates, along with how all those demands are prioritised against affordability. The affordability lens has taken more of a priority over recent price reviews. If we are at a point where we need to make an investment, I think it would be helpful for Ofwat and other regulators to be directed a little more—as I mentioned, as happens with Ofcom—so that those prioritisational trade-offs can be more easily determined.

Baroness McGregor-Smith: Thank you. Lawrence, is there anything that you would add?

Lawrence Gosden: I will just make a couple of quick points. As my colleagues have, I would point to examples such as RAPID. That is a very good example of where regulators working together have made a significant improvement in the ability to make some of these trade-offs and improve infrastructure. The final point I would make is that as we go through this next price review, I might have mentioned earlier that it is extremely important that the working of this entire regulatory system, which includes water companies, alongside the DWI, the EA, government and Ofwat, is such that the next price review is a significant and tangible step in improving strategic investment for the UK.

Q118 **Baroness Taylor of Bolton:** I think I know the answer to this question.

I want to ask you about your attitude to the debate about whether there should be output measures or outcome measures. We have heard that some people think that we should move away from output and look at the outcomes, and I assume that you would probably agree with that. Therefore, the question really is: what would that mean for you and how would it change your behaviour?

Sarah Bentley: I would like both, and there is a reason for that. The move towards outcome measures is helpful when we look at some of these longer-term and perhaps nature-based solutions where we can look at things such as the sustainable urban drainage that I was talking about before, not to prescribe a specific output but, "This is the outcome we want to achieve. We want less rainfall getting into our sewerage system; what is the best way to achieve that?" Sometimes that is most effective. We have to be careful with some outcome measures. If we look at some of the outcome measures that we might look at for river quality and some of the chemical parameters that we were talking about earlier, for example, some of what we are talking about would create a significant carbon impact when we look at the amount of phosphate dosing or other types of interventions. If we want to be that scientific about it all, we need to be able to hit some of these chemical measures.

The other piece around output is when it comes to these replacement rates and asset health. I would feel quite uncomfortable. Baroness Bowles said, "Isn't that cheating?" when we were talking about pressure reducing. In fact, pressure reducing is an effective way of not pushing more water out of holes in pipes, but does it mean that you are getting the right replacement rates of the pipes? So the infrastructure health that we need to ensure is maintained over time—you see that in gas, telecoms and other sectors. It is really the best of both: how do we make sure that the asset health progresses but that we have the freedom and scope to make more creative and innovative solutions that look at the overall outcome in the round for all the environment—for the carbon footprint as well as river health—not just looking at a single parameter?

Peter Perry: Sarah is right; we need a balance here. To make sure that we are investing in our assets, things such as linear pipe replacement with an output make absolute sense. Perhaps I slightly differ from Sarah in that on the environment and for rivers—I go back to the point I made earlier—for us in Wales, nutrient reduction is absolutely an outcome-based approach which will deliver the best things. If we go for a target of CSO spill reduction, our improvement of rivers will be negligible, but if we can get to a place where we agree that we will reduce a certain amount of nutrient loading and use nature-based solutions to achieve that, we will have a great outcome.

Lawrence Gosden: I will not repeat that, but I confirm that we will be entirely supporting outcomes related to the things that customers want and the needs of the environment. However, it is important that there are a number of output measures related to some of the significant long-term infrastructure needs around sewer separation in particular, and water mains renewal.

Baroness Taylor of Bolton: Finally, we heard about the water industry national environment programme, and we have talked today about what you are intending to do in the future. However, do you understand why, given the legacy of all these problems over the last decades in terms of the water industry's attitude to the environment, people are very sceptical about the input that the water industry would have there? People really do not trust water companies on the environment.

Lawrence Gosden: I really understand that point. As an industry, and in particular the company that I lead, we have to earn that trust back by delivering on the commitments and actions we are setting out. Importantly, that involves ensuring that the next national environment programme meets the needs of all of our customers and the environment, and that the entire regulatory system, including the water companies, is able to deliver that. We have to earn our trust back; that is extraordinarily important and we take that and shoulder it very seriously.

Sarah Bentley: I fully agree that we are in a difficult situation where trust is at an all-time low and performance such as we have had at Thames Water just exacerbates the perception that we need to sort things out. That is why I launched the turnaround programme and we are trying to fix the basics so that we can earn and win that trust back. Where I see things in an encouraging way is if I look at some of the catchment-based approaches we have, where we are truly working in partnership with all the stakeholders in the environment. As well as working with all 27 catchment partnerships in our region we have three pilot projects going on at the moment, and we have signed up for 10-year plans where we are all working together collaboratively, whether that is with local authorities, environmental NGOs or agriculture owners, to say how we will collectively improve that environment.

The difference is that they are local plans that are affecting local communities and that we can build that trust on the ground rather than being a faceless corporate which people have lost trust in—rightly, I think. So, little by little, region by region, we have some really good people who are determined to make a difference to the environment, and the national environment programme needs to be broken down into these local, relevant plans that work really for the communities that they serve.

Baroness Taylor of Bolton: Peter, I do not think your company has gone through quite the trauma of the other two, but you have a long-term experience there.

Peter Perry: We have, but I want to stress that we are not complacent about our performance and we need to improve. Water companies need to be at the heart of the national environment programme. The reason for this is, first and foremost, because the level of investment we can bring to make a real difference compared with other sectors is quite considerable. Sarah hit the nail on the head: this is about partnership. No longer can sectors operate in isolation. To use the example of Wales, the current national environment programme will improve 420 kilometres of river, which is substantial, and our next programme will aim to do even

more in the next period. However, we are doing that in conjunction with others. Forming sensible working partnerships with the agricultural sector and local authorities will deliver for us. There is more for us to do in that space, but we have to be at the heart of that environmental programme.

Lord Cromwell: I have a quick follow up—just a yes or no from each of you, please. In the light of what you have just been saying, it is now a matter of debate who called out the sewage issue first: was it the NGOs or the companies? Be that as it may, you now have the monitoring in place. Are you committed to sharing open data on that environmental performance and real time?

Peter Perry: That is already done.

Sarah Bentley: Yes.

Lawrence Gosden: It is already there, yes.

The Chair: On that unanimous note, that brings the meeting to an end. Thank you very much indeed. We have had some very helpful testimony and some interesting discussions, so we thank you for coming today.