

SOUTH EAST WATER

PR24 THINK TANK: HAMPSHIRE, BERKSHIRE AND SURREY RESILIENCE OPTIONS

15 FEBRUARY 2023

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INTRODUCTION

On 15 February 2022, South East Water (SEW) hosted an in-person think-tank workshop in Farnborough to support the development of its business plan, known as PR24 (Price Review 24). The event was structured into four sessions, covering the following topics: Environmental challenges and resilience risks, Area overview, Leak reduction, and Water efficiency.

Each of the sessions consisted of a short presentation given by a SEW representative, followed by facilitated roundtable discussion sessions. In addition, attendees were asked to vote in an online poll, using Slido, on a number of topics.

SEW instructed EQ Communications, a specialist stakeholder engagement consultancy, to independently facilitate the workshop and to take notes of the comments made by stakeholders. Every effort has been made to faithfully record the feedback given. In order to encourage candour and open debate, comments have not been ascribed to individuals. Instead, notes have been made of the type of organisation represented by each stakeholder.

EXECUTIVE SUMMARY

PARTICIPANTS

- A total of 16 stakeholders participated in the workshop, representing 11 organisations.
- Stakeholders represented a wide range of organisation types, including consumer groups, utility
 and energy groups, and local authorities. Business retailers and environmental groups were the
 most represented at the event, accounting for 29% of attendees each.

WORKSHOP 1: ENVIRONMENTAL CHALLENGES AND RESILIENCE RISKS

- During the Q&A session following the introductory presentation, stakeholders posed questions on a number of topics, including the effects of local housing developments on local water supplies, the Ofwat funding mechanism and the relationship between SEW and the agricultural sector.
- Stakeholders put forward a number of additional environmental risks that they believed SEW had
 not identified. One key example was the company's approach towards reinvesting profits, as there
 was a fear that insufficient investment in infrastructure could harm the environment. In addition,
 others were concerned that residents were no longer informed about bacterial contamination in
 water supplies and felt that this posed a health risk.
- While discussing water resilience risks, participants were of the view that SEW was not considering
 new sources of water deeply enough and was instead focussing too greatly on how current sources
 could be used more efficiently. In order to overcome this problem, there were calls for a greater
 drive around using grey water for non-drinking domestic purposes, such as watering the garden and
 cleaning rooves.

WORKSHOP 2: AREA OVERVIEW

- Stakeholders put forward a number of areas of growth that they felt that SEW had not identified. They pinpointed specific sites where they thought that growth had been underestimated in the company's plans, such as Alton, Bracknell and Farnborough. They also took the view that measures to manage increasing levels of consumption and monitor nitrate levels in neighbouring water systems, which could contaminate SEW's water supplies, did not come through strongly enough in the company's plans.
- Attendees thought that SEW not given sufficient thought to short-term and long-measures to manage its strained water resources in the 'West' region. There was a general consensus that water transfers within the area should be used as a short-term solution to give the company time to develop and implement other long-term water-resilience strategies. It was added that more collaboration with neighbouring water companies is imperative.
- Drinking-water-storage needs and engagement with farming communities in order to prevent disruptions to their operations were other new issues which participants wanted the company to address.

• Participants did not feel hugely confident that these future resilience projects would sufficiently futureproof Hampshire, Berkshire and Surrey up to 2040, with questions raised about the effects of supply mitigation measures and worst case scenarios if the plans set out did not deliver the expected results. At the same time, others stressed that water-neutral housing developments and resilience measures taken by sewage operators would play a key role in the success of any futureproofing measures. Therefore, it was urged to use its influence to ensure that these industries took the required measures on their side to support future water resilience.

WORKSHOP 3: LEAK REDUCTION

- When asked to indicate their level of agreement with the statement 'South East Water's leakage targets (to reduce leakage from 88.7 million litres a day in 2021/22 to 47.3 million litres per day by 2050) are realistic and achievable' on Slido, a score of 3 / 5 was returned (where 1 was 'Strongly disagree' and 5 was 'Strongly agree').
- Many argued that the practical and cost implications of efforts involved in attempting to hit SEW's
 leakage reduction targets would make it prohibitively difficult to achieve. However, others thought
 that the level of ambition was reasonable and suitable, and urged the company to harness emerging
 technological advances and collaborate with other water companies as part of its approach towards
 achieving this goal.
- Attendees suggested a number of other ways which could help SEW to push forward its leakage-reduction ambitions. These included awareness-raising campaigns, local engagement to win community buy-in and apprenticeship programmes to ensure that the skills were in place to carry out the work required to hit these targets. There were also calls for shareholder dividends to be reduced in order to invest further in initiatives to support leakage reduction.

WORKSHOP 4: WATER EFFICIENCY

- When asked to indicate their level of agreement with the statement 'South East Water's plans to reduce per person water use from 150 litres a day to 124 litres per person per day by 2040 are realistic and achievable' on Slido, an average score of 3.2 / 5 was returned (where 1 was 'Strongly disagree' and 5 was 'Strongly agree').
- Stakeholders were divided about whether SEW's plans to reduce per-person water use could be achieved. Some felt that the improved water efficiencies of appliances have opened up a pathway to meeting these targets but stressed that consumers needed to be educated about how to use these devices in order to get maximum benefit from them. Others did not think that they were achievable but did feel that it was worth pursuing them all the same in order to bring down the unnecessarily heavy usage of drinking water in domestic environments.
- Attendees were of the view that communications campaigns would be critical to raising customer
 awareness about the value of water and the wider effects of using it too liberally. They stressed that
 any campaign should make customers care about their current usage by discussing a potential
 future scenario of severely constrained supplies. They also strongly encouraged SEW to use public

bodies, such as local authorities, and trusted figures, such as Martin Lewis, to amplify its messaging so that it reaches a large and receptive audience.

- Participants were generally very keen on using pricing mechanisms to encourage people to use less water but were split on the best form that they should take. Some were in favour of charging large amounts for daily usage over a defined level, but others thought that this would not have great impact in the affluent south east. By contrast, others were of the view that a dynamic charging mechanism, whereby customers would be billed less for using water away from peak times, or bonuses would incentivise people to change their behaviours.
- Greywater recycling and recovery was seen as a key part of the solution to bringing down household
 water consumption. As a result, there were calls from many stakeholders to make this process as
 easy a possible for customers in order to encourage them to embrace this approach. One recurring
 suggestion was providing grants to customers who wanted to acquire greywater recycling systems
 for their homes, such as water butts or greywater underground storage tanks.
- The main solutions identified for helping to reduce demand during peak times in summer included financial incentives, communications campaigns around appropriate behaviours towards water and support for domestic greywater recovery systems.

WRITTEN FEEDBACK

After the workshop, stakeholders were asked to complete a short feedback form about the event. Some of the key findings are shown below:

- 60% of attendees reported that they found the workshop 'interesting' and 40% thought that it was 'very interesting'.
- 90% felt that the session was 'engaging', with 10% taking the view that it was 'very engaging'.
- 80% 'strongly agreed' and 20% 'agreed' that they had the opportunity to get involved in the discussions and make their points.
- 50% thought that EQ Communications' facilitation was 'good' and 50% deemed it to be 'very good'.
- 70% 'agreed' and 10% 'strongly agreed' that the level of information was tailored appropriately to match their levels of knowledge. However, 20% felt 'neutral' about this statement.
- 100% of respondents indicated that they would come to future Think Tank workshops.
- 100% stated that they had a better understanding of the issues that SEW is facing in the near future surrounding resilience and ensuring that customers do not suffer supply interruptions.

SESSION 1: ENVIRONMENTAL CHALLENGES AND RESILIENCE RISKS

Richard Sands, PR24 Wholesale Lead, gave the opening presentation for the event, which covered environmental challenges and resilience risks. He began by providing an overview of the company's Business Plan, with a particular focus on key development dates and the main overarching themes. Richard then set out SEW's engagement approach as part of this development process, taking in a range of methods to inform and shape the business plan.

Richard then moved on to discussing operational resilience. To begin, he stated that, under Ofwat operational resilience requirements, SEW must reduce the probability of water supply interruptions, mitigate the impact of any disruption and ensure long-term supply resilience to external factors. Richard then outlined the extreme weather risks affecting supply resilience in Kent and Sussex, as well as SEW's planned measures to mitigate them, such as flood defences, increased water treatment reliability and smart meters.

After providing an outline of the key characteristics of the company's 'West' supply area covering Hampshire, Berkshire and Surrey, Richard discussed the current resilience of SEW's supply there, but also noted a number of future risks. He explained that these risks are driven by a range of factors, including future abstraction reductions, climate change impacts and deterioration of untreated water. Richard then moved on to discussing the environmental and water-quality challenges in Hampshire, Berkshire and Surrey that could impact future resilience, such as nitrates, pesticides and high levels of abstraction. He also outlined SEW's intention to significantly reduce abstraction and explore catchment and nature-based solutions as part of its environmental improvement plans. To finish, Richard displayed a development growth heat map, noting the distribution of population growth in the 'West' area and pinpointing planned treatment-work developments.

SUMMARY

Following Richard's initial presentation, stakeholders were given the opportunity to ask any general questions about the topics covered. The questions posed related to aspects such as the effects of local housing developments on local water supplies, the Ofwat funding mechanism and the relationship between SEW and local farmers and landowners.

All discussions began with introductions. The most represented stakeholder category at the event was business retailers and environmental groups, each accounting for 29% of the participants. Representatives from local authorities, consumer groups and utility / energy groups, as well as domestic customers were also in attendance.

Unsurprisingly, given the theme of the event, participants were hugely interested in discussing resilience issues. Many were concerned about the effects of over-abstraction of local water sources and the resulting stress placed on water supplies. In particular, they wanted to see more future-proofing schemes introduced

in order to safeguard the health of local rivers. At the same time, they also stressed that there should be more national and international collaboration between water bodies in order to ensure that a resilient water supply could be delivered in the decades ahead. Many noted that they worked on water resilience and disruption strategies in their local areas and wanted to hear more about the company's engagement approach and its emergency response for supply outages.

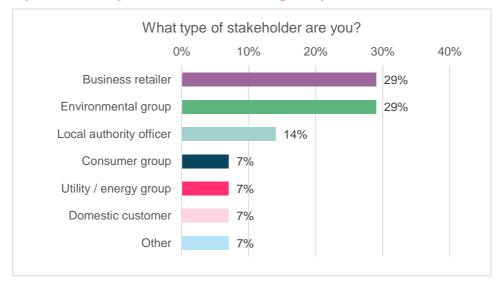
Delegates were generally of the view that SEW had identified all of the major risks relating to resilience, but also put forward a couple of new ones. In particular, some were concerned that SEW's structure, corporate objectives and operational approach could constitute an environmental risk. They were worried about a lack of transparency around decision-making on key matters and felt that there was not enough information provided about how company profits were used. Questions were raised about how much SEW was investing its earnings in local infrastructure and schemes. It was felt that, in order to ensure that money was spent to protect local environments, SEW should establish clear objectives around how it uses its profits. The other potential environmental risk identified was a lack of public communications about bacterial contaminations in local water supplies. It was noted that a comprehensive notification system had been in place previously, but this was no longer the case. SEW was encouraged to restart this process, as it was seen as crucial for customers with specific health conditions or terminal diseases.

Whilst participants were happy with the resilience risks already identified, they felt uncomfortable about the lack of focus on new water sources. They took the view that, at present, SEW was thinking too much about how to use its current sources more efficiently and thought that it should be drawing up new abstraction plans to meet the massive increase in demand over the coming years instead. Another solution put forward to overcome this resilience risk was encouraging more water recycling and greater use of greywater for non-drinking purposes. There was a general feeling that, in the face of strained drinking-water resources, domestic customers should not be using drinking water to water the garden or clean their rooves, for example.

When given the opportunity to raise any further questions during the discussion session about the topics set out in the introductory presentation, the sole query related to nitrate levels in local water supplies. One local authority representative wanted to know more about the time period during which SEW was seeing increases in water nitrate levels, particularly in light of rising fertiliser use.

VERBATIM COMMENTS

1. What is your role and your reason for attending today?



- "We're a water consultancy working mainly with manufacturing companies. Resilience is important to them, so I'm here on behalf of them. We help customers put in sustainability and resilience strategies." Water efficiency
- "I have changed my role since Storm Eunice to community and customer resilience. We're looking at how we can work with other organisations, including South East Water." Utility / energy group
- "We're focussing on emergency planning with water companies as this is a major issue for animals and farming. We want water companies to have the equipment and vehicles to reach farms in need.
 We also work to ensure there is water for food." Consumer group
- "I work for South East Rivers Trust, and my main interest for being here today are twofold. I am a
 local resident so South East Water is my local supplier, and I am interested in the stress that water
 abstraction imposes on the rivers, and I am particularly keen to discuss future-proofing around river
 health." Water resources
- "I am a member of South East Water's customer challenge group, which exist as part of the regulatory environment to ensure the quality of customer engagement. So we look at the quality of the engagement and critique the company when we see possible improvements. We are tasked by Ofwat to produce a regular report on how well the company has consulted with stakeholders and customers and communities, and to suggest potential improvements for implementation in their business plan. I am particularly interested in the challenges faced by rural communities." Consumer group
- "I am a hydro-geochemist, so I work on the boundary between water, rocks and waste. I am attending a number of these workshops relating to different water companies, to see how other companies deal with the equivalent resilience concerns which are facing South East Water. I used to run the environmental science programme at a local university, and I have worked at an international level with a number of organisations including the World Bank and the UN, looking at water provision and quality in a range of different environments. I think it is especially important to

- recognise that the issues we face go beyond regional to the national and, increasingly, international level." Environmental group
- "I am undergoing a career change, looking into environmental concerns. I am really here as a customer of South East Water." Major user
- "I'm from the Emergency Planning Team at Hampshire County Council. I'm here because we offer support to water companies. When they lose water supply, our main priority is to support vulnerable customers. We had an incident just before Christmas involving Southern Water, not South East Water, and we took a lot of lessons from that." Local authority officer
- "I'm here to get a better understanding of how the water system operates. When we had the heatwave, there was a rather local leak quite close to us, and it was going on for about four or five weeks. Now I knew, because I'd checked the website. For a lot of people, they don't understand why they've been told to save their water when there's a leak in the road." Major user
- "I'm a borough councillor, but also a member of Friends of the Earth. I'm also the Shadow Climate Change candidate for a local council. Therefore, I'm just interest in all things environmental. That's why I'm here to learn more." Local authority officer
- "I'm from Alton Climate Action Network. This is my first foray into water. I've been picking up bits to do with farming and land use in our area. And obviously that's now extended to thinking about water supply and all that sort of thing. So I'm here to learn, basically, and looking at it from a farming perspective." Environmental group
- "I'm from Water Scan. We're a water management company. So we manage water portfolios for commercial businesses and help our clients to save money through getting them using water more efficiently. I'm here today because I've been keeping an eye on PR-24 responses for all wholesalers, so I want to stay active and do my part where I can on PR-24 responses." Water efficiency
- "I coordinate my local Friends of the Earth group. I've also done 2 VSO placements, one in Guyana where there was lots of water, and one in Somalia, where there's not much water. It made me realise how valuable clean drinking water is." Environmental group
- "I'm an emergency planning resilience officer and my organisation authors the water disruption plan for the local resilience forum. We work with SEW in the event of any issues with water. I'm here to see and observe and take in." Local authority officer

2. Have we identified all of the environmental challenges facing the region?

• "There was one missing, coming from a health background. Years ago, in the late 1980s and early 1990s in HIV and we used to get regular notifications from, I don't know whether it was the CCD or the local health authority, if there were contaminations that would affect our patients. Because our patients had compromised immune systems. So they would say, could you let the clients know to drink pure tap water in the next ten days until the water's clear again, and then they would notify us when it's clear again. So there will be some bacterial contaminant for example in the water. Now, the general population are not told that. And I wondered, a) surely that must still happen, and b) I know the concerns of nonmicrobial infections going forward, rather than things like Covid. I know

that the Health Secretary are very concerned about this. I think this was from the Centre for Communicable Diseases, but I can't swear to that as my memory isn't great. I'm sure the water companies are notified, they must know, and they must do something to treat it if that's happening. It's important for people who have terminal diagnoses for example." Local authority officer

- "Governance. The people that can make decisions listening and doing something about it. That's a big environmental. We need our politicians on it, don't we?" Environmental group
- "I don't think we, the public, recognise what your real objectives are. Are you worried about 50% of your company being owned by Australia? Where do all the dividends go? Is it reinvested in the locality or does it go outside? That's where it all starts. If you end up with wanting to go forward rather than stand still, you've got to have a clear objective of where the money is coming from and going." Water resources

3. Have we identified all of the resilience risk?

"I haven't heard anything about new sources of water, but just discussions about how to tweak the
existing sources, and I think it is important to discuss possible new abstraction plans to meet the
massive increase in demand that we can expect in the coming years." Environmental group

4. Is there more we should be doing to address these?

"We shouldn't have to wash our rooves with drinking water or hose gardens with drinking water."
 Environmental group

5. Do you have any other questions in relation to our operations in this area?

- "Over what time period are you seeing this nitrate increase, especially in light of increasing fertiliser use?" Consumer group
 - Figure 1.2. There is a time delay between delivery of fertiliser and the increase in nitrates in the water table, and so we tend to see an increase over a period of 5 to 10 years and then they tend to level off and then decrease. So a key priority for us at the moment is to accelerate that downward period, to bring nitrates down to safe levels more quickly." South East Water

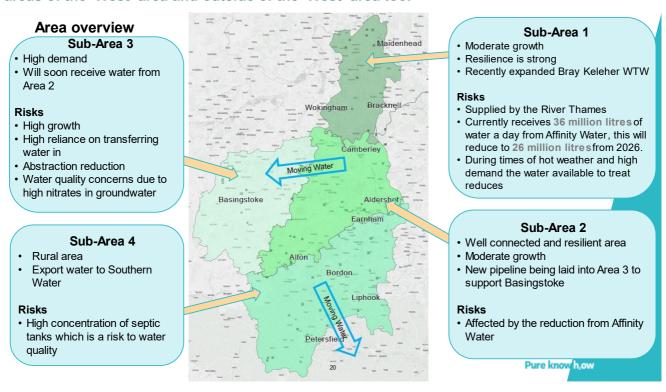
Q&A

- "Don't we have boreholes going down to the chalk aquifers? Most of our water comes from the Thames, but we also use the aquifer. Are there concerns that in future we won't be able to abstract from the aquifers, due to climate change-driven drought?"
 - "We drill down a number of test boreholes (not the main abstraction boreholes) to measure fluctuations in flow. We are working with a number of specialists to predict the abstraction potential of the sites in the future, and we are trying to balance out our abstraction planning to stabilise the capacity in existing sources." South East Water
- "Now a quality question relating to borehole abstraction: do you have a Cryptosporidium problem with ground water abstraction, and how do you control for that problem and other quality concerns?"

- "We are regularly working with farmers to address changes that can be made to their practices. In general, ground water sources can be relied on over a range of about 5 to 10 years, and so we try to make sure that we test sufficiently over that span to ensure that we control for parasite risks, many of which source from livestock." South East Water
- "In terms of nitrate levels, what is the South East Water strategy for dealing with this issue when it comes to residential developments?"
 - "We work closely with companies and local authorities to try to monitor water quality when it comes to building plans, but it can be difficult coordinating between diverse groups." South East Water
- "We have noticed locally that development has caused the water table to rise significantly, so I am wondering how developments like that affect water supply, or whether that is more of a superficial problem?"
 - "We do monitor the water table in all of our key abstraction areas, and different land use (such as development or tree planting) can affect the water table flux very differently, but we are aware of the enormous increase in residential planning applications predicted in the near future, and we are making efforts to account for that in our resilience planning." South East Water
- "Regarding OFWAT, how is your funding determined on a year-on-year basis?"
 - "The yearly budget is absolutely driven by customer billing within the regulated business model, but we do also need additional allowance for scientific testing and unexpected emergencies and other infrastructure issues." South East Water
- "Regarding land usage, how cooperative is the relationship between South East Water and farm businesses?"
 - "We have a very good relationship with farmers and they understand how important it is to work closely with us, because obviously if water is leaking in the river instead of watering the crops then they lose money, so we prioritise close coordination with farmers. We try to work closely with them when it comes to resilience planning as well, since farmers are among the most vulnerable during times of water shortage, so the relationship is one that we consider to be the highest importance." South East Water
 - "At CPRE we consider it be a huge problem that local authorities have no say regarding water usage, especially as it relates to planning. So we are pressing this at a national level, since the water companies and sewage companies tend to agree to developments since they are always profitable for those interests, but we know that we are at risk in a number of areas of pushing the water table to dangerous extremes. So this is a key concern for us, and we are trying to establish a policy whereby the government expects the water and sewage companies to demonstrate that they are able to supply the required capacity for new developments, and to ensure that the plans can be scrapped if the companies cannot meet those requirements in advance." Environmental group

SESSION 2: AREA OVERVIEW

Richard Sands introduced the second workshop session, which provided a more in-depth overview of SEW's 'West' supply area. He began by showing stakeholders a map of this area, which, for the purposes of the event, was divided up into four sub-areas, each with its own specific characteristics and risks. Richard noted that water was being moved between the sub-areas of the 'West' area and outside of the 'West' area too.



He then took stakeholders through the proposed future resilience plans for each of the four sub-areas, outlining the current problems being experienced and the planned solutions to overcome them. These solutions included new pipelines, additional water treatment and expansions to current drinking water storage tanks. Stakeholders were then asked to provide feedback about SEW's measures to address these local issues during the roundtable discussion sessions.

SUMMARY

Participants were largely happy with the areas of growth identified, but did feel that some growth areas had not been set out comprehensively enough. In particular, they thought that SEW was underestimating the scale and resulting impact of new housing developments in Alton, Bracknell and Farnborough Civic Quarter. It was pointed out that Alton had changed hugely over recent times, with its many green fields replaced with numerous housing projects. At the same time, it was noted that Farnborough Civic Quarter had lost huge numbers of trees for the purposes of building houses, retail spaces and council facilities. Therefore, there were calls for SEW to factor these specific growth sites more strongly in its future resilience plans.

At the same time, participants thought that SEW was not sufficiently considering some aspects of water demand and consumption in its resilience plans. In light of expected constant rises in water demand, questions were raised about potential investments by the company to manage this demand and to reduce leakages in order to ease pressure on water supplies. This was seen as even more crucial with the increasing use of viticulture by farmers in the area, which will put even further strain on future supplies. In addition, others expressed concerns that SEW was not doing enough to guarantee local drinking-water quality by protecting it from pollution caused by nitrates and sewage releases from other water companies. Sub-Area 1 was identified as a particular area of concern, as Thames Water pumps sewage into its own water network, which flows into this particular sub-area and is harming the water quality. As a result, there were calls for water companies to work together to create improved quality control systems in order to prevent any pollution from flowing between the boundaries of their individual catchment areas.

Attendees felt that the biggest issue not covered by SEW for the 'West' area was the lack of focus on both short-term and long-term water-resource planning. During discussions, there was universal acknowledgement that the water-source limits for the local area had been reached and, therefore, steps had to be taken to address this urgent issue. There was strong support for using water transfers within the area as a short-term solution, with some also in favour of establishing a national water-transfer system to move water from the wetter north to the dryer south. However, it was largely stressed that this must be a stop-gap measure to buy SEW time to build up increased supply resilience for the area, through finding new water sources, for example. With this in mind, some encouraged the company to invest more heavily in long-term strategising now in order to prevent scenarios whereby water supply is only provided for on an immediate basis. Therefore, it was also felt that SEW's budgeting would need to be adjusted in order to reflect this shift in approach. Building on this, others urged SEW to work with all of the other water companies in the south east on the Water Resources South East (WRSE) fifty-year resilience plan. Others thought that SEW had not been involved prominently enough up to this point and generally argued that all water companies in the region should play their part in multi-institute resilience planning as far as possible.

Participants also put forward a number of other issues. In particular, some expressed concerns that SEW was not doing enough to minimise disruption for farmers as part of efforts to improve water quality. The point was made that efforts by farmers to improve their soil quality and reduce leakages into water courses are extremely taxing and disruptive for their business operations, and therefore, the company should be compensating them appropriately. Going further, others wanted to see farmers' needs factored more prominently within project planning, as it was thought that there was too much focus on domestic water supplies at present. As these resilience projects will affect farmers too, SEW was strongly urged to think about farming water needs too. In addition, in light of the future rising water demand in this water-scarce region, others took the view that SEW needs to be thinking about drinking-water-storage needs more extensively than it currently appears to be.

Attendees did not feel hugely certain that these future resilience projects would sufficiently futureproof Hampshire, Berkshire and Surrey up to 2040. Looking at Hampshire in particular, concerns were raised about the supply mitigation measures in place on the Affinity water supply. Questions were asked about how long they would be in effect and what the worst-case scenario would be if the plans behind these mitigation measures do not deliver the expected results. However, by contrast, others thought that there

were areas where SEW could exert its influence in order to advance the future-proofing agenda. Firstly, there were calls for SEW, as the supplier in this area, to collaborate with the area's wastewater operators in order to get the entire water system functioning more effectively. Secondly, it was stressed that all new housing developments in a local area should be equipped with water-efficient technologies and must be water neutral, with any water used offset within the catchment. Attendees pointed out that there were many funded water-neutrality projects in the area and urged SEW to tap into them in order to bolster its future proofing efforts.

A couple of concerns were also brought to SEW's attention. Firstly, one local authority officer discussed a water disruption plan that was out for consultation, but did not receive a response from SEW before the closing date. However, they were still very keen to have discussions with a company representative about the plan. Secondly, there were worries that Affinity's supply mitigation measures and sub-area 2's water transfers to Basingstoke would create a risk area there. Therefore, SEW was urged to provide clarification about the water supply and transfer quantities involved in the projects in this sub-area. Despite these worries, the planned software and censors for providing real-time information on water supplies and outages were well received and seen as a great potential tool for emergency planning. Their planned introduction in 2025 was viewed as a reassuring step by attendees.

VERBATIM QUOTES AND VOTING

- 1. Are there any other areas of growth that we have not identified?
- "Some of our farmers have diversified into viticulture, which is a new source of demand to consider."
 Water efficiency
- "There are two key issues here: quantity and quality. Thames Water is currently releasing sewage, which is causing significant issues regarding degradation. Clearly these companies are failing to test and treat to the standards which we should be expecting, so while quantity might be addressed in a given area, I feel that there are significant improvements in quality control which could be met at the moment amongst the various water companies." Environmental group
- "While there might not be specific nitrate problems in South East Water's treatment facilities, the problems do exist just downstream, so it is important to be aware of bleeding between the different water networks." Water resources
- "I am very concerned about consumption, in view of the fact that demand is consistently on the rise, so I am keen to hear from South East Water about the way that money is being spent to manage increasing demand, and especially in reducing water loss due to leakage." Major user
- "It makes sense to me. I'm surprised that actually Aldershot's yellow, that there's no pink in it. I know Bracknell's grown a lot, with the centre being developed. But even in the last three years, the development that I live on, there's going to be five thousand new homes." Local authority officer
- "I was going to say. I grew up in Alton, and now when I come to Alton, everywhere that used to be fields, there's just houses and houses and houses everywhere. So I was surprised that Alton isn't even slightly highlighted." Water efficiency

- "The development at Bracknell has been huge. It's almost like a city." Major user
- "The Farnborough civic quarter. They're planning to take out 237 trees to build a retail place, new council buildings, a recreational centre, 1000 houses." Environmental group

2. Have we currently identified all of the issues in the area?

- "We wonder if the changes you're making will occur before or after we make our changes to our network. After would be ideal. We are currently working a lot in this geographical area, and we need to be speaking with each other." Utility / energy group
- "Minimising disruption to farmers and ensuring they are paid for losses is our priority. This should also be a long-term factor. They work a long time on their soil quality, and the disruptions are very problematic." Consumer group
- "A lot of projects we see start off very well, but they go nowhere. Farmers should also have
 access to your water projects and see how they affect farmers as well, rather than just household
 water supply." Consumer group
- "Storage is another important factor to consider." Consumer group
- "There seems to be an excess of water around area 4a near Bordon, since water is being abstracted from this zone for neighbouring networks. Is this excess being distributed in the most economically and environmentally sustainable way?" Environmental group
- "I am keen to see more resource sharing between different water companies, since rainfall is
 different in different areas of the country. I am surprised that there isn't more infrastructure in
 place to transfer water along larger ranges between zones that have different supply and different
 requirements." Major user
- "We are approaching a situation where we are reaching the limits of resources, not only water but all resources. Moving resources across highly localised distances is a stopgap, but it does not address the issue on a longer term, and it is essential to think in the long term and start finding new sources for water, and potentially transferring it along much larger ranges, including internationally." Environmental group
- "I think it is important to be working on a short-term plan to allow for immediate demand, and if that involves the stopgap of local transfers then I think it is important to implement strategies that allow for that, but I agree that we need to also be planning in the much longer term for resilience in water-short regions. In view of this I am keen to see investment in long-term strategising to avoid a situation where water supply is only provided for on an immediate requirement basis, and I think the budget needs to start reflecting that." Water resources
- "There is a longer-term plan by WRSE looking in the fifty-year range, but I think South East Water
 has been isolated from this planning, and it is important for all the companies to ensure that they
 are fully involved in multi-institute resilience planning." Environmental group

3. Do you think these projects will sufficiently future proof Hampshire, Berkshire and Surrey up to 2040?

- "I can only speak from the Hampshire perspective. My concern is the Affinity water supply. How long do the mitigations take to put in place? Is it line with when the Affinity water supply is set to decrease? You are relying on that supply to supply the increasing population in Basingstoke. Are there any plans put in place for the worst case scenario if all of it is lost and all these plans don't work?" Local authority officer
- "New developments should do water neutrality. The development has to use the minimum amount
 of water, and whatever they do use has to be offset within the catchment. There are a lot of
 funded projects around water neutrality." Water efficiency
- "South East Water are all to do with getting water into the household, but nothing to do with putting the water into sewage. Do we think there should be more relationship between water-in people and water-out people to get the whole water cycle in balance?" Environmental group

4. Do you have any concerns which we need to be aware of? For example, if we do something, will it affect your work/organisation?

- "If sub-area two's moving water to Basingstoke to support the development, and area two is getting their water from Egham, and Affinity, and Affinity have cut the amount back for the next five years, and if they continue to cut the amount back for the next forty years, and area two is still moving water, is sub-area two just going to become the next risk area instead of Basingstoke? Or is the amount from Affinity so significant that it's fine? I was just wondering. 26 billion doesn't mean anything in my head, so I can't tell you if that's enough or not enough." Water efficiency
- "A software tool and censors, which would provide up-to-date information about water supply and
 water outages is incredible beneficial from an emergency planning point of view. And to know that
 that would be up and running soon-ish, in 2025, that's reassuring." Local authority officer
- "We have the water disruption plan which has gone out for consultation. South East Water didn't comment on it this time. I don't know if I have seen a South East Water representative at any of the meetings. That would be really important, that would be where those discussions could happen." Local authority officer

SESSION 3: LEAK REDUCTION

Richard Sands introduced the third session of the morning, on leak reduction. He began by providing an overview of the key figures around leakages within SEW's network, with a specific focus on leaks from pipes. Richard then outlined the company's target to reduce leakages by 50% across SEW's 9000 miles of pipes by 2050. He also explained that SEW's long-term ambition was to bring its daily pipe leakages down from 88.7 million litres in 2021/2022 to 42.1 million litres by 2075, which equates to a drop of 56 litres.

Richard then took attendees through a range of challenges that SEW will have to overcome in order to achieve its leakage-reduction targets, such as ground movements, seasonal challenges with leak detection and repair, and constrained specialist skills sets across the water industry. Finally, he set out an extensive set of measures to tackle water leakages and noted that SEW will invest £2.1 billion in reducing leakages and customer water consumption by 2050. These solutions included the Waternet leakage targeting system, Smart Network technology and a communication pipe replacement programme. Stakeholders were then invited to discuss these measures during the roundtable discussion sessions.

SUMMARY

Overall, stakeholders were not wholly convinced that SEW's objectives around reducing leakages were achievable. When on asked to indicate their level of agreement with the statement 'South East Water's leakage targets (to reduce leakage from 88.7 million litres a day in 2021/22 to 47.3 million litres per day by 2050) are realistic and achievable' on Slido, an average score of 3.00 /5 was returned (where 1 was 'Strongly disagree' and 5 was 'Strongly agree'). In particular, 43% of voters 'disagreed' with the statement.

During the table discussions, concerns were raised about the cost and practical implications of SEW's leakage-reduction ambitions. Many felt that the proposed use of smart technology to detect micro leaks from pipes would create huge knock-on disruptions to the general public in the company's operating areas through roads being constantly dug up to fix these leaks. At the same time, the point was made that the final 10% of the reduction target would be incredibly difficult to achieve with the current projected levels of investment, as a result of the schemes put forward becoming less effective over time. Therefore, many thought that the final targeted 2050 leakage level would prove to be prohibitively expensive.

However, at the same time, many stakeholders were impressed by the level of ambition shown around SEW's reduction target and thought that it was suitable and realistic. While acknowledging that the 2050 leakage objective was a major ask and required huge amounts of investment, a significant number of attendees were of the view that SEW was taking an appropriate approach, in view of the scale of the problem and the challenges involved in solving it. Therefore, many urged SEW to collaborate with other water companies on a national leakage reduction programme and to harness any technological advances that emerge between now and 2050 in order to reduce these leakages as smoothly and effectively as possible. By doing so, it was felt that SEW would be far better placed to meet this target.

Attendees put forward a number of different areas which SEW could explore in order to make further headway in achieving its leakage reduction targets. There was particular support among stakeholders for the company to communicate more proactively with its customers about leakages and the solutions required to tackle them. A number suggested that water bills would be an extremely suitable channel for this type of publicity campaign, as everyone receives them. However, at the same time, others stressed that any information provided should be easy to digest and be presented in a visually appealing way, in the form of graphs, for example. By contrast, others were sceptical about whether this was the most appropriate approach, as they thought that people are generally not interested about the technicalities of how the water industry operates and would only take note of leakages if they caused a supply outage.

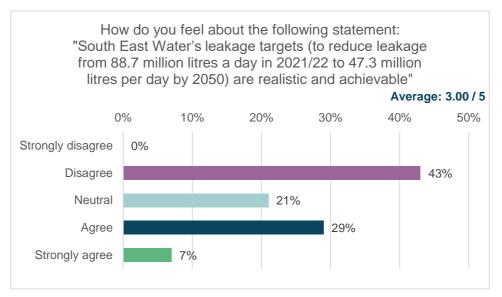
At the same time, others were keen to see SEW adopt a local engagement campaign rather than a communications campaign. It was thought that going to talk to bodies at the centre of community life, such as schools and community groups, would be an effective way of spreading the word about the challenges that the company is facing around leakages. Those in favour of this approach argued that local awareness would need to be raised about the scale of the problem and the actionable solutions to overcome before any improvements could be made. Therefore, talking to the public about this issue was seen as an essential part of the solution. In addition, it was also argued that a local engagement campaign would be a good way on getting local people on board with any investments required in order to solve these leakages. However, it should be noted that there was some pushback on this aspect of the approach, as some stakeholders felt that customers should not have to accept bill increases to pay for leakage reduction projects. Instead, they thought that shareholder dividends should be reduced so that more money could be spent on these kinds of initiatives.

Another key theme of the discussions was that the initiatives put forward seemed slightly too reactive for some stakeholders' liking. For example, it was felt that a huge number of the solutions focussed on detecting leaks from pipes using a variety of methods and then stopping them. However, it was thought that proactive approaches should be favoured in order to stop the leaks in the first place. For instance, some did not like that SEW seemed to accept that metal pipes would crack and break over time due to changes in temperature. Therefore, there were calls for the company to proactively replace its metal pipes with pipes made out of plastic or another durable material in order to prevent these types of leakages from occurring in the first place. Another proactive measure suggested was increased use of smart metering. It was thought that the data provided from these meters could be monitored in order to gauge potential leaks through higher meter readings from properties where leaks are occurring. Thames Water and Anglian Water were suggested as good model to follow in rolling out smart meters more widely to customers.

Finally, some participants also emphasised that long-term skills-building within the company would be vital to achieving SEW's proposed 2050 leakage-reduction targets. During discussions, concerns were raised that there were currently not enough specialist skills within the water industry to perform all of the required works underpinning efforts to achieve this goal. Therefore, SEW was urged to bolster its apprenticeship scheme in order to bring new talent through the pipeline in order to meet the skills demands in this area.

VERBATIM QUOTES AND VOTING

1. Do you think South East Water's leakage targets are realistic when taking into account the difficulties in trying to reach them?



- "The 2030 target is more ambitious, but I worry we won't reach it." Water efficiency
- "These measures are necessary." Consumer group
- "Doubling the rate of improvement is a big ask, especially considering the investment that will be required, so I'm interested to hear what the right amount of funding would be needed to achieve the kind of leakage reduction which you are targeting. I think the current plan is over-ambitious, and within the next few years I expect to see an admission that either these targets cannot be met, or that a significant funding increase will be needed from Ofwat." Major user
- "It seems to me that it will be virtually impossible to achieve the final ten percent of the projected target, since the effectiveness of these types of strategy tail off in an exponential manner, so the cost of securing those final few percentage points within the improvement target are likely to be prohibitively expensive." Environmental group
- "I agree that the top end of this target will be expensive and very disruptive, but I think it is a good idea to set a high target in advance, on the understanding that the results are likely to fall short of the ideal. I would like to see more collaboration between the companies when it comes to leak mitigation, because it might be that one network can drastically reduce leakage more easily than in a neighbouring region, so I think national cooperation on this is very important." Water resources
- "Before I knew any information, I would've thought it was even more ambitious. And now that I know what it's like in reality, I think it's difficult to achieve. But technological advances are the thing that would help. When you find out a bit more information about the difficulties, where the leaks proportionately are happening, then you understand how difficult it is to achieve. Yeh, so it's technological advances that can really make a difference." Local authority officer
- "I was also very surprised that they could come up with a figure for customer leakage. How many customers, myself included, I'm sure, have no idea whether they've got a leak on their pipes or not?"
 Environmental group

- "I think it's ambitious. I think it would be really destructive to roads and streets and everywhere to keep digging up all the time. If they are going to get to those numbers, it's going to cost a fortune for South East Water. If they do find technology which reveals all these micro leaks, and they're just digging up constantly, it's going to be a lot." Water efficiency
- "Yeh, that's the thing that I think now concerns me, is that if you think about the infrastructure, the water companies, probably sewage companies as well, and gas, are constantly trying to mend or upgrade old infrastructure. And you kind of feel that someone needs to have a revolutionary idea about how these services can be delivered to houses, without a complete infrastructure overhaul. Because that's what it would need. It would need a complete upgrade of all the way it's delivered to houses and businesses. I almost think there needs to be a revolutionary idea of how to supply people. Even, perhaps by not using pipes. Delivery systems of the future!" Local authority officer
- "My vision would be to get X number of smart meters put in the targets to get them into the network in the next however many years. But there's the issue that South East Water wouldn't go out and replace a smart meter that already works, for money reasons. So it's slow in that they'd only look to replace the ones that break. Which some of our customers do they say "we'll put money down, we want smart meters all around, wherever we can". And they pay for the data. And it's expensive, but I think a lot of sustainability initiatives are you have to spend money to save water." Water efficiency
- "It's probably what it needs to be. It's realistic and it needs to be done. It's unrealistic that you've got the resources and technicality to achieve it." Water resources
- "You need employees and support from Ofwat." Environmental group
- "I think leakage and consumer reduction are very interlinked. If someone reports a leak, and it's not fixed for 2 weeks, does that affect their consumption?" Water efficiency
- "When I was working and looking at the water rates of Thames Water, they were concerned about
 the amount of water being flushed away in retail down to the sewer. As they were asked to reduce
 the amount of water flushed, sewers were failing because there was less water to wash it away. A
 reduction in water usage caused other issues." Water resources

2. What more should SEW be doing?

- "Key information should be made readily available to customers. In practice this probably means
 putting a digest on the water bill, so that people have ready access to the issues affecting their
 network." Environmental group
- "The reality is that a lot of people are not interested in the technicalities of water provision, and it is unlikely that most customers will take an active interest in issues such as network leakage until the problem starts affecting them directly." Water resources
- "I think it is a good idea for the water companies to engage with schools and community groups. A
 lot of these problems will only improve if the public is aware of their nature and scale, not to mention
 actionable solutions, and at the moment most people are not." Major user

- "From a publicity perspective, I think it would be better for South East Water to publish their data graphically, since that is much easier to digest for the public. I also want to mention the importance of metering in residential properties, as well as smart metering across the larger network infrastructure. I should say that internationally, it is not at all uncommon for water companies to see losses at fifty percent, and even higher in many cases, so we should remember that our national rates are already significantly better than a lot of equivalent groups in Europe." Environmental group
- "I'd say smart meters are the main one. But I've only seen Thames or Anglian lead the way on that, so I'm assuming it's a money thing. Because they're two of the biggest, and they are water and sewage. And they have millions and millions of customers. So it might well be a money thing. I don't know how expensive it is to implement. But in the future, obviously we'd like all water networks to get smart meters." Water efficiency
- "Well money is an issue isn't it? So when they are saying about getting money from Ofwat, low interest, I'd like to know what the percentage is, what the sort of broader figures are in terms of shareholder dividends and how much is spent on sustainability." Local authority officer
- "The ideal is that the shareholders get less and that there's more money spent on sustainability. But that's a utopian ideal. In terms of what might help them do that? A Labour government!" Local authority officer
- "I felt that some of the solutions were quite reactive. I wonder if there's a way that new installations could be more proactive. Because the fact that the metal pipes get colder and warmer and crack, is there not a solution, like almost plastic piping, or something that is more durable, something more resistant? Is there a way that all the new pipes laid going forward could be more durable than all these old out-of-date systems? I don't know if that's an option." Local authority officer
- "It blows my mind that a cow is drinking potable water from a trough. You're fixing a pipe for the cow
 to drink potable water. Couldn't they have rainwater?" Water efficiency
- "Having been in the industry, we looked at greywater and it created all sorts of filtration problems.

 Also, the pipework didn't last very long anyway due to the greywater quality." Water resources
- "In Europe, they have worse extreme events, but they seem to be more innovative in managing water availability. We could learn from them." Water efficiency
- "One of the limiting factors to get this done is having skilled technical employees. Are you offering apprenticeship schemes? You might have to ramp them up." Environmental group
- "Nature-based solutions are quite good, though they're being criticised now as greenwashing."
 Environmental group
- "Educating the public to get them on side." Environmental group

3. Is there anything your organisation is doing that SEW could collaborate on or /learn from to reduce leakage?

"More collaboration would really help. Make things as easy as possible when it comes to fixing leaks
on farmers' land. Farmers shouldn't have to ring around. More resources could also be beneficial."
Utility / energy group

SESSION 4: WATER EFFICIENCY

Kate Baker, Asset Policy and Strategy Manager, delivered the final presentation of the event, focussing on water efficiency. She set the scene by providing a breakdown of how the average customer uses water in their home and then illustrated the consumption increases during hot weather, driven by the use paddling pools and increased garden watering, for example. Kate explained that these types of activities all put increased pressure on SEW's network, as a result of the increased water extraction, treatment and pumping required. She also noted that some areas in Kent and Sussex experienced supply outages during summer 2022 and in 2020, due to water being used faster than the company could extract, treat and pump it to homes.

Kate then outlined SEW's proposed household consumption reduction targets to address these supply pressures. She began by explaining that, at present, an average customer uses an average 150 litres of water per day, through activities such as washing, drinking and cooking. However, under SEW's proposed plans, that daily consumption would fall to 124 litres per day by 2040 and then to 112 litres per day by 2075. This would equate to a daily reduction of 26 litres per person over a 50-year period. To finish, Kate outlined a number of factors that would help to support this drive in behavioural change, such as mandatory water-use labelling of white goods, smart metering and pilot projects with developers on water-efficient technologies. Stakeholders were then invited to provide feedback on SEW's plans to reduce household water consumption during the roundtable discussion sessions.

SUMMARY

On the whole, attendees were only somewhat convinced that SEW's 2040 per-person water-use reduction plans were realistic and achievable. When asked to indicate their level of agreement with the statement 'South East Water's plans to reduce per person water use from 150 litres a day to 124 litres per person per day by 2040 are realistic and achievable' on Slido, an average score of 3.2 / 5 was returned (where 1 was 'Strongly disagree' and 5 was 'Strongly agree').

Attendees were also split on how they viewed these plans during the discussion sessions. Some thought that the improved water efficiency of modern appliances would put consumers in a position to sufficiently reduce their consumption to hit the 2040 target. However, at the same time, it was stressed that SEW should be supporting its customers by rolling out an educational campaign focussing on how to use these new appliances and help them to achieve the maximum possible water savings from them.

By contrast, others thought that they were not realistic or achievable, but were still worth pursuing nonetheless. In particular, it was thought that the unnecessary usage of drinking water in homes for non-drinking purposes was a major obstacle to achieving progress around water efficiency. Therefore, there were calls for SEW to lobby around changes beyond the water industry, such as mandatory grey-water recovery and recycling systems in new housing developments. This focus on grey-water recovery and recycling was also seen a key part of the solution to water efficiency, as a number of stakeholders

commented that it is far harder to use water more efficiently than it is electricity and gas. As a result, a number of attendees felt that some customers would only be able to bring down their usage marginally, despite their best efforts. Therefore, systems such as water butts were viewed as useful complement to the wider drive to cut down daily water usage.

Participants also put forward a number of areas where they felt that SEW could push its water efficiency agenda further. Educational campaigns were a very popular approach among stakeholders overall. Many were sceptical about whether any bill increases would have a particularly significant impact in an affluent area like Hampshire, Berkshire and Surrey, as they thought that residents do not appreciate the value of water. Therefore, there were calls for the company to roll out a communications campaign to instill this awareness and make people consider how they consume water and the implications of overusing it. Others emphasised that a key theme of any communications campaign should be water scarcity. By making customers aware of a potentially severe supply squeeze in the years ahead, it was hoped that they would be more careful about their current consumption in order to prevent this scenario. In order to increase the impact of this campaign, attendees encouraged SEW to partner with trusted public figures, such as Martin Lewis, to promote the key messages. The use of trusted figures and bodies was seen as vital, due to the perceived public scepticism towards water companies, meaning that this important campaign may not get through to as many people as hoped. With this in mind, suggestions were made to use a wide range of channels to promote this campaign, such as suppliers, local authorities and media platforms.

The other area where attendees largely thought that SEW could go further in promoting the importance of water efficiency among its customer base was through pricing mechanisms based on smart-meter data. Some were in favour of establishing a maximum daily usage limit for customers and then charging a far higher rate should they go over it, based on data provided by smart meters. However, others did not think that these increased bill costs would make residents of Hampshire, Berkshire and Surrey change their behaviours. By contrast, there was far more support for adopting an approach to financially incentivise customers to reduce their water usage. Many thought that SEW should take inspiration from the flexibility services model used by electricity distribution companies and charge lower amounts to customers for using water outside of peak hours. Establishing a dynamic charging system for water usage was seen as a sensible approach, in view of fluctuations in supplies as a result of weather events and geographical location. By contrast, others felt that a simple bonus system would be better, with customers receiving a cash payment should they keep their usage under a specific level.

However, other stakeholders took the view that there was greater scope still around encouraging customers to reduce their water usage. They felt that SEW could make some grant funding available so that customers could invest in greywater recycling or recovery systems, should they wish to do so. At the same time, there were also calls for the company to provide water-usage figures more regularly for homes without smart meters, with some commenting that they only receive such figures once a year in their bills. By having regular access to this kind of data, it was hoped that customers would keep a closer an eye on their consumption. As a result, stakeholders were hopeful that this would empower customers to bring down their

own water consumption, as they would be motivated to use just as much or less water than during the previous month, competing with themselves in a type of 'gamified' approach.

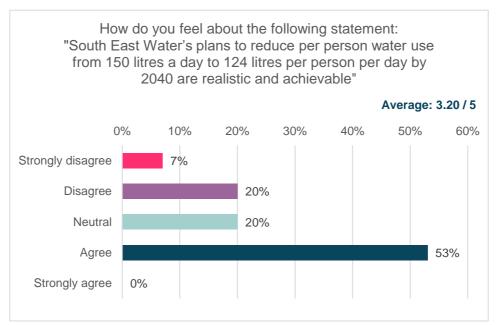
Financial mechanisms and educational messaging were once again seen as the key avenues that SEW should explore in order to reduce demand during peak times in summer. The dynamic charging system was identified as the most appropriate of the financial mechanisms available, with stakeholders hoping that increased bill costs for heavy usage over these dry periods would make a difference to customer usage habits. On the communications side, there were calls for SEW to put in place simple messaging campaigns around water consumption habits that would reduce strain on drinking water supplies. These behaviours included using greywater to water plants at night, rather than using drinking water to do so during daylight hours. Building on this idea, it was also thought that greywater had a huge role to play in helping SEW to manage demand during these peak times. Therefore, once again, the company was encouraged to make it easier for customers to recycle and recover greywater. This could come in the form of grants for greywater underground storage tanks which could pump water up to the surface for use during hot weather. These tanks were seen as far preferable to water butts, which some felt were cumbersome to use. By making it easier to use greywater, it was generally hoped that people would automatically turn to it during these dryer periods rather than using tap water. Finally, some stakeholders took the view that there were valuable opportunities to make huge demand savings by working with sports teams around their approach to watering their pitches. A number expressed concerns that huge amounts of water were being used all year round for this purpose and felt that partnering with these organisations could save a lot of water, particularly during the summer months.

When asked what else SEW should be doing to reduce household water consumption, the approach to the company's public messaging was the key theme of discussions. The point was made that different groups across the 'West' region would be motivated by different factors to bring their household water consumption down. For example, it was suggested that some would want to use less water on environmental grounds, while others would be more interested in doing so based on any financial incentives available. Therefore, the company was encouraged to engage with its customer base about its specific concerns relating to this area and then tailor any messaging to emphasise specific considerations to different groups in order to gain the maximum possible buy-in. By contrast, others felt that messaging about simple measures to save water in the home would be enough. By asking customers to do easy things to save water, such as not flushing the toilet every time someone urinates, it was thought that customers would be more likely to do them. Therefore, if many households were to adopt these simple changes, it could significantly reduce the demand on the overall water supplies.

Finally, others argued that technological advances would play a critical role in helping to reduce household water consumption over the next fifty years. Therefore, SEW was urged to keep up to date with the latest technological developments and ensure that they are integrated into its systems as early as feasibly possible. By doing so, it was thought that the company would be in good stead to execute its water-efficiency plans.

VERBATIM QUOTES AND VOTING

1. Do you think our per person water use reduction targets are realistic?



- "These seem to be realistic targets. Our appliances are more efficient now, we just need the
 educational aspect. Educate customers on how much energy these appliances use before they buy
 them." Water efficiency
- "I think these particular targets are not achievable, but there are a number of things which we need
 to be doing to bring down the levels of unnecessary usage. The practice of using human drinkable
 water for all purposes must be changed, and it should become mandatory for grey water recovery
 and recycling in new developments." Environmental group

2. How do you think we should reduce demand for water?

- "92% of your customers are metered. Is there a target to meter the remaining 8%?" Water efficiency
- "I would like to see more of these projects rolled out, because at the moment it seems that a lot of schemes are being tested, but they need to be implemented. There are a number of strategies on the continent which are already in place, such as underground water storage for gardens, and we need to be making these options available to people as soon as possible." Major user
- "Perhaps the water companies would try to target people who are doing nothing to reduce it, because for people who are already doing a lot to reduce it, like you say, you can't reduce it a lot more. So there's a lot of people for whom it's not already on the agenda?" Local authority officer
- "There would have to be some exemptions to this, for instance it would have to be almost sort of, not means-tested, but ability-tested. So there might be some people who need more water because of disability or illness, and they would have priority, I'd say. The only problem with the smart meter approach is that it would help a lot of people to monitor and reduce their consumption. But once again, the most affluent wouldn't be bothered about that. Because for them, spending more wouldn't be an issue. But that idea helps to compensate for that somewhat, if they pay more for their usage."
 Local authority officer

- "Education is lacking. I think the sort of people we mix with are already doing the same sorts of things already. I mean we have five water butts, for example, for our garden, and that kind of thing. But a lot of people aren't thinking about those things. I live in a very affluent area. And people just don't think about it, just don't care. People need to be educated a lot more on the implications of the decisions they make about water usage, for the future." Environmental group
- "I think education could help sway some people. But then perhaps the price curve could help have an impact. But then there are some people who are so wealthy that they wouldn't pay any attention whatsoever, and I don't know what you do about that." Environmental group
- "Implications about future proofing. Because it's not just about expense, it's about future-proofing. So if they think that water's going to be limited to them in the future because of their actions now, that may incentivise them to reduce water usage now." Local authority officer
- "Reducing electricity or gas usage is fairly easy, because you turn lights off, or turn heating down. With water, it's a bit harder, because you need to flush the toilet, you need to wash your hands, you need to boil potatoes, so there's less fat to cut, less to trim. But if we could focus more on getting more water in from different sources, like with water butts, which you could use for toilets, or for gardening, stuff like that. Because right now, if I'm thinking "okay, I'm going to take out twenty six litres a day, I could shower slightly less, maybe, but there's not a lot of fat I could trim, whereas having a huge water butt to water the garden, or as I said to have that as grey water in the loos, could be an option." Local authority officer
- "I think education needs to come from a water company, but then somebody like Martin Lewis has
 had such a huge impact. You need to find somebody like that to talk on behalf of water. It's got to
 come from everywhere: it's got to come from the water board, from suppliers, local authorities, and
 the media." Local authority officer
- "Projects to give people advice about how to reduce their water usage. Also increasing water supply in from other sources. Because if there was an energy cut and water stopped, there's some people who would be able to get water in from other sources, others wouldn't." Local authority officer
- "Do you charge people more for having a massive swimming pool, for instance?" Local authority officer
- "There's been systems piloted with electricity usage whereby during times of peak demand, if you pledge not to use as much, you get some money back. So I was thinking if, during the heatwave, you want to water your garden, then maybe you could do that during off-peak times, at say 10pm or something, and you could offer those people to get some money back. Not everyone would do it, but for people who do, it could have an impact." Major user
- "There should be a way to separate water usage from water leakage when it comes to billing, for instance if it's a leak on the road." Consumer group
- "Many business customers of mine get bonuses based on utility usage. This has been effective in getting people to change habits." Water efficiency

- "Some people don't care about the environmental impact. I think companies need to be transparent
 with customers about water availability. Tell them it's all very well having a paddling pool, but it might
 be gone soon." Utility / energy group
- "Collaborative messaging is key here. Why can't we bring in gas and electricity companies and convey the message together?" Utility / energy group
- "We need to have incentives offered to customers, making it both financially and socially desirable for them to find ways to reduce and recycle their water usage." Major user
- "There are a lot of young, first-time house buyers who will be looking to reduce costs at every
 possible opportunity, so a financial incentive to bring down usage (through either reduction or
 recycling of water from the mains supply) would appeal to a very large stakeholder group." Water
 resources
- "Is it possible to implement some kind of differential metering, so that the tariff is adjusted according
 to the supply at a given time? Considering the way that water availability fluctuates with weather
 and geological phenomena, it seems sensible to vary both the base cost of water and any reduction
 incentives according to the changes in supply." Environmental group
- "I look at my bill and I know what I use per person, but I get one reading a year. Unless I log in and look at my bill I won't know my consumption levels. I have to seek the information out if I want to make a change to my behaviour, otherwise I only get notified once a year." Water efficiency
- "There are organisations that do grants for things like water butts." Local authority officer
- "Have a social tariff. If you have 100 litres per day you can have the minimal tariff, but if you use more it goes up a lot more." Water efficiency
- "You need to find a long-term fix rather than a temporary fix. Use something like grants. There are a lot of grants to do with community resilience. Utilities companies are incentivising people, money incentivises people. What could South East Water do to provide people with grants to allow people to buy items to reduce water consumption?" Local authority officer

3. How do you think we can reduce demand at peak times in the summer?

- "Some companies offer financial incentives to not use energy during peak usage." Utility / energy group
- "Tell people they can water their garden at night or use washing up water, brown-water or bathwater or shower water to do it." Environmental group
- "It would be good to have an easier way to collect greywater. It's a bit of a faff." Environmental group
- "The best way is to put the greywater underground, in underground tanks, then you've got to pump it out. It's about £4000 to install." Water resources
- "You should work with all sports grounds, golf courses, bowling greens during summer, to reduce water usage. Imagine the amount of water going into football stadiums." Water resources

4. In addition to the above measures to reduce household consumption, is there more that we should be doing?

- "Tailor the message. This could be focusing on the environmental aspect in some areas, and on costs in other areas." Utility / energy group
- "I think education is essential on all of this, especially with regards to water wastage in the bathroom.
 It is not necessary, for instance, to flush the toilet every time a member of the household urinates, and it is possible to save huge amounts of water by flushing less regularly than most people currently do." Environmental group
- "Technology does need to be there somewhere, we need technology to help us find solutions. But I think you've got to challenge it from all bases, not just technology." Environmental group
- "You could have discounts for customers if they fall within 40 litres per day." Water resources

APPENDIX 1: WORKSHOP ATTENDEES

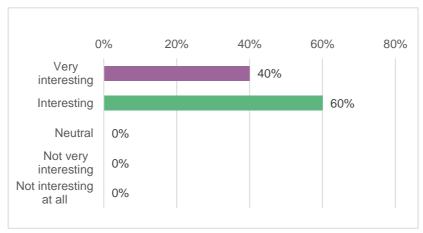
The following organisations were represented at the Think Tank:

Alton Climate Action & Network
Blackwater Valley Friends of the Earth
CPRE
Hampshire County Council
Honeywell Water Products
National Farmers Union
Rushmoor Borough Council
Scottish and Southern Electricity Networks
South East Rivers Trust
South East Water Customer Challenge Group
Waterscan

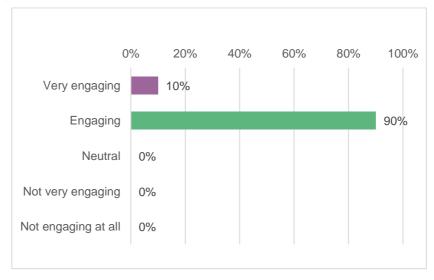
APPENDIX 2: WORKSHOP FEEDBACK

After the workshop, stakeholders were asked to complete a short feedback form. The feedback was as follows:

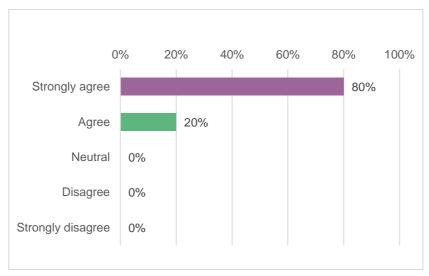
1. Overall, did you find this Think Tank workshop to be:



2. How engaging did you find the session?



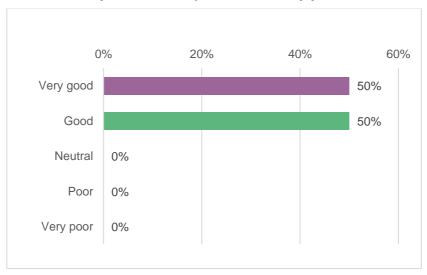
3. Did you feel that you had the opportunity to get involved in the discussions and make your points known?



Comments:

- "It was helpful, but I do not know enough to work out what was missing or not said."
- "The facilitator was excellent. It makes such a change to have an independent facilitator and scribe. I was very impressed with this."

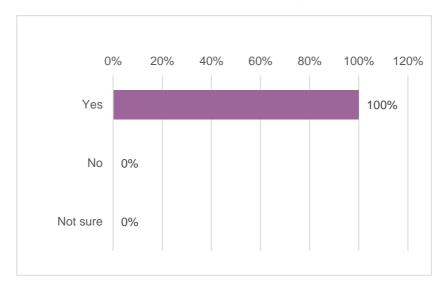
4. What did you think of the way the workshop was chaired by your facilitator?



Comment:

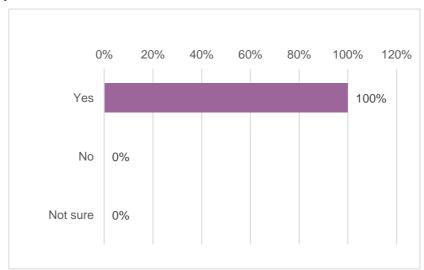
• "They kept us focussed and on track and involved everyone in the discussion."

5. Did you feel you had sufficient information/were able to give an informed view?



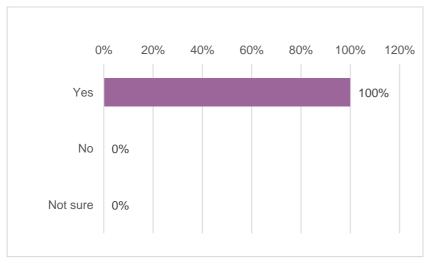
Comment:

- "I need to know more."
- "Very good feedback and information in presentations and during discussions."
- 6. Following the session, do you feel you have a better understanding of the issues South East Water is facing in the near future surrounding resilience and ensuring customers do not suffer supply interruptions?



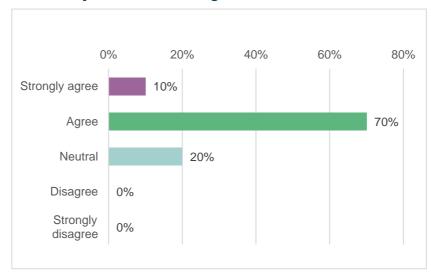
- 7. Which do you feel, are the biggest resilience issues South East Water will face in the next five years?
 - "Unexpected events, such as climate change and conflicts."
 - "Financial support in order to achieve the best outcome. Support from water companies on your borders.
 - "Reducing consumption, particularly during peak months."
 - The Thames and growing developments."

- "Leak reduction and climate change/extreme weather."
- "Infrastructure and population growth."
- "Growth of certain areas, droughts and costs of solutions."
- "The supply and demand balance."
- 8. Following the session, do you have a greater understanding of the trade-offs South East Water has to make when deciding which schemes should be progressed and when?



Comment:

- "I'd like to know how much of revenue is spent on sustainability initiatives compared to shareholder dividends."
- 9. How do you feel about the following statement: "The level of information was tailored appropriately to match my levels of knowledge?"



10. Would you come to a future Think Tank session?

