



HOUSE OF LORDS

Industry and Regulators Committee

Corrected oral evidence: The work of Ofwat

Tuesday 21 June 2022

11.45 am

Watch the meeting

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

Evidence Session No. 2

Virtual Proceeding

Questions 9 - 15

Witnesses

[I](#): Professor Ian Barker, Managing Director, Water Policy International Ltd; Annabelle Ong, Director, Frontier Economics.

Examination of witnesses

Professor Ian Barker and Annabelle Ong.

Q9 The Chair: I welcome you all to the second session today, where we have two expert witnesses: Professor Ian Barker, managing director of Water Policy International, and Annabelle Ong, director of Frontier Economics. Both have extensive experience in the water industry, which of course is our topic of the day.

I will start off with a general siting question. Are you satisfied that Ofwat's statutory objectives are clear and consistent? How well does Ofwat manage the inevitable trade-offs between its objectives? As a follow-up, how can Ofwat's performance against those objectives be measured? Are there clear performance indicators that can be used to judge whether the regulator is doing its job well? Annabelle, would you like to start?

Annabelle Ong: Thank you very much. I am very pleased to be here today. On the first question, on Ofwat's objectives and whether they are clear and consistent, one of the key things to remember is that they are to be traded off by design. Consistent is probably not a word I would use. I would say that there are multiple objectives that are at times difficult to balance.

One of the key things to recognise as a challenge going forward is that Ofwat is now faced with a situation where we all want to improve the environment and we have a long list of policy ambitions to satisfy the next price control. The CSOs, the storm overflows, are an obvious one. There are Environment Act targets on removing phosphorus, and there is the water industry national environment programme. There is a large ambition to improve the environment. At the same time, we face climate change. We have challenges on water resources. On net zero, it is not just operational carbon but embedded carbon. On top of all that, we have service quality ambitions—things like reducing leakage and reducing supply interruptions.

Sometimes in the debate we focus a lot on storm overflows, but if we take all those things together, we need to remember that there is a long list of different things. At the moment, it is only when it comes to Ofwat and the companies that all of the demands get added up. Often, policymakers look at more individual issues. They also look at the potential impacts on customers, often on a national and not a regional basis.

Going forward, it will be very difficult for Ofwat to balance its statutory objectives. In the past, it has been easier. Going forward, we have big investment needs and we all agree that we would like to deliver those ambitions. At the same time, we have a cost-of-living crisis; Ofwat and CCWater recently estimated that 34% of customers are struggling to pay fairly regularly.

The issue I see going forward, in terms of Ofwat being able to balance its objectives, putting it in quite an extreme way, is that you could either be faced with plans that do not deliver the statutory obligations, which is not acceptable, or plans that are not acceptable to customers or are not in customers' interests. That is a really important challenge for the future. At the moment, we do not have feedback loops from Ofwat and the companies to the policymakers, so we are at risk of not having honest conversations about what might need to happen and how we want to trade off those objectives. I think Ofwat's general objectives are clear, but that is the kind of challenge that it faces in the future.

To touch quickly on performance metrics, Ofwat's role is quite complex. It needs to satisfy multiple stakeholders: customers, the environment and investors. I do not think there is a simple way of measuring Ofwat's performance. The second reason why it is not simple to measure is that what we are really interested in is the impact in the long run. In any given year, you might say that the water companies do well and Ofwat sets a sensible price control. You might conclude yes, but the question is whether in five or 10 years we think that was the right decision.

In measuring Ofwat's performance, it is more about Ofwat having an ongoing programme of evaluation that it can learn from. I think performance should be looked at in the round, taking into account all the different stakeholders.

The Chair: Thank you. Ian.

Professor Ian Barker: Thank you for the opportunity to give evidence this morning. Before I start, if I may, I would like to explain that I hold a number of non-executive board roles, including as independent non-executive director with South Staffordshire and Cambridge Water. I stress that I am here today in my own capacity, and the views expressed are very much my own and not those of any organisation I am associated with.

Annabelle set out very clearly the issues relating to Ofwat and the clarity in its objectives. Its duties are set out clearly in the Water Industry Act. There are three or four key duties that relate to protecting the interests of consumers, to ensure that water companies can carry out their statutory functions, and that they can secure a reasonable return on their capital and finance the carrying out of their duties. It also has a relatively new duty, which is to further the resilience objective. You will be aware that the Government have been particularly concerned about the resilience of national infrastructure assets. The water sector clearly has a key role to play in that.

Ofwat has a secondary duty relating to the achievement of sustainable development. Given those duties—as Annabelle said, it is a complex mix—how does one evaluate its performance and, in particular, the tension inherent in the water sector between long-term investment needs and the day-to-day prices charged to consumers? It is about reconciling those intergenerational needs with the needs of today's customers.

Ofwat finds it relatively straightforward, I think, when dealing with basic statutory needs in day-to-day operational terms for the companies; for example, maintaining drinking water standards is an absolute given. Ofwat will always allow the funding for that. It might challenge the efficiency of a proposed scheme, but it would allow funding for it, and, similarly, for wastewater treatment works to deal with sewage. The question there is how efficient it is, not whether it is needed or should be funded.

In the longer term and dealing with some of the intergenerational questions on water company assets, I think it would be a brave company that proposed an investment programme that addressed some of those long-term issues because of the potential impact on bills. Ofwat would perhaps say that we need to focus on the here and now, and can this not be pushed back another five years because you are not getting too many sewer collapses at the moment, so surely the system will hang on for a bit longer. Ofwat may well present a different view, but that is my perspective.

The answer perhaps is that companies in some ways have managed those trade-offs more than Ofwat has by virtue of what goes into their business plans or what they feel they would be able to get agreed with Ofwat. An instance that sticks in my mind is in relation to a strategic water resources asset: Cheddar reservoir. The Environment Agency has responsibility for statutory water resource management plan oversight and advising the Secretary of State accordingly. In 2014, the Environment Agency confirmed to Bristol Water that it was happy for a proposed Cheddar reservoir to go ahead, but Ofwat then refused to fund it on the basis that the case had not been made. Subsequently, it has been recognised that Cheddar is potentially an important strategic water resource for water security in the south-west of England. Whether Ofwat would take the same decision today, I do not know. I rather doubt it, given the concern about water security.

Measuring Ofwat's performance, as Annabelle has suggested, is not straightforward. One could look at the water companies' performance and say, "Is the sector delivering what customers and the environment need?" Ofwat produces an annual and very detailed service delivery report. It is an annual snapshot with a very broad range of metrics. One gets a sense from that of how well the companies are doing, but it is less clear how well Ofwat is performing on long-term outcomes. My sense is that customer service is certainly improving. Importantly, the companies are adopting a much more customer-focused mindset and putting themselves in the shoes of the people they serve.

When you look at the environment, as you heard from Philip Dunne earlier, the state of the water environment in England and Wales is, at best, standing still and, by some metrics, deteriorating. Clearly, we are not getting something right. Recognising that a large part of that deterioration is due to the water sector, alongside agriculture, there is clearly something amiss.

As Philip mentioned, water company performance is measured much more easily than the regulator's. I think this was recognised by the EFRA Committee when it recently interviewed Iain Coucher, the incoming Ofwat chair. It asked him "to set out a detailed plan for how Ofwat will drive improved performance by water companies and to publish metrics that could be used to judge Ofwat and water companies' performance". Clearly, the EFRA Committee has also recognised that it is not easy to sense just how Ofwat is performing.

The Chair: Thank you.

Q10 Baroness Donaghy: Good morning to you both. I want to check with you whether you think that Ofwat has the necessary powers to meet its objectives, especially as they relate to sewage overflows. Should it have greater powers to ensure that water companies reduce them? Secondly, do organisations such as Ofwat and the Environment Agency have the necessary resources to carry out their work?

Professor Ian Barker: Ofwat is clear that it is the Environment Agency's role to set and enforce permits—in this case, the discharge permits relating to wastewater assets. It is also clear about when a company is breaking rules so often and in such a way that it might be breaking the legal requirements that Ofwat is responsible for in ensuring that the company is delivering its statutory functions, which include how a company will operate, manage and report on its performance; you have heard about the issues with Southern Water and the £90 million fine, where there was mismanagement, poor operation and missed reporting. That is the basis on which Ofwat, following its investigation and working with the Environment Agency, went ahead with its £123 million penalty on Southern Water.

You may be aware that Ofwat and the Environment Agency are jointly investigating the water and sewerage companies on the basis of the new information that has come to light on sewer overflows. Ofwat has confirmed that five of the water and sewerage companies are particularly under scrutiny and it is asking for further information from them relating to their performance. The concern, of course, is that Ofwat has funded them to do a job and that potentially they are not doing it. Also, they may have gained financial performance benefits relating to wastewater metrics that they were not entitled to. That is an ongoing investigation. We will have to see how it turns out.

At the Environmental Audit Committee it was made clear by the Environment Agency chief executive that it does not have adequate resources to monitor and enforce. The reason for that is that there has progressively been a reduction in the grant in aid given to the Environment Agency. On the issues we are talking about, there are two key sources of funding. One is charges on discharge permits for wastewater and other polluting discharges; the other is charges on abstractors for taking water from rivers and boreholes. Those charges were pegged to inflation until very recently, so there has been a progressive real-time reduction.

When the Environment Agency finds a breach following compliance monitoring, enforcement has to be funded through grant in aid. That has declined very significantly. The exact figures are quite hard to come by, and I have seen different numbers, but there has certainly been a very significant decline. That has led the Environment Agency to take a different view on its enforcement. You heard from Philip Dunne that in recent years there have been progressively fewer enforcement actions through the courts, except in the very largest cases, but there has been an increasing use of civil sanctions and enforcement undertakings where, in essence, the guilty party proposes a settlement to put right the wrong and promises not to do it again.

Ofwat is in a better place than I am to tell you whether it has adequate resources. At the moment, it has gone back to Treasury to ask for a change to the way in which its funds are calculated, on the basis that it has had a number of new duties over the last few years that are not accounted for in the current funding formulae.

What is more difficult to understand is how efficient Ofwat is. It oversees a large and complex process, which, for the water companies, every five years, is extremely expensive for them to undertake. I cannot attribute these numbers because they were given to me in confidence, but developing a business plan for the quinquennial price reviews could cost a smallish water company perhaps from £5 million, up to several tens of million pounds for a large water and sewerage company with a more complex operational undertaking.

Baroness Donaghy: Thank you. Annabelle?

Annabelle Ong: I think they are both important questions. On the question of whether Ofwat has the necessary powers, I think it absolutely has the powers to make sure that companies reduce storm overflows and generally perform well. You may be aware that Ofwat has a framework or system of performance commitments and outcome delivery incentives. That is a system where Ofwat gets to decide what is measured on performance. Ofwat gets to set annual targets. Ofwat also gets to set rewards and penalties around performance. If a company has outperformed the targets, in some cases there are rewards available to reward that innovative performance. If it has failed to meet the targets, it is penalised.

That system has been applied for the last decade on around 40 to 50 performance commitments—the different kinds of things that you measure. The track record of that sort of approach has been very good. We have seen lots of improvement in performance on the things we measure. The system of rewards and penalties around that also works quite well. I cannot see why Ofwat could not apply that system to the storm overflows, provided that you measure appropriate things.

On the second question, around resources, I have limited experience with the Environment Agency but from what I can see, it is definitely limited in resources and skills when it comes to regulatory innovation. One of the

things that is really important in order to solve the issue of environmental ambition versus customer interest and affordability is the question of how we regulate. We need to find better ways of regulating.

One of the key concepts that would help is outcome-based environmental regulation. To give an example, at the moment in the water industry national environment plan—the WINEP—a lot of companies get lists of hundreds and hundreds of very specific output-based things they have to do, such as improve their discharge at a treatment works. It is more or less prescribed that there is a traditional solution available. Often, that solution is capital intensive. It requires carbon because a lot of concrete is involved, and it probably does not do much for biodiversity.

If we manage to regulate at an outcome level, so that we ask ourselves what the ultimate thing is we are trying to achieve, which is better river water quality, and then allow the companies to look for innovative and wider ranges of solutions, including nature-based solutions but also partnership working and working with farmers, I think we would get lower capital cost, less carbon cost and potentially more biodiversity. At the moment, from what I can see, it is resource constrained and trying to move to a more outcome-based approach. That is absolutely needed in order to deliver the environmental ambition.

On the resourcing side in Ofwat, it is difficult to tell whether Ofwat requires more or less resources. What is clear is that there is a greater range of topics that Ofwat has to cover. Ofwat needs sufficient resource that it can cover new environmental topics. Take net zero, for example. I do not think that Ofwat can operate as a regulator with only economists. It needs people who actually understand the technical side of all these things in order to develop robust economic regulation.

Baroness Donaghy: I have one very quick question. Professor Barker, you said that the EA had a lack of expertise. Ms Ong said that if Ofwat had the resources to cover all the range of topics, including the technical, it too would be suffering from a lack of expertise. Is that a potential problem? Is it because it cannot attract the rates of pay that such experts can get in other areas?

Professor Ian Barker: I think what Annabelle has been describing with outcome-based regulation is quite new and requires a different mindset. The more traditional approach is end-of-pipe solutions. Later in this discussion, we may look at catchment-wide solutions to deliver improved water quality, for example.

There is a growing level of expertise in the agency, and outside the agency in organisations such as the Rivers Trust, which would carry out a lot of this work on the ground using joint funding from a range of different organisations.

Annabelle Ong: I can probably only give a general answer. The labour market for these new skills is quite tight. There is lots of demand for these types of environmental skills, not just from the water sector. If you

look at net zero, all sectors are trying to attract talent in that area and it has been difficult for Ofwat to attract people with the right level of expertise. My impression is that it is working quite hard to make sure that it gets the right people.

Baroness Donaghy: Thank you.

- Q11 **Baroness Bowles of Berkhamsted:** I would like to probe a bit more around the whole five-year plan thing. First, does Ofwat receive sufficient strategic guidance from the Government on how to balance its objectives? In particular, does the Government's strategic policy statement ensure that Ofwat balances the need for long-term investment with affordability of consumer bills?

You have already referred to the incident, if I can call it that, of the Cheddar reservoir. How does that kind of thing fit in with the strategic guidance and driving everything on a five-year plan? I know this strays a bit from the core question, but if a water company finds it difficult to do a five-year plan because it costs so much, is there something wrong with the size of the water company? It is nevertheless in charge of some very substantial infrastructure that requires long-term planning, so do we have some mismatches going on?

Professor Ian Barker: There is a lot in that.

Baroness Bowles of Berkhamsted: I am sorry, but you said those other things.

Professor Ian Barker: I will do my best to work through the question and then hand over to Annabelle. Defra's latest strategic policy statement has come in for some criticism that I do not think is entirely fair. It is a big step up, I think, from the 2017 statement. It puts protecting and enhancing the environment front and centre in what the Government expect Ofwat to lead companies on, as well as delivering a resilient water sector. It is very clearly thinking about the pressures on the whole water environment and water networks from shocks from flooding, droughts and so on, as well as from an ageing infrastructure. It also talks about ensuring that there is a long-term approach to investment but that this does not mean lower prices in the short term at the expense of future generations. It is very heartening to see Defra recognising explicitly the need for intergenerational value to be a key part of companies' business plans at the moment. The SPS also wants Ofwat, in its methodology, to explain more clearly how major decisions support the Government's strategic priorities, to make that link. I think that in a couple of weeks' time, Ofwat is due to publish its draft methodology. Perhaps by the time you see Ofwat, that will be out and you can ask about it.

There is a view from the Government that water companies must get the basics right, in particular with regard to storm overflows. There is a real issue of trust and confidence in the sector, in what has become a very visible and intense media campaign in relation to that, which is undermining the trust and confidence of customers. Defra has, importantly, recognised that.

Going back to what Annabelle was talking about earlier with regard to outcome-based environmental regulation, the SPS talks about the need for nature-based solutions and catchment-based solutions as a matter of preference. That will require a shift in regulatory mindset by both Ofwat and Defra, and within the companies. So far, there have generally only been pilots and trials. What Defra is looking for is the widespread use of nature-based schemes that deliver multiple benefits to a range of different sectors. The SPS also talks about the need to work with other sectors in delivering the plans. It is important to note that water funding does not have to come from water companies. I know that Annabelle has done some work on this, so she will expand on that.

Where the SPS slightly falls down, I feel, is that it ducks the issue of balancing investment needs with affordability. It does not give Ofwat a clear steer on that. Everything appears to be of equal priority. There is no recognition that I can see of the need for a societal debate on the principles for trade-offs, and more transparency around how those trade-offs are made. It is a strategic statement so, inevitably, it is relatively high level, but some of the outcomes are quite vague. The heavy emphasis on sewer overflows is perhaps a reflection of the level of media interest and concern. Although, quite properly, the Government believe that the sector should be responding to it, it is not necessarily good policy-making to respond to whoever is shouting loudest at the moment. Overall, I think it has given good guidance to Ofwat and more widely to the companies on what it should be expecting to regulate them on.

Baroness Bowles of Berkhamsted: Have you any comment on how incidents like the Cheddar reservoir fit into these things? You do not have to go into that particular one, but is that type of expenditure not allowed because of what goes in at government level, or is it entirely what goes in at the Ofwat level?

Professor Ian Barker: In the case of Cheddar, it was supported by Defra. As I said, that is now eight years ago. Ofwat today would recognise the importance of security of supply and probably take a different view—at least, I hope it would—about funding that sort of investment.

The proof of that particular pudding will come fairly shortly because water companies are working in a very collegiate fashion to develop proposals for strategic water resources, to ensure water supply until 2050. They are doing that in an adaptive planning process, which means that what we can be reasonably certain about over the next 10 to 15 years we need to crack on with, and then there will be decision points over time as we come to a better understanding of some quite significant uncertainties over water availability because of climate change, the environmental impact of climate change and the environmental impact of water that we take from the environment. The proof of the pudding will be how Ofwat responds to proposals for strategic resources put to it by the companies in the next price review.

Baroness Bowles of Berkhamsted: Annabelle, do you have anything

to add?

Annabelle Ong: Ian made some very important points. The SPS is generally appropriate as high-level guidance. It is very clear on the environmental ambition, with the exception of net zero, which is only referenced once. What it does not do—I touched on this earlier—is help with the prioritisation between investment and customer interest. One of the things the SPS mentions is that it would like Ofwat to ensure that companies engage meaningfully with customers and reflect robust evidence on topics such as affordability and acceptability.

I have lots of experience in designing and helping companies engage with their customers. Over the last decade, companies have got a lot better at understanding what their customers need, using a wide range of methods and not just simple surveys. If you take that engagement seriously and look at the next price control, given the economic situation we are in with real, falling wages, and just take the Defra consultation on CSOs, it says that we might need £20 on average as a bill impact between 2025 and 2030. That is just the storm overflows: £20.

If we add up all the issues I have mentioned, such as the Environment Act targets, the WINEP programme, net zero, water resources, leakage and all the other things, we could very quickly end up in a situation where, if we want to deliver all these things, we are looking at much bigger increases than potentially £20. If we take engagement with the customer seriously, as the SPS requests, it is very difficult to see how we can balance customer interest with investment need. That is where the SPS does not prioritise. There is a long list of things that need to be achieved, but there is no sense of prioritisation. That is why I think it is important to have honest conversations now and in the next year or two. The risk is that in five years' time we might look back and say, "Well, we think Ofwat didn't quite get it right", but it will be very hard to say that it did not meet the SPS, given that the SPS does not prioritise but says, "We would like it all".

Baroness Bowles of Berkhamsted: As a final add-on, what is your view of the Government's draft storm overflows discharge reduction plans that are out for consultation? Are the proposals sufficient to reduce storm overflows?

Annabelle Ong: I look at the storm overflows plan and ask, "Is this the best way to achieve the environmental improvements that we want to see, balancing that against customer interests?" What the plan does not do is set environmental targets and ambitions at that outcome level. There is some reference to things like impact and harm, but in some ways the targets, especially around 10 spills, are quite output-based. It is very much that you need to do something at a certain site to get from one level to another.

What it does not do, and it is missing this opportunity, is to create an outcomes-based approach that would allow companies to be more innovative and work in partnership with others to find better ways of

delivering the ultimate outcome that we want. That is something that I can see in a lot of the environmental targets; they are output-based.

If the legislative targets are output-based, actually the EA and Ofwat cannot move to outcome-based regulation. They are stuck with those targets at that output level. Given Defra's 25-year environment plan and our general ambition on the environment, we need innovative regulation to deliver what society and customers want, and an outcome-based approach can really help with that.

Professor Ian Barker: To build on some of the things that Annabelle was saying, earlier Philip Dunne was talking about the timescales involved and saying that we need to be practical and realistic about what is affordable and achievable, and focus on the highest priority things first. I agree with that. My slight beef with the proposed plan that is out for consultation is that it takes a single issue, which is a focus on storm overflows, and proposes a single-sector solution, which is "Water companies: sort this out", for what is a very complicated cross-sector problem.

By putting all the onus on the water companies, on the discharge end of it, it does not face up to the reality that what goes into a combined sewer, as Philip was saying, is all the surface run-off from the area that the combined sewer serves. It is all the run-off from roofs of housing and paved drives. In some cases, it is often roads, industrial estates and so on. It would make a lot more sense, in order to manage storm overflows, if it were part of a more coherent and integrated effort to manage surface water better in the urban environment. As Philip rightly said, it is an astronomical expense to enlarge the sewerage network, but we can go a long way simply by better management of surface water through sustainable drainage systems and green and blue infrastructure in towns and cities, which would make places a lot more pleasant to live in.

The Government have said that they are willing to consider how legislation might be improved to tackle excess rainwater, but again, as Philip outlined, it is a cross-departmental issue. It cuts across Defra, Levelling Up, Housing and Communities and Transport. All of those government departments need to be involved in working towards the solution for better management of surface water. That would have the benefit not only of helping to reduce sewer overflows but of providing better management of surface water in urban areas in response to intense rainfall events. Increasingly, we see urban flooding not as a result of a river overtopping its banks but because the drains simply are not large enough to drain away the intense rainfall.

Q12 **Lord Reay:** You touched on this question a bit in a previous answer. How well, in your opinion, does Ofwat work with the other regulators and authorities to meet the shared challenges? In particular, is there overlapping or blurring of responsibilities between Ofwat and the Environment Agency that leads to confusion and delay in tackling issues such as sewage overflows and other water pollution incidents?

Annabelle Ong: More collaboration is needed between the regulators, and Ofwat and EA have recognised this already. There is a joint regulator initiative called RAPID, where the DWI, the EA and Ofwat all work together on long-term planning for water resources. From what I hear, it works very well. Ofwat and the EA also work together on the WINEP task force to reform the water industry national environment programme. We have seen more collaboration in the last few years than probably ever before, but it needs to go further. The issues of the future are of such a nature that we need close alignment. How do we decide on the need? Is this investment needed or not, and how do we check whether it is efficiently delivered or not? That needs to happen.

I do not think it is just collaboration as in getting together and talking about it. What is missing at the moment is a bit of strategic direction on how we want to regulate. There is a shift in mindset that both regulators need. On the EA side, it is about moving towards more outcome-based regulation, as I mentioned earlier. On the Ofwat side, to make that happen, one of the mindset shifts needed is to make sure we have a level playing field for different types of solution, so that financially you are not better off doing a traditional solution versus a nature-based or partnership solution.

If we can get that alignment, we can be more confident that we get the right types of investment, and that that investment is efficient. It is very important in that collaboration to be clear about who does what. Some tension between regulators can be helpful, but you want to avoid a company being told by one regulator they should do something and then being told by another that they should not. That collaboration can create greater clarity, but it needs to be under a general, combined strategic direction.

Professor Ian Barker: I have little to add to what Annabelle has described so well. Certainly in recent years, there has been much more join-up, and perception of join-up, between Ofwat and the EA. Annabelle mentioned the new organisation, RAPID, which brings together all three regulators in a way that I think companies find very helpful.

We have also seen how the EA and Ofwat are working together on very large-scale investigations, such as the one that happened with Southern Water and the others that are ongoing at the moment. It is some eight years since I left the Environment Agency, but, even so, I have seen a significant increase in Ofwat's willingness to support environmental improvements. It better understands environmental issues, the relative priorities in different environmental designations and the need to tackle some of the issues and explore, as Annabelle said, nature-based solutions and more integrated solutions to deliver on that.

Overall, it is certainly improving. It might be interesting to ask the water companies what their perception is of the join-up between Ofwat and the Environment Agency. In other words, do they hear the same thing from the two different regulators, and indeed from the Drinking Water Inspectorate as well?

Lord Reay: On the point you mention about nature-based solutions, I can see there is an inherent conflict between the company's net-zero obligations and treatment solutions that involve concrete and steel. How much of the solution will be nature-based? I know it is impossible to put a figure on it, or a percentage, but could you give an impression of the extent that nature-based solutions could be part of the solution?

Annabelle Ong: It is a good question and I think the answer is that no one knows. What we need is a regulatory system that will incentivise companies to innovate, so that in five or 10 years we get the optimal mix between traditional, nature-based, partnership and other solutions. Right now, we have seen trials and pilots, and people are exploring how well things work, or not. None of the companies would be able to say with confidence right now, "This is the proportion that may or may not work". The important thing is that we get the right outcome, in that we get the optimal mix and that reflects not just the financial cost on the customer as well as the carbon cost, but also the biodiversity impact, which I think it is important to remember.

Professor Ian Barker: The important thing is that regulators, water companies and the Government do not lose heart as these schemes progress. The reason that concrete and steel solutions have been attractive in the past is that water companies know how to operate them. They know the output they will be able to deliver from them and they have the level of confidence that they will be able to meet compliance with permits. Nature-based solutions, almost by definition, will take longer to establish and to deliver the environmental outcomes we seek. Until that is happening, regulators, Governments and water companies will need to hold their nerve and trust in the solutions. Critically, they will have to monitor, learn and course-correct if it turns out that we are not getting the intended environmental outcome from a particular scheme. Sharing knowledge across the sector is really important.

It is very heartening that Ofwat recently introduced a £200 million innovation scheme, which companies or indeed anyone can bid into. Many of the proposals that have gone into that have been collaborations between water companies and a range of NGOs and others. Many of them have been looking at the potential for nature-based solutions, so I am cautiously optimistic that some quite exciting schemes will be integral to companies' next sets of business plans.

- Q13 **Lord Blackwell:** Annabelle, to what extent do you think that Ofwat's price review process creates the right economic incentives for long-term investment? Ian mentioned the Cheddar reservoir example, which has been talked about previously. It is easy to criticise water companies for not making enough investment, but has there been a tendency for Ofwat's price review process to be overly focused on short-term price protection and to regard with suspicion desires to put more investment into water companies, on the grounds that it is just water companies trying to add to their capital base and get a higher return? Has Ofwat, rather than the water companies, been the hindrance to investment?

Annabelle Ong: Those are important questions. If you look at how investment gets approved or not and how it has worked in the past, it is important to remember that there are two components. One is that the companies need to make robust and convincing cases that the investment is really needed. You see a mix of quality across different companies at different points in time. The second step is for Ofwat to approve the investment, either on the basis of a good case or on the basis of lots of probing. Ofwat has clearly recognised that it needs a better understanding of the long-term challenges in the sector so that its five-yearly decisions can be made more in the context of the long term. For the next price control, Ofwat has introduced what is called a long-term delivery strategy. It has asked companies to set out very clearly the investment needs over the next 25 years. That was missing in previous price controls.

You have to remember that there is information asymmetry. The regulator itself does not have a clear idea of what the investment needs are for the next 25 years. The companies hold that information. My hope is that, through this new approach, the long-term delivery strategies will be of good quality and will play a significant role in the price control process. That bit we do not know yet. The draft methodology is coming out in a couple of weeks. I hope that they will not just be strategies and then we all focus on the five years, but that we actually look at the 25 years.

If that goes well, with that view, you can look at the potential bill profile over 25 years under different scenarios. Then you are much more able to make decisions that really look at the long term. In the past, some long-term planning existed in different parts of the business plan, but it has never been brought together as such.

The other challenge for Ofwat going forward is that it uses quite a lot of historical data to benchmark whether companies are efficient. There is a real question, which Ofwat needs to think quite hard about, of the extent to which it is appropriate to use historical data to assess future efficiency in a world where what companies are delivering is changing quite significantly and the challenges we are faced with are very different. To me, that is an open question. The draft methodology is coming out in a couple of weeks, and it may be that Ofwat has already addressed that issue.

Lord Blackwell: You say that the water companies have to put forward a robust business case. Obviously, how that is used by Ofwat will depend on how much it weights the environmental and longer-term benefits. If it thinks that discharges 20 times a year are fine, it will not accept a business plan that goes beyond that. There has to be an understanding in Ofwat of how to weight environmental and other benefits alongside issues such as, "This is a broken pipe, and it will flood if we don't fix it".

Annabelle Ong: Yes. Generally, Ofwat and the companies use well-established, sensible frameworks to value different types of benefits now

and into the future. The approaches are very common across different sectors.

Given the environmental ambition, there is a question at the moment about how much to use values that society places on different types of environmental improvement and how much to use values that customers might place on those improvements, because those values may be quite different. If you ask someone as a citizen, they will give you an answer different from the one they would give as a water customer. Again, that is something Ofwat and the EA are actively thinking about and need to reflect on, as they move away from least cost to best value.

Professor Ian Barker: Annabelle has explained that the past is not necessarily a guide to the future when it comes to efficiency. We have just heard about the way in which water companies will be moving, we hope, towards more nature-based solutions, which would give better value. It is not clear yet just how Ofwat will assess the efficiency of those schemes. Overall, they should cost less than an equivalent concrete and steel solution, but how Ofwat will assess their relative merits and the costs involved is not clear. Annabelle mentioned best value. There is a move in regulation from least cost to best value: looking for multiple benefits from a single scheme, rather than just a single benefit, and trying to expand the mindset, to plan investment so that it will deliver a wider range of either societal or environmental benefits.

There is perhaps an area that should not impact on the way in which Ofwat views investment, but it might be material, and in fact often seems to be. Ofwat should be free from political interference, although not, obviously, parliamentary scrutiny, but there is an unhappy synchronicity between the timing of the final determination in the periodic review and general elections. Although Ofwat should not be swayed by that, in the next price round we are going to see everyone saying that this is potentially a very difficult price settlement.

We have two big areas for investment. On the one hand, for water companies in the south-east—both the water and sewerage companies and the water-only companies—we have significant potential deficits in security of supply that need to be addressed, both to support housing growth and to deal with the problem of damaged and drying rivers. Therefore, as we have heard, significant investment is needed from all the water and sewerage companies in order to deal with improving wastewater assets. It is not yet clear quite how the water companies' drainage and wastewater management plans, also known as drainage and sewerage management plans, will translate into investment needs, or, indeed, what the quality of those plans will be.

Water UK has put a marker in the ground. Water UK is the trade body for the water sector. A month or two ago, it produced a White Paper, *Water 2050*, that gave us a reminder of historical replacement rates for underground assets, which Philip Dunne was talking about. In the case of sewers, the replacement rate is 0.2% per annum, equivalent to 500 years for replacing the network. For water mains, it is 0.6%, so it will

take 167 years to replace water mains. That is why the urban myth that we are relying so heavily on Victorian water mains is actually a truism. Water UK estimates that we need to increase the sewer replacement rate to 1.3%, which is around 70 years, and the water mains replacement rate to slightly less than that just to stand still, without even thinking about improving performance.

There is a real challenge there for the sector because of a legacy of underinvestment, as Philip highlighted. Although privatisation has dealt very effectively with much of that underinvestment in respect of wastewater treatment, by cleaning up most wastewater discharges and the most egregious pollution, there is still a great deal to do as regards a critical asset base for water and wastewater. Both water supply and wastewater treatment will impose big pressures in the next Bill. It is not clear yet quite how those relative pressures will be balanced.

Lord Blackwell: Is it your view, Professor Barker, that the desire not to have large price increases at a time of a cost-of-living crisis will be a real constraint on approving the scale of investment that is required? If it is a constraint, is there a way of making its funding through bills less regressive?

Professor Ian Barker: I will leave the economics of this to Annabelle. Certainly, the cost-of-living crisis will play through this price review. There is much talk within the sector about what level of support water companies can give customers who, for whatever reason, are struggling to pay their bills and are likely to struggle even more in the future.

The Consumer Council for Water, the statutory consumer representative body for the water sector, does excellent research into what customers think. It has looked in particular at social tariffs. As Philip hinted earlier, every water company has a social tariff, but every water company sets a different threshold, calls it something different and publicises it in different ways. CCW established the fact that about three-quarters of water companies' customers have no idea whether or not their company will provide them with support. People over 55 are the least aware.

Clearly, there is a lot more that can be done on social support and the ability to pay bills. The water sector is currently looking at the potential for a national social tariff, from a pot contributed to by all water companies. The modelling to date suggests that, for some water company areas, customers might actually be worse off than they are at the moment, so I hope that if that comes to fruition there will be a no detriment clause built into it. Dealing with affordability questions for those who struggle most would certainly go a long way towards addressing some of the concerns about bill increases. None the less, we need to recognise that pretty much everybody is struggling nowadays. We will have to see where inflation is, what the cost-of-living crisis is, and how that will play out in Ofwat's view, and any guidance that Defra may give it. Ultimately, it will be Ofwat's decision.

Annabelle Ong: I agree with Ian on a lot of these issues. I would not necessarily call affordability a constraint as such. We need to balance affordability and acceptability against the environmental ambition. There is a question around how we all talk to water customers about that. Is there a case to be made for the Government, regulators and water companies all to explain to customers why this long-term investment is needed?

Charges can be regressive, especially if you meter customers. If you compare them to income tax, they can have a regressive impact. Ian is absolutely right. Companies already provide social tariffs. At the moment, they are limited by the requirement to have customer support for the social tariff. You need to ask your customers how much they are prepared, in some way, to donate towards customers who are struggling to pay. You will not be surprised to find that in some parts of the country that number is not particularly high, because people struggle themselves.

There is a good case, in principle, for a single social tariff. As Ian said, it could improve take-up, it removes the postcode lottery and the costs are socialised across everyone, so you do not end up with a situation where, if customers of a particular company feel that they cannot pay more for the social tariff, it is limited. There is still detailed analysis going on. What you have to remember is that a single social tariff is not a panacea. I do not think that it will solve the balance between customer interest and investment need. That is partly because it puts up bills for everyone else. It is paid for by all other customers. The worst case you could end up with is that those customers face paying for all the investment needs plus the social tariff. Then it becomes very difficult to say, "Where do you draw the line? Who should be helped and who should be on the other side?" As Ian said, it would go a long way towards addressing some of the issue, but I do not think it is the one thing that will solve everything.

Lord Blackwell: I have a quick supplementary, which is to do with engagement with industry. How well do you think that Ofwat engages with the industry? Does it get the right balance between listening to industry and being a tough regulator?

Professor Ian Barker: There are always conversations between Ofwat and the companies: chairman to chairman, chief exec to chief exec, and at a working level beyond that. What is less clear is what the quality of those conversations will be like, because there will always be a degree of tension when a water company talks to a regulator. Two or three years ago, I ran a conference called "How can we make regulators redundant?" All the main regulators were very happy to contribute and happy to be made redundant, but they said, "Fundamentally, it is based on trust". What needs to be built up within the sector is greater mutual trust, both ways, between water companies and regulators.

Annabelle Ong: Ofwat interacts with companies in different ways at different points of the price control. At the moment, we are setting the methodology, so there are working groups, there is one-on-one engagement and there is what is called a future ideas lab, where you can

publish reports that you want Ofwat to read. That sort of engagement is fairly open, and you can share ideas.

Once the methodology is set, we move more into a phase where companies prepare their plans and Ofwat scrutinises and assesses them. As you probably know, at the last price control, four companies appealed its decision, so you could probably say yes to the question, "Do you get robust regulatory decisions?"

All of that is broadly appropriate. What we are missing, and are at risk of not having, is that both companies and Ofwat then focus very quickly on the next five-year price control. I talked earlier about regulatory innovation, thinking about how we regulate in the best way. What we fail to do is to keep that long-term view. What do we do at PR29, the price control after PR24, which is the next one? Very quickly, what will happen in the next few months is that there will be a list of things that we would like to do, but it is too late. I do not think that anyone will keep track of those things. We will probably look at them again in 2025, when we have set prices for 2024.

As Water UK mentioned a bit in its latest sector vision, what would be really good for the sector would be to have some more ongoing engagement and thinking about how we want to regulate in the future, in the long term, and maintain that even when everyone is busy with the next five years, so that for the next price control we are ready to regulate. That is partly because it can take quite a long time to change systems. If you want to measure something slightly different and in a different way, you need a baseline for that, so you may need to agree in the next two years what you might measure so that you can put a proper performance target on it from 2029. I would like to lock some people in the room and say, "You need to think about the long term".

Lord Blackwell: Thank you.

Q14 Lord Sharkey: Are the financial models current in the water industry a cause for concern? Could Ofwat be doing more to ensure that more money in the sector flows into long-term investment, rather than out into things like fines, executive pay and dividends, or are these issues outside the regulatory perimeter of Ofwat?

Professor Ian Barker: Ofwat has taken an interest in executive remuneration. In fact, earlier this year it wrote to the chairs of water companies' remuneration committees to remind them that executive pay should demonstrate a link to performance delivery for customers and that, where poor performance has occurred, it should be reflected in performance-related pay of directors. In fact, water companies will be in the process of setting any PRP round about now, so it will be interesting to see to what extent they have heeded Ofwat's advice on executive remuneration.

I do not want to get into the question of dividends, although investors will want to make a reasonable return. There is an interesting comparison

between companies that are paying out dividends and those that are not. I am thinking particularly of Welsh Water, which is run as a not-for-profit company. I should declare that I am a customer of Welsh Water.

If you look at the basic performance metrics for Welsh Water compared with the English companies, Welsh Water performs very well and, particularly on customer satisfaction, extremely highly. Welsh Water, as a not for profit, does not pay any dividends, but its profit, which might otherwise have been a discretionary spend, is reinvested in ways that are supported by customers. The same is true of Scottish Water, which is a government-owned company and, consequently, pays no dividends, but has performance the equal of any English water company. That is probably all that I would want to say on that side of things.

Lord Sharkey: Thank you. Annabelle?

Annabelle Ong: I do not have a lot to add. There are two points. On executive pay, we need to remember that the market for executives is wider than the water market. I would say that that is a wider market. On dividends, we have talked about lots of investment needs in the future, so we want to attract investors to fund all those ambitions. We just need to think carefully about designing new incentives and how they might affect the attractiveness of the sector to invest in.

Lord Sharkey: Do you get any real sense that the water companies feel the consequences of regular intervention by the regulator? Are those interventions, where they cost anything, simply seen as a cost of business?

Annabelle Ong: I am aware that my experience may be limited and might not apply to everyone. I have spent a lot of time proposing performance commitments and different types of incentives for companies to the regulator. In my experience, companies really care not just about the financial incentives but about the reputational ones. Some of them were quite small scale, but from what I saw companies do not want to fail to meet any of the performance commitments.

I think the same applies to fines. Water companies are very aware of the need for a legitimate water sector and of the reputational impacts of fines or failing to meet performance targets. From what I have seen, they care about not just the monetary value but the reputational impact.

Professor Ian Barker: Annabelle is exactly right about the reputational impact from a fine. Although I know that companies have always taken enforcement action very seriously at board level, the action against Thames in 2017 that Philip mentioned—the £20 million fine—and, more recently, against Southern, was a real wake-up call to the sector and helped to give additional focus. The critical thing, as Annabelle mentioned, is around reputation and public trust. Every company is damaged when another company receives a fine for pollution or some other environmental misdemeanour.

Earlier, I mentioned briefly that the Environment Agency is carrying out fewer prosecutions because they are expensive and time consuming, and funded by grant in aid, so it has tended in recent years to move towards civil sanctions, under the Regulatory Enforcement and Sanctions Act. That requires the offender to carry out remedial work and to meet the costs associated with it, as well as to provide a sum to benefit the environment: grants to wildlife trusts, rivers trusts and so on. There is a direct benefit from that sanction, but there is not the same level of publicity and the sense of being dragged through the courts, which creates the reputational damage.

Philip mentioned the fact that fines go to the Treasury. That has long been a source of concern. Sentencing guidelines changed a few years ago, so fines are now significant in monetary terms. If one thinks of the increasing scale of fines, their going to the Treasury seems to be rather a missed opportunity, in my view.

Lord Sharkey: Thank you.

Q15 Baroness Taylor of Bolton: This has all been very interesting. I think you heard some of the previous session, when I asked Philip about parliamentary scrutiny of Ofwat. Obviously, Philip is very engaged in that, as is his Select Committee. Other MPs will have competing demands and will probably get interested only when there is a constituency problem. You mentioned that a lot of these issues are multidimensional and multisector. Do you have any ideas about how parliamentary scrutiny of Ofwat could be improved?

Professor Ian Barker: I should mention that I was the adviser to the Environmental Audit Committee for the inquiry Philip was talking about. He mentioned that the EAC has indicated willingness to see Ofwat on a more regular basis. As a cross-departmental committee, like the PAC, it is probably well placed to do that, to put right what has so far been relatively ad hoc scrutiny. That would give the whole sector, and many others, much more confidence in Ofwat. It would also give Ofwat an opportunity to explain its thinking in a way that it does not necessarily get through in its reports and so on. There could be a more structured approach at key milestones through the periodic review process and afterwards. There are some established milestones that might be good opportunities to ask Ofwat some searching questions and, perhaps, to give it some thoughts to reflect on.

Ofwat produces annual performance reviews of itself and scrutinises water companies' annual reports. At the moment, all of those are just issued by Ofwat and go out into the great void. There is no collective summary of the various reports that sets out what they tell us about the performance of Ofwat and the companies, and the trends or long-term direction of the whole sector. Reflecting on this, I was wondering whether a collation—a simple summary—of all those performance reports could be laid before Parliament, in the Library, for others to get a sense of the overall performance. They could consider whether there was something they wanted to ask Ofwat, rather than having to wade through the many

reports to get an understanding of Ofwat's performance and the issues it faces.

Baroness Taylor of Bolton: We certainly get a lot to read; you are quite right there. Annabelle, do you have anything to add?

Annabelle Ong: Yes. I think that is a very interesting idea, Ian. The important thing is to have a balance. On the one hand, accountability is really important. On the other hand, there is a lot of value in having an independent regulator. The risk of more frequent reporting by Ofwat or more frequent scrutiny is that it could undermine a bit of that independence, which is really important in order for investors to have confidence. You do not want it to turn into a process where companies and investors feel that once a year Ofwat is given a slightly different set of priorities and will change course slightly. There is a real value in the system being set for five years. The SPS is important to guide Ofwat, but there should be something in it to say, "Let's get on with it then". At the same time, accountability is really important. I am sure that, even with more frequent scrutiny, you could strike that balance.

It comes back to something I said earlier. Scrutiny is one thing, but given that Ofwat will be faced with incredibly difficult trade-offs and balancing of objectives, to me the question is: where are the conversations happening where we can really say, "These are the potential bill impacts we are facing, and this is the environmental ambition in terms of statutory obligations. How do we address that issue?" Having room for those conversations is really important. That is slightly separate from the scrutiny.

The Chair: Annabelle and Ian, thank you very much for your patience and the detailed answers you have given. As we go through this inquiry, which will not be a long inquiry, if you have any further thoughts or see any of the sessions and feel that there are some follow-up questions that we might have asked or should be probing, please let us know. We are looking to make this as informed as possible about what is obviously a very difficult and complicated balance, particularly with the cost-of-living crisis, between water bills and the need to invest in an infrastructure that has been badly neglected. Any further contributions will be most welcome. That concludes our meeting today.