PORTSMOUTH WATER Ltd YOUR WATER, YOUR SAY (YWYS) SESSION Wednesday 10 May 2023 at 18:00 on Microsoft Teams

- SPEAKERS: Kevin Johnson (Independent Chair), Kay Greenbank (Ofwat), James Mackenzie (Consumer Council for Water (CCW)), Lara Stoimenova (Portsmouth Water – Non-Executive Director), Bob Taylor (Portsmouth Water – Chief Executive Officer), Chris Milner (Portsmouth Water – Chief Financial Officer), Jim Barker (Portsmouth Water – Head of Water Resources, Leakage and Smart Networks), and Clare Younger (Portsmouth Water – Customer Services Manager).
- **ATTENDANCE:** A cross section of customers, and other stakeholder representatives also attended the session online and at Company provided venue in Havant.

ABOUT THE YWYS SESSION

Portsmouth Water's YWYS session is part of what is known as the price review process, sometimes referred to as PR24. As part of PR24, water and wastewater companies in England and Wales, including Portsmouth Water, are currently developing their plans for 2025 to 2030. This will set price control for Portsmouth Water for the next 5-year period. The plans will cover everything that Portsmouth Water does now and what it will do in the future.

This YWYS session provided an opportunity for customers and stakeholders to challenge Portsmouth Water's plans for PR24. The YWYS was not the only opportunity, and the session was in addition to customer engagement already undertaken by Portsmouth Water.

Portsmouth Water is what is known as a water-only company and provides water services only to over 300,000 households and businesses in Hampshire and West Sussex. Sewerage services are provided by Southern Water, which is billed separately. Portsmouth Water could not answer questions on wastewater, such as sewer overflows, but any questions raised will be passed on to Southern Water by CCW, who have their YWYS session on 9th June 2023.

INDEPENDENT CHAIR

Kevin Johnson confirmed that he had been appointed by Ofwat and CCW to be the independent chair for all YWYS sessions across the sector. Ofwat and CCW are also in attendance. Ofwat are the economic regulator for water. CCW is the consumer advocate for the sector.

PORTSMOUTH WATER PRESENTATION

Portsmouth Water gave a 15-minute presentation introducing the Company, explaining the future challenges it faces and its vision to overcome them. The presentation detailed key aspects of its proposed plan for 2025 to 2030 and the impact on customer bills. The presentation also clarified its position on the Havant Thicket Reservoir.

All five Portsmouth Water speakers contributed to the presentation.

QUESTIONS RAISED IN THE YWYS SESSION

After the presentation, the chair invited questions from attendees. Questions were either raised directly by attendees in the session, or from James Mackenzie on behalf of those who had submitted questions directly to CCW beforehand.

Questions were answered by one (or more) of the Portsmouth Water speakers. The record below provides a transcript of the responses provided in the session.

<u>Q No.</u>	Question and Answer
1.1	How much water was lost last year due to leaks, and what is the cost of that loss compared to
	the dividends paid to shareholders over the same period?

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	Portsmouth Water has a leakage figure of 30 million litres of water lost per day. We have made significant progress over the last few years in reducing levels of leakage from our network, but we are never complacent and recognise that it is our customers' top priority. We are actively employing cutting-edge technology in this area, such as digital twins (which digitally replicate our physical network), to quickly identify and repair leaks and replace our network.
	Portsmouth Water had a challenging year last year. There was a dry period during the summer, resulting in a breakout of leaks, and a similar situation occurred during some cold weather in the winter. As a result, we are currently in a recovery phase. In the past week alone, we have successfully repaired leaks equivalent to a loss of 3 million litres a day, demonstrating our continuous efforts to reduce leakage. Portsmouth Water has one of the highest network replacement rates in the industry.
	The production of water is relatively inexpensive for us compared to other providers. However, what concerns us is the need to extract water from the environment and the loss of that water, as we are custodians of several chalk streams. The environment is a primary driver for us to reduce leakage and to be efficient with our water usage.
1.2.	There is a lot of concern, worry, and misunderstanding about what will happen to Portsmouth's water supply. The water currently provided is of very high quality, and despite the introduction of Havant Thicket, the majority of consumers believe that all the water is going to be different. Could you please explain how, for the majority of consumers, that probably won't change?
	Firstly, in terms of the overall quality of the water, recycled water is of a very similar quality to spring water. Therefore, we don't anticipate any significant deterioration in the water in the reservoir due to the introduction of recycled water into Havant Thicket.
	Regarding how the reservoir will be used, it will mainly supply water to Portsmouth Water customers for a limited period during droughts. For the rest of the time, Portsmouth Water customers will continue to receive the same supply they have today, which comes from the springs in Havant via the Farlington Treatment Works. This supply currently serves approximately one-third of our customers.
	The other two-thirds of our customers will still be supplied from the same chalk aquifer and the other approximately 20 sites scattered across our area.
1.3.	My question is regarding the smart meters. What saving do you expect households to be able to make, given that in my household there are two of us and we are consuming 400 litres per day?
	On average, our customers use roughly 160 litres per person per day. However, everyone's usage is different, right? Currently, one-third of our customers have a metered supply, using around 120 to 130 litres per day. These customers have dumb meters, but we will be replacing them with smart meters.
	Our goal is to have all our customers on smart meters within a 10-year timeframe. By doing so, we hope to connect people with their water usage, increase their awareness, and empower them to make choices themselves. Customers who are not currently metered pay a single charge of £109 per year, which leads to a degree of "out of sight, out of mind" mentality. Through smart meter technology, we will be able to provide customers with real-time data on their usage through an app or similar technology. This will allow interested customers to actively engage, while others who are less interested will naturally adjust their behaviour. It's all about behavioural change.
	Another aspect is that we believe a significant portion of water usage is due to leakage. Some of it is due to plumbing losses, which is our industry term for leaking taps and toilets. In trials, we encountered a case where a single male living alone in a one-bedroom house was using 400 litres per day. We were surprised and decided to investigate. It turned out that he had a dual flush toilet that was leaking. People often don't notice when toilets are leaking. After fixing the issue, his usage dropped to 80 litres per day. We believe that smart meters will help us identify and address such leaks.
	If we consider the averages, we assume an initial figure of around 160 litres per person per day as the average population usage. Our aim is to reduce this to 110 litres per person per day by 2050. Achieving this will involve working with customers, identifying leaks on the customer side, incentivizing through potential new tariffs, and implementing various measures.

	Additionally, we provide three water-saving gadgets to all our customers. If you visit our website, we can tailor the offer specifically to your household, offering tap aerators, aerated shower heads, and other similar items, all of which contribute to reducing consumption.
1.4	First of all, I'd like to know where the figures earlier about the predicted future usage of water are coming from.
	Secondly, also in connection with that, climate change doesn't mean necessarily just droughts; we had lots of rainwater. Should we not actually store this rainwater and use it during droughts.
	And then, if we do get effluent water going, we know that that requires a lot of energy in terms of osmosis treatment, and we know that we are quite short of energy as well.
	Water companies, including ours, undergo a process to develop a water resource management plan, as required by statutory guidance from DEFRA. This plan involves various calculations and predictions for future water usage. We consider data from the Office of National Statistics, local authority building and development plans, special growth area plans, and the latest government climate change statistics. Around 80-90 different factors are considered in the plan. The resulting plan provides two aspects: one is the projected demand if no action is taken, and the other is the measures we can take to reduce demand or secure additional water sources. The water resource management plan is a representation of these considerations. A simplified version of our plan can be found on our website, which is about 15 pages long and easy to read, providing further explanation.
	Regarding climate change, you are right. Climate change brings significant changes in various aspects. We analyse how water availability is affected by these changes. While rainfall patterns are important, we are particularly concerned with the amount of water that reaches the chalk aquifer beneath us. Excessive rainfall can lead to surface runoff rather than groundwater recharge. We closely monitor the latest trends through government climate change statistics.
	The other aspect of climate change is how customers respond to it. Last August, during a five-day period with temperatures reaching 30 degrees, we witnessed the highest-ever demand for water from our customers. We used approximately 240 million litres of water in a day, compared to an average day of 160 million litres. Therefore, it's important to consider how customers adapt to different weather conditions and their impact on water demand.
	To address the impact of climate change on water supplies, building reservoirs is one way to utilize rainfall. While Havant Thicket is the first reservoir built in the UK in around 50 years, there are plans to construct several others in the Southeast region, including Oxfordshire. We recognize the need for increased reservoir capacity to capture high rainfall during winter and storm events by utilizing water abstractions from rivers and other sources.
1.5	I am concerned about the number of large number of houses being built in the Aldwick and Nyetimber areas. I'm wondering what you are doing or going to do about supplying water to them? Our water pressure at the moment isn't that wonderful and I'm wondering what's going to happen when all these other houses come online. Are you intending to put new watermains in, or are you going to increase pressures?
	I apologise, but I don't have specific information about that particular scheme at the moment. However, we will answer your question offline and ensure that you receive a response.
	Generally, there are two aspects we consider in such situations.
	Firstly, our water resource management plan includes projections of future population growth based on data from the Office of National Statistics. We also consider local growth plans. This allows us to work with local authorities and anticipate the water needs for future developments.
	Secondly, we engage in discussions with local authorities regarding their development plans. We highlight the challenges we may face in providing water to new developments. We encourage adherence to water-efficient standards for the houses being built, equivalent to our consumption target of 110 litres per person per day. This includes ensuring that water-efficient toilets and showers are installed in these new houses.

	We also discuss additional initiatives with local authorities, such as greywater recycling. However, the implementation of these initiatives is discretionary, and we have encountered challenges in gaining traction with developers due to the added cost associated with such systems.
	Essentially, we have two main conversations: one focuses on determining the number of new customers and the additional water required, while the other involves working with local authorities to influence planning applications, ensuring that each new house is built as efficiently as possible.
1.6	There's been a lot of pushbacks on the recycling of water, and so I want to know what Portsmouth Water are going do to dispel the fears that there are about the recycling. We are going have to go down that route. It's going to have to happen. So, what can Portsmouth Water do to promote recycled water?
	We are in the process of organising a new engagement campaign to try to get out there and dispel some of the myths and the concerns that people have raised around the recycled water issue.
	The water is very high-quality. It is a robust treatment system that's used in many other parts of the world, but it's new to the UK, so we recognise that customers are a bit uncomfortable with it at the moment, and we're going to be going out and explaining all of the details and answering all of the questions to try and alleviate all of that within a matter of weeks.
1.7	I wanted to pick up on Bob's remarks about Havant thicket and the recycled water, and how it was only going to be used when it was necessary. I was at the consultation in February; I came away from there with clear thoughts, and perhaps I've made a mistake. The clear thought is that all water was going to go into Havant Thicket every day of the year and everything we have to drink will come out of Havant Thicket every day of the year. Also, it goes on a tortuous route to Winchester and back before we get it and is very heavily energy dependent.
	It's a bit challenging to explain without visual aids, but if I'm unable to convey the information clearly during this call, I'm more than happy to continue the discussion offline.
	The current system operates as follows: water is sourced from the springs and directly supplied to Farlington Treatment Works, and from there, it goes straight to customers. This will remain the case for the majority of the time.
	Under plans currently being consulting on for Southern Water 2024 Water Resource Management Plan, during winter when there is an excess of water from the springs, water will be diverted to the reservoir along with water from the recycling works. These water sources will mix in the reservoir. Southern Water will then extract water from the reservoir and transport it to their treatment works, located in the Winchester direction. However, this water does not return to Portsmouth but is instead destined for the treatment works at Otterbourne Water Treatment works.
1.8	I'm one of the lucky ones, I've got a very large garden of an acre. I'm not on a meter at the moment I pay £289 plus a few pennies, which I'm happy to do. Not that I water my grass, but I do occasionally water my roses and have a couple of hanging baskets. For those of us that have large gardens, a bit like my farming friends, I'm just a bit concerned if we all suddenly have smart meters and I have to rush out and stop the drips on my on my hanging baskets, for example. What can you say about people with large gardens?
	Ultimately, we are asking people to use water wisely, so we would hope you can be as efficient as you can be in your watering, by using equipment like water butts. I would imagine if you've got a big garden, you're used to water butts. I would recommend a combination of collecting roof water in water butts and using watering cans rather than hoses to save water.
	If you have to use a hose because of the size of the garden, if you put a spray gun on the end so you're only using the hose when you're directing at a plant, you're saving water rather than constantly running the water. There are a number of water-saving tips on our website and on places like the RHS website that will really help gardeners.
1.9	I'm interested to know how accurate demand models are in terms of new homes, because the

	How does the modelling keep track with that? And what kind of practical financial support could Portsmouth Water be offering to residents?
	The forecasting in this day and age is something we're constantly updating. I wouldn't say it's 100% accurate. As time goes on, we're able to collect more and more data to inform us, particularly from existing metered customers. We've got a smart network; our pipes have flow, pressure and water quality monitors. I think with the benefit of all this data and with modern analytical techniques, we are much more accurate in forecasting into the future; much better than we ever have been.
	The Water Resources Management Plan is a statutory piece of work that happens every five years, but we are also running activities and conducting trials in the intermediate period anyway for our own usages. Our colleagues at Southern Water are trialling very something interesting, which is something called a smart water butt. It is designed to stop rainwater from draining into sewers, which then causes the overloading of the sewerage system. The way that works is that the butt gets told when it's about to rain and if there's any water in it, it lets that water out so there is capacity to take the rain from the roof instead of that water going into the sewer. I think water butts are positive in terms of local authorities.
	In terms of housing developments, we are not statutory consultees. We try to exert our influences as strongly as we can, and we give developers discounts on their connection fees if they're willing to use water efficient white goods in the property. We do what we can, but at the end of the day, if somebody requires a connection from our network, we have a legal duty to provide it.
1.10	On the issue of the housing water efficiency for a development to prevent use of more than 110 litres, why can't we have WCs with Grey water? I remember hearing about that couple years ago and I queried it with our plumber and he laughed and said it's very easy to remove those limiting features. I'd like your response to that because he said people, plumbers and others can remove them and the other thing that somebody.
	Yes, unfortunately, that's true. When individuals purchase a house, they have the freedom to make changes to their own property, including replacing taps and other fixtures. Regrettably, there isn't much we can do about that.
	Implementing grey water systems in existing houses is both expensive and disruptive. Therefore, it's not feasible for us to financially support our customers in retrofitting such systems. However, we are actively encouraging developers to consider incorporating grey water systems in new builds. In certain regions of the country, new buildings are required to be water neutral, and developers are becoming more knowledgeable in achieving that goal.
	I genuinely hope that this practice becomes more widespread across the Southeast and along the South Coast as people begin to recognise the vulnerability of our water supply in this region.
1.11	There is no public confidence in Southern Water whatsoever. We can't go in the water. All this talk about saving chalk streams, if you have Southern Water as your colleagues, they're directly polluting them by over pumping. You're going to lose public trust. The original planning application had nothing to do with Southern Water, we thought it was just going to be a reservoir. I don't think they'll be public confidence because Southern Water will effectively pollute your good name in the end.
	I'm aware of the sort of turnaround process that's underway at Southern and there's quite a bit of relatively recent history here. I'm not going to go into that as this evening is supposed to be to talk about Portsmouth Water, but I do recognise what you're saying, and it is a concern for me, but I've been asked at public events and so on why we're working with Southern Water.
	The answer to that question is very simple. If any water company came and asked for help because they had problems with supplying their customers in the future, issues with the environment and they needed access to new water supplies and Portsmouth Water can help them, then we would help them. That's nothing to do with the name of the water company, it could be any water company. It is simply the right thing to do, because our job in this industry, is to make sure that customers have good quality water and wastewater services into the into the long-term future.
	I hope I can explain to our customers who have high levels of trust in Portsmouth Water that this will be done in a way that's not going to cause any harm or any prejudice to the service they get from us.

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1.15 You said that you would be responsible for testing the quality of water going into the reserv as well as coming out of it. I'd like to know exactly how you're going to do that.	1.15	You said that you would be responsible for testing the quality of water going into the reservoir as well as coming out of it. I'd like to know exactly how you're going to do that.
does it involve building a new place where the recycling will happen, but there is going to		The other thing is the environmental impact of the proposed recycling facility, because not only does it involve building a new place where the recycling will happen, but there is going to be this 40-kilometre pipeline that's going to be needed; and all the energy required to pump water all the way up to Otterbourne. How can they afford this and why should they?

	Yes, there is a cross-country pipeline to Southern Water's treatment works, but Southern Water has made an undertaking to reduce its water intake from the chalk streams, and during times of drought, they may even stop taking water from them. People are concerned about the environmental degradation caused by excessive water extraction.
	Fortunately, Portsmouth Water have surplus water from the springs, which we will use for Havant Thicket Reservoir. However, Southern Water requires a significant amount of additional water to compensate for the losses they're undertaking in Hampshire. This is why the proposal for Havant Thicket Reservoir came about. It can deliver larger volumes of water, serving as a substitute for the water that can no longer be taken from the chalk streams.
	It's important to clarify that we, Portsmouth Water, will have control over the operations and management of Havant Thicket Reservoir, whether it involves recycling or not. It is our reservoir, and we will be responsible for its construction, operation, and control.
	To ensure water quality, we have our own laboratory where we take water samples and conduct analyses. Additionally, we have online instrumentation that continuously monitors the water quality in real-time at our existing sites. The same monitoring procedures will be implemented at the Havant Thicket Reservoir. If any contaminants are detected in the water, the entire system will shut down to prevent any adverse effects.
1.16	You talked about restoring or preventing or keeping the health of the of the test and the Itchen, I just want to remind you that the river Ems, although a slightly smaller river is also an important chalk stream. I would just urge you to ensure that that abstraction is reduced in the river Ems as soon as possible. We have people in in the village who are doing a lot of citizen science work, but we kind of feel that the Environment Agency perhaps doesn't have the necessary resources to do what it needs to do. So, we're appealing to Portsmouth Water, please protect our river Ems.
	The second thing was, as you are general consultees, you are obliged to support new developments. What is the point of being a consultee if at the end of the day you just must roll over and do what you're told to do?
	We've done a lot of work with you and your colleagues on the Ems, both recently and in the distant past. The Test and the Itchen get the headlines because of their scale and all the various protections that they have. But the Ems is the most important one that we are working on our patch, and we have a plan in addition to what we've done already to improve the situation.
	So, please don't think that we're forgetting you. We are very much aware of the situation and the views of all the Friends of the Ems and the other local people.
	On the development side, we do have to respond to developers who want to connection for water, and we try to influence the planning process. We do not have the power to say that development cannot go ahead because there's not enough water. We basically have to find that water and if there is an issue with local network, we would normally reinforce the local network, not just on the development side, but in the local area to make sure the supplies for existing customers are kept up to scratch. That's normal practice.
1.17	Firstly, the environmental impact modelling has not been fully assessed for putting in the recycled effluent yet. So how can Portsmouth Water say they're going to protect the biodiversity? How are you going to be confident and be able to assure us that the that none of that is going to be lost given the modelling hasn't been done?
	Secondly, it has been suggested that water companies could consider moving their abstraction further downstream and closer to the tidal limit, is Portsmouth Water considering this?
	We maintain our position that Southern Water needs to demonstrate that there will be no environmental harm before they can access our reservoir. The burden of proof rests with Southern Water to convince Portsmouth Water that their activities will not have any negative impact. Our stance is that their
	operations will not affect us, and it is their responsibility to provide the necessary evidence to support their claim.

	The Water Resource Management Plan is reviewed every five years, and we have already commenced work on the next plan starting from 2029. Downstream abstraction has been brought to our attention, and we will be examining it as a potential solution within the next 18 months. Finding alternative sources of water due to restrictions on environmental extraction is a key aspect we will address.
	One possible solution could involve relocating our sites to lower areas, but it is not as straightforward as it may seem. As we approach the coastline, we rely on boreholes for water extraction, which presents the risk of saline intrusion. Conducting thorough studies and assessments would be necessary before considering such a move. However, we are committed to exploring this option and including it in our upcoming planning discussions.
1.18	I am trying to understand bill inflation and how people can afford this?
	The way that our prices are set and the revenues that we can collect are linked to inflation. It's part of the mechanism that linking to inflation keeps bills lower in the long term. Each year when we set our prices, we agree them with the regulator, and we calculate how much we can recover to fund our activities, then we're allowed to apply inflation on top of that to recognise that there's an increase in costs, and there's an increase in the cost of funding that investment and those services.
	This year our prices are increasing at a rate lower than inflation, but there is there is an intrinsic link with the way that the regulatory model is set to link prices with inflation. The increase that's taking place between 2023 for 2024 will be driven by CPIH. That includes housing and mortgage costs to reflect better the price basket that we experience within the UK.
	The current inflation rate is high and so the bill increases are higher, but also costs overall are currently higher too. We don't anticipate those inflation levels to be as high in the future. We anticipate that things are going to return to 2% per year and that's what's been built into our cost projections.
	What we're trying to illustrate is that inflation level will hopefully keep prices in line with people's earnings and incomes. This is a very topical point at the moment and the other cost increases to improve services will flow through from the investment that we deliver.
1.19	When will Portsmouth Water stop paying its directors and shareholders obscene amounts of customers money and invest it into better infrastructure?
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	- Water bills will become unaffordable soon. We do our best to pay them but benefits are not going up enough to allow for it. I wondered if the social tariff could perhaps be somehow reflected in benefit rate rises rather than your inflation figures so that people in my situation who simply cannot earn can somehow pay their bills.
	- My other concern is a break in supply, I know from other disabled people who had a break in supply in SO19 (Southern Water) that they didn't get their deliveries of water and they had to send family or friends to go out and get them. So I do hope you've sort of got provision for that.
	Also I want to know whether you are going to continue community engagement with groups of disabled people as I know that lots of others would have like to have their say?
	The social tariff historically has been linked to the government low-income threshold, which has been around £17,000 PA and that's linked to your benefits. We've increased that this year to a household income of £21,000 per annum. Most people on benefits should be able to apply for and get that capped water bill set at our minimum charge (current £88 for the year).
	If you apply for a social tariff through us, we also let Southern Water know and they automatically put you on their social tariff as well. That happens both ways. So customers will benefit from both water companies.
	Regarding a break in supply, we do our best. We have our Priority Services Register, so if there's something going on, we make as quick contact as we can with those customers on the register and we have teams out on the field who deliver water. We've got a close link between the call centre if customers are calling in requesting water and those field staff members who are out on the road actually delivering the water.
	We have two dedicated team members who work regularly out in the community. The team go as wide as we can including food banks and cost of living services. We aim to make sure we make as contact with as many customers as we can and to promote our services, but also making sure that we stay in touch with local organizations to track chains, track any gaps we might have.
1.21	On taking care of the vulnerable customers, is pricing too cheap for the rest of us? Is there an indication of price elasticity in other water companies where higher pricing means lower usage?
	In the past we've always talked about average bills and the regulators talked about average bills. As we look into the future and the investment requirements, we recognise we need to make water affordable for all, and that could mean that that that some people pay more to enable us to support the vulnerable customers.
	In part, that's what the social tariff does today - it creates reductions for the people that struggle to pay to remove them from water poverty. And that's funded by additional charges on top of our own customers' bills as part of our work this year to expand our social tariff. We did engage with customers and ask them about this - they supported paying a little bit more to help more vulnerable people.
	There is an economic link between water cost and water usage and that's what we see with the reduction of usage with people that are metered.
	Portsmouth Water will remain the cheapest in the country, even with the additional investment, because we have certain advantages. We've got this fantastic water resource and in the chalk aquifers and that means water comes out of the ground of a high quality, needing less treatments. That's why our water is going to be cheap compared to certain areas within the country.
	It's our job to make it as cheap as possible, but what we want to do is to provide the information to our customers to understand the benefits of using less water and the environmental impacts and the impacts on the future.
1.22	Water supply infrastructure is very reliant on power, so I wondered how are you doing and active any work to improve that?
	Secondly, just a general point you appear almost disregarded by central government regarding approving development and you haven't got a right as the provider to object. I think that's it's

	going to cause us a fundamental problem in the in the longer term in relation to new development going ahead. I think we need to work to change that because you're an important provider of a basic essential which is being over overreached and overrun.
	This is topical in our industry in general. We do have standby generators at our sites in the area and we have got plans in the pipeline to replace those systematically due their old age. We're looking at some interesting technologies to replace the conventional diesel power generators because the diesel poses a risk to water quality.
	Our system has a lot of resilience built into it as we've got double the UK national standard of treated stored water as a company. This equates to about 48 hours of stored water across the patch and we've got some people have things like ring mains and other such names. We have got a spine that runs through the centre of our patch East to West and that enables us to shift water around quite easily. This part of the network gives us good resilience in any event or incident.
	This is a key issue and I'm proud to say that during adverse weather conditions we've managed well. We haven't had the wide scale outages that have taken place in other parts of the world, but the power network on the eastern side of our patch have come into play there. We appreciate your point on new developments as it's a real frustration for us in the industry.
1.23	How can water abstraction be controlled so as to protect the viability of our rivers?
	We need to find alternative sources of water to ensure we don't need to take so much from the environment.
	The first step is to help everyone use a little bit less water individually, so that the water we take goes further. If everyone used 10% less than we would be able to abstract 10% less from he environment.
	We need to find alternative, sustainable sources of water, for example, water recycling. We've discussed moving our sites maybe to the lower ends of the catchment as another option.
	We are actively investigating for future years because we accept the amount of water, we take from the chalk streams today isn't the right amount, and we need to find the right balance that protects the water and still allows everyone to have the water they need for their everyday lives.

QUESTIONS RAISED IN THE YWYS CHAT THAT WERE NOT ANSWERED IN THE YWYS SESSION

The YWYS session led to extensive discussions, which regrettably meant that not all questions were answered in the session itself.

Below are responses to questions raised in the YWYS chat that were not answered in the session.

Q No.	Question and Answer
2.1	Affordable Question: Does Portsmouth Water have any research on price elasticity? Would Customers be happy to pay double, treble or whatever?
	There are strict controls on how much we are allowed to increase bills by. Furthermore, the cost that we charge customers' needs to be reflective of the cost of serving customers. We are very lucky that the water we extract is already of a high quality and therefore requires minimal treatment, furthermore our supply arrangement means we do not need to pump water around the network as much as other water companies have to. All of this results in Portsmouth Water being a very efficient business, meaning low costs and therefore low bills for customers.
	We regularly conduct research with customers to understand the appetite for increasing financial support for vulnerable customers, which is funded by all customers. Our most recent research showed customers supported increasing the contribution for support from £1 on bills to £3. This has directly resulted in us being able to alter our Social Tariff criteria, helping us reach more customers who are struggling financially.
	We understand our low water bill does not necessary result in customers using our resource with care. However, even with the strict controls around bill prices, we do not believe increasing bills is the right approach. We are considering what new tariffs we can introduce in 2025-2030 to encourage customers to be more careful with the water they use. These include an increase in the cost of water if continuous use of water is identified and rewarding customers when reductions in water use are seen. We hope these measures, along with our Smart Metering Programme, will drive customers to engage with us and ultimately, use less water.
2.2	How did the southern water sewage pipe become part of Havant thicket reservoir when it was not on planning?
	At the time of Portsmouth Water submitting the original planning application for Havant Thicket Reservoir, desalination was Southern Water's preferred option under its Water for Life – Hampshire programme. During the planning application process, Portsmouth Water and Southern Water had discussed alternative options as a back-up to desalination, including recycled water, but at this point they were simply options.
	Information was shared about water recycling during Portsmouth Water's original planning process for the Havant Thicket Reservoir. During the Planning Committees, members raised questions about the scheme, and it was highlighted that any changes to the current application would require separate planning approval, as is still the case.
	There is a written record of this in the minutes: <u>https://easthants.moderngov.co.uk/documents/g3817/Public minutes 09th-Jun-2021 18.00 Planning</u> <u>Committee.pdf?T=11</u> - (see pages 4, 10 and 32).
	and information about the scheme was also shared with Havant Borough Council's Planning Committee for consideration in this public document: <u>https://havant.moderngov.co.uk/documents/b36341/Update Sheet 03rd-Jun-2021 17.00 Planning Committee.pdf?T=9</u> - (see page 3).
	Much information was also publicised ahead of both Planning Committees through Southern Water's consultation on its desalination plans which ran until 16th April 2021: https://www.southernwater.co.uk/media/5244/5391_wflh_non- statutory_consultation_brochure_210x210mm_2.pdf
	Portsmouth Water was open and upfront about these proposals, answering questions with the information available at the time.

2.3.	Why doesn't every household or property not have individual water metering?
	To compulsory meter every property in our area of supply, we need to be classed as an area of water stress. We did not get this status until 2021 although it doesn't come into effect until 2025. The assessment was made independently by the Environment Agency and their determination can be found here:
	Water stressed areas – 2021 classification - GOV.UK (www.gov.uk)
	This change in classification has enabled us to start planning for a compulsory Smart Metering Programme to start in 2025.
	Despite us not being able to compulsory meter all properties, we have still been working hard to increase the number of meters we are installing. This includes increased promotion to customers who are likely to reduce their water bills by switching to a measured charge, installing meters upon a change of occupancy at a property, and competing metering trials.
2.4	How much does the rapid (and perhaps over dense) development of the south coast M27 corridor impact our water supply?
	The way we account for growth in our Water Resource Management Plan is mandated by the Government Water resource Planning Guidelines. Following that approach, we've considered a range of increases in the number of people living in our area over the next 50 years – ranging from just 6.8 per cent to more than a third (33.6 per cent).
	In those numbers we are planning for between 54,000 and 146,000 new homes to be built. This growth could create a need for between 9 and 31 million litres of water per day by 2075 - which we intend to find through a combination of demand management (helping everyone to use less water on average, so there is more available to share) and new supply options, such as water recycling or importing water from other supply regions.
2.5	Havant Thicket / Budds farm - What chemicals are being used to treat the sewage from Budds Farm into Havant Thicket? Has a medical assessment been undertaken to minimise potential risk to consumers?
	Please be assured that recycled water could only be provided to customers if it meets the very strict legal standards set out by the Drinking Water Inspectorate – an independent regulator whose role is to make sure water companies deliver drinking water to customer's taps that meets very high-quality standards set out in legislation including and especially related to bacteriological and viral quality.
	Water recycling is a well-established and widely used water treatment process that speeds up the natural water cycle to provide a new sustainable source of water.
	Presently, wastewater from homes and businesses is sent to a Wastewater Treatment Works. In the Portsmouth Water area, these are owned and operated by Southern Water. A great deal of work, time and energy goes into treating this wastewater to a very high standard so that it can be released back into the natural environment. At Budds Farm (Southern Water's Wastewater Treatment Works south of Havant) this process involves several stages of screening, settlement and biological treatment before the water is clean enough leave the treatment works.
	Please note, this process is separate from the storm water releases from combined sewer overflows (CSO's) which only occur when the treatment plant is running at full capacity and cannot process the levels of wastewater coming through the system during a storm. In these situations, once the storm water storage tanks at the treatment works are full, diluted, untreated wastewater must be released into the sea and waterways to prevent it from flooding residences.
	This storm water could never end up in Havant Thicket Reservoir or the drinking water network because the recycling plant takes its water source from the end of the complete treatment process.
	Southern Water is proposing to take highly treated wastewater and use tried and tested water recycling technology to clean and purify it even further. This intensive cleaning process would take place at a

	new Water Recycling Plant. The water would initially go through a micro-filtration process to take out any remaining impurities following the wastewater treatment process.
	The second stage is called reverse osmosis where dissolved salts would be removed by pushing the water at high pressure through a membrane of tiny holes more than 50,000 times smaller than the width of a human hair. This would be followed by ultraviolet light (UV) treatment which adds an extra layer of protection – UV technology is already widely used in the UK to disinfect the water and is part of the process used to treat water to drinking standards at Portsmouth Water's Water Treatment Works.
	The water recycling process strips and cleans water to such an extent that minerals such as magnesium and calcium then need to be readded. It is this highly purified, recycled water that Southern Water proposes to send to Havant Thicket Reservoir.
	Although further analysis and assessments are required, initial studies suggest that the highly treated recycled water entering the reservoir would be cleaner than the spring water source.
2.6	Technical Question re nitrate in chalk aquifer sourced water: Having been introduced to the wider nitrate challenge and the specific challenge of surges (spikes) of nitrate and silt laden water reaching your bore holes following heavy rainfall. I was surprised this challenge was not included in the Water Resources Plan?
	The Water Resource Plan is a strategy document looking at the provision of water over longer periods of time than short-lived nitrate spikes.
	We cope with nitrates spikes and other issues through the hour-by-hour management of our abstraction sources. The storage capacity for treated drinking water in our distribution network generally allows us to absorb such operational disturbance without any impact on customers.
2.7	I have recently moved into the area and find that I have water with Portsmouth Water Company but wastewater with Southern Water. This is ok but I pay two standard charges and consequently it is more expensive that when a single authority provides all the facilities. How can we overcome this to provide fairer charges?
	The cost of water, including standing charges, is reflective of the costs of providing services to customers and charges are heavily regulated by Ofwat. Our customers receive an average cost water bill when considering the combined Portsmouth Water and Southern Water bills. I hope this reassures you that customers whose services are managed by two separate companies are not unfairly charged a higher price.
	If you would like more information about charging in the water industry, please visit <u>https://www.discoverwater.co.uk/</u>
2.8	To what extent is inflation included in these charges? is inflation added onto these numbers?
	Inflation is included in the figures presented in our Your Water, Your Say presentation. We have included inflation at 2%, in line with government targets and industry recommendation.
2.9	What happens if they don't manage to clean the water properly? Won't that pollute the new reservoir? To what extent can you actually veto Southern Water's plans?
	Customers should rest assured that whatever happens, Portsmouth Water will be in sole control of the water that enters and leaves the reservoir.
	We already monitor and analyse water at our existing sites and the same would be the case for Havant Thicket Reservoir. Any issues with water quality would be quickly identified and the system would shut down to ensure no unsafe water reached the reservoir or customer's taps. Portsmouth Water has committed initial support for the Southern Water option; however, we will not continue to give its support to the scheme if it has any doubt over the safety of this water, or the impact it might have on the environment and leisure facilities at Havant Thicket Reservoir.
	We will also consider the views of its customers and local stakeholders in the review of our support of the option and with representations for planning permission. It will also commission a third-party independent review of the option as part of its due diligence of the option.

2.10	Does Portsmouth Water promote rainwater harvesting by individual households or properties?
	When given the opportunity, we promote the idea of rainwater harvesting as one of the ways developers might consider achieving the water use targets placed on them by planning authorities.
	We offer financial incentives in the form of reduced connection charges to developers who have constructed water efficiency houses, but we currently do not offer incentives for water harvesting specifically.
2.11	Do you plan to reduce abstraction from the River Ems, another important chalk stream?
	In our proposed Water Resource Management Plan, we are anticipating the need to reduce abstraction across the extent of our network by between 30 and 130 million litres a day in order to protect the chalk-based environment. We anticipate a percentage of this will be a reduction from our current abstraction from the Ems Catchment.
	The final scale of the abstraction reduction will be determined through environmental investigations taking place over the coming few years.
2.12	What does "highly cleaned" mean regarding recycling water into the Havant Thicket reservoir? What chemicals will have been added? I am concerned for wildlife, not the quality of water eventually reaching customers. Thank you.
	Water recycling is a well-established and widely used water treatment process that speeds up the natural water cycle to provide a new sustainable source of water.
	At the moment, wastewater from homes and businesses is sent to a Wastewater Treatment Works. In the Portsmouth Water area, these are owned and operated by Southern Water. A great deal of work, time and energy goes into treating this wastewater to a very high standard so that it can be released back into the natural environment. At Budds Farm (Southern Water's Wastewater Treatment Works south of Havant) this process involves several stages of screening, settlement and biological treatment before the water is clean enough leave the treatment works.
	Please note, this process is <i>completely separate</i> from the storm water releases from combined sewer overflows (CSO's) which only occur when the treatment plant is running at full capacity and cannot process the levels of wastewater coming through the system during a storm. In these situations, once the storm water storage tanks at the treatment works are full, diluted, untreated wastewater must be released into the sea and waterways to prevent it from flooding residences. This storm water could never end up in Havant Thicket Reservoir or the drinking water network because the recycling plant takes its water source from the end of the complete treatment process.
	Southern Water is proposing to take highly treated wastewater and use tried and tested water recycling technology to clean and purify it even further. This intensive cleaning process would take place at a new Water Recycling Plant. The water would initially go through a micro-filtration process to take out any remaining impurities following the wastewater treatment process. The second stage is called reverse osmosis where dissolved salts would be removed by pushing the water at high pressure through a membrane of tiny holes more than 50,000 times smaller than the width of a human hair. This would be followed by ultraviolet light (UV) treatment which adds an extra layer of protection – UV technology is already widely used in the UK to disinfect the water and is part of the process used to treat water to drinking standards at Portsmouth Water's Water Treatment Works. The water recycling process strips and cleans water to such an extent that minerals such as magnesium and calcium then need to be readded. It is this highly purified, recycled water that Southern Water proposes to send to Havant Thicket Reservoir.
	Although further analysis and assessments are required, initial studies suggest that the highly treated recycled water entering the reservoir would be cleaner than the spring water source.
	Customers should rest assured that whatever happens, Portsmouth Water will be in sole control of the water that enters and leaves the reservoir. We already monitor and analyse water at our existing sites and the same would be the case for Havant Thicket Reservoir. Any issues with water quality would be quickly identified and the system would shut down to ensure no unsafe water reached the reservoir or customer's taps.
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2.13	What can water companies do to enforce developers to include water efficiency in all new builds? They must be held to account for the large new housing estates.
	We cannot object to a new development or property on the grounds of water stress, but we are able to influence Local Authority local plans and planning guidance.
	Partly through helping Local Authorities understand the water resource situation locally. All the local authority areas in our supply region require new houses to be built to a water efficiency standard of 110 litres per head per day.
2.14	Where do these figures for future shortage of water come from? We have an enormous amount of rain during winter. Should this not be used more efficiently through appropriate water storage? The energy requirement for osmosis treatment etc are enormous, how does this fit into the scheme?
	For the last 160+ years we have relied on the largest reservoir available to us, which is the chalk geology under us. Chalk has holes in it and is excellent at storing rain that falls in winter and we have relied on taking that water out of the chalk in the summer.
	However, us taking that water can impact on local ecosystems and so we are looking at alternative, sustainable sources of water for the future.
	We are building a reservoir at Havant Thicket, to capture water from springs in Havant, but currently do not have plans for other reservoirs. Having said that, we clearly need to examine all possibilities and so we will be reviewing the feasibility for more reservoirs in the future during our preparation work for our next Water Resource Plan.
2.15	Hidden Costs: What modelling has PW done on Nitrate rises within groundwater/drinking water in terms of increased treatment costs in the future?
	We have several models we use to predict the levels of nitrates in our groundwater to ensure our treatment plants are suitable to guarantee safe levels of Nitrate in customers tap water.
	We also work directly with Farmers and Landowners who operate 'upstream' of our abstraction points to help them understand the vulnerability of our groundwater and to prevent its pollution. We provide grants and financial incentives to minimise the risk of pollution from their activities. Our view of the Nitrate trends we are tracking today is that the background levels of Nitrate are slowly beginning to fall from their post-war peaks and that our pollution reduction activities and our current treatment methods will be adequate in the future. However, we track Nitrate levels very closely and review this decision on a regular basis.
2.16	We use drinking quality water to flush our toilets and wash our dishes. Many new dwellings will be built over the next 20 years - what can be done to ensure their design is radically different in this respect, so that 'grey water' can be much more used? And what about retrofitting of existing houses?
	As an Industry we are in conversation with the Government on interventions they can make to support the provision of drinking water in the future.
	They have laid out their plans in Defra's "Our Integrated Plan for delivering clean and plentiful water" (<u>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/11_48704/Plan_for_Waterour_integrated_plan_for_delivering_clean_and_plentiful_waterPDF_versionpdf</u>) which outlines their 10 point roadmap to Water efficiency.
	In the roadmap Defra do commit to considering rainwater harvesting as part of a review to Building Regulations and when developing National Standards for sustainable drainage systems.
2.17	To what degree does your plan rely on reducing per capita consumption (PCC) of existing dwellings and maintaining designed consumption rates of new housing - what contingencies are envisaged if the new PCC targets are not met?

	Our plan relies a great deal on managing to decrease the current level of demand for water to deliver the environmental benefits required of us, especially in the first 10 years of the plan.
	We will track the effectiveness of our plans and in partnership with customers, if we are not delivering the outcomes, we need to achieve we will look at alternative ways of influencing demand.
	Ultimately, if demand cannot be brought down, future plans would then need to consider alternative supplies of raw water, such as water recycling or desalination to make up any shortfalls, which could be a costly solution.
2.18	Presently, water from Bedhampton springs, contaminated with Nitrites, flows into the harbour. Putting this into the new reservoir would reduce the nitrites in the harbour. If SW used the reservoir to store processed water wont the nitrite problem in the harbour continue?
	If the Hampshire Water Transfer and Water Recycling Scheme were to go ahead, spring water would continue to be captured in the reservoir in line with the original approved plans for the scheme.
	Southern Water is currently carrying out detailed studies and investigations as it explores the Hampshire Water Transfer and Water Recycling project further, including the impact on nitrate levels in Langstone Harbour. We are keeping an open mind as we await the outcome of these.
2.19	What steps are Portsmouth Water planning to make their water supply infrastructure more resilient? I.e., in the event of a national power outage.
	Generally, our network is resilient to short term shocks such as power outages. All our treatment sites have back up power options and are configured to ensure there are minimal 'single points of failure' in their operation.
	In addition, the network has built in storage of treated water that could last up to 48 hours in the event of the loss of a production site. This can be seen in our national reporting of interruptions to supply we make to our Regulator and can be found here: <u>https://www.discoverwater.co.uk/loss-of-supply</u>
	We are not complacent and review our resilience to current and emerging threats on a regular basis.
2.20	Will Smart water meters allow you to increase charges during water shortages?
	Smart metering will allow us more insight into water use and will allow us to develop new, innovative tariffs to encourage customers to use less water. The water industry operates a revenue cap. Our regulator, Ofwat, assesses every 5 years how much revenue we need to collect to serve customers. We are not able to charge more than this revenue cap.
	Our scheme of charges and customer tariffs are agreed and published in advance of each billing year. This process means we would not be able to reactively introduce a new tariff, or change the rate of a tariff, as a result of drought.
2.21	What is Portsmouth Water's view of the energy requirements for recycling? The process looks energy intensive to me. What research has been done to compare the options with regard to sustainability?
	Once the reservoir is built and the surplus water from Bedhampton springs is put to good use, the only additional sustainable sources of water available in the South-East are seawater, and treated wastewater. Southern Water was initially planning to build a desalination plant on the Solent, which would treat seawater to drinking water standards.
	In 2020 and 2021 Southern Water carried out an extensive options appraisal process to confirm whether the desalination proposal was the right solution to develop further in the context of the other options available.
	For the desalination proposal, it confirmed that the proposal would likely have adverse impacts on the marine environment and on the New Forest National Park, both from its construction and operation. Out of all the options considered, desalination at Fawley emerged from the options appraisal process as the least preferable option. The likely impacts of the plant and its associated pipelines meant that

	the proposal was not considered to be deliverable in this location, particularly considering the better alternatives that were available.
	At the same time, Southern Water's options appraisal process confirmed a combined option involving both water transfer and water recycling solutions - the Hampshire Water Transfer and Water Recycling Project - as the most preferable option. This option performed well across the range of criteria considered and would have a lower carbon impact than desalination.
	Southern Water is currently carrying out detailed studies and investigations as it explores the impact of this option further and we are keeping an open mind as we await the outcome of these.
2.22	Why don't Portsmouth Water just have the reservoir without any involvement with Southern Water. Southern Water have lost public trust over pollution, I fear Portsmouth water's reputation will be tarnished by this venture.
	Water resources planning is no longer a local water company issue and the whole industry will increasingly trade larger and larger volumes of water across boundaries between water companies. Existing rivers and canals will be utilised as part of the solution to move water from where it is available to where it is not. The South-East, as a water stressed area, is a critical location for several major schemes which include the construction of new reservoirs, major pipelines, desalination plants and water recycling plants. More recently the national ambition to restore our natural environment means that licensed abstractions from rivers and boreholes will also reduce, in turn reducing the supply capacity of most water companies.
	Southern Water currently supplies most of its customers in Hampshire with water sourced from the River Test and the River Itchen. As a result of the sensitivity of these chalk rivers, Southern Water has agreed with the Environment Agency to reduce its abstraction during periods of drought and find new, sustainable ways of providing its customers with drinking water. The Havant Thicket Reservoir, demand and leak reduction will go some way towards reducing abstraction from these rivers, but additional sources of water are needed if Southern Water is to meet its targets to protect these chalk stream habitats.
	Once the reservoir is built and the surplus water from Bedhampton springs is put to good use, the only additional sustainable sources of water available in the South-East are seawater, and treated wastewater.
	Southern Water put forward water recycling as their preferred option in late 2021. Under this scheme, more water would be available in Havant Thicket Reservoir and Southern Water would be able to transfer water directly to its Water Supply Works in Otterbourne (near Southampton Airport). This would provide a new source of water, enabling Southern Water to meet its targets for minimising abstraction from the River Test and River Itchen during times of drought.
	As a company, Portsmouth Water is committed to doing the right thing. This includes supporting our neighbouring water companies and working together to ensure all customers have a sustainable, reliable supply of water.
2.23	Portsmouth water have a good record on mains replacement 1 every 100 years, Southern water's replacement is 1 every 1000 years (their figures) is abysmal. Southern water's target for reducing leaks is very unambitious, What is the point in spending all this money on the reservoir and the high energy cost of effluent recycling if such a large amount of water is constantly lost?
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2.24	What alternative sources to the recycled effluent scheme are Portsmouth water investigating?
	Once the reservoir is built and the surplus water from Bedhampton springs is put to good use, the only additional sustainable sources of water available in the South-East are seawater, and treated wastewater.
	Southern Water was initially planning to build a desalination plant on the Solent, which would treat seawater to drinking water standards. However, following further investigations and public consultation, the scheme was found to be undeliverable mainly for environmental reasons. A new solution was needed, and Southern Water put forward water recycling as their preferred option in late 2021.
	Southern Water is currently carrying out detailed studies and investigations as it explores this option further. Portsmouth Water is keeping an open mind as it awaits the outcome of these and is encouraging its customers to do the same. Water is an expensive commodity to move around and historically water companies have tried to use water available locally as far as possible. But the water resources position in the UK is being challenged by climate change and the growth in population and the water companies must look further and further afield to satisfy their customers' needs, at the same time taking care of the natural environment.
	This is especially true in the water stressed Southeast, the driest part of the UK with 50% of the national rainfall levels.
2.25	Are government considering changing planning laws to insist all new houses store grey water for their own use, e.g. flushing the toilet, watering the garden?
	As an Industry we are in conversation with the Government on interventions they can make to support the provision of drinking water in the future.
	They have laid out their plans in Defra's "Our Integrated Plan for delivering clean and plentiful water" (<u>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/11</u> <u>48704/Plan_for_Water</u> <u>our integrated plan for delivering clean and plentiful water_PDF_versionpdf</u>) which outlines
	their 10 point roadmap to Water efficiency.
	In the roadmap Defra do commit to considering rainwater harvesting as part of a review to Building Regulations and when developing National Standards for sustainable drainage systems.
2.26	What is Portsmouth Water doing to push back on new housing developments. You are a consultee in planning applications but from the responses I have seen you have never challenged a development?
	We cannot object to a new development or property on the grounds of water stress, but we are able to influence Local Authority local plans and planning guidance.
	Partly through helping Local Authorities understand the water resource situation locally all the local authority areas in our supply region require new houses to be built to a water efficiency standard of 110 litres per head per day.
2.27	Why are Southern Water recycling via a reservoir and not through aquifer recharge which would benefit stream flow etc to a much greater degree?

	Adding the recycled water as a second feed into the reservoir will dramatically increase the volumes of
	water available at times of drought when Southern Water will be unable to use any water from the Test and the Itchen.
	This will enhance the protection of the habitats and fauna in these key rivers at times of highest environmental stress. Using Havant Thicket Reservoir, which is already in progress, will also reduce the impact of delivering a water recycling scheme.
2.28	When the reservoir is being filled with recycled effluent day in day out, this will reduce seasonal variation in levels of the of the reservoir needed for the biodiversity gains. How will PW protect the reservoir from this?
	The Hampshire Water Transfer and Water Recycling project is separate from the current approved plans for the reservoir, which involve using water from the Bedhampton springs as the source, and it is subject to further public consultation and planning approval.
	Portsmouth Water will not give its support to the water recycling scheme if in doubt over the safety of this water, or the impact it might have on the environment and leisure facilities at Havant Thicket Reservoir.
	Southern Water is currently carrying out detailed studies and investigations as it explores this option further and we are keeping an open mind as we await the outcome of these.
2.29	Would it be possible to have some sort of scheme to indicate current state of water supply - a traffic light system. So that consumers can understand when they should reduce consumption if they can. So that when PW are abstracting from chalk streams consumers know that is happening as a result of their consumption.
	Thank you for this suggestion. We do currently publish a monthly view on some key factors that affect our ability to provide water, a copy of which is below. We would welcome any feedback that might help to make the information in this clearer.
	WATER RESOURCE UPDATE: APRIL
	Rainfall 81.9mm NAPRIL ABOVE AVERAGE 1 Softmail and a state of year. Average for April 1849.9mm Mark Mark Mark Mark Mark Mark Mark Mark
	Groundwater Water Saving Tips FiLL YOUR WATER BUTT RATHER THAN THE HOSE Water Saving Tips Water Savin
2.30	"Combined sewer system" can become overwhelmed during heavy rainfall, leading to overflows of untreated sewage into rivers and other bodies of water, currently Langstone and Chichester Harbours. To address this issue, some cities have implemented sewer separation programs, which involve
	the installation of separate pipes for wastewater and stormwater. This allows the rainwater to be diverted to local waterways while the wastewater is treated at a wastewater treatment plant.

	While sewer separation can be costly, it can also have significant benefits for public health and the environment by reducing the risk of sewer overflows and improving the quality of water in local waterways. Could rainwater not be taken to the new reservoir, rather than recycle wastewater? Perhaps a joint project with Southern Water?
	Thank you for your suggestion. As a drinking water supply company, Portsmouth Water is not involved with Combined Sewer Overflows (CSO's). We would suggest you contact Southern Water directly for more information about plans to address CSOs. It is also important to note that initial studies suggest that recycled water would be cleaner than the spring water entering the reservoir.
2.31	Moving abstractions closer to the tidal limit is a solution. Has PW considered this?
	Thank you for the suggestion. We are considering this option as part of our next round of Water Resource Planning. Whilst moving our abstractions towards the coast will leave more water available to the higher reaches of a catchment, it might also present a risk of saltwater intrusion into our supplies, so we will need to look at these options very closely.
2.32	Why not stick to the original planning application for the reservoir? We lost an ancient forest for the reservoir - why involve the sewage company and change schedule and lose public confidence in the original transparency?
	At the time of Portsmouth Water submitting the original planning application for Havant Thicket Reservoir, desalination was Southern Water's preferred option under its Water for Life – Hampshire programme. During the planning application process, Portsmouth Water and Southern Water had discussed alternative options as a back-up to desalination, including recycled water, but at this point they were simply options.
	Information was shared about water recycling during Portsmouth Water's original planning process for the Havant Thicket Reservoir. During the Planning Committees, members raised questions about the scheme, and it was highlighted that any changes to the current application would require separate planning approval, as is still the case.
	There is a written record of this in the minutes: <u>https://easthants.moderngov.co.uk/documents/g3817/Public minutes 09th-Jun-2021 18.00 Planning</u> <u>Committee.pdf?T=11</u> - (see pages 4, 10 and 32).
	and information about the scheme was also shared with Havant Borough Council's Planning Committee for consideration in this public document: <u>https://havant.moderngov.co.uk/documents/b36341/Update Sheet 03rd-Jun-2021 17.00 Planning</u> <u>Committee.pdf?T=9</u> - (see page 3).
	Much information was also publicised ahead of both Planning Committees through Southern Water's consultation on its desalination plans which ran until 16th April 2021: https://www.southernwater.co.uk/media/5244/5391_wflh_non- statutory_consultation_brochure_210x210mm_2.pdf
	Portsmouth Water was open and upfront about these proposals, answering questions with the information available at the time.
2.33	If Southern Water use Havant Thicket reservoir will this affect the promised environmental benefits? For example, we were promised a wetland area to benefit wildlife. We have already lost the possibility of a sailing club and angling. How do we know we won't end up with an industrial water storage facility with no recreational opportunities?
	Initial investigations suggest that recycled water would be cleaner than the spring water entering the reservoir and there is no reason for it to impact the planned facilities at Havant Thicket Reservoir. Portsmouth Water would only support these plans if we were satisfied that there would be no detrimental impact on the recreational plans that have been approved through existing planning permissions.
2.34	Are southern and Portsmouth truly separate entities?

	Southern Water and Portsmouth Water are separate entities with separate independent Boards and operate under separate licenses. Portsmouth Water is owned by investment funds managed Ancala Partner LLP. Southern Water majority shareholder and controlling party is Macquarie Asset Management. Full information on ownership is available in the Portsmouth Water accounts available on our website: https://www.portsmouthwater.co.uk/wp-content/uploads/2022/07/REPORT-ACCOUNTS-2022_FINAL_SIGNED.pdf
	Information on Southern Water can be found on their website.
2.35	How could residents apply for a smart water butt?
	We are offering subsidised water Butts through our water efficiency page on our website: <u>https://www.portsmouthwater.co.uk/environment/saving-water/</u>
	The Smart water butt initiative is being run by Southern water, beginning in Kent but with plans to roll it out further. More information is on their website here: https://www.southernwater.co.uk/our-performance/storm-overflows/clean-rivers-and-seas-task-force
2.36	There ARE alternatives to effluent recycling it is not the only option as Southern water would have us believe. Southern Water seem to have shelved any other plans and are totally focussed on this scheme.Even a previous CEO's of Southern Water thinks this plan is madness and is suggesting alternative, but Southern water refuse to look at them.Effluent recycling is incredibly high energy, and the system needs to be kept sweet all year round even when it's not needed. This is a crazy high energy scheme that is not environmentally friendly.
	Once the reservoir is built and the surplus water from Bedhampton springs is put to good use, the only additional sustainable sources of water available in the South-East are seawater, and treated wastewater.
	Southern Water was initially planning to build a desalination plant on the Solent, which would treat seawater to drinking water standards. However, following further investigations and public consultation, the scheme was found to be undeliverable mainly for environmental reasons.
	A new solution was needed, and Southern Water put forward water recycling as their preferred option in late 2021. Southern Water is currently carrying out detailed studies and investigations as it explores this option further, this includes considering the carbon impact of the scheme.
	Portsmouth Water is keeping an open mind as it awaits the outcome of these and is encouraging its customers to do the same. Water is an expensive commodity to move around and historically water companies have tried to use water available locally as far as possible. But the water resources position in the UK is being challenged by climate change and the growth in population and the water companies must look further and further afield to satisfy their customers' needs, at the same time taking care of the natural environment. This is especially true in the water stressed Southeast, the driest part of the UK with 50% of the national rainfall levels.
2.37	What plans has PW to deal with flooding due to excessive rain like they had this week in Somerset?
	We are offering subsidised water Butts through our water efficiency page on our website: <u>https://www.portsmouthwater.co.uk/environment/saving-water/</u>
	The Smart water butt initiative is being run by Southern water, beginning in Kent but with plans to roll it out further. More information is on their website here: https://www.southernwater.co.uk/our-performance/storm-overflows/clean-rivers-and-seas-task-force
2.38	If the water recycling scheme to Havant Thicket Reservoir is authorised, what investment will go into the chemical & microbiological monitoring of the reservoir? Will there be real time monitoring?

	Customers should rest assured that whatever happens, Portsmouth Water will be in sole control of the water that enters and leaves the reservoir. We already monitor and analyse water at our existing sites and the same would be the case for Havant Thicket Reservoir. Any issues with water quality would be quickly identified and the system would shut down to ensure no unsafe water reached the reservoir or customer's taps.
	Portsmouth Water has committed initial support for the Southern Water option; however we will not continue to give its support to the scheme if we have any doubt over the safety of this water, or the impact it might have on the environment and leisure facilities at Havant Thicket Reservoir.
	We will also consider the views of its customers and local stakeholders in the review of our support of the option and with representations for planning permission. We will also commission a third-party independent review of the option as part of our due diligence.
2.39	What will happen if the water is not good enough? I thought that the proposed processing plant could not be switched off. Wont we end up with SW putting more effluent into the harbour?
	Customers should rest assured that whatever happens, Portsmouth Water will be in sole control of the water that enters and leaves the reservoir. We already monitor and analyse water at our existing sites and the same would be the case for Havant Thicket Reservoir. Any issues with water quality would be quickly identified and the system would shut down to ensure no unsafe water reached the reservoir or customer's taps.
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2.40	Does the public have the access to results of water testing performed by Portsmouth Water and will have in the future of the water going to reservoir and out?
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	At Budds Farm (Southern Water's Wastewater Treatment Works south of Havant) this process involves several stages of screening, settlement and biological treatment before the water is clean enough leave the treatment works.
	Please note, this process is completely separate from the storm water releases from combined sewer overflows (CSO's) which only occur when the treatment plant is running at full capacity and cannot process the levels of wastewater coming through the system during a storm. In these situations, once the storm water storage tanks at the treatment works are full, diluted, untreated wastewater must be released into the sea and waterways to prevent it from flooding residences. This storm water could never end up in Havant Thicket Reservoir or the drinking water network because the recycling plant takes its water source from the end of the complete treatment process.
	Southern Water is proposing to take highly treated wastewater and use tried and tested water recycling technology to clean and purify it even further. This intensive cleaning process would take place at a new Water Recycling Plant. The water would initially go through a micro-filtration process to take out any remaining impurities following the wastewater treatment process. The second stage is called reverse osmosis where dissolved salts would be removed by pushing the water at high pressure through a membrane of tiny holes more than 50,000 times smaller than the width of a human hair. This would be followed by ultraviolet light (UV) treatment which adds an extra layer of protection – UV technology is already widely used in the UK to disinfect the water and is part of the process used to treat water to drinking standards at Portsmouth Water's Water Treatment Works. The water recycling process strips and cleans water to such an extent that minerals such as magnesium and calcium then need to be readded. It is this highly purified, recycled water that Southern Water proposes to send to Havant Thicket Reservoir.
	Although further analysis and assessments are required, initial studies suggest that the highly treated recycled water entering the reservoir would be cleaner than the spring water source. Customers should rest assured that whatever happens, Portsmouth Water will be in sole control of the water that enters and leaves the reservoir. We already monitor and analyse water at our existing sites and the same would be the case for Havant Thicket Reservoir. Any issues with water quality would be quickly identified and the system would shut down to ensure no unsafe water reached the reservoir or customer's taps.
2.42	How much of the profit leaves the U.K. to the Hong Kong Holdings company?
	No dividends are paid to the Hong Kong holding company and all activities are subject to taxation within the United Kingdom.
2.43	Are there any plans for Portsmouth water to supply soft water to homes. This is for sustainability purposes. Has there been any investigation has this will reduce carbon emissions?
	Hard water is a natural outcome of our geology across our supply Region and there are conflicting opinions and reports on the pros and cons of undertaking water softening at source - both due to the cost of treatment and health benefits minerals found in hard water could give.
	We currently have no plans to soften our water at our treatment sites before supplying customers.

OTHER QUESTIONS RAISED TO CCW THAT WERE NOT ASKED IN THE YWYS SESSION

The YWYS session led to extensive discussions, which regrettably meant that not all questions were answered in the session itself.

Below are responses to questions sent to CCW that were not raised in the session.

Q No	Question and Answer
3.1	I am in turn delighted to be a customer of Portsmouth Water and ashamed and appalled at the behaviour of Southern Water who often pollute the water of Chichester Harbour with sewage. It's shocking. I understand Southern Water are intending to add their treated water' to the new reservoir. Please don't allow this travesty.
	Thank you for your comments.
	The Hampshire Water Transfer and Water Recycling project is separate from the current approved plans for the reservoir, which involve using water from the Bedhampton springs as the source, and it is subject to further public consultation and planning approval.
	We assure you that Portsmouth Water will not give its support to the water recycling scheme if in doubt over the safety of this water, or the impact it might have on the environment and leisure facilities at Havant Thicket Reservoir. Southern Water is currently carrying out detailed studies and investigations as it explores this option further and we are keeping an open mind as we await the outcome of these.
	We would like to give you some context around the reasons why this option is being considered. Water resources planning is no longer a local water company issue and the whole industry will increasingly trade larger and larger volumes of water across boundaries between water companies. Existing rivers and canals will be utilised as part of the solution to move water from where it is available to where it is not. The South-East, as a water stressed area, is a critical location for several major schemes which include the construction of new reservoirs, major pipelines, desalination plants and water recycling plants. More recently the national ambition to restore our natural environment means that licensed abstractions from rivers and boreholes will also reduce, in turn reducing the supply capacity of most water companies.
	Southern Water currently supplies most of its customers in Hampshire with water sourced from the River Test and the River Itchen. As a result of the sensitivity of these chalk rivers, Southern Water has agreed with the Environment Agency to reduce its abstraction during periods of drought and find new, sustainable ways of providing its customers with drinking water. The Havant Thicket Reservoir, demand and leak reduction will go some way towards reducing abstraction from these rivers, but additional sources of water are needed if Southern Water is to meet its targets to protect these chalk stream habitats.
	Once the reservoir is built and the surplus water from Bedhampton springs is put to good use, the only additional sustainable sources of water available in the South-East are seawater, and treated wastewater.
	Water recycling is a well-established and widely used water treatment process that speeds up the natural water cycle to provide a new sustainable source of water. Recycled water would be added to Havant Thicket Reservoir where it would mix with spring water, before being abstracted, treated to drinking water standards and delivered to customers' taps.
	Southern Water put forward water recycling as their preferred option in late 2021. Under this scheme, more water would be available in Havant Thicket Reservoir and Southern Water would be able to transfer water directly to its Water Supply Works in Otterbourne (near Southampton Airport). This would provide a new source of water, enabling Southern Water to meet its targets for minimising abstraction from the River Test and River Itchen during times of drought.
	We assure you that recycled water could only be used as a source for drinking water if it meets the very strict legal standards set out by the Drinking Water Inspectorate, an independent regulator whose role is to make sure water companies meet very high-quality standards set out in UK legislation under guidance from the World Health Organisation; this includes the key areas of bacteriological and viral quality.

	As a company, Portsmouth Water is committed to doing the right thing. This includes supporting our neighbouring water companies and working together to ensure all customers have a sustainable, reliable supply of water.
	Our customers should rest assured that whatever happens, Portsmouth Water will be in sole control of the water that enters and leaves the reservoir. We already monitor and analyse water at our existing sites and the same would be the case for Havant Thicket Reservoir. Any issues with water quality would be quickly identified, communicated to customers and the system would shut down to ensure no unsafe water reached the reservoir or customer's taps.
3.2	Just want to know why nothing can be done about the local water pressure ours is terrible and everyone down our road says how bad it is but with new houses being built everywhere it will only get worse so what are the planning on doing about the low water pressure.
	We continuously monitor the water pressures across our distribution network to ensure an acceptable level of service is maintained. We do where possible, actively manage or control pressures to ensure they are not excessively high; however, we do seek to maintain a level of service which is adequate for our customers. Whilst the network pressure in the postcode PO21 area is 1.5 times higher than our minimum level of service, local factors such a height of building, age/condition of customer's water supply pipe or shared water service pipes, can affect the flow of water. We are happy to visit our customers to measure the level of service they are receiving and recommend any improvements. For new development sites, during the planning/design phase we do undertake an assessment that the increased water demand may have on existing resources and level of service for existing customers. Where necessary, system upsizing or reinforcement will be undertaken to ensure acceptable levels of service are maintained.
	Note for CCW Water: Please supply the contact details so that we can contact the customer to discuss visit arrangements for investigation.
3.3	 Why hasn't everybody got a water meter? Do water companies make more money out of the old rateable value water charge than they would if everybody had meters?
	1)In order to compulsory meter every property in our area of supply, we need to be classed as an area of water stress. We did not get this status until 2021 although it doesn't come into effect until 2025. The assessment was made independently by the Environment Agency and their determination can be found here: Water stressed areas – 2021 classification – GOV.UK (www.gov.uk). This change in classification has enabled us to start planning for a compulsory Smart Metering Programme to start in 2025.
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	 1)In order to compulsory meter every property in our area of supply, we need to be classed as an area of water stress. We did not get this status until 2021 although it doesn't come into effect until 2025. The assessment was made independently by the Environment Agency and their determination can be found here: Water stressed areas – 2021 classification – GOV.UK (www.gov.uk). This change in classification has enabled us to start planning for a compulsory Smart Metering Programme to start in 2025. Despite us not being able to compulsory meter all properties, we have still been working hard to increase the number of meters we are installing. This includes increased promotion to customers who are likely to reduce their water bills by switching to a measured charge, installing meters upon a change of occupancy at a property, and competing metering trials. 2) We do not make more money by customers being billed on the old rateable value of a property. What we are able to charge customers is very tightly controlled by our regulators, Ofwat and we are only able to charge customers the cost of serving customers. The old rateable value system is now considered to be an unfair way of charging given the assessments are old and no longer reflects the level of occupancy of a property and therefore the water use. Furthermore, this method of charging provides no insight of actual water use to customers or us, meaning we are unable to target our water efficiency messages

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		For the last 160+ years we have relied on the largest reservoir available to us, which is the chalk geology under us. Chalk has holes in it and is excellent at storing rain that falls in winter and we have relied on taking that water out of the chalk in the summer.
		However, us taking that water can impact on local ecosystems and so we are looking at alternative, sustainable sources of water for the future.
		We are building a reservoir at Havant Thicket, to capture water from springs in Havant, but currently do not have plans for other reservoirs. Having said that, we clearly need to examine all possibilities and so we will be reviewing the feasibility for more reservoirs in the future during our preparation work for our next Water Resource Plan.
;	3.5	What is being done to ensure that all leaks are contained and repaired regularly and with due care?
		We have roughly 3,300Km of distribution mains to deliver water to our customers. Those pipes run underground in a dynamic environment that is affected by dry weather, cold weather, vibrations from vehicles, age and accidental damage by third parties, which can all cause a new leak to break out. So we have a team dedicated to monitoring our network and looking for those leaks. To help them do that we constantly monitor flows in and out of the network, looking for unexplained consumption, we have a fixed network of noise sensors that are listening to the network (leaks make a distinctive noise) as well as hundreds of mobile noise sensors that we move around the network to areas we are concerned about. To mend the leaks we find, we have at least 6 repair gangs working on our network every day.
		To give you an indication of the scale of our 'find and fix' work:
		• In 2017/18 we repaired 2953 leaks (leaking an estimated 79.72 Ml/d). Our end of year leakage figure was 33.09 Ml/d.
		• In 2018/19 we repaired 4047 leaks (leaking an estimated 117.12 Ml/d – the reason this number is higher than 33.09 Ml/d, the end of year leakage figure from the previous year, is because more leaks appear over the course of the year, in this case 2018/19). Our end of year leakage figure was 27.37 Ml/d.
		• In 2019/20 repaired 3964 leaks (leaking an estimated 105.42 Ml/d). Our end of year leakage figure was 23.25 Ml/d.
		• In 2020/21 we repaired 2423 leaks (leaking an estimated 77.67 Ml/d). Our end of year leakage figure was 22.74 Ml/d.
		• In 2021/22 we repaired 2839 leaks (leaking an estimated 77.37 Ml/d). Our end of year leakage figure was 25.77 Ml/d.
	3.6	Is there a program of planned maintenance for the pipes? and does the program always run to time/budget? If not - how much slippage and additional costs are suffered?
		Portsmouth Water renews an average of 0.5% of the total network every year. Replacing old mains has a direct benefit to our customers and modelling has demonstrated that our targeted approach has a direct impact on reducing bursts, loss of supply and water quality incidents. Portsmouth Water consistently delivers against the allocated annual Capital spend and programme.
	3.7	I am unable to attend this meeting either in person or online but wish to raise my concerns about the changes to the original proposals for the reservoir at Havant Thicket. I was very concerned at the very beginning and followed the project with interest. I was particularly sad that so many beautiful and ancient trees would be felled in order for this project to go ahead, but the am unable to attend this meeting either in person or online but wish to raise my concerns about the changes to the original proposals for the reservoir at Havant Thicket. I was very concerned at the very beginning and followed the project with interest. I was particularly sad that so many beautiful and ancient trees would be felled in order for this project to go ahead, but the plans promised a reservoir that would be felled in order for this project to go ahead, but the plans promised a reservoir that would be filled with natural spring water from local springs, it would enhance biodiversity and our wildlife, it would be a place for us to visit and enjoy. This allayed my fears somewhat, as I thought that we'd be getting something to replace what we were losing, not exactly the same and nowhere near as beautiful as the avenue of trees we lost, but something, nonetheless. I and many others are seeking firm assurances that this add on will not go ahead, if I had known then what I know now I, and I'm sure many others locally, would have protested much more vehemently.

	The Hampshire Water Transfer and Water Recycling project is separate from the current approved plans for the reservoir, which involve using water from the Bedhampton springs as the source, and it is subject to further public consultation and planning approval. Initial investigations suggest that recycled water would be cleaner than the spring water entering the
	reservoir and there is no reason for it to impact the planned facilities at Havant Thicket Reservoir.
	At the time of Portsmouth Water submitting the original planning application for Havant Thicket Reservoir, desalination was Southern Water's preferred option under its Water for Life – Hampshire programme.
	During the planning application process, Portsmouth Water and Southern Water had discussed
	alternative options as a back-up to desalination, including recycled water, but at this point they were simply options.
	Information was shared about water recycling during Portsmouth Water's original planning process for
	the Havant Thicket Reservoir. During the Planning Committees, members raised questions about the scheme, and it was highlighted that any changes to the current application would require separate
	planning approval, as is still the case.
	There is a written record of this in the minutes: https://easthants.moderngov.co.uk/documents/g3817/Public minutes 09th-Jun-2021 18.00 Planning
	Committee.pdf?T=11 - (see pages 4, 10 and 32).
	and information about the scheme was also shared with Havant Borough Council's Planning Committee
	for consideration in this public document:
	https://havant.moderngov.co.uk/documents/b36341/Update Sheet 03rd-Jun-2021 17.00 Planning Committee.pdf?T=9 - (see page 3).
	<u>Committee.pdr {1=9</u> - (see page 3).
	Much information was also publicised ahead of both Planning Committees through Southern Water's
	consultation on its desalination plans which ran until 16th April 2021: https://www.southernwater.co.uk/media/5244/5391_wflh_non-
	statutory_consultation_brochure_210x210mm_2.pdf
	Portsmouth Water was open and upfront about these proposals, answering questions with the information available at the time.
	Portsmouth Water will not give its support to the water recycling scheme if in doubt over the safety of this water, or the impact it might have on the environment and leisure facilities at Havant Thicket
	Reservoir. Southern Water is currently carrying out detailed studies and investigations as it explores this option further and we are keeping an open mind as we await the outcome of these.
	With regards to your comments about ancient woodland, we assure you that despite looking at many
	other options, there was no feasible solution but to remove some of the trees on site. We regret the need to remove woodland and are going above and beyond the requirements of our planning application to
	ensure we deliver a significant environmental net gain for the area. Our plans involve both onsite and
	offsite commitments that include planting and improving more than 200 hectares of woodland and wood
	pasture and creating a new wetland on the northern shore of the reservoir to support local bird species.
	You can find out more about our plans on our website:
	https://havant-thicket-reservoir.uk.engagementhq.com/about-havant-thicket-reservoir
3.8	With all the new houses planned in Tangmere (near Chichester) will there be enough water for
	homes and gardens all year round? Will water savings be needed and what measures are available to reduce consumption. Is practical or financial support available. Is there enough
	recognition of the challenges in the local plan?
	In our Water Resource Plan, we have to make sure we have sufficient water to supply the houses that
	are accounted for in local authority housing plans. So we are aware of the houses in Tangmere and if
	deliver the actions required in our Water Resource Management Plan we will have sufficient water. One of the actions in our plan is to help customers to use less water. Our plans are laid out our draft
	Water Resource Management Plan which can be found here:
	https://www.portsmouthwater.co.uk/wp-content/uploads/2022/11/PW-WRMP-Summary- Document_FINAL-3.pdf
	Document_FINAL-S.pdf
	The support we offer customers is both practical - we offer water efficiency advice and access to free
	water efficiency gadgets from our website here: https://www.portsmouthwater.co.uk/environment/saving-water/

	And we also offer financial support to customers through a number of supportive charging arrangements,
	the details of which are here: https://www.portsmouthwater.co.uk/customer-services/help-with-my-bills/
3.9	HTR was promoted by PW as creating a wholly natural, spring-fed, fresh water environment. There is fierce local opposition to Southern Water's (SW's) current proposal to pump in partially treated effluent from Budd's Farm, and a major concern that this may yet receive Planning consent. Did PW know of SW's intention when they undertook community engagement activity prior to making their planning submission?2. On the assumption that such a proposal has a long gestation period, and must therefore have been in SW's contemplation during the original planning process, who is to be held responsible for misleading the otherwise largely supportive communities of Havant and Rowlands Castle regarding the proposed change from a purely natural water environment, to one of sewage processing?
	At the time of Portsmouth Water submitting the original planning application for Havant Thicket Reservoir, desalination was Southern Water's preferred option under its Water for Life – Hampshire programme. During the planning application process, Portsmouth Water and Southern Water had discussed alternative options as a back-up to desalination, including recycled water, but at this point they were simply options.
	Information was shared about water recycling during Portsmouth Water's original planning process for the Havant Thicket Reservoir. During the Planning Committees, members raised questions about the scheme and it was highlighted that any changes to the current application would require separate planning approval, as is still the case.
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	Much information was also publicised ahead of both Planning Committees through Southern Water's consultation on its desalination plans which ran until 16th April 2021: <u>https://www.southernwater.co.uk/media/5244/5391_wflh_non-statutory_consultation_brochure_210x210mm_2.pdf</u>
	Portsmouth Water was open and upfront about these proposals, answering questions with the information available at the time.
3.10	Can you ask what the future plans are for providing water supplies in the Portsmouth area and how much investment they will be making.
	We lay out our plans for the future in the draft Water Resource Management Plan found here on our website: <u>https://www.portsmouthwater.co.uk/wp-content/uploads/2022/11/PW-WRMP-Summary-Document_FINAL-3.pdf</u>
3.11	Will recycling sewage remove PFAs (forever chemicals) and all other chemicals, including chemicals that are not controlled.
	Water recycling is a well-established and widely used water treatment process that speeds up the natural water cycle to provide a new sustainable source of water.
	Presently, wastewater from homes and businesses is sent to a Wastewater Treatment Works. In the Portsmouth Water area, these are owned and operated by Southern Water. A great deal of work, time and energy goes into treating this wastewater to a very high standard so that it can be released back into the natural environment. At Budds Farm (Southern Water's Wastewater Treatment Works south of Havant) this process involves several stages of screening, settlement and biological treatment before the water is clean enough leave the treatment works.

	Please note, this process is completely separate from the storm water releases from combined sewer overflows (CSO's) which only occur when the treatment plant is running at full capacity and cannot process the levels of wastewater coming through the system during a storm. In these situations, once the storm water storage tanks at the treatment works are full, diluted, untreated wastewater must be released into the sea and waterways to prevent it from flooding residences. This storm water could never end up in Havant Thicket Reservoir or the drinking water network because the recycling plant takes its water source from the end of the complete treatment process.
	Southern Water is proposing to take highly treated wastewater and use tried and tested water recycling technology to clean and purify it even further. This intensive cleaning process would take place at a new Water Recycling Plant. The water would initially go through a micro-filtration process to take out any remaining impurities following the wastewater treatment process. The second stage is called reverse osmosis where dissolved salts would be removed by pushing the water at high pressure through a membrane of tiny holes more than 50,000 times smaller than the width of a human hair. This would be followed by ultraviolet light (UV) treatment which adds an extra layer of protection – UV technology is already widely used in the UK to disinfect the water and is part of the process used to treat water to drinking standards at Portsmouth Water's Water Treatment Works. The water recycling process strips and cleans water to such an extent that minerals such as magnesium and calcium then need to be readded. It is this highly purified, recycled water that Southern Water proposes to send to Havant Thicket Reservoir.
	Although further analysis and assessments are required, initial studies suggest that the highly treated recycled water entering the reservoir would be cleaner than the spring water source.
	Customers should rest assured that whatever happens, Portsmouth Water will be in sole control of the water that enters and leaves the reservoir. We already monitor and analyse water at our existing sites and the same would be the case for Havant Thicket Reservoir. Any issues with water quality would be quickly identified and the system would shut down to ensure no unsafe water reached the reservoir or customer's taps.
3.12	Will recycling sewage not cost more than just treating already naturally filtered water, such as that from the chalk streams in the Southdowns.
	The unit cost of producing water from recycling will undoubtedly be more than that we currently spend producing water from our current boreholes, but cost is not the only consideration we need to consider when making decisions on the future of water resources for our Region.
	Taking water from the chalk can, in some cases, have a negative impact on local environments, including flows in rivers and streams. With the changes already happening because of climate change, and forecasted to continue, local environments are likely to come under even more pressure.
	Therefore, we need to make sure where we take our water from does not add to the problem, and where possible alleviates the problem. Therefore, we are looking for new sustainable alternative sources of water - including recycled water.
3.13	Is the water in the chalk streams of the Southdowns, but polluted by discharges of sewage and agriculture?
	Thank you for your question.
	We would suggest you contact the Environment Agency for more information about this.
3.14	We live next to the sea relatively high up in the northern hemisphere, it is not going to stop raining for a year. Why not create more reservoirs rather than recycling sewage?
	For the last 160+ years we have relied on the largest reservoir available to us, which is the chalk geology under us. Chalk has holes in it and is excellent at storing rain that falls in winter and we have relied on taking that water out of the chalk in the summer. However, us taking that water can impact on local ecosystems and so we are looking at alternative, sustainable sources of water for the future.
	We are building a reservoir at Havant Thicket, to capture water from springs in Havant, but currently do not have plans for other reservoirs. Having said that, we clearly need to examine all possibilities and so

	we will be reviewing the feasibility for more reservoirs in the future during our preparation work for our next Water Resource Plan.
3.15	As identified by The World Health Organisation, drinking water created by reverse osmosis means the treated water lacks minerals and will literally suck minerals out of our body and makes us deficient in these minerals. How will this issue be dealt with?
	The water recycling process strips and cleans water to such an extent that minerals such as magnesium and calcium then need to be readded before it can be used as a drinking water source. This process of adding minerals to the water would occur before it was sent to Havant Thicket Reservoir.
	We assure you that recycled water could only be used as a source for drinking water if it meets the very strict legal standards set out by the Drinking Water Inspectorate, an independent regulator whose role is to make sure water companies meet very high-quality standards set out in UK legislation under guidance from the World Health Organisation; this includes the key areas of bacteriological and viral quality.
3.16	To help me budget I would like the opportunity to be able to take my own water meter reading every month and pay the exact cost in full every month as I do with other bills.
	Could I have an explanation as to why we not able to do this at present and when this may change?
	In our current billing system, we are not able to enter a read outside the normal 6 monthly reading window. To help customers budget we do offer customers the ability to pay monthly by direct debit or giro slips. We calculate how much you need to pay to build a credit ready for your next bill. Please contact us on 023 9249 9666 if this is of interest to you.
	We are in the process of implementing a new billing system. As part of this we will be able to receive more regular meter readings from customers and send a bill for payment.
3.17	Portsmouth Water promised in their plan which was passed by Havant Borough Council that Havant Thicket reservoir will bring net environmental benefit to the harbour in reducing nitrates and also net biodiversity gain to mitigate the loss of ancient woodland. Southern water's plan to use Havant Thicket reservoir for recycled sewage effluent must reduce the amount of spring water pumped into the reservoir so the reduction in Nitrates into the harbour will be diminished. There will be less seasonal variation in the water levels in the reservoir which reduces the biodiversity gains. Why are Portsmouth water allowing Southern water to use Havant Thicket reservoir as an
	environmental buffer lake when this removes the biodiversity gains which allowed the plans for the Reservoir to be passed?
	If the Hampshire Water Transfer and Water Recycling Scheme were to go ahead, spring water would continue to be captured in the reservoir in line with the original approved plans for the scheme.
	Portsmouth Water will not give its support to the water recycling scheme if in doubt over the safety of this water, or the impact it might have on the environment and leisure facilities at Havant Thicket Reservoir. Southern Water is currently carrying out detailed studies and investigations as it explores this option further, including the impact on nitrate levels in Langstone Harbour. We are keeping an open mind as we await the outcome of these.
3.18	Before you allow recycled sewage water into the Havant Thicket Reservoir, will you ensure that Southern Water have genuinely exhausted all the greener and cheaper options that they are currently suppressing? These include aquifer recharge schemes and moving river abstraction points downstream to the estuary weirs, amongst others.
	Once the reservoir is built and the surplus water from Bedhampton springs is put to good use, the only additional sustainable sources of water available in the South-East are seawater, and treated wastewater. Southern Water was initially planning to build a desalination plant on the Solent, which would treat seawater to drinking water standards.
	In 2020 and 2021 Southern Water carried out an extensive options appraisal process to confirm whether the desalination proposal was the right solution to develop further in the context of the other options available.

	For the desalination proposal, it confirmed that the proposal would likely have adverse impacts on the marine environment and on the New Forest National Park, both from its construction and operation. Out of all of the options considered, desalination at Fawley emerged from the options appraisal process as the least preferable option. The likely impacts of the plant and its associated pipelines meant that the proposal was not considered to be deliverable in this location, particularly in light of the better alternatives that were available. At the same time, Southern Water's options appraisal process confirmed a combined option involving both water transfer and water recycling solutions - the Hampshire Water Transfer and Water Recycling
	Project - as the most preferable option. This option performed well across the range of criteria considered and would have a lower carbon impact than desalination.
	Southern Water is currently carrying out detailed studies and investigations as it explores the impact of this option further and we are keeping an open mind as we await the outcome of these.
3.19	Could you let me know if or how the business plan will cover the need to reduce abstraction in certain groundwater aquifer areas to ensure small yet important chalk rivers in Portsmouth Water's resource area, such as the River Ems, will maintain ecologically sustainable surface flows for the long term?
	If we are to reduce our abstraction of water from locations such as the Ems valley, we first need to make sure we have alternative supplies of water available so we are always able to supply the public with water. We intend to do this with a twin track approach of reducing demand from water and ensuring there are sustainable supplies in the future. Our first priority is to help our customers to each use a little less water. We will do this through the
	distribution of free water saving gadgets and connecting customers with the amount of water they use through universal smart metering. To ensure a sustainable supply of water in the future we are looking at either importing water from neighbouring regions (after new reservoirs have been built in those other Regions) or looking at the possibility of using recycled water more routinely - but only after all the demand reduction opportunities have been exhausted.
	Our full plans are laid out in our draft Water Resource Management Plan found here on our website: https://www.portsmouthwater.co.uk/wp-content/uploads/2022/11/PW-WRMP-Summary- Document_FINAL-3.pdf
3.20	I have been a Portsmouth Water customer for many many years and find their service very good, however I have one criticism which is the low water pressure here on Hayling Island. This seems counter intuitive in that at a previous address on the Drayton hill slopes the pressure was much higher, so being lower down here on Hayling should give greater pressure. This low pressure results in often being only able to run one cold tap at a time, or if the washing machine or dish washer are taking water, all the cold water taps only provide a trickle. Also, the only satisfactory way to make an electric shower work effectively would be with a power shower pump, although I suspect if I fitted one it would play havoc with the other cold-water connections. Does Portsmouth Water have any plans to boost the water pressure here on Hayling? Will the impact of all the additional users in the many new dwellings being built here on Hayling mean that the water pressure will drop even lower?
	We continuously monitor the water pressures across our distribution network to ensure an acceptable level of service is maintained. We do where possible, actively manage or control pressures to ensure they are not excessively high; however, we do seek to maintain a level of service which is adequate for our customers.
	Whilst the network pressure in the Hayling Island area is double our minimum level of service, seasonal demand, and local factors such as height of building, age/condition of customer's water supply pipe or shared water service pipes, can affect the flow of water and pressure. We are happy to visit our customers to measure the level of service they are receiving and recommend any improvements.
	For new development sites, during the planning/design phase we do undertake an assessment that the increased water demand may have on existing resources and level of service for existing customers. Where necessary, system upsizing or reinforcement will be undertaken to ensure acceptable levels of service are maintained.

	The water supply onto Hayling Island is controlled by a pressure management valve which automatically increases the water pressure as the demand rises at peak usage times in the morning and evening. This type of pressure control will therefore maintain the current level of service if the population of the Island increases.
3.21	Please can you clarify the unclear situation with the Gaters Mill water abstraction site and treatment works on the River Itchen, and its pipeline to Portsmouth Water, after Havant Thicket comes on-line in 2029. As I understand it , currently PWC owns this works, and whilst some 60ML/d of water can be treated there , typically only 20-30MI/d is actually transferred by pipeline to PWC.
	1. Does some of this water go to SW for Southampton area distribution, or is the pipeline only rated up to 30MI/d?
	Portsmouth Water owns the River Itchen Water Treatment Works. The current licence is 45 Mld in the winter and 39 Mld in the summer. The output from the works can be pumped to two places. Firstly, it can be pumped to Hoads Hill for onward distribution to PW assets and customers. Secondly, it can be pumped directly into the Southern Water network in the East of Southampton – the maximum output through this bulk supply is 20 Mld
	2. Does this pipeline and water go all the way to PWC's Bedhampton or Farlington WTW, or is it only used directly, more locally, in PWC's western area around Fareham/Swanwick distribution area?
	The PW flows are pumped to Hoads Hill and then onto other reservoirs e.g. Nelson to supply our central zone
	3. What is planned to happen to this works, its water and the pipeline after the HT reservoir comes on-line in 2029?
	The River Itchen WTW will continue to operate after HT reservoir is operational – however, the bulk supply transfer to Southern Water will be increased to operate at flows greater than 20 Mld.
3.22	Have you or will you be engaging with stakeholders in your region to develop a consumer vulnerability strategy outlining how you will deliver inclusive accessible services and protect customers and communities for 2025-30? When will this be published and how will it be updated?
	Our Vulnerably Strategy is a key part of our Business Plan submission to our regulator, Ofwat. Our Business Plan will be available to customers on our website once it has been approved by Ofwat, this will be on 2 nd October 2023. We regularly review our strategy to ensure we are meeting customer needs. We regularly work with partners in the local community to understand if our services are meeting needs. We also complete an annual survey with community organisations to understand how effective we have been in promoting our services and understanding any gaps.
3.23	How do you see consumer vulnerability in your area changing in the next 5-15 years and what impact has that had on your business plan proposals and strategy?
	We expect evolving needs of customers over the next 25 years and have factored this into our business plan. We see financial vulnerability becoming more of a challenge to our customers and an area we are committed to addressing. This will be through enhanced support tariffs, better data & insights, and more communications with customers.
	We want to be sensitive to customer vulnerability and will provide access to discreet communication with customers, making our support mechanisms easily available to customers. Alongside this, we will continue the success of our partnerships in the communities and organisation in supporting vulnerable customers.
3.24	How much financial support in total in £ do you propose to make available to customers struggling to afford their water bills 2025-30? How much/what percentage of financial support will be funded from shareholder profits?
	Currently our customers have supported increasing help for vulnerable customers from £1 to £3. We have also changed our social tariff criteria so we can reach more customers who need our help. We

	currently help these customers by capping their bill to our minimum charge - £88.53. We are also looking at new, innovative tariffs to help us reduce water use whilst protecting and supporting vulnerable customers.
	Financial support is currently funded through cross-subsidy from other customers, not from shareholder profits.
3.25	Climate change is resulting in increased extreme weather events including drought, heatwaves, increased water supply interruptions. How will you proactively help your domestic customers and small high water dependent businesses to prepare to be more resilient to these changes so their negative impacts are lessened or prevented?
	Our priority is to help our customers (both commercial and household) to each use a little less water. The full details are laid out in our draft Water Resource Management Plan found here: <u>https://www.portsmouthwater.co.uk/wp-content/uploads/2022/11/PW-WRMP-Summary-Document_FINAL-3.pdf</u>
	In summary we will use a combination of the distribution of free water saving gadgets, house visits and tailored consumption advice and connecting customers with the amount of water they use through fitting universal smart meters.
3.26	Increasing numbers of people are swimming in open water and participating in water-based recreation. Some companies are publishing where they are discharging sewage into rivers and seas, but it is hard to interpret what this data means i.e. is the water safe to swim in? Other companies are training staff and communities about water safety. How have you helped promote water safety for your consumers and employees and how do you propose to do this in your 2025-30 business plan so we can safely swim and play in our rivers and seas?
	Thank you for your questions. As a drinking water only company that does not remove or treat wastewater, Portsmouth Water is not involved in the discharge of sewage. In our supply area, Southern Water is the company responsible for wastewater and we would suggest you contact them for further information.
	We can however confirm that we will be issuing safety information about Havant Thicket Reservoir. Once complete, the reservoir will be a very large, cold body of water. For these reasons, swimming will not be permitted in the reservoir, and we will be communicating these safety messages as the project progresses.
3.27	How far are you thinking about engaging younger people/future generations in your business plans and long-term thinking?
	As part of our business planning process, we are reaching out to the next generation of homeowners to understand their thoughts about water supply, what our priorities should be and what level of financial support they would want to see.
	We recognise in order to ensure our services and support stays relevant for customers, we need to engage current and future customers in our planning.
3.28	Can you provide examples of where you have genuinely co-created solutions with your local communities, customers, and wider stakeholders to improve service design and support the environment?
	We currently work in partnership with Local River catchment groups and landowners to deliver environmental benefits across our Region.
	We run a grant scheme to supply farmers with the tools to use their land more sustainably - particularly in the use and retention of nitrates in the soil, keeping it from leaching into surface or groundwaters. We also run Grant scheme to support local groups to improve biodiversity. Examples of this work and how to apply for grants can be found on this website: https://www.cleanwaterpartnership.co.uk/

3.29	How does your public purpose influence your business plan proposals in terms of where you go above and beyond core water business services? How are you planning on supporting citizens rather than just customers during the next AMP?
	Portsmouth Water has been supplying water to Portsmouth and the surrounding area for over 160 years. As a local organisation, we are passionate about supporting our local communities.
	We must ensure we meet regulatory requirements, but we are always focused on how we can go above and beyond. For example, we are currently investigating whether we can hold, or sponsor a warm space during the winter months, we provide funding to local organisations such as the Home and Well Project in Hampshire and support local food banks.
	We have dedicated staff who work in local communities with their primary focus being supporting customers, promoting the services we offer, and identifying ways in which we can help local communities.
3.30	Defra has changed a building regulation which now allows direct use of mains water for hygiene/sanitary purposes. Residual chlorine, which was previously vented off in our loft tanks to the outside atmosphere, is now being directed into our living spaces. This gas is now mixed with indoor air pollution which has become of increasing concern to our health experts. Both the World Health Organisation and our cancer specialists have recommended that we should reduce chlorine risks so long as it does not affect disinfection. Given the importance of chlorine to deliver safe drinking water, could water supply leaders call upon Defra to reconsider this unnecessary increase in risks from chlorine please? Failing this, would our water supply leaders support epidemiological studies to see if there is a correlation between chlorine hot spots/direct use of mains water and disease please?
	The World Health Organisation has set a health-based guideline maximum value of 5 mg/l for chlorine as a residual disinfectant in drinking water. The levels in tap water in England and Wales are well below this guideline and most water companies aim to keep the level below 1 mg/l.
	At Portsmouth Water, typical levels are in the region of 0.5mg/l, which is the level required to maintain effective disinfection. We would not support any studies based on the low level of risk associated with chlorine in drinking water.
3.31	Do you have a legal basis for the installation of water meters (smart), will a customer be able to refuse?
	To compulsory meter every property in our area of supply, we need to be classed as an area of water stress. We did not get this status until 2021 although it doesn't come into effect until 2025. The assessment was made independently by the Environment Agency and their determination can be found here: Water stressed areas – 2021 classification – GOV.UK (www.gov.uk). This change in classification has enabled us to start planning for a compulsory Smart Metering Programme to start in 2025.
	This will be a compulsory metering scheme and therefore customers cannot refuse the installation of a water meter.
	We are working hard to understand how metering will impact different types of customers as this will help us develop the right support for customers when a meter is installed. This may cover help in the home identifying leaks, support tariffs if customers see a large increase in bills and greater engagement on water use, giving customers the tools to be able to reduce their water use.
3.32	My understanding is that the reservoir project and the reservoir itself will belong to Portsmouth Water. On that basis, and against a background of a positive public image for Portsmouth Water as opposed to a very negative public view of Southern Water, why would Portsmouth Water consider allowing Southern Water to add grey or heavily treated water to the reservoir? I'm assuming you have done a risk versus reward assessment of this action. The risk, given Southern Waters record on pollution, would appear to be contamination of the reservoir and a severe dent to your public image. What is the reward?
	We would like to reassure you that there is no possibility that sewage or grey water could enter the reservoir. The emerging proposal involves using very high-quality recycled water to top up the reservoir so more is available for supply during a drought.

Portsmouth Water will be in sole control of the water that enters and leaves the reservoir. We will not give our support to the water recycling scheme if there is doubt over the safety of this water, or the impact it might have on the environment and leisure facilities at Havant Thicket Reservoir.

We would like to give you some context around the reasons why this option is being considered. Water is scarce in the South-East, yet the impacts of climate change and population growth are increasing. Water resources planning is no longer a local water company issue and the whole industry will increasingly trade larger and larger volumes of water across boundaries between water companies. Existing rivers and canals will be utilised as part of the solution to move water from where it is available to where it is not.

The South-East, as a water stressed area, is a critical location for several major schemes which include the construction of new reservoirs, major pipelines, desalination plants and water recycling plants. More recently the national ambition to restore our natural environment means that licensed abstractions from rivers and boreholes will also reduce, in turn reducing the supply capacity of most water companies.

Southern Water currently supplies most of its customers in Hampshire with water sourced from the River Test and the River Itchen. As a result of the sensitivity of these internationally rare chalk rivers, Southern Water has agreed with the Environment Agency to reduce its abstraction during periods of drought and find new, sustainable ways of providing its customers with drinking water. The approved plans for Havant Thicket Reservoir, consumer demand and leak reduction will go some way towards reducing abstraction from these rivers, but additional sources of water are needed if Southern Water is to meet its targets to protect these chalk stream habitats.

Under the emerging plans, once the reservoir is built and the surplus water from Bedhampton springs is put to good use, the only additional sustainable sources of water available in the South-East are seawater, and treated wastewater.

Water recycling is a well-established and widely used water treatment process that speeds up the natural water cycle to provide a new sustainable source of water. The water recycling process strips and cleans water to such an extent that minerals such as magnesium and calcium then need to be readded. It is this highly purified, recycled water that Southern Water proposes to send from a new Water Recycling Plant to Havant Thicket Reservoir, where it would mix with spring water, before being abstracted, treated to drinking water standards and delivered to customers' taps.

Under this scheme, more water would be available in Havant Thicket Reservoir and Southern Water would be able to transfer water directly to its Water Supply Works in Otterbourne (near Southampton Airport). This would provide a new source of water, enabling Southern Water to meet its targets for minimising abstraction from the River Test and River Itchen during times of drought.

We assure you that recycled water could only be used as a source for drinking water if it meets the very strict legal standards set out by the Drinking Water Inspectorate, the independent regulator whose role is to make sure water companies meet very high-quality standards set out in UK legislation under guidance from the World Health Organisation; this includes the key areas of bacteriological and viral quality.

As a company, Portsmouth Water is committed to doing the right thing. This includes supporting our neighbouring water companies and working together to ensure all customers have a sustainable, reliable supply of water.