

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

10:00 on 11 November 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

Following sets of minutes were approved as a true and accurate record by the panel:

- 25 September 2025
- 16 October 2025
- 22 October 2025

Matters Arising

- Nothing to report

Additional Findings Since the Last Meeting

Tony shared an update regarding UK regulations on PFAS, noting a recent news report indicating that the Drinking Water Inspectorate has begun issuing notices to Tier 2 water suppliers where PFAS levels exceed 10 nanograms per litre. Previously, guidance required suppliers to have a plan to reduce PFAS levels, but enforcement now appears to be stricter, aiming to bring all supplies below the 10 nanogram threshold. It remains unclear whether this limit applies to the sum of PFAS compounds or individual substances, as earlier reports identified exceedances for specific PFAS chemicals.

Tony highlighted that this shift suggests a move toward more rigorous compliance. He also mentioned attending a Royal Society of Chemistry meeting on PFAS later in the week, where he hopes to gather informal insights on the matter.

Steve Hajioff expressed interest in the update and reminded attendees that the group has already made recommendations aligned with the UK drinking water threshold. Steve also noted that BBC Radio 4 is planning a documentary on PFAS, which will include coverage in Jersey, and he has an informal meeting scheduled with the journalist to learn more. He committed to providing feedback after the discussion.

Estimated PFAS contributions from food – discussion paper

The discussion focused on estimating baseline PFAS intake from food sources. Tony explained that this requires either measuring a representative sample of purchased foods or analysing individual items such as fish, potatoes, and rice, combined with dietary questionnaires. He noted that no such survey has been conducted in Jersey and that UK data is outdated, with the last total diet survey from 2012. EFSA's 2020 report, based on European data from the previous decade, provides a useful but dated baseline. Fish and seafood were identified as the dominant contributors to PFAS intake, accounting for approximately 49% of exposure. Using European averages applied to UK dietary patterns, the estimated intake was 0.62 ng/kg/day, but UK-specific measurements suggest this figure should be scaled up by two to five times, giving a likely historical range of 1–3 ng/kg/day. This exceeds EFSA's tolerable weekly intake (TWI) of 4.4 ng/kg/week, though these figures reflect conditions over a decade ago.

Tony highlighted significant uncertainties in these estimates, particularly regarding how to treat measurements below detection limits, which can dramatically alter results. He also presented trend data from Sweden and other countries showing an 8- to 10-fold decline in PFAS levels since 2010, suggesting current intake from food is likely between 0.1 and 0.7 ng/kg/day. Drinking water contributes an additional 0.1–0.2 ng/kg/day, making food and water sources now comparable, whereas food was historically dominant. Tony emphasised that recent Swedish data show most

foods, except fish and eggs, now fall below detection limits, reinforcing the downward trend. He also noted that PFOS and PFOA are now minor contributors compared to other PFAS compounds.

Steve stressed the need to combine Jersey-specific data with UK or European benchmarks to estimate total weekly intake before the next meeting. This calculation will inform whether current water recommendations keep overall exposure below EFSA's TWI, or if stricter controls are needed. He reminded the panel of the urgency to finalise recommendations before the upcoming election to avoid legislative delays.

Discussion then turned to local dietary patterns. Kelly confirmed that Jersey lacks comprehensive diet surveys but can provide market share data for local versus imported foods, particularly fish, dairy, and eggs. Ian noted that fish consumption varies culturally, with Sweden having higher intake, and freshwater fish posing greater PFAS risks than marine species. Tony added that lean fish tends to have higher PFAS concentrations than fatty fish, contrary to patterns seen with other contaminants. The panel agreed to make preliminary assumptions about food sources and consumption patterns to support exposure estimates.

The discussion concluded with consensus on next steps: calculate total weekly PFAS intake from food using available data and assumptions, integrate this with water exposure estimates, and ensure recommendations remain precautionary.

PFAS soil guidelines and sludge management options

Ian presented a comprehensive review of global soil guidelines, noting significant variability and lack of consensus across jurisdictions. He referenced the Interstate Technology and Regulatory Council as a key resource for international standards and highlighted that only four European countries—Belgium, Denmark, Netherlands, and Norway—have established soil guidelines. Ian emphasised the importance of understanding local background soil levels before setting enforceable limits, citing the Netherlands' experience where overly stringent initial guidelines disrupted the construction industry and had to be relaxed. He explained that PFAS contamination is ubiquitous, with typical background levels around 1 µg/kg, making some U.S. state guidelines unrealistically low. The Flemish region of Belgium was identified as having the most detailed and scientifically robust approach, aligning with EFSA health-based guidance and setting remediation values close to background levels. Ian noted that ecotoxicological thresholds are generally higher than human health-based limits and warned that setting strict soil guidelines could have major consequences for agriculture and construction.

The discussion then turned to biosolids management. Ian explained that wastewater treatment plants are not sources of PFAS but receive contamination from upstream uses, including consumer products and human excretion. PFAS partitions into sludge during treatment, and anaerobic digestion does not destroy these chemicals. Land application of biosolids, historically practiced in Jersey, introduces PFAS into agricultural soils. While single applications may not exceed background levels, repeated use could lead to accumulation above low guideline thresholds. Alternative disposal options were reviewed, including landfilling (not feasible in Jersey), hazardous waste incineration (effective but costly), and emerging thermal treatments such as pyrolysis and gasification, which require significant capital investment. Incineration studies show most PFAS is destroyed, though trace amounts remain in waste streams. Ian stressed that none of the options are ideal, and decisions will involve trade-offs between environmental protection, agricultural needs, and economic feasibility.

Steve acknowledged the complexity and suggested that recommendations might need to differentiate between land types—agricultural, residential, and other uses—and potentially set

tolerable PFAS levels for each. He proposed considering conditional biosolid application based on soil PFAS concentrations, though Ian cautioned that cumulative applications would eventually exceed limits, necessitating alternative disposal strategies. The panel discussed the implications of stricter guidelines, including increased reliance on imported fertilisers and potential carbon impacts. Kelly highlighted the need for at least indicative soil targets to avoid a regulatory vacuum and confirmed efforts to fast-track soil monitoring data, which may inform decisions before the next meeting. Ian recommended leaning on the Flemish model as the most developed European approach, while noting the need for translation and further review. Tony raised questions about European-level proposals and PFAS leaching dynamics, which Ian explained are complex and uncertain, with soil retention generally strong.

The panel agreed that final recommendations will depend on forthcoming soil data and acknowledged the time pressure to provide interim guidance before legislative deadlines. They recognised that some decisions may ultimately require political judgment beyond scientific evidence, given competing priorities and resource constraints. The meeting concluded with a commitment to revisit these issues at the next session, incorporating any available soil data and further analysis of the Flemish framework. Kelly also provided an update on locally consumed fish species—mackerel (recreational), bass, and bream (commercial)—with market share data to follow, supporting parallel work on dietary PFAS exposure.

Government of Jersey discussion papers

1. Private Water Supplies in Jersey

The meeting focused on private water supplies in Jersey, comparing local regulations with those in England. Steve Hajioff introduced the paper outlining key differences in monitoring parameters, testing arrangements, and the legislative framework. He noted that Jersey has 51 private water supplies serving more than one property, which could be significant for future policy considerations. Kelly Whitehead emphasised that, unlike England, Jersey has minimal regulation for private water supplies, making it challenging to impose conditions or requirements without major legislative changes. The current Water Law applies only to the public water supplier, Jersey Water, and does not extend to private suppliers, even those serving multiple households. This contrasts with England, where supplying water to others imposes additional obligations to ensure wholesomeness.

The panel discussed the implications of this gap, noting that any recommendation to regulate private supplies would require primary legislation and a substantial lead time. Steve highlighted the societal principle that activities harmful to others are more likely to be regulated than those affecting only oneself, suggesting a distinction between single-household and multi-household supplies. Kelly provided data indicating that approximately 1,700 properties use borehole water and 400 use well water, with at least 51 supplies serving multiple properties. However, due to the absence of a legislative framework, these figures are based on voluntary disclosures and property reference data, making accurate estimates difficult.

Questions arose about the nature of boreholes and wells. Kelly clarified that both can be pumped, with wells typically older and used for garden watering, while boreholes are deeper and generally supply households. The panel also discussed PFAS testing, noting that while some data exists from government and private testing, sharing results requires agreements with landowners, and the proportion of tested supplies remains unclear. Historic data is available, and Kelly committed to providing further details on testing coverage.

The discussion concluded that the lack of regulation severely limits the ability to estimate PFAS levels or enforce standards for private supplies. Any recommendations would need to account for

significant implementation delays. The panel agreed to acknowledge these constraints in future planning.

2. La Collette Energy Recovery Facility

The La Collette Energy Recovery Facility paper outlines the plant's operation, input load, and electricity output. Steve highlighted that the facility operates at 850°C, a temperature that significantly degrades PFAS but does not completely eliminate it, leaving crystalline residues. This has implications for recommendations on diverting PFAS-containing waste streams to the facility. Steve noted that while the plant currently processes 70,000 tonnes of waste annually, its maximum capacity is unclear, and understanding this figure is critical for planning. If capacity is significantly higher, such as 150,000 tonnes, the facility could accommodate biosolids and future increases in domestic waste. However, if capacity is close to current levels, additional infrastructure would be required for any diversion.

Ian raised concerns about the practicality of handling biosolids given population growth and waste increases. Tony observed that the waste categories include "putrescibles," likely food and organic waste, which may be comparable to biosolids in terms of calorific value. Kelly confirmed that biosolids from sewage treatment contain about 70% water, meaning pre-drying may be necessary depending on the volume processed. The panel agreed that determining the maximum allowable proportion of biosolids without disrupting plant operations is essential.

Discussion then turned to storage and leachate management. Ian questioned how waste is stored before incineration and whether leachate from the waste bunker is tested for PFAS, referencing studies showing PFAS presence in leachate elsewhere. Kelly confirmed that municipal waste is stored in a bunker and mixed before incineration, while liquid waste and sludge have separate storage arrangements. The panel requested clarity on storage duration, leachate handling, and whether it is treated or incinerated. Steve noted that activated carbon and ion exchange residues from water treatment will likely require incineration at this or another facility, making capacity estimates even more critical.

The discussion concluded that further information is needed on the facility's maximum capacity, tolerance for biosolids, leachate management practices, and integration of PFAS-contaminated residues. These details will inform recommendations on waste diversion and PFAS destruction strategies. Kelly committed to seeking answers from the waste management team.

3. La Collette Clinical Waste Incinerator

The discussion focused on the clinical waste incinerator at La Collette, which is the only hazardous waste incineration facility in Jersey. Steve outlined key points, noting that the facility processes approximately 150 tonnes of waste annually and has a maximum additional capacity of 80 tonnes, meaning it cannot be significantly scaled up. The incinerator operates at 1,100°C in a two-step process, a temperature sufficient to completely degrade PFAS. However, Steve emphasised that the volume of PFAS-contaminated material that might require disposal would far exceed the facility's capacity, making it unsuitable for large-scale PFAS waste treatment. While the process details are important for general understanding, they are not directly relevant to PFAS because clinical waste currently does not contain PFAS leachates.

Steve added that any PFAS-contaminated waste recommended for incineration cannot initially be processed at La Collette due to volume constraints. However, very small, highly concentrated PFAS waste streams might be considered, subject to logistical and regulatory hurdles. He suggested that if municipal waste incineration were to divert PFAS-containing streams, the resulting ash could potentially be processed at La Collette, given its low volume, though this remains speculative.

Ian proposed measuring PFAS levels in ash from the domestic waste-to-energy plant, noting that this is relatively straightforward compared to sampling flue gases or other waste streams. He highlighted that similar studies have been conducted internationally, and protocols could be easily adapted. Steve agreed that this would be a useful next step and committed to exploring the feasibility of such testing.

4. Waste Disposal Cells at La Collette Reclamation Site

The discussion focused on hazardous waste disposal cells at the La Collette Reclamation site. Steve Hajioff summarised key points, noting that the facility has very limited capacity, currently holding just over 17,000 cubic metres of material, and is nearing its limit. The site uses artificial membrane barriers due to Jersey's soil characteristics, but these barriers have a finite lifespan, adding to long-term concerns. Hazardous waste cannot be exported, and the site currently receives ash from both incinerators as well as contaminated soils, although the specific contaminants in these soils were not detailed in the paper. Steve highlighted that leachate from the cells is monitored and pumped to the sewage treatment works (STW), but monitoring appears focused on heavy metals rather than PFAS, which may need to change going forward.

Ian confirmed that landfill leachate typically contains PFAS and suggested that testing should occur before treatment at the STW. Kelly clarified that the STW conducts extensive testing at its inputs and outputs, but it is unclear whether leachate from the disposal cells is tested for PFAS prior to entering the STW. She agreed to investigate and provide results.

Tony raised questions about the composition of contaminated soils, noting that over 90% of the material in the cells consists of soils from property development. Kelly explained that these soils originate from heavily contaminated brownfield sites, often linked to historical industrial activities such as petrol storage, gas works, and pumping stations. These sites can contain hazardous substances requiring strict handling protocols, including controlled truck routes and contingency plans for spills. Ian added that some soils are so contaminated that protective equipment is necessary during remediation. Kelly confirmed that contaminants include substances associated with gas storage and other industrial uses, such as arsenic.

The panel agreed that the site's limited capacity—estimated to last less than a decade under current usage—combined with the complexity of managing highly contaminated soils and potential PFAS in leachate, poses significant challenges for future waste management strategies. Further clarity on PFAS monitoring and a detailed breakdown of soil contaminants will be provided by Kelly for the next meeting.

5. Bellozanne Valley Wastewater Treatment Plant Summary

The discussion focused on the Bellozanne Valley Wastewater Treatment Plant. Steve noted that the panel is already familiar with the plant's operations following a site visit and previous briefings. He summarised the key process steps: post-settlement and separation, followed by anaerobic digestion of biosolids for biogas generation. These biosolids, after digestion, are the material potentially applied to land, which is a critical consideration for PFAS management. Additionally, wastewater from the digestion process is recirculated within the system.

Ian highlighted the importance of PFAS-specific data, noting that effluent measurements from the plant show PFAS levels in the nanograms-per-litre range, which he found surprisingly low but consistent with expectations that longer-chain PFAS compounds partition primarily into biosolids. He confirmed that the plant does not currently employ PFAS-specific treatment technologies, relying instead on conventional wastewater treatment methods. Options such as activated carbon and ion

exchange resins, commonly recommended for PFAS removal in drinking water, could theoretically be applied to wastewater, but these are not currently in use. Ian suggested that these considerations should be addressed in future planning.

Steve agreed, stating that recommendations on wastewater treatment will not be made before Christmas, allowing time to gather additional monitoring data and review treatment options in the new year. The panel acknowledged that PFAS management in wastewater will require further analysis and is included in the work plan for future discussions.

Before closing, Kelly Whitehead provided an update on the Energy-from-Waste (EFW) facility's capacity, clarifying that its maximum potential is 100,000 tonnes per year, compared to the current 70,000 tonnes. While this indicates some spare capacity, Kelly cautioned that operating at maximum load would reduce the ability to perform planned maintenance and cleaning, creating operational challenges. Steve noted that population growth will likely absorb much of this capacity, making diversion of additional waste streams problematic in the longer term. Kelly agreed to seek further factual details from the solid waste team for the next meeting.

The discussion concluded with agreement that PFAS-specific monitoring and treatment options for wastewater will be revisited in early 2026, and that capacity constraints at the EFW facility will need to be factored into any future waste management recommendations.

6. PFAS Testing Protocol & Food And Soil Testing Methodology

The discussion addressed the testing rationale and methodologies for PFAS sampling in Jersey. Steve acknowledged the inclusion of testing protocols in the documentation and noted their relevance as background information for stakeholders. Kelly explained that two papers were prepared: the first outlines the published testing protocols established prior to the testing programme, which were made publicly available on Gov.je to ensure transparency. The second paper details the step-by-step methodology for sample collection across various categories, including soil, plant and animal origins, and potatoes.

This methodology covers procedures for labelling, transport, and general descriptions of sampling locations, while site-specific details remain confidential for data protection reasons. Kelly also noted that testing was conducted through multiple accredited laboratories, including FERA, Eurofins, and Veritas, depending on sample type.

Steve emphasised that these documents provide valuable context for Islanders and other stakeholders but do not require detailed commentary within the main report. Instead, they will be included as appendices in the final report to ensure accessibility and transparency. The panel agreed that while the methodologies are important for public confidence, they are not central to the report's conclusions and recommendations.

Any other business

No other business was raised.

Date of next meeting

Tuesday 18 November 2025. 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 \(gov.je\)](#)