

Minutes of public meeting of the PFAS Scientific Advisory Panel on Teams

14:00 on 26 March 2025

Panel Members present: Dr Steve Hajioff – Independent Chair
Dr Tony Fletcher – PFAS and Health member
Professor Ian Cousins – PFAS and Environment member

In attendance: Standing Observer (Regulation) - Kelly Whitehead - Group Director of Regulation, Infrastructure and Environment Department
Standing Observer (Public Health) - Grace Norman – Deputy Director of Public Health
Various European Water Treatment Experts
Programme support team from I&E

Welcome:

The Chair welcomed everyone to the Panel meeting and reminded people the meeting was being recorded.

Introductions

The Chair and Panel members introduced themselves.

Dr Steve Hajioff, Independent Panel Chair: A retired Director of Public Health from an area of London with two major international airports and a variety of other environmental hazards and challenges, with 35 years in clinical medicine. An expert on translating science into policy, he has worked with Nice, the Greater London Authority, the EU, WHO and World Bank, several UK government departments and several international governments. Dr Hajioff has also worked extensively in the pharmaceutical industry.

Dr Tony Fletcher, PFAS and Health Panel Member: Environmental Epidemiologist at the London School of Hygiene and Tropical Medicine, working on PFAS since 2006 and member of the panel with experience of epidemiological studies on the health effects of PFAS in contaminated communities in West Virginia in the United States, in the Veneto region, in Italy, and in Ronneby, and is the health expert on the panel.

Professor Ian Cousins, PFAS and Environment Panel Member: A Professor in Environmental Chemistry at Stockholm University, an expert on PFAS, appointed as the environmental expert on this Panel and whose expertise on PFAS is on the sources, transport, fate, and exposure of PFAS.

Kelly Whitehead, Group Director for Regulation in the Infrastructure and Environment Department, leading on the Water Quality and Safety Programme, coordinating Government's response.

Declaration of Interests

- No new interests declared.

- Dr. Hajioff updated his previous declaration, noting he stepped down from his role at Celadon Pharmaceuticals PLC.

Minutes and Matters Arising

- February meeting minutes were not yet available.
- No matters arising.

Additional Findings Since the Last Meeting

Dr. Hajioff addressed a public query regarding cumulative exposure and clarified the panel's stance on exposure recommendations. The query felt that the panel were deprioritising people within the plume area, Dr. Hajioff clarified that because of the different cumulative exposure, there cannot be a logical rationale for excluding people outside the plume area for any recommendations that we made. Emphasising that any recommendations for lowering PFAS levels should be geographically independent. Dr Tony Fletcher added that eligibility for reducing your levels will be based on the levels now not the past.

Modelling Background Serum Levels in Jersey and the Implication for Treatments

Dr Tony Fletcher presented a detailed analysis of PFAS serum levels, decay rates, and the impact of various interventions. Dr Fletcher discussed the modelling of PFAS serum levels in Jersey and the implications for treatment recommendations.

Key Findings

1. Background Levels of PFAS:

- **Estimation:** Background levels of PFAS in Jersey were estimated based on general environmental exposure and local water supply. These estimates were derived from studies in other countries and local measurements of PFAS in Jersey's water supply.
- **Sources:** The primary sources of PFAS exposure include food, food wrappings, general environmental contamination, and local water supply.

2. Decay Rates and Half-Lives:

- **Natural Decay:** PFAS levels in the human body decrease over time due to natural excretion processes. The rate of decline depends on the half-life of the specific PFAS compound.
- **Half-Lives:** Different PFAS compounds have varying half-lives. For example, PFOS has a half-life of approximately 3 years, while PFOA has a slightly shorter half-life.

3. Impact of Interventions:

- **Dietary Changes:** Increasing dietary fibre can help enhance the excretion of PFAS, leading to a steeper decline in serum levels.
- **Phlebotomy and Plasma Exchange:** These interventions can reduce PFAS levels by removing contaminated blood or plasma. The effectiveness varies based on the specific PFAS compound.
- **Bile Acid Sequestrants:** Drugs like cholestyramine and colesevelam can significantly reduce PFAS levels by binding to bile acids and promoting excretion.

4. Modelling Background Serum Levels:

- **Graphical Representation:** Tony Fletcher presented graphs showing the decline in PFAS serum levels over time for different interventions. The graphs illustrated the natural decay, the impact of dietary changes, and the effectiveness of phlebotomy, plasma exchange, and bile acid sequestrants. It was estimated that the background serum levels were approximately 7g/mL.
- **Comparison of Interventions:** The graphs compared the anticipated reduction in PFAS levels for each intervention, highlighting the steep decline achieved by bile acid sequestrants.

5. Implications for Treatment Recommendations:

- **Threshold Levels:** The discussion focused on the appropriate threshold levels for intervention, particularly for women of childbearing potential. The current threshold of 10 nanograms per millilitre was debated, with considerations for adjusting it based on modelled background levels. The panel decided to stick with the original recommendation.

6. Additional Findings:

- **Cumulative Exposure:** The importance of cumulative exposure was highlighted, with discussions on how past exposure impacts current serum levels and future recommendations.
- **Validation:** The need for validating the estimated background levels through random population data was emphasised to ensure accurate modelling and recommendations.

Presentation from Water Treatment Expert Lutz Ahrens

Lutz Ahrens is a professor in environmental chemistry at SLU in Uppsala, Sweden. He has been working on PFAS since 2005, focusing on their fate, transport, and treatment techniques.

Lutz provides an in-depth overview of PFAS treatment techniques for drinking water. He begins by explaining the widespread presence of PFAS in the environment and the various pathways through which these substances accumulate and expose humans. The focus of the presentation is on the characteristics of different PFAS, such as chain lengths and functional groups, which are crucial for understanding their behaviour and treatment. Longer carbon chain lengths have a strong sorption potential, while shorter chain lengths exhibit higher mobility, making them particularly challenging to remove.

Lutz then discusses the Swedish context, highlighting the early establishment of guideline values for PFAS in drinking water due to contamination issues in Uppsala. The Swedish National Food Agency set initial guideline values in 2013 of 90 nanograms per litre for 7 PFAS. These guidelines were updated in 2016 to 90 nanograms per litre for 11 different PFAS. The EU established guideline values in 2020 that member states must implement of 100 nanograms per litre for the sum of 20 PFAS compounds, and 500 nanograms per litre for total PFAS.

Sweden chose to adopt stricter regulations of 21 PFAS compounds at 100 nanograms per litre, and 4 specific PFAS (PFOA, PFNA, PFHxS, PFOS) at 4 nanograms per litre. This is to be achieved by January 2026.

Lutz covers various treatment strategies, emphasising the need for a combination of techniques. Concentration strategies involve reducing large volumes of contaminated water to smaller volumes for more efficient treatment or destruction. Adsorption techniques, such as activated carbon and ion exchange, are commonly used, but they can lead to desorption of short-chain PFAS over time, necessitating periodic replacement of the adsorbent material. Destructive techniques aim to break down PFAS to prevent their release into the environment, with electrochemical oxidation being one example that requires high energy to break the strong carbon-fluorine bonds.

Lutz explains concentration techniques like membrane filtration, including reverse osmosis, which use pressure to filter water and produce PFAS-free permeate and concentrated reject water. Handling the reject water is crucial. Foam fractionation is another method discussed, which uses air injection to accumulate PFAS in foam. This technique is effective for long-chain PFAS but less so for short-chain variants. Adsorption techniques, such as activated carbon and ion exchange, are also covered, with column tests showing varying removal efficiencies over time. Short-chain PFAS can desorb, requiring continuing replacement of the adsorbent material.

Destructive techniques, such as electrochemical oxidation, are highlighted for their ability to decrease PFAS concentrations over time. However, short-chain PFAS may initially increase before decreasing, making it important to address transformation products. Lutz maps these treatment options based on their maturity and practicality, noting that while some methods like activated carbon and membranes are already in full-scale use, others, particularly destructive techniques, are still in the experimental stage.

Lutz includes examples from ongoing projects, such as a large initiative on sustainable, innovative drinking water treatment solutions (SIDWater, funded by Formas) involving multiple water producers and universities. These projects combine membrane techniques, foam fractionation, and adsorption methods to achieve the best results. One example involves nanofiltration followed by foam fractionation to concentrate PFAS for destruction. Another example compares column tests using activated carbon and anion exchange with a combination of membrane filtration and subsequent treatment of reject water.

Lutz concludes by emphasising that no single solution exists for PFAS treatment. Instead, a combination of techniques tailored to specific conditions is necessary. He stresses the importance of separating waste streams and concentrating PFAS for efficient destruction, ensuring that treated water can be reused or safely released back into the environment.

Presentation from Water Treatment Expert Marcel Riegel

Marcel Riegel is a chemical engineer with a PhD in drinking water treatment, specialising in the removal of uranium out of drinking water using ion exchanges. He has over 20 years of experience and works for TZW German Water Centre, focusing on research and consulting for water suppliers.

Marcel begins his presentation by emphasising that PFAS is not a single substance but a group of substances, each with different characteristics. This distinction is crucial for understanding the effectiveness of removal techniques, such as activated carbon filtration. He highlights the importance of knowing the specific PFAS substances present in contaminated water and the existing drinking water limits, which serve as the minimum treatment goals. Marcel mentions the European Union's drinking water limit for the sum of 20 PFAS compounds, set at 100 nanograms per litre, and notes that some European countries have implemented stricter limits for the sum of four specific PFAS compounds.

Marcel explains that the sum of 20 PFAS includes 10 carboxylic acids and 10 sulfonic acids with varying chain lengths, ranging from 4 to 13 carbon atoms. The sum of four PFAS, which includes two carboxylic acids and two sulfonic acids, is particularly relevant for drinking water treatment. He notes that in Germany, the primary technologies available for PFAS removal are adsorption with activated carbon and the use of dense membranes like reverse osmosis or nanofiltration. Although ion exchange and modified clay materials are known to work, they are not yet listed on the positive list for drinking water treatment in Germany, limiting their use.

Marcel then delves into the effectiveness of activated carbon filtration, starting with the concept of drinking water limits based on the sum of concentrations of different PFAS substances. He explains that the efficiency of activated carbon depends strongly on the specific PFAS substances present. Using isotherms, he illustrates how short-chain carboxylate PFAS are poorly absorbable, while long-chain PFAS and sulfonic acids are better absorbed by activated carbon.

He provides several examples of groundwater contamination in German waterworks, using data from pilot plants. The first example involves PFAS contamination from paper sludge, with high concentrations of PFBA and PFOA. Marcel shows breakthrough curves for activated carbon filters, indicating that short-chain PFBA breaks through first, followed by longer-chain PFPeA and PFHxA. The sum of 20 PFAS exceeds the limit after 8,000 bed volumes, highlighting the need for frequent replacement of activated carbon in cases of high PFBA concentrations.

The second example features lower concentrations of PFAS due to the well being further from the contamination source. The breakthrough curves show a similar pattern, with PFBA breaking through first, followed by PFPeA and PFHxA. The sum of 20 PFAS exceeds the limit after 18,000 bed volumes, with PFPeA being the relevant substance for limit exceeding.

Marcel's third example involves contamination from firefighting foam near an airport, with lower concentrations of PFAS. The breakthrough curves show PFBS breaking through first, followed by PFOA, PFHxS, and PFOS. The sum of four PFAS exceeds the limit due to PFHxS, and Marcel discusses how different drinking water limits affect the operational time of activated carbon filters.

The fourth example highlights the impact of high dissolved organic carbon (DOC) on activated carbon efficiency. Contamination from firefighting foam with high DOC results in early breakthrough of PFHxS, reducing the operational time of activated carbon filters to 8,000 bed volumes.

Marcel also discusses riverbank filtrate from the River Rhine, showing that even low concentrations of PFAS can lead to early breakthrough due to equilibrium loading. He emphasises that low concentrations do not necessarily result in long operational times for activated carbon filters.

The final example involves treating concentrate from a reverse osmosis plant, with high PFAS and DOC concentrations. Marcel shows that PFBA breaks through after 3,000 bed volumes, and the specific limit for PFOA is reached after 7,000 bed volumes. He explains the significance of bed volumes in determining operational time, noting that frequent replacement of activated carbon can be a significant operational issue.

Marcel concludes by summarising the key points: the efficiency of PFAS removal using activated carbon depends on the PFAS spectrum and concentrations in the contaminated water, the treatment goals, and the presence of DOC. He emphasises that short-chain carboxylic acids and high DOC can drastically reduce the runtime of activated carbon filters, and achieving very low filtrate concentrations is challenging even with long-chain PFAS.

Presentation from Water Treatment Expert Philip McCleaf

Philip McCleaf is stationed in Uppsala and works for Uppsala Water and Waste. He has 30 years of experience in drinking water treatment and 12 years specifically in PFAS removal. Uppsala has a similar PFAS contamination situation to Jersey.

Philip's presentation provides a comprehensive overview of Uppsala's experience with activated carbon for PFAS removal in drinking water. He begins by explaining that Uppsala has been using activated carbon since 2005, initially for pesticide removal. However, they discovered PFAS contamination in 2012, which led to a steep learning curve and subsequent modifications to their coal filters. Today, Uppsala effectively removes PFAS from their water, and Philip shares their journey and strategies.

Uppsala Water employs 350 people and operates 14 water treatment plants, including the Backlosa plant, which is affected by PFAS. They also manage wastewater treatment plants, a lab, recycling centres, biogas, and solid waste facilities, giving them extensive experience in water and waste management. Uppsala's drinking water treatment process is unique due to artificial infiltration, where river water is infiltrated into a large esker groundwater aquifer beneath the city. This process helps dilute PFAS concentrations in the natural groundwater.

Philip describes the PFAS contamination in Uppsala, which originates from a military airbase to the north. The groundwater flow carries PFAS southward, affecting two wellfields. Near the airbase, PFAS concentrations are about 21,000 nanograms per litre, decreasing to 203 nanograms per litre at the first wellfield and 35 nanograms per litre at the second. The primary PFAS contaminants are long-chain compounds like hexane sulfonates and PFOS, which are more effectively removed by absorbent materials.

In 2012, Uppsala converted their existing carbon filters, initially used for pesticide removal, to focus on PFAS removal. They optimised the filters by slowing down contact times to improve PFAS removal efficiency. Typically, six filters operate simultaneously, with others in reserve. Filters are cycled annually, and reactivation occurs after 17,000 to 20,000 bed volumes, similar to Marcel's findings. Uppsala benefits from relatively low dissolved organic carbon (DOC) levels of 2 to 3.5 milligrams per litre, which aids in PFAS removal.

Philip explains their strategy of reducing flow rates to extend filter life before reactivation. This approach helps optimise the use of granular activated carbon (GAC) and reduce costs. Uppsala plans to rebuild their plant in 2026 to meet new Swedish PFAS standards of 4 nanograms per litre. The current filters are concrete, but future designs will likely use pressure filters made of stainless or regular steel for easier operation and cost efficiency.

The reactivation process involves removing GAC using an ejector, storing it temporarily, and then sending it to reactivation sites in Germany or Belgium. Reactivation heats the carbon to 900°C with added humidity to remove pollutants. The off-gas is incinerated to prevent environmental contamination. Reactivated carbon retains about 90% of its original volume and performs as well as or better than new carbon. Uppsala aims to establish a reactivation site in Sweden to reduce costs.

Philip presents data showing PFAS concentrations in raw and treated water. In 2021-2022, Uppsala aimed for 13 nanograms per litre of PFAS in treated water, well below the required 90 nanograms per litre. However, new regulations require reducing PFAS to 4 nanograms per litre by 2026. Uppsala has adjusted their strategy, increasing reactivations and shortening bed times to achieve this goal. Costs have risen from €350,000-€400,000 per year to €450,000-€540,000 due to increased reactivation frequency and natural gas prices.

Philip calculates the cost of PFAS treatment at 0.8 euros per cubic meter of water, noting that costs are driven by reactivation expenses. Future plans include retrofitting the existing plant with two-stage GAC filtration to achieve 30% cost savings. This method allows for continuous high loading of GAC, improving efficiency. Uppsala also plans to build a new plant by 2033, incorporating nanofiltration and concentrate treatment to achieve drinking water standards.

In summary, Philip highlights Uppsala's success in using GAC to remove PFAS from groundwater, achieving levels below 4 nanograms per litre. The efficiency of PFAS removal depends on the type of PFAS and contact time with GAC. Costs are primarily driven by reactivation and treatment goals. Future plans focus on optimising costs and incorporating advanced filtration techniques to meet stringent PFAS standards.

Discussion with Experts

Participants: Panel members and water treatment experts.

The discussion begins with Steve Hajioff posing a question about the costs associated with PFAS treatment. He notes that the annual cost for reactivation is roughly half a million euros and inquires if the additional cost for replacing the 10% of granular activated carbon (GAC) lost during reactivation is significant. Philip McCleaf clarifies that this cost is included in the overall reactivation expense. However, he mentions that analysis costs for PFAS samples, which need to be turned around within a week, are not included and can be substantial, especially when multiple filters are in operation. Philip highlights an ongoing project aimed at developing a probe to monitor the condition of GAC, potentially reducing the need for frequent lab analyses.

Ian Cousins praises the presentations, particularly Philip's practical insights relevant to Jersey's treatment plants. Ian questions whether the move towards nanofiltration is driven primarily by cost considerations or the ability to achieve lower PFAS levels, given that Uppsala is already meeting the four nanogram target. Philip explains that the decision is influenced by the need to build a new plant. He notes that Uppsala's existing plant, which includes processes for softening, calcium and bicarbonate removal, and uranium removal, makes nanofiltration a cost-effective choice for a new facility. Nanofiltration can address multiple contaminants simultaneously, eliminating the need for separate processes. Philip mentions that Uppsala already operates two full-scale nanofiltration plants and is confident in their efficacy, with the main challenge being the treatment of concentrate.

Tony Fletcher joins the discussion, recalling his visit to the Little Hawking water treatment plant, which employed a two-stage process similar to what Philip described. He notes that DuPont faced significant costs for GAC replacement and questions whether the two-stage process is becoming standard practice. Philip responds that while two-stage filtration is not common in large-scale facilities, it offers strategic advantages. It allows for different absorbents in each stage, potentially improving PFAS removal efficiency and accommodating future advancements in absorbent materials. Philip emphasises that the two-stage approach is not only cost-effective but also adaptable to future needs, such as better removal of short-chain PFAS.

The discussion concludes with Philip outlining Uppsala's future plans, including retrofitting the existing plant with two-stage GAC filtration and constructing a new plant by 2033. The new plant will use nanofiltration and concentrate treatment to achieve drinking water standards. Philip summarises Uppsala's success in using GAC to remove PFAS, achieving levels below four nanograms per litre, and highlights the importance of contact time and reactivation costs in determining treatment efficiency. He reiterates that future strategies will focus on optimising costs and incorporating advanced filtration techniques to meet stringent PFAS standards.

Presentation from Jeanette Sheldon (Jersey Water)

Jeanette Sheldon is the Head of Water Quality for Jersey Water. Jeanette's presentation provides a comprehensive overview of the water supply and treatment challenges faced by Jersey, particularly in relation to PFAS contamination.

Jeanette begins by describing the island's water supply network, which serves approximately 100,000 people. The water primarily comes from rainwater collected via streams, with 120 days of storage capacity. Jersey has four major reservoirs, and two treatment works at Augres and Handois, which use traditional treatment methods such as coagulation, clarification, dual media filtration, and chloramine disinfection. These facilities have been upgraded over the past 20 years to include powdered activated carbon for pesticide removal and UV disinfection.

Jeanette emphasises the importance of water resilience for the island, highlighting the role of the La Rosiere desalination plant, built in 1970 and upgraded to a reverse osmosis system. This plant can supply up to 10 megalitres per day, approximately half of the island's demand, which varies seasonally between 16 and 24 megalitres. The desalination plant is crucial for maintaining water supply during droughts.

The primary PFAS contamination in Jersey is associated with the airport, affecting the St. Ouens boreholes and the Pont Marquet stream source. Trace concentrations of PFAS are found in all streams, necessitating treatment to meet varying standards. Jeanette notes that Jersey is currently undergoing a water resource management plan to evaluate future water needs, with plans to expand the desalination plant within the next five years.

Jeanette explains that Jersey has been aware of PFAS contamination for some time, relying on source restriction to minimise PFAS in drinking water. The island samples for 48 PFAS compounds as specified by the Drinking Water Inspectorate (DWI) in England, although Jersey is not regulated by the DWI. Recent annual reports show treated water PFAS concentrations of 4 nanograms per litre for PFOS and 6 nanograms per litre for PFOA, with average sum of PFAS concentrations approximately 30 nanograms per litre.

In 2021, Jersey conducted a comprehensive treatment optioneering study, exploring 30 different options and narrowing it down to SAFF (Surface Active Foam Fractionation). Initial trials with SAFF showed some success, particularly with longer-chain PFAS, but the high cost and evolving standards led to further exploration. More recently, Jersey Water commissioned a study to cost and plan the installation of GAC (Granular Activated Carbon) at both treatment works to achieve PFAS levels below 10 nanograms per litre.

Jeanette discusses the challenges of integrating new treatment processes into Jersey's existing infrastructure. The Handois treatment works, located in a small valley, would require land purchase and complex retrofitting to accommodate GAC or ion exchange systems. Transport and road infrastructure restrictions further complicate the installation of large equipment. Additionally, Jersey lacks local regeneration facilities for GAC, necessitating off-island regeneration or disposal.

The treatment options explored include catchment management, SAFF, GAC, and ion exchange. Catchment management focuses on understanding PFAS at the source and source restriction, while SAFF trials showed limited success with shorter-chain PFAS. GAC is considered a mature and established technology, but its implementation would require significant infrastructure changes and ongoing operational challenges. Initial estimates suggest a bed life of 12 months for GAC, with frequent regeneration needed due to higher TOC levels in the water.

Jeanette also mentions the potential of ion exchange, which is less mature but might offer long-term cost benefits. However, the effectiveness of ion exchange depends on the specific PFAS compounds and other interfering factors in the water. Any treatment solution may involve a combination of methods to ensure comprehensive PFAS removal.

Finally, Jeanette highlights the role of the desalination plant, which produces PFAS-free water and might provide short-term solutions to reduce PFAS concentrations in raw water. However, the plant is designed for drought contingency and would require operational changes to run continuously.

In summary, Jeanette emphasises Jersey Water's commitment to addressing PFAS challenges through a combination of treatment options, ongoing research, and infrastructure improvements. The goal is to ensure compliant water supply while adapting to evolving standards and technological advancements.

Discussion with Jersey Water and Experts

Participants: Panel members, water treatment experts, and representatives from Jersey Water

The discussion begins with Jeanette Sheldon addressing Ian's question about the declining PFAS levels in Jersey's drinking water. She explains that active management, including the removal of the most contaminated sources like the Pont Marquet stream and St. Ouens boreholes, has contributed to the reduction. However, she notes that this approach is not sustainable in the long term, especially during severe droughts. Jeanette emphasises the need for a clear treatment goal to specify robust treatment methods. She reflects on the hindsight that implementing certain technologies prematurely could have been ineffective due to their immaturity at the time.

Tony Fletcher raises the logistical challenges of transporting large equipment on Jersey's narrow roads and suggests exploring the possibility of using shipping for more efficient transport. Jeanette acknowledges the suggestion and mentions the island's good links with France and the UK, indicating that it would be worth investigating.

Kelly Whitehead brings up a public scrutiny meeting where the minister mentioned a rough capital expenditure estimate of £20 million per treatment plant. Jeanette confirms this high-level cost estimate. Philip then asks if Jersey has analysed ultra-short PFAS, noting that Uppsala has found significant levels of these compounds. Jeanette responds that Jersey analyses 48 PFAS compounds as required by the Drinking Water Inspectorate (DWI) in England, finding a mixture of PFAS, with higher levels of slightly longer chains.

Ian adds that ultra-short PFAS require special analytical methods and are widespread in drinking water across Europe. He emphasises the difficulty of removing these compounds and the potential challenges if they are included in regulatory limits. Steve Hajioff agrees, noting that the panel's primary focus is on addressing contamination from the airport, with the possibility of expanding their remit in the future.

Philip concludes by discussing the strategy of using GAC for the short term and considering membranes for the long term. He highlights the importance of understanding the renewal cycle of existing water treatment infrastructure to make informed recommendations. Jeanette mentions the use of powdered activated carbon (PAC) at low doses for pesticide removal and the potential for higher doses to remove PFAS, though this would require further research and infrastructure changes.

Philip inquires about the disposal of sludge containing PAC, and Jeanette explains that it is currently used as a soil improver. Steve Hajioff outlines the panel's process, focusing on mains

drinking water initially and expanding to broader environmental issues in the future. Philip suggests a process that doses PAC and removes it with ultrafiltration, which could be a space-effective retrofit for existing plants. He offers to provide more information on this process, which could be a cost-effective interim solution until new treatment plants are built.

The discussion concludes with Steve Hajioff expressing interest in the potential of this approach and its relatively low capital cost, making it a viable option for Jersey's immediate needs.

Any other business

No other business was raised by the panel.

Reminder of the upcoming event to launch the Islander input into the draft of Report 3 on April 3rd. The start time will be 6pm, taking place at St. Brelade's Parish Hall.

Date of next meeting

Wednesday 23rd April 2025. It will be held 4pm - 6pm online.

The Chair thanked everyone for their contributions, those watching the meeting and those offering support throughout the whole process.

A reminder to the public that this meeting has been recorded, and the video will be available online on request by emailing the Regulation Enquiries mailbox on RegulationEnquiries@gov.je. This will take a couple of days to make sure the observers are anonymised.

There being no further business, the meeting was closed.

To note that the Panel can be emailed via PFASpanel@gov.je.

Details of meeting dates and times can be found at [PFAS in Jersey \(gov.je\)](https://www.gov.je/PFAS)