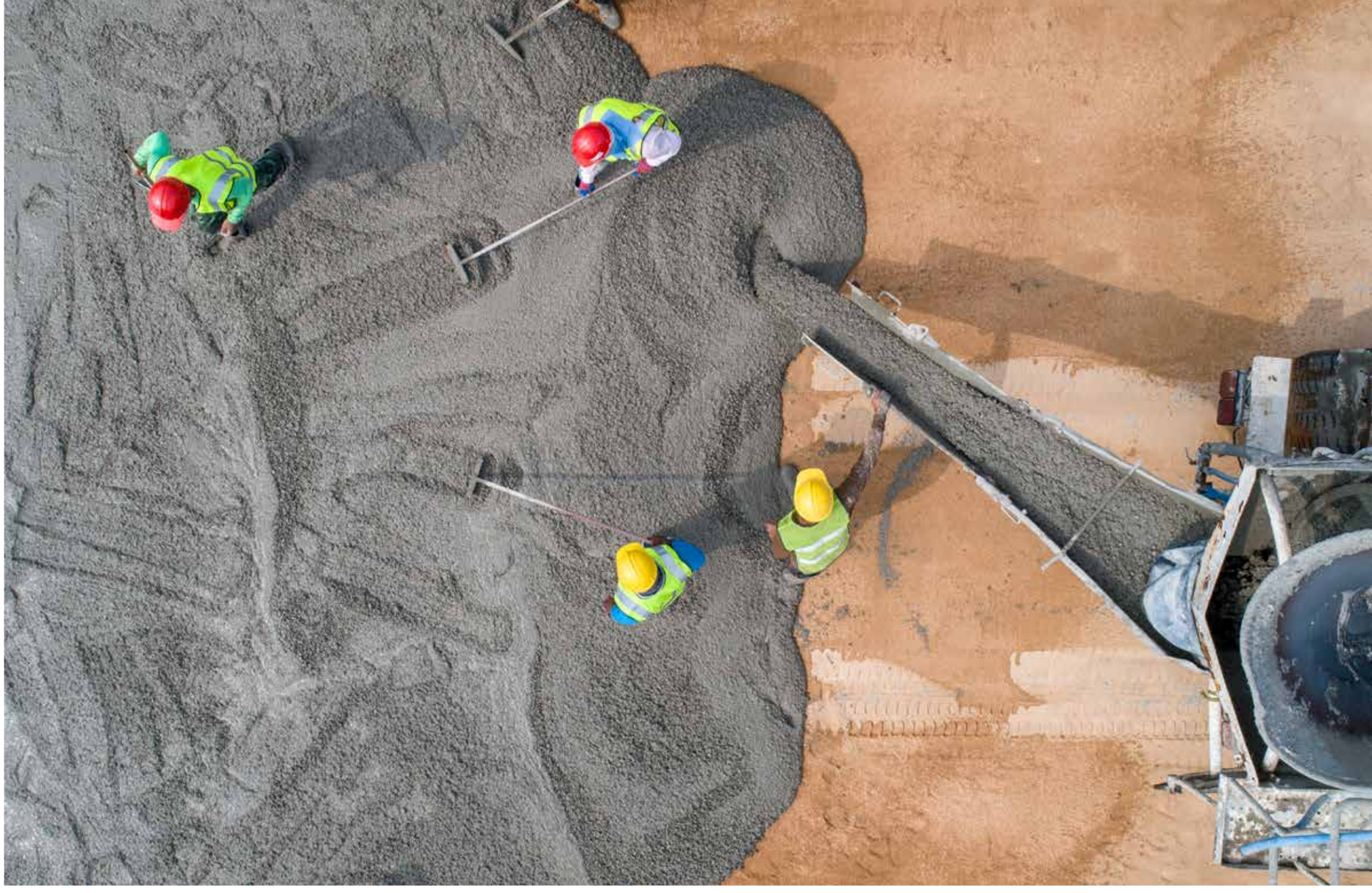
SHADES OF GREY



Nature and catchment based solutions have lots of support in theory – so why is grey infrastructure going to feature so highly in AMP8 and what is needed to drive greener choices?

The condition of our aquatic environment has become patently unacceptable, as evidenced by the thousands of column inches and social media posts dedicated to expressing outrage at the health of our rivers and seas, and specifically the raw sewage entering our waterways untreated.

We have plenty of evidence to support the use of clean, green and collaborative ways for water companies to improve river and coastal water quality – from working with farmers to prevent nitrates entering watercourses, to persuading customers and communities to install water butts to keep rainwater out of sewers. On paper, Government, regulators, water companies and NGOs pretty much agree that outcome-based solutions such as these, which often feature nature or catchment centric approaches, are in many cases better than traditional alternatives. They are cheaper, lower carbon, and commonly deliver multiple benefits.

So it was seemingly with some frustration that Sustainability First convened a multi-stakeholder round table last month to discuss the fact that we seem to be heading into a new AMP that once again will be characterised for the most part by grey infrastructure solutions.

Sticking with tradition

Introducing the discussion, Sustainability First associate Martin Hurst warned of unintended consequences and missed opportunities arising from the public outcry over storm discharges and untreated sewage. In the glare of the headlines, Government and regulators are simultaneously looking to water company and bill payer spend as the solution, and becoming more risk averse to non-traditional approaches to cleaning up our water, for fear these might not deliver the outcomes the public is demanding.

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"The obvious appeal there is to spend lots of money on things you can point to. And the thing you can point to is concrete. So there is a serious concern that we might spend many billions of pounds on concrete," Hurst said. This is despite traditional infrastructure typically delivering single-issue improvements, which can leave waterways struggling with other problems and therefore overall health.

He continued: "A number of things that are being done at the moment are still very process-based and in some cases are dragging us back into process regulation." The maximum ten spills-a-year targeted in Defra's Storm Overflow Discharge Reduction Plan is a good example. Despite the opportunity presented by Brexit to reconfigure our approach to environmental regulation and focus on outcomes, we seem to be "reinventing process solutions".

This picture is not unabated, and Hurst pointed in illustration to Defra's Plan for Water which encourages an integrated approach; the surge of interest in natural flood management and sustainable drainage; and some incredibly helpful projects, pilots and trials. However the fact remains: "If we're not careful, we'll make decisions in this price review [that will] effectively close the door to the kind of things we might want to do in one to two years time."

Sustainability First sought to provide a "safe space" at the roundtable for water companies, Government, regulators, eNGOs and others to discuss the barriers to getting more sustainable solutions over the line for PR24 – and crucially, how these barriers might be overcome.

Barriers to alternatives

Participants identified among the following obstacles to non-traditional approaches to delivering water quality improvements:

- Certainty and timeliness of delivery – "Can it deliver the outcome I want and have I got time to do it? Those two things are fundamental," one participant shared.
- Cultural reluctance – "I think the cultural reluctance comes from the fact [that certainty and timeliness] are quite big things…especially when it feels like..we need to comply with something very quickly."
- Complexity – "It's really complex, there's loads of different environmental interactions and social interactions and all these decision making processes."
- Regulatory constraints – "It feels to me that the WINEP timescales and the way that process all works doesn't allow for this kind of collaborative approach." The participant explained guidance is often late, causing companies to rush and have insufficient time to get their ducks in a row for more creative approaches.
- Delivery capacity constraints – in both the traditional supply chain and the voluntary sector.
- Lack of trust – "Asking regulators at a time when everyone's looking for them to be really tough on the industry and…really micromanage the industry and we're actually saying… 'relax, take your hands off a bit and allow them a bit more freedom to operate'…I can see why that's difficult for government and regulators."
- Lack of an informed debate about the water system – "It's increasingly going to be about convincing the public, winning hearts and minds for what we want water to be about in the future, rather than just providing robust scientific or economic evi-

dence to decision makers…What we really need now is genuine honesty, very clear articulation of the issues and challenges that we all face, and transparency."

- Need for better baseline performance from the water industry – ensuring polluters pay and companies achieve minimum regulatory expectations before progressing to an outcomes approach.
- Need for a better understanding of the causes of ecological detriment – be these deriving from consumers, water companies or others. "Once we understand all those different sources that make up the catchment or place…then we can start to identify a much richer vein of potential solutions, either at source or producer responsibilities or other things which can help us to define our approaches."

Breaking down the barriers

Mark Lloyd, chief executive of The Rivers Trust, shared the details of a project his organisation is leading which secured £8.9m of funding from Ofwat's innovation competition and seeks to accelerate landscape transformation by removing the barriers to nature-based solutions. Twenty-two partner organisations are involved in the scheme which aims to build a multi-million pound investment pipeline of catchment projects across the UK.

Lloyd said that for water companies to work in new collaborative ways with many other organisations in one integrated system "really does require a kind of root and branch reform of our system. This isn't something you can just do with a brief policy announcement. This is really fundamental change that we're engaged in."

He continued: "The system is failing…we are spending a lot of money in various different ways but we're not joining that up. We're missing out on huge amounts of value." The innovation funded-project is targeting multiple outcomes which break down funding and operational silos and challenge the "micromanagement approach to regulation which is really holding back this kind of more systemic outcome-based approach."

The aim is to embed the findings into policy and regulation where there is, Lloyd argued "a real appetite for change, which is a great first step".

He concluded: "In order to improve water, we need to transform the whole system through which water flows. And rivers are a product of their catchment in so many different ways…we really need to look at that whole catchment solution and in doing so we can address multiple other pressures that society is trying to solve at the same time. And from this £9m or so investment, we really want to transform the whole way that the water industry invests its money."

The crux of the work will involve bringing together multiple sources of stakeholder data which are all currently held separately into a common framework, and to enhance that with citizen science data "so that we can develop much greater consensus about what the problems are and what the solutions are and how we might monitor them."

Lloyd added: "Also it's dependent on good catchment governance. And I know that the government has just started to really have a look at how catchment planning might work in light of the Plan for Water and that's really welcome."

Seeking the best outcomes

Participants at the round table then went on to share their ideas on other actions needed to build confidence and advance outcome-based approaches to improving the water environment.

One specified an important point up front: "It's not about nature-based solutions per se, it's about the outcome. So I think we've got to be really careful not to say we should try and incentivise nature-based solutions. That's not right. If nature-based solutions are really inefficient and really expensive and take up productive land or whatever, they're not the right thing to do… It shouldn't necessarily be about nature-based solutions first. It's just about finding the most efficient way to deliver the outcomes."

Another contributor shared that they feel now that we are at a "tipping point" when stakeholders might be able to agree that purely doing more of the same sort of thing will be fruitless. She said: "I think there comes a tipping point where you just have to have the courage of desperation… we all know that…what we've got doesn't deliver."

This gained consent from another delegate, who observed: "The processes that we are obliged to follow, which are for very good reasons… there are points in time in which we need to deviate and have the confidence to do so. And probably never more so than right now, particularly because of the uncertainties and the evidence [of] climate change and environmental change. So how do we create the freedom and the confidence to do that?"

The round table produced three principal ideas.

1. Adjust the regulatory framework

The regulatory model came up immediately, with one contributor questioning whether a joint regulator model of some kind will be needed to enable multi outcome-based approaches.

Another participant reflected that it has taken 15 years for Ofgem to be given a net zero obligation. In water, "we don't have 15 years to waste. I think Ofwat need to understand that they are an agency whose job it is to partly deliver nature recovery amongst all the other things that we expect of, and legislate in fact for, water companies to be doing."

He went on to challenge decision-makers to "take a somewhat different view of what compliance and failure and stuff means" and to challenge Ofwat specifically to be more hands-on and provide cover for water firms to experiment more and learn from any mistakes. After all: "What's an underperforming wetland? It's still a wetland, right? It's still a good thing to have."

The contributor's view was that regulation is making the pursuit of greener solutions "much harder I think than it needs to be". These are possible within existing frameworks, he argued, and there is time to include more such schemes at PR24, particularly given "we'll have a year of CMA".

One further point here was that scaling up sustainable solutions would support the deliverability of AMP8. Given the swelling size of the likely investment programme compared to previous AMPs, it is highly questionable whether the traditional supply chain alone could cope. One commentator observed: "My understanding is that there aren't enough engineers for the work that's coming forward and they're all going to the highest bidder. So I think that's a really material delivery risk."

Deploying more social and environmental alternatives could take the strain off. "I just wonder if the calculation looks a little bit different if you factor in the fact that all the water companies are all going to be needing the same people at the same time for the same gigs, to get to this narrow conception of compliance and actually that creates a compliance risk in its own right."

Hurst argued companies certainly need a conscious strategy to develop the supply chain: "We can't just wait five years for good pilots and then expect to be able to double the size of the programme."

2. Establish a guiding mind

Many roundtable participants coalesced around the view that some kind of long-term, place-based plan that all relevant stakeholders could buy into would be needed. This could balance all of the various pressures, obligations and expectations in a catchment, as well as manage the inevitable trade-offs and direct resources accordingly.

One attendee gave the illustration that reducing relatively cheap abstraction to protect river health would likely necessitate cost and carbon-heavy alternatives such as wastewater reuse or desalination. "You can't do that in pockets, you just can't do it. It's just literally whack-a-mole…The only way to stop that is to get all the issues in the same pot…and to coordinate…with all the stakeholders involved."

A clear long-term plan would also provide the visibility water companies need to plan ahead to use nature-based solutions, including building in time for them to potentially fail and be recreated. "Otherwise, at best we'll do a nature-based solution alongside a concrete one because we're worried the nature-based solution won't work. If it does, the concrete one becomes obsolete."

Who would act as this guiding mind, and exactly how it would be structured, is clearly a matter for debate. One suggestion to emerge at the Sustainability First meeting was that it could be along the lines of the water resource model, but for a broader set of outcomes and involving more stakeholders. Another participant took this further, suggesting that the regional water resource groups could in fact expand their role into the environmental water quality space.

One alternative view surfaced, however: that a catchment system operator of whatever sort isn't actually necessary even if it is desirable, as it is quite possible already to cascade national targets to catchment level and use the existing regulatory framework to deliver outcomes. Indeed, this has happened in the Bristol Avon catchment and in Poole Harbour. What's really needed, the contributor argued, are the right incentives to appropriately manage risk.

3. Pursue holistic outcomes

Finally, there was widespread agreement in the group that means should be sought to mesh the plethora of targets together in a meaningful way with the ultimate view of delivering specific environmental outcomes.

One participant gave the example that even just considering nutrient pollution from water industry sources, there are multiple drivers through mechanisms including the Levelling Up Bill, the Environment Act and the Storm Overflow Discharge Reduction Plan. She said it shouldn't be just about hitting the targets, but about doing that "in a way that's ecologically meaningful – can we drive those improvements towards headwaters for example, towards chalk streams so that we're not just delivering a nutrient reduction at a treatment works at the bottom of the catchment just before it goes out to sea, but we're getting that benefit right the way through the catchment instead?"

While some attempts are being made to mesh different targets together through advanced WINEP submissions, "I think potentially the catchment plans under Defra's Plan for Water is maybe somewhere where we could also be looking to think about how these things will fit together and how they could fit together perhaps better than they do at the moment and whether those catchment plans are a vehicle for doing that."

Others agreed that means to improve and scale up existing efforts need to sought. One argued: "Unless we start building beyond pilots and into scale, we won't really start to understand those models at sufficient scale or efficacy to build confidence. And this is the vicious circle we face. We need to make that leap of faith into starting to scale these things, to start to develop the better evidence base."

Another attendee advocated boosting funding for existing catchment partnerships, and capitalising on their existing local knowledge and social capital. He contended: "They could be given a lot more resources from whatever source and could play a really crucial role in developing those local plans."

Decision-makers' reflections

There were a number of policy and regulation professionals at the roundtable. Reflecting on the discussion, they made among the following points:

- The discussion had been useful and would help shape thinking. Addressing the bottlenecks to more nature-based solutions, including through guidance and a refreshed evidence base, is on the agenda. There was also an invitation to participate in forthcoming work to develop catchment action plans which could feasibly draw some of this work together, including regarding governance, leadership and integrated investment.
- In the latest WINEP, there is a "massive increase" in green proposals, mostly hybrid solutions but the direction of travel is positive.
- There is a need to be conscious that it is customer or public money being spent, and that failure of a project could also damage public perceptions. Water companies need to demonstrate why risks are worth taking when they present their business plans, and to articulate the value in the lesson, should a scheme not deliver as anticipated.

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