

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

10:00 on 17 December 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
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.

Minutes

The below minutes were signed off as an accurate record:

- 11 November 2025
- 18 November 2025

Matters Arising

Nothing to report.

Additional Findings Since the Last Meeting

Steve began by reminding attendees and viewers that a public event would be held that evening at St Brelade's Parish Hall to launch a five-week consultation period on the second interim draft report (Report Four). Islanders will be invited to submit comments, suggestions, or questions during this period, which will inform the final report due early next year. All feedback will be anonymised and included in an appendix, along with actions taken or rationale for decisions. Steve confirmed that comments from previous consultations and future report sections will also be considered.

Tony then reported that the UK Parliament's Environmental Audit Committee recently held public hearings on PFAS, with discussions focusing on adopting a class-based approach to regulation rather than addressing chemicals individually. Tony noted that MPs appeared supportive of this approach and offered to provide a link to the recordings for inclusion in the minutes.

Steve mentioned a recent BBC Radio 4 "File on 4" programme on PFAS, which included a short interview with him and is available on BBC iPlayer.

PFAS Testing Results Paper

Steve moved on to the main agenda items, focusing on the recently circulated document containing testing results for food and various environmental samples in Jersey. Steve explained that the panel would review these results category by category and discuss them in detail. He noted that recommendations for uncontaminated levels in soil and other areas were deliberately set prior to reviewing the data to avoid bias and ensure health-based standards. These recommendations will be revisited during discussions and at the evening public meeting.

Steve provided background on the food testing process, which involved sampling locally produced foods and comparing them with similar items from the UK, as well as testing foods commonly consumed in Jersey but sourced elsewhere. The purpose was to estimate the total PFAS intake from food and water combined, ensuring that levels remain within internationally accepted health guidelines. This analysis also serves to validate or adjust previous recommendations for PFAS limits in drinking water.

PFAS Levels in Food

This part of the discussion focused on the analysis of PFAS levels in various food categories, including potatoes, other vegetables, eggs, milk, meat, and seafood. Tony began by discussing potatoes, noting that they are a significant dietary item and export crop, which explains the

extensive testing. Imported potatoes showed levels below detection, while Jersey potatoes had detectable PFAS in over half the samples, though all were well below EU guidance values. The indicative level for potatoes is 0.04 micrograms per kilogram, and the measured levels were much smaller, suggesting minimal risk. Steve emphasised that Jersey potatoes pose no health concern, as levels are comparable to EU averages. Sampling included supermarket, farm, and roadside sources across different parishes, with methodology detailed in an appendix of the report.

For other vegetables, Tony reported that most samples were below detection, with only minor detects in bell peppers and tomatoes, indicating negligible dietary contribution. Steve clarified that vegetables were chosen based on proximity to soil, as PFAS tends to remain in soil rather than being transported to tree fruits.

Eggs showed higher PFAS levels than other foods, with one sample reaching 0.7 micrograms per kilogram—about half the EU maximum of 1.7. While average intake remains below EFSA guidance, Tony expressed concern about variability and suggested further investigation into sources, such as free-range practices or feed composition. Kelly confirmed that samples came from supermarket shelves and included all three main island producers, none located in hotspot areas. Ian noted that feed, such as fish meal, could be a contributing factor. The panel agreed that while levels are within limits, further testing and risk assessment are warranted.

Milk results were reassuring, with nearly all samples below detection. One initial elevated reading was retested and found to be within normal limits, likely due to process contamination or lab error. Meat samples generally showed low levels, except for pork liver, which had a notably high PFAS concentration confirmed by retesting. Tony recommended engaging with the source to identify causes, such as feed or roaming practices. Kelly confirmed that farmers have been contacted and advised accordingly.

Seafood analysis revealed PFAS presence consistent with global patterns, with Jersey levels similar to or lower than UK imports. One UK-sourced crab sample was an outlier but decreased significantly upon retesting, though still higher than other seafood. Two local fish results are pending. Ian highlighted that freshwater fish, common in Europe, typically show higher PFAS, though this is not relevant for Jersey. Overall, Tony concluded that potatoes, eggs, and fish are key contributors, but combined intake from food and water remains below EFSA thresholds. Steve reiterated that even before water remediation, total PFAS exposure is within safe limits, and future reductions in water levels will further lower intake. The panel agreed that the findings should be published alongside methodology to contribute to broader scientific understanding.

The discussion closed with consensus that while PFAS is present in some foods, levels are generally low and pose no immediate health risk. Recommendations include continued monitoring, targeted investigation of higher readings, and public communication of findings.

PFAS Levels in Soil

The next part of the discussion focused on PFAS levels in soil. Ian began by explaining that initial soil samples, taken from non-agricultural areas, showed PFAS concentrations below the reporting limit of 1 microgram per kilogram, which aligns with typical background levels found across northern Europe. This indicates no widespread aerial contamination or influence from sea spray, suggesting that most of Jersey's soils are not significantly contaminated. Ian emphasised that while PFAS is present globally due to decades of use, the levels detected represent natural ambient concentrations rather than localised pollution.

Attention then turned to agricultural soils, including fields with and without biosolid applications, and those inside and outside the plume area. Steve reminded attendees of the previously agreed threshold: land with PFAS levels below 4 micrograms per kilogram is considered uncontaminated. Ian noted that most samples were either non-detect or below this threshold, which is reassuring. However, some fields showed slightly elevated levels, particularly where filter sludge from water treatment processes had been applied. While these levels were above background, they remained below the contamination threshold, though monitoring was recommended to prevent further increases.

The discussion highlighted a few cases where PFAS concentrations exceeded 4 micrograms per kilogram, triggering recommendations for risk assessments. Steve explained that the implications depend on land use: tree crops like apples pose minimal risk, whereas root vegetables or free-range poultry require closer scrutiny. In such cases, ongoing soil and crop testing was advised, and further biosolid applications should be avoided. Ian raised practical concerns about implementing these measures, including responsibility for testing and associated costs.

The panel reviewed more extreme cases, including fields within the plume area where PFAS levels reached 11.7, 13.2, and one instance of 23 micrograms per kilogram—above the advisory upper limit of 20 for non-agricultural land. These findings warrant enhanced management, potential remediation, and source investigations, although the source in this case is known. Recommendations include mitigating PFAS inputs, monitoring crops, and considering land-use changes for livestock farming, which poses higher risks due to bioaccumulation.

Kelly added that potatoes grown in high-PFAS fields were tested, with the highest sample measuring 0.0258 micrograms per kilogram—well below EU limits—providing reassurance about food safety. Ian noted that while biosolid application is a concern globally, Jersey's levels are not unusually high and are expected to decline over time as PFAS use ceases and water treatment improves. The panel acknowledged limited disposal options for biosolids, emphasising careful management rather than outright bans.

In conclusion, Steve summarised that the data is reassuring: most soils are uncontaminated or only slightly elevated, with a few fields requiring precautionary measures. Ian agreed, stressing the importance of ongoing monitoring and responsible management without undue alarm. The panel reaffirmed that while vigilance is necessary, the overall risk to public health from soil PFAS contamination in Jersey remains low.

PFAS Levels in Biosolids & Sewage Treatment Works

The meeting proceeded to item 7, focusing on PFAS levels in biosolids and wastewater. Steve opened by emphasising that the reported concentrations are expressed in micrograms per kilogram of dry weight, noting that biosolids contain significant water content and are further diluted when applied to soil. Ian explained that this dilution means actual soil concentrations are much lower than the raw biosolid figures. Despite historical applications, recent monitoring shows that most soils remain within acceptable limits, though some elevation has occurred over time.

Ian presented data showing variability in PFAS levels within biosolids, ranging from 14 to 60 µg/kg. He noted that these figures are typical of municipal wastewater globally, reflecting widespread historical PFAS use rather than local anomalies. This finding reassures that Jersey is not an outlier. Levels are expected to decline over the next two decades as PFAS use ceases and interventions—such as source removal at the airport—are implemented. Continuous monitoring will ensure progress and verify the effectiveness of these measures.

The discussion then turned to wastewater effluent. Ian highlighted that influent concentrations are higher than effluent, as PFAS compounds tend to bind to organic matter and accumulate in sludge. Effluent levels were reported in nanograms per litre, generally below 100 ng/L, which is comparable to surface water levels in European rivers and lakes. While dilution in the sea further reduces concentrations, Ian cautioned that dilution alone is not a solution but acknowledged that ecological impacts at these levels are likely minimal. Steve added that, by European standards, such effluent would be considered safe for drinking water from a PFAS perspective, though Jersey maintains stricter guidelines.

Kelly confirmed that additional environmental sampling—including bathing waters, sea foam, and coastal zones—will be conducted in the new year to complete the PFAS exposure assessment. Ian reiterated that PFAS is ubiquitous in marine environments due to global usage, so the goal is to determine whether Jersey's levels are elevated compared to typical background concentrations.

Tony raised an observation regarding compound behaviour: PFHxS, which has fewer fluorinated carbons than PFOS, binds less strongly to organic matter and is therefore less concentrated in biosolids, though it accumulates significantly in humans. Ian explained that PFHxS exhibits weaker partitioning to soil but persists in human blood due to specific protein-binding mechanisms. The panel discussed implications for food exposure, noting that PFOS remains the dominant contaminant in animal products, as seen in studies from Denmark.

Finally, the panel considered broader environmental implications, including potential PFAS accumulation in estuarine ecosystems and shellfish near effluent discharge points. Tony referenced UK studies on plant uptake near outflow pipes and suggested similar research for oysters. Ian mentioned historical contamination cases, such as Morecambe Bay, where industrial discharges have impacted marine life. The panel agreed that future monitoring should include estuarine and coastal biota to assess localised PFAS impacts.

In conclusion, the data indicates that PFAS levels in Jersey's biosolids and wastewater are consistent with international norms and pose no immediate environmental or public health crisis. However, ongoing monitoring, targeted interventions, and expanded environmental testing remain essential to manage risks and ensure compliance with best practices.

PFAS Levels in Private Water Supplies

The discussion moved to item 8, focusing on PFAS contamination in private water supplies. Steve provided background, noting that Jersey law does not require borehole owners to disclose usage, creating gaps in understanding whether water is used for drinking or other purposes. Unlike the UK, where potability standards apply to all drinking water supplying more than one dwelling, Jersey's standards currently apply only to mains water. This regulatory difference complicates risk assessment for private supplies.

Ian highlighted evidence of PFAS contamination in groundwater, particularly linked to the airport, with some boreholes showing markedly elevated levels. While most high readings are within the plume area, there are exceptions outside it, raising questions about additional sources. Tony emphasised the need to distinguish boreholes used for drinking from those connected to mains water or used for irrigation, as exposure risk varies significantly. Steve reiterated that data limitations stem from the absence of mandatory reporting, meaning current findings represent only a partial picture.

The panel reviewed previous recommendations: landowners supplying multiple homes via boreholes should consider installing treatment systems to reduce PFAS levels, while single-

household users should explore under-sink or in-home filtration. These measures aim to align private water quality with Jersey's recommended standards for mains water. Steve also noted that if PFAS levels exceed 10 ng/L in groundwater or surface water, a source investigation should be considered, particularly where contamination pathways are unclear.

Discussion turned to unexpected findings, including boreholes outside the plume area with PFAS levels between 30 and 50 ng/L. While these concentrations are not considered alarming compared to surface water norms in Europe, Ian stressed that groundwater should generally be cleaner due to natural filtration, making these results noteworthy. Possible explanations include localised contamination events, such as fires, spills, or septic tank leakage, though these remain speculative without detailed hydrogeological data.

Kelly clarified that the dataset includes a mix of domestic boreholes, disused wells, monitoring points, streams, and ponds, and that sampling methodologies varied across years, limiting comparability. She confirmed that individual landowners were informed of their results and that future monitoring will incorporate improved techniques. The panel agreed that upcoming surveys should capture borehole usage context—whether for drinking or irrigation—to better prioritise risk management and source investigations.

Ian referenced international experience, noting that boreholes in Sweden typically show very low PFAS levels unless near contamination sources, while Tony cited U.S. studies around industrial sites where aerial deposition caused widespread contamination. Both examples underscore the importance of localised assessments. Steve concluded that while Jersey's data reveal some surprises, global comparators are limited, and further investigation is needed to determine whether these patterns are unusual or consistent with broader trends.

The meeting closed with consensus on key actions: continue environmental monitoring, refine data collection to include borehole usage, and maintain engagement with affected landowners. While elevated PFAS levels in some private supplies warrant attention, the overall risk remains context-dependent and manageable through targeted mitigation.

Jersey Water Paper on Washwater Cake

The meeting moved to the next agenda item, which concerned the Jersey Water paper on wash water cake. Steve introduced the discussion by noting prior conversations about whether there are intrinsic differences between sludge from water treatment, sewage treatment, and grass clippings from areas with known PFAS contamination. He stated that no definitive conclusion had been reached previously. Steve expressed his view that the same principles applied to sewage-derived biosolids should also apply to all sources with slightly elevated PFAS levels compared to background soil. Specifically, such materials should not be applied to land if doing so would raise PFAS concentrations above the threshold for that land type; otherwise, their use is unlikely to pose significant problems. He suggested that this approach be clarified when recommendations are reviewed after receiving feedback from stakeholders.

Steve further proposed that the term "biosolids" in recommendations should encompass not only sewage-derived biosolids but also filter cake from water treatment, grass clippings from the airport, and compost from other sources. Ian Cousins agreed with this approach. The discussion concluded with acknowledgment of the Jersey Water paper and thanks extended to Jersey Water for preparing the report. No additional issues were raised, and the paper was formally received for information.

Any other business

No other business was raised.

Date of next meeting

Thursday 22 January 2026. It will be held 10am - 1pm 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)