Submission to Select Committee on PFAS - Inquiry into the extent, regulation and management of PFAS

Submitted via online portal
19 December 2024

Dear Committee,

Thank you for the opportunity to provide comment into the extent, regulation and management of PFAS.

Individually, I have advocated on PFAS matters in Gippsland, Victoria since 2017 including networking with other impacted communities from other states. I have also provided feedback to numerous state and national PFAS plans and inquires, received briefings from Defence, agencies, and consulted considerably with ESSO/EXXON, Agricultural Victoria, unions, WorkSafe.

I also manage a PFAS dedicated website and FB page[1] where I share my research work, submissions, reports and comments. Of relevance to this inquiry is my complaint letter to FSANZ Board in February 2023 and their response which has implications for agriculture, food safety and triggers for Human Health Risk Assessments (HHRA) specifically noting obligations of the Board and potential for liability. All pathways default back to FSANZ - you knew and did nothing. The FSANZ Board letter is attached to the submission as a 9 page Appendix as it explains statutory implications and problems relying on FSANZ. Their response can be read from my website.[2]

What will be this Inquiry's point of difference to previous PFAS Inquiries which achieved little when there is no political will to action a Committee's recommendations.
Main questions for this Committee are:

- where best to invest resources to reduce PFAS exposure risks,
- how best to improve PFAS health messaging,
- what science will inform government policy, and
- why are our government departments so ineffectual.

I would be happy to present at a public hearing if attending Gippsland.
The terms of reference provide the headings and subheadings and have included recommendations where relevant.

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[1] www.communityovermining.org Gippsland PFAS
[2] https://communityovermining.org/uploads/1/3/5/9/135967230/response_letter_pfas_letter_to_fsanz_board.pdf

Contents

(a) The extent of data collection on PFAS contamination;

Australia has yet to quantify the totality of the problem by identifying contaminated sites, the extent, magnitude and implication of the PFAS contamination, particularly in our regional areas. This is where our food is grown for human consumption and our water harvested for drinking water. Furthermore, their inaction on dealing with PFAS at the point source is relatively non-existent.

Sampling of PFAS provides the data and evidence base for decision-making. Without data there is no evidence.

State and Federal health departments have gone under the radar for their complicity in lack of health data collation and blood testing in exposed regions, particularly for research purposes, absence of medical training for potential PFAS health impacts or any advocacy for workplace exposure protection.

Australia also does not test routinely for PFAS in food produce and livestock sourced from PFAS contaminated zones – no data, no evidence, no problem.

Little data exists to provide credible derivations for a Hazard Index (HI) of potential health effects from PFAS exposures and even less data for our drinking water. Furthermore, no publicly accessible auditing records exists from Water Corporations for the amount of recycled wastewater and biosolids that are currently bioaccumulating on our prime agricultural farmland growing food for human consumption.

No transparency or accountability exists for those industries and Commonwealth entities (e.g. Defence, ESSO, Dutson Downs Compost) that are knowingly leasing contaminated land with impunity to farmers to raise livestock and grow produce for human and animal consumption.

Water

The public are only becoming more aware of contaminated drinking water via the media, not from the authorities tasked with protecting the public and environment.

There is nothing enforceable about PFAS levels in drinking water including NHMRC's proposed Draft PFAS Drinking Water Guidelines (DWGs). Water corporations only need be complaint with 3 PFAS (PFOA, PFOS, PFHxS) and only required to provide data related to those 3 and not necessarily to the public.

The recent NHMRC Draft PFAS Drinking Water Guidelines has background notes with feedback[3] from Water Corporations of their catchments 'assumed' low risk because they're not near Defence bases or other AFFF users. This is a get-out justifying why they can take a risk-based approach and not test for PFAS under the principle 'KNOW YOUR CATCHMENT.' The Blue Mountains exposure has just blown that out of the water. With the pervasive nature of PFAS, no area can be assumed a low risk in the absence of baseline data.

RECOMMENDATIONS:

Environmental monitoring programs

- Jurisdictional EPAs should prioritise review of all approved discharge licences for effectiveness of PFAS management. Any industry refused trade waste agreements with WWTPs due to toxic chemical loading should be closely monitored for onsite treatment and not illegally discharging in high rain events.

Ambient monitoring

PFAS is not destroyed – it goes somewhere

- Priority for data collation, passive monitoring of all Waste to Energy facilities, open evaporative wastewater ponds, landfill sites, biosolids stockpiling, composting

(b) sources of exposure to PFAS

Environmental contamination - what space is safe?

Victoria has minimal monitoring of our air, water and soils and it's debatable to the rigor given site placements of air monitoring and lack of water and sediment testing.

Water

Water is the major environmental sink for long- and short-chain PFAS. Industry discharges (including unlicenced discharges) from significant polluting industry using organoflourines are adding heavy pollutant chemical loading to our waterways threatening human and environmental health.

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[3] NHMRC Administrative Report Appendix B – p90 Targeted consultation feedback enHealth Water Quality Expert Reference Panel (WQERP), the Department of Health and Aged Care and Food Standards Australia New Zealand (FSANZ)
Comments relating to implementation and feasibility:
#7 Requires regulator discussion as to a monitoring approach – does it neatly fit under the risk assessment framework of the ADWG – thereby no testing is required if not identified as a catchment risk.
https://www.nhmrc.gov.au/health-advice/environmental-health/water/PFAS-review/guideline-development

PFAS loaded effluent and biosolids from wastewater treatment plants, agricultural pesticides, recycled water irrigation runoff, and industry stormwater can be the sources of PFAS in upstream catchment.

Short-chain PFAS are more likely to partition in the water column, while long-chain PFAS most likely to partition in sediment so sediment testing for PFOA & PFOS are crucial from catchment areas. Dredging, regularly carried out in our upstream Gippsland Lakes system has been contaminated with PFAS from significant industrial known legacy PFAS contamination, East Sale RAAF base, ESSO, CFA, coal mining to name a few. The dredged material suspends particles and contaminant before it replenishes eroded sites with poor oversight by EPA Victoria.

Legacy long-chain PFAAs remain in PFAS hotspots areas causing widespread contamination from diffuse sources. Despite regulatory restrictions, releases of legacy PFAS into water bodies from contaminated sites like landfills and WWTP will continue for a long time so we cannot ignore PFOA. Consequently, without any action by the Australian government, the migration of PFAS to the environment from both point and diffuse sources is expected to grow exponentially. PFAS plumes will infiltrate more groundwater, surface water, drinking water catchments and food growing regions.

Furthermore, most of the contaminants are transported in medium to large flood events which nobody is sampling! Flooding of land can become significantly contaminated from large upstream PFAS sources which include WWTP, mining tailings storage, airports, industry, agricultural land to name a few.

See webpage, *Are Queenslanders "Microdosing" on Weedkillers in their drinking water?*[4] Information accessed via Pesticide Reporting Portal Water Quality and Investigations.[5]

The more agriculture in a catchment, the higher the chances of pesticide runoff. See section (d) for connection with regulatory capture by Ag/Vet industry and undermining of 'inert' ingredients in pesticides.

Air - is my air safe to breathe

EPA Victoria have an advice page[6] about how to reduce PFAS exposure to dust.

[4] https://www.foe.org.au/are_queenslanders_microdosing_on_weedkillers_in_their_drinking_water?fbclid=IwAR1o1cG_VoK5jHd5Ja_zSH7gO-Ocwk9qD62o2gktOc8S2Ef__LeCP5ob3jM

[5] https://storymaps.arcgis.com/stories/c0f0c6d7d88a4fd3a5541fe59f41ff75

[6] https://www.epa.vic.gov.au/for-community/environmental-information/pfas

How to reduce your exposure to PFAS

Some ways to reduce exposure to PFAS include:

- follow EPA's advice when we issue alerts about PFAS
- wash your hands after touching soil
- check ingredients in personal care products
- avoid products containing PFAS.

This is as good as it gets from a science-based regulator. As for checking ingredients to avoid products containing PFAS, there are no labelling and no disclosures, so people don't know they are being exposed to PFAS when, how and where.

In contaminated rural farming communities dirt and dust is all consuming.

- *don't let your kids play outside in the dirt,*
- *don't work in the dirt,*
- *don't walk on the dirt,*
- *don't drive on the dirt,*
- *don't plough the dirt,*
- *don't grow veggies in the dirt; and most important,*
- *don't breathe while outside.*

While the Australian Government continue community messaging that long-chain PFAS are decreasing in pooled blood samples, the opposite is occurring as short-chain PFAS are increasing. However, atmospheric concentrations are a different story increasing in both long and short-chain PFAS with short-chain degrading to their terminal precursors of PFOA and PFOS.

The particles deposited in our breathing space range from fine to coarse. Inhaled fine particulates enter the bloodstream thereby posing direct risks to human health. Cumulative inhalation from airborne PFAS poses a greater risk for those contaminated farming communities working the land from dust, workers at landfills which are time delayed emission sources (leachate and gas), then transported to WWTP before discharge into receiving waters (secondary input sources to surrounding environment)[7], firefighters and those industries using PFAS as examples.

Additionally, bioaerosols laden with organic pollutants (e.g., PFAS) can enter the atmosphere and be transported to nearby communities during waste

[7] https://www.sciencedirect.com/science/article/pii/S0160412022003610

disposal, storage, and treatment processes. PFAS precursors add to the unknown transformation pathways of PFAS forming complex and unidentified byproducts. Where is the data and who is investigating fugitive atmospheric emissions of PFAS?

Beneficial use of biosolids and recycled wastewater

VicWater, the peak industry association for water business in Victoria, articulates concerns with biosolids in their June 2019 submission[8] for the draft NEMP V2 along with very succinct guidance and recommendations, as follows:

> *5. Beneficial reuse of biosolids and recycled water will require a holistic and health-centric approach, which will need to be articulated more clearly. There is a current dichotomy between the current mandate to encourage beneficial reuse of biosolids and recycled water, versus the (as yet unknown) risk of PFAS potentially impacting human health. Biosolids applications on land could potentially lead to future health impacts and landfilling causes potential detrimental leachate. Clear expectations relating to the disposal and/or treatment of PFAS are needed…*

Recycled water

Regional water corporations are tasked with providing a 'beneficial use' for recycled water from wastewater treatment plants and dealing with flood and stormwater concerns.

The objective and dependence of recycled water as another source of water in a drying climate is flawed if its 'beneficial' reuse is not appropriately treated. Not removing *Contaminants of Concern* (CoC) in the treatment process will only add to the degradation in waterway health and unintended land pollution creating potential legal and economic implications.

In Victoria, there is a current political push to use recycled water[9] relabelled as environmental water for flow stressed rivers which is water corporations trying to justify a basis for their existing discharges of poorly treated wastewater into our waterways. Using recycled water to increase flow regimes is worded around lessening the damage to the environment aesthetically as opposed to treating wastewater to a higher standard which will reduce toxicity cumulative impacts from CoC.

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[8] VicWater PFAS Draft NEMP2 Submission – VicWater (archive.org)

[9] https://www.epa.vic.gov.au/about-epa/publications/3005-recycled-water-use-in-surface-waters

RECOMMENDATIONS:

- EPA to enforce compliance of dredging requirements to avoid resuspending PFAS contaminated sediments from dredged material.
- NHMRC would need to prove that current monitoring practice does not underestimate PFAS in the environment given the limited suite of PFAS that are typically quantified under non-statutory guidelines.
- Mandatory PFAS water sampling after medium to large flood events to proactively inform required remediation actions and health advice.

Food system exposure – is my food safe to eat?

It is quite shocking that authorities are turning a blind eye to allowing food to be produced in PFAS contamination zones for human consumption.

Agricultural Victoria[10] don't have a problem with condoning selling of livestock raised on PFAS contaminated land and is the best example of a state-based entity providing outdated and misinformation. Their advice defaults back to FSANZ with an apparent intention to evade any liability.

Australia is very laxed with allowing the use of agricultural chemicals that are banned in other countries. Pesticides are some of the most widely distributed pollutants across the world. The legacy impacts of PFAS addition into pesticide products could be widespread and have wide-ranging implications for human and environmental exposure contaminating food and water, as well as increasing the presence of PFAS in rural environments.

Selling PFAS contaminated livestock

Stockyards

When the auctioneer announces that the pen containing livestock is for slaughter only, you can hear the quiet rumblings of the crowd, *"that means there full of PFAS."*

Can SAFEMEAT and state-based abattoirs[11] produce proof that livestock from known PFAS contaminated properties are being withheld and stored at abattoirs around Australia for exclusion and sample blood testing?

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[10] Is it safe to consume meat or other animal products from livestock exposed to PFAS? https://agriculture.vic.gov.au/livestock-and-animals/livestock-health-and-welfare/pfas-and-livestock

[11] https://communityovermining.org/uploads/1/3/5/9/135967230/primesafe_brendan_tatham.pdf
The CHAIR—Are you aware if there are any standards in respect of perfluorinated chemicals such as PFOS or PFOA?

- Where does the blood and washdown wastewater of the contaminated slaughtered livestock go – into waterways, sewers?
- Where does the contaminated offal go? Is it processed for human consumption? What products?

FSANZ has developed non-regulatory 'trigger points' for livestock products including meat, offal and milk, as well as seafood, fruits and vegetables.
The trigger points are used by government authorities to identify whether further investigation may be required if PFAS is detected in analysed foods.

Analysed is the magic word. Relates to NO DATA, NO PROBLEM!

RECOMMENDATIONS:

To get a greater understanding how much pesticide use with active organofluorine has potential to leach into our environment and contaminate our food supply, provide a forensic audit:

- how many million kg of registered pesticide with active ingredients is applied to food produce for crops, grapes, orchards, vegetables (including intensive hothouses) per annum
- estimation of how much food producing land to establish cumulative km^2 treatments of farmland throughout Australia

Consumer goods

It appears there is no leadership or political will to address a symptom of PFAS use and its distribution with the sheer pervasive nature of PFAS in consumer products unchecked.

If PFAS is increasing in the general population from consumer goods and domestic sewerage, then WWTPs become a risk to the health of our waterways if they cannot reduce PFAS which in turn would reduce many other emerging contaminants.

- *Dr TATHAM—The standards which PrimeSafe* [Victoria] *utilises and makes codes under the Meat Industry Act, the two which are relevant here are 4696, an Australian standard for the hygienic production of meat for human consumption, and then the food standards code. Under the food standards code there is a list of maximum residue limits for a range of chemicals. They are listed within the food standards code. The technical detail is described in my statement. PFOS is not one of the chemicals listed in the food standards code, which means that in order for compliance to be demonstrated by an abattoir for the food standards code, there should be zero or at the not detectable limit for that chemical, if it is not listed as an MRL in the food standards code.*

The CHAIR—So if it is not listed in the standard, then it should not be present?

- *Dr TATHAM--Correct.*

Again, NHMRC feedback[12] revealed a shockingly ignorant comment from a person representing either enHealth, Water Quality Expert Reference Panel (WQERP), the Department of Health and Aged Care or FSANZ:

> *Question 3: Do you have any other comments about implementation or feasibility of the proposed health-based guideline values?*
> *#7 drinking water represents a very small proportion of most Australians' exposure to potentially harmful PFAS chemicals. It is therefore difficult to justify urgent and possibly very expensive action to reduce levels in drinking water when very little appears to be happening to the other, much more significant, sources represented by personal care products, food, food packaging, many consumer goods, clothing, air and dust (this last one being significant for small children).*

These are the bureaucrats in charge of the PFAS coverup.

Disposal of AFFF stockpiles

Do the Commonwealth and state regulators actually know what stockpiles of AFFF exists that present a potential disaster to the sewer system and greater environment. What they think is effective auditing of AFFF stockpiles is far from satisfactory.

- How has each state managed PFAS AFFF stockpiles in the past and present?
- What is the handling and disposal process for expired Class B foam fire extinguishers?
- Who are the accredited waste providers to remove AFFF and which approved facility are they destroyed in rural and regional Australia.

Victoria - photo evidence, below, on 7 December 2022 reveals ongoing mismanagement to reduce potential PFAS exposures. These photos show bottles (both empty & full) of the toxic PFOA and PFOS Aqueous Film Forming Foam (AFFF) in a sink, out in the open, accessible to anyone walking by with no barriers erected around the site. As a concentrate, AFFF is toxic and deadly. How could this occur?

[12] NHMRC Administrative Report Appendix B –p89 Targeted consultation feedback comments relating to implementation and feasibility: https://www.nhmrc.gov.au/health-advice/environmental-health/water/PFAS-review/guideline-development

EPA and WorkSafe Victoria were contacted to protect public safety but whether the product had previously been discharged to the environment is unknown.

RECOMMENDATIONS:

- Resource a forensic audit of all users conducted several audits to locate and remove any remaining fluorinated or unidentifiable foam stocks, which may have contained PFAS.

(c) the health, environmental, social, cultural and economic impacts of PFAS

The biggest threat to victims of contamination in food growing areas is FSANZ's declaration that PFAS is safe at a ridiculously higher level than global levels.

- Farmers are told you can publicly onsell the food raised on contaminated land that you are told not to eat but is OK for other people to eat.
- These other people who purchase the food have no right to know where the food comes from nor if it is contaminated because FSANZ is manipulating the Food Safety Code illegally.
- This is irresponsibly backed up by all other relevant departments and agencies. However, this line of defence would not hold up in a third-party civil court case
- It is illegal under state-based food safety Acts to knowingly sell contaminated food for human consumption - you are either knowingly selling contaminated food or you are not. That is how the law works.

I previously provided a submission into the 2018 *Inquiry into the management of per- and polyfluoroalkyl substances (PFAS) contamination in and around Defence bases* with the report noting:

- *6.10 Tracey Anton* [CoM]*, of the Latrobe Valley in Victoria, similarly raised concerns that either the Government was allowing PFAS contaminated agricultural produce to be exported, or it was being distributed in the*

domestic market while 'denying a person a right to choose between contaminated and non-contaminated foodstuff'.[13]

The rest of the world is moving on revising their PFAS levels stricter and placing maximum PFAS levels on meat and food so it cannot enter the food chain protecting communities from ongoing PFAS exposures.

FSANZ decisions, past, present and future are responsible for ignoring:

- and manipulating their own food safety codes and act.
- toxicity information on emerging and legacy PFAS, individually and as mixtures.
- management for the class of PFAS as a whole limiting regulation to just 3 compounds.
- lack of studies & testing in contaminated zones so food safety results are deliberately missing essential data.
- micro-dosing as constant exposure of PFAS products everyday accumulating in the body - how we are exposed not just what we eat & drink.
- workplace exposures breathing in PFAS dust & vapour which do not inform human health risk assessments.
- PFAS contamination's 30 year start with no attempt to collate essential health data.

Implications & cost to society should be influencing and prioritised in national health policy and updated regulatory frameworks as the generational health impacts have already started with cancer clusters.

How much of the societal cost burden for clean-up, removal of toxic waste and remediation will be borne by the taxpayer.

(d) Challenges and Coordination

PFAS pollution cannot be classified as 'low risk' exposure to human health as the hazard is an insidious 'forever chemical' ingested as easily by dust and drinking water daily. Low risk is one step up from negligible risk and that's where sugar sits as a chemical hazard to human health.

Given the negative influences on PFAS policy and management noted in the following sections, there can be no coordinated containment of PFAS use or reduction in PFAS exposures if the current business-as-usual practices are allowed to continue unchecked.

[13] https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Foreign_Affairs_Defence_and_Trade/InquiryintoPFAS

All the public can see are:

- fragmented State and Federal PFAS action frameworks,
- ineffectual highly paid Commonwealth entities not protecting public and environmental health
- highly paid environmental consultants providing risk assessment based on poorly derived and very high health based guidelines values.

Not hard to surmise government inefficiency is linked to donations of powerful lobbyists and industry groups. Time to break the link. Our taxes are bankrolling government bureaucrats to not protect Australian citizens.

Coordinating PFAS health and exposure research

Australia argues a lack of human health evidence to prove PFAS causes certain health impacts as opposed to associated with negative human health impacts. This is old school science if multiple advanced science technology has not been utilised. At the top of the misleading information put forward is the lack of credible epidemiology studies in the many PFAS hotspot areas around Australia (no data, no evidence).

Worse is the influence by chemical industry bodies advocating the use of certain chemicals that are poisoning our waterways and making the landscape sick.

First Nations communities note unsustainable agricultural practices impacting the health of the people and their connection to Country. They need to know government are taking contamination of the waterways seriously and prepared to start prioritising the health of people and environment.

Basic science is not quality science to inform effective PFAS policy.

Duckshoving responsibility

'We are compliant with the standards' - of an outdated act under some other departments jurisdictional control, *'therefore not our problem.'* This is public servants lack of accountability at their worse.

Recent example of excuses put forward by 'so-called' responsible authorities for NSW Health approving use of biosolids on agricultural land.

> *...spokesperson for NSW Health said, "the responsibility for the regulation of biosolids rests with the NSW Environment Protection Authority".* [14]

Regulatory capture -the Chemical Industry on scientific evidence

The *Industrial Chemicals Bill 2017* became the new *Industrial Chemicals Act 2019,* and created Australian Industrial Chemicals Introduction Scheme (AICIS),

[14] https://www.abc.net.au/news/2024-12-17/pfas-forever-chemicals-found-biosolids-used-food-production-nsw/104724502

a new regulatory scheme for the importation and manufacture of industrial chemicals in Australia.[15] Makes a clear pathway for 'low risk chemicals' (polymers of low concern) to avoid assessment,

These chemicals are present in cosmetics, fragrances, soaps, shampoos, hair dyes, paint, petrol, cleaners, printers, surface coatings and plastics, and are used in mining, construction and manufacturing, **just like PFAS**.

The same can be said for 'inert'[16] ingredients. These are every other ingredient added to the pesticide product, including emulsifiers, surfactants, solvents, carriers, aerosol propellants, fragrances and dyes. Does not mean they are non-toxic yet are not required to be publicly disclosed on labelling, including Australia. Many of the ingredients have PFAS compounds having unintended off-target effects themselves to people and wildlife.

National Toxics Network said history has shown that today's low-risk chemicals can be "*tomorrow's toxic chemical disasters*"[17]

Australian Pesticides and Veterinary Medicines Authority

The APVMA (Australian Pesticides and Veterinary Medicines Authority) is another powerful lobby group clearly able to prevent effective safe management and reduce risks to environment and human health from chemical pesticides (*herbicides, insecticides, rodenticides and fungicides*).

Big Pesticide reaches into every element of rural life in Australia[18]

> *'Pesticide companies are deeply connected to rural Australia and provide 90% of the budget for the federal regulator, the Australian Pesticides and Veterinary Medicines Authority.'*

The recent independent review of the APVMA *found serious and systemic issues with the regulator's operations, conduct and governance.*[19] The concern is the undermining of 'inert' ingredients in pesticides as opposed to 'active' ingredients that kill or suppress the targeted organism.

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[15] https://www.lawbc.com/australias-new-scheme-for-introducing-industrial-chemicals-will-begin-july-1-2020/
[16] https://www.epa.gov/ingredients-used-pesticide-products/basic-information-about-pesticide-ingredients
[17] https://www.smh.com.au/politics/federal/industrial-chemicals-turnbull-government-moves-to-slash-safety-testing-regulations-20170817-gxxzt0.html
[18] https://www.theguardian.com/australia-news/2022/oct/07/how-big-pesticide-reaches-into-every-element-of-rural-life-in-australia
[19] https://minister.agriculture.gov.au/watt/media-releases/government-action-ensure-integrity-ag-chemical-regulation#:~:text=The%20APVMA%20is%20the%20regulator,regulator's%20operations%2C%20conduct%20and%20governance.

RECOMMENDATIONS:

- Review industry sector discharge licence conditions to waterways, identifying chemicals in use and how much each licence is allowed to be discharged into waterways to reduce cumulative chemical loading of waterways.
- Government to ensure a more stringent risk assessment approach for fluorinated pesticides, transparent disclosure of "inert" ingredients on pesticide labels, and greater monitoring of pesticides in waterways
- EPA be better resourced to address compliance and dumping of chemicals into major waterways.

Red Meat industry

Specific industries and lobbyists for agriculture and livestock (noted on my website)[20] that promote a clean green image would be substantially impacted if the real extent of PFAS contamination to our prime agricultural lands and water were exposed. These Commonwealth entities and their Boards have conflicts of interest in protecting their members and Australia Federal Government from liability and potential impacts on trade relations.

In doing so, our basic human rights are denied.

Meat and Livestock Australia (MLA)[21] sit at the top of the tree alongside SafeMeat Integrity systems for their conflicting PFAS management.

Senior departmental bureaucrats (public servants) at state and federal level enable the collusion to continue business as usual and reckless inaction condoning the dissemination of misinformation and disinformation.

Food safety

The integrity of FSANZ is in question and whether political influence is infiltrating our food standards codes as FSANZ health surveys and studies are questionable and application of food safety acts are manipulated as noted in complaint letter sent to FSANZ.[22]

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[20] https://communityovermining.org/pfas-livestock.html

[21] https://www.mla.com.au/about-mla/how-we-are-governed/

Corporate Governance …ensure we remain accountable to our stakeholders and that stakeholder interests are protected.

The Board…oversees risk management and compliance, and ensures the company abides by its obligations under the Red Meat Industry Memorandum of Understanding, the Funding Agreement, and under corporations law. Many directors are also producers and members of the company.

[22] https://communityovermining.org/uploads/1/3/5/9/135967230/fsanz-complaint_letter_to_board-20_02_2023.pdf

FSANZ operates under the Food Standards Australia New Zealand Act 1991 which they are not even compliant with.[23]

FSANZ is the one commonwealth entity that every PFAS policy, guideline and regulatory framework defaults to for all state, territory and federal agencies and authorities. Therefore, they are the one body responsible for allowing contaminated food products to be exported or sent to the domestic market to be consumed by children, pregnant women and the health compromised. This includes collusion to enable trade agreements passing on untested, unsafe food products with false declarations to our trading partners.

Environment and human health cannot be separated as the one food standard is the default for all human health risk assessment in the absence of all other PFAS exposures government are doing nothing about.

RECOMMENDATIONS:

- Update Red Meat Industry Memorandums of Understanding with explicit obligations placed on Boards to better manage PFAS risk management in the agriculture sectors.
- Review updating Corporations law inserting a specific section on PFAS to uphold transparency and accountability that Boards have obligations to reduce unnecessary use of PFAS and priority obligation to the health of environment and public health.
- PFAS workplace recognition should be a priority. The US have a good webpage full of advice on PFAS - The National Institute for Occupational Safety and Health[24] (NIOSH).

There is no current online PFAS occupational health & safety advice

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[23] FOOD STANDARDS AUSTRALIA NEW ZEALAND ACT 1991 - SECT 3

Object of Act

The object of this Act is to ensure a high standard of public health protection throughout Australia and New Zealand by means of the establishment and operation of a joint body to be known as Food Standards Australia New Zealand to achieve the following goals:

(a) a high degree of consumer confidence in the quality and safety of food produced, processed, sold or exported from Australia and New Zealand;

(b) an effective, transparent and accountable regulatory framework within which the food industry can work efficiently;

(c) the provision of adequate information relating to food to enable consumers to make informed choices;

(d) the establishment of common rules for both countries and the promotion of consistency between domestic and international food regulatory measures without reducing the safeguards applying to public health and consumer protection.

http://www8.austlii.edu.au/cgi-bin/viewdoc/au/legis/cth/consol_act/fsanza1991336/s3.html

[24] https://www.cdc.gov/niosh/topics/pfas/default.html

A comment in the Guardian by our Prime Minister with the most recent class action settlement with landowners over PFAS contamination.[25]

"It's another example of where we have to get occupational health and safety right. We need to get it right in the first place; that would avoid these sort of actions. The biggest concern that I have with PFAS isn't, of course, a financial one – it is the health outcomes of people who are affected by it."

(e) the effectiveness of regulatory frameworks, health-based guidance values, and coordination to prevent of PFAS risks

Government Officials Prevented Public Knowledge of 'Forever Chemicals' in Brisbane Water Supply.[26]

"Last year testing by SEQ water at Mt Crosby Westbank, which produces the majority of Brisbane's drinking water, detected PFOA levels of 36 parts per trillion and this year it was 23."[27]

Human health

In the absence of updated HBGV, there is little understanding of governments duty of care because the risk of harm from PFAS exposures over a lifetime has been undermined by lack of robust science and epidemiology studies in Australia.

Health Based Guidance Values

Currently, Australia has no trusted health agencies that provide critical sources of PFAS information to reduce PFAS exposure. We have outdated, fragmented and hard to access online information about PFAS exposures, risks and interventions. Worse, there is no PFAS information at all on either our state and national WorkSafe or cancer websites.

What exists is irresponsible health messaging and why our communities go direct to United States Environmental Protection Agency.[28] I trust the information is the most accurate and up to date.

- Same PFAS
- Same exposure pathways
- Same humans

[25] https://www.theguardian.com/environment/2023/may/15/australian-government-reaches-1327m-class-action-settlement-with-landowners-over-pfas-contamination
[26] https://pfas.australianmap.net/2024-mount-crosby-water-treatment-plant-queensland-pfoa/
[27] https://www.9news.com.au/national/pfas-pfoa-brisbane-drinking-water-high-levels-found-some-catchments-calls-reassess-australian-guidelines/3e105727-f380-4092-aab8-194d08618cb4
[28] https://www.epa.gov/pfas

Health messaging

The Australian Government's communication messaging around PFAS health risks is misleading and dangerously outdated.

The NHMRC was slammed in an online 2022 medical journal[29] for their confusing PFAS health messaging while praising other countries for their proactive advice and interventions to reduce PFAS exposures. NHMRC continue the poor health messaging.

US has strong PFAS mechanistic evidence that Australia does not which requires robust evidence, impact assessment and adequate monitoring and evaluation,[30] Australia has no factual evidence and no mechanistic evidence.

When you look at international evidence, it is incomprehensible how the NHMRC's proposed draft DWGs determined 200 ng/L (200 ppt) level for PFOA, especially when the level for PFOS aligns with US EPA new drinking water guidelines at 4ppt but not the same individual level of 4ppt for PFOA.

The NHMRC seemingly evaluated PFOA, in the Australian context, on two factors:

- US derived cancer slope factor (CSF) are not derived consistent with Australia science policy.
- IARC found inconsistent findings of evidence for cancer in humans for PFOA

This would be confusing for the uninformed public as it is just different risk assessment approaches between Australia and USA that USA can back up with strong mechanistic evidence, but Australia cannot. Both cannot be correct.

It is not clear how any framework in the absence of human epidemiology studies for DWGs will assure safety for public health.

Coordination amongst relevant agencies in preventing, controlling and managing the risks of PFAS to human health and the environment;

An EPA representative for the Draft NEMP V3 webinar when questioned about the new European Union (EU) PFAS standards in comparison to Australia's outdated Tolerable Daily Intakes (TDI) set by FSANZ publicly stated, *'FSANZ were involved in the process of developing the Draft NEMP 3, so the NEMP 3*

[29] *Official health communications are failing PFAS-contaminated communities* https://ehjournal.biomedcentral.com/articles/10.1186/s12940-022-00857-9

[30] Mechanistic evidence …which "rigorous evidence is created efficiently, as a routine part of government operations, and used to construct effective public policy."…that modern technology and statistical methods, "combined with transparency and a strong legal framework, create the opportunity to use data for evidence building in ways that were not possible in the past." https://thelivinglib.org/mechanistic-evidence/

takes guidance and criteria from FSANZ to inform the risk assessments which is the standard we have in Australia.'

Risk assessments based on FSANZ trigger levels ensure polluters can determine human health risk as low. No data so no problem. How have we got to 2024 and no one has challenged FSANZ, surely someone in authority other than a nobody in the community has had the foresight to question them!

RECOMMENDATIONS:

- Remove all Federal Government PFAS webpages and start again with one national dedicated website.

Create,

- a national EPA with the same US structure to provide an authoritative and regulatory framework.
- a new national health and education website like the United States Government *National Institute of Environmental Health Science* which is constantly updated. https://www.niehs.nih.gov/health/topics/agents/pfc
- A workSafe health web portal to provide workers with interventions and advice to reduce their PFAS exposure
- Federal Government under a national EPA to prioritise achievable actions like improved labelling, enforceable disclosures, imported point-source tracking of PFAS chemicals and improved PFAS messaging.
- Australia to improve PFAS health knowledge gaps conducting credible epidemiology studies in hotspot communities where the Department of Health can collate relevant health data. This includes upskilling health providers to identify evidence for health outcomes and conducting appropriate voluntary blood testings
- Mandatory for water corporations to publicly declare the suite of routine PFAS levels not just those 3 for compliance. Financial implications if they don't
- Engage with the Australian Medical Association (AMA) how best to ensure their medical practitioners are fully briefed on PFAS health effects.

(f) the role, liability and responsibility of government agencies and industry in the production, distribution, contamination of PFAS

Australia's international obligations

Australia is not just accountable to future obligations with the Stockholm Convention but to global citizenship. National reforms must align with international standards to improve trade and economic diversity. The proposed NHMRC PFAS DWGs continues to lack rigor and achievable priority actions

which cannot align with the global move to declare PFAS, as a group, hazardous.

Australian Industrial Chemicals Introduction Scheme (AICIS)

State and territory governments also have an important role in managing the use and disposal of chemicals listed on the Stockholm Convention. Due diligence on unchecked chemical use, contaminated waste and legacy contamination to our environment is poorly managed in Australia with ineffective regularly frameworks and no effective leadership now or proposed for the future.

Conflicted toxicologists and FSANZ

There is an established hierarchy of responsibility overseeing heavily PFAS contaminated sites from state-based EPA appointed auditors, consultant companies conducting human health assessments, toxicologists, etc., to determine the risks to the person, environment and a business. PFAS standards are controlled by FSANZ, informed by toxicologists that appear to have a vested interest in Commonwealth PFAS contaminated sites using outdated science to inform risk assessments.

Our Australian Tolerable Daily Intake (TDIs) are used as '*safe end points*' for risk assessments which are indefensible but how safe are they when our international contemporaries have declared they're not based on up-to-date science. The trickle-down effect then allows other agencies to use FSANZ TDIs as a default position so PFAS contaminated livestock and food produce using PFAS contaminated water or feed stock can be sold or determined is safe to consume. All the while the individual is being deceived and misled about what they are consuming. This is one hell of a rort and convenient that Department of Health are silent on PFAS exposures using the same default back to FSANZ.

(h) adequacy and effectiveness of government engagement for communities disproportionately affected by PFAS contamination

Australia is the only liberal democracy in the world that does not have a national act or charter of rights that explains what people's basic rights are and how they can be protected.[31] Basic human rights and a duty of care to the people by government and public servants are not protected or even recognised.

[31] https://humanrights.gov.au/human-rights-act-for-australia

Stuck on contaminated land

Farmers and landowners are trapped on their contaminated land not able to sell or get loans so have no other option for income but to sell their livestock and produce to market. This is facilitated by all levels of government not via any legal process but some dodgy grey areas that would not stand up in court.

Indemnity is a significant issue concerning impacted landowners, as the court does not favour the victim. This issue must be resolved.
The polluter (government and others) can hold up court processes for years and wait to the innocents are worn down and give up. Then what?
There is no policy around selling and buying contaminated land?

(j) international best practices for environmental and health risk assessments, reduction and management of PFAS contamination and exposure;

I note the many updated science reports around the world still relying on animal studies with few epidemiology studies in PFAS contaminated areas to enable a better correlation of findings.

Causation vs association as an approach is old school science and ineffective in the context of applying policy precautions to reduce PFAS exposure. If a causal link cannot be established and we have no other credible studies of our own (ANU study is not credible), Australia is conflicted to justify resources required for remediation, compensation and the all-important health messaging.

Assessing risk from PFAS all defaults back to FSANZ TDIs and food diet studies to determine a safe end for PFAS over a lifetime. This does not consider the many other PFAS exposure pathways.

Most important inclusion for best practice risk assessment is to have a *Sum of PFAS*. Australia does not and cannot propose this while the NHMRC are currently advising PFOA at 200 ng/L (200ppt) – it's just too high.

Determination of risk is a function of hazard and exposure. There are multiple exposure pathways from PFAS as the hazard that can increase the risk 10-fold for human health and environmental risk assessment. PFAS can never be classified as a low risk.

Australia would need to adopt PFAS standards and enforceable applications from both the European Union and US to achieve the following extensive list.

Based on the manufacture, processing, distribution, use and disposal of PFAS and expected environmental releases of PFAS substance, Australia would need to:

- have a Sum of PFAS,
- have legally enforceable Maximum Residue Levels (MRL) in livestock, dairy, fish, produce
- review the function of FSANZ to determine PFAS health and risk assessments.
- the Australian Government accept international science on health impacts and aligns with EU and US PFAS standards.
- government and agencies prioritise and advocate for eliminating sources of PFAS entering and further mobilising to the environment and domestic sewer system.
- official health communications intended to inform the public and health providers about the risks of PFAS exposure to guide community and medical decisions are reviewed and improved.
- drinking water protection is prioritised in highly exposed and vulnerable communities.
- improved notifications of potential PFAS contaminated wildlife used as food sources like fish, eels, wildfowl and deer.
- separate food from the risk.
- Stop contaminated livestock and food produce from exposed agricultural areas being sold for human consumption. We know it is being sold but where to?
- Prevent the leasing of PFAS contaminated land in red zones to graze dairy cows, raise livestock and harvesting of crops.
- Prevent the use of recycled wastewater to water livestock.
- Prevent the use of biosolids on any agricultural land.
- Stop allowing the on selling of cheap contaminated properties based on deliberate disinformation to the potential health impacts.
- better monitor water health for PFAS contamination
- change PFAS health messaging
- government prioritise achievable actions like improved labelling, imported point-source tracking of PFAS chemicals and enforceable disclosures on potential for PFAS bioaccumulation if using recycled wastewater or biosolids.
- enforceable action and resourcing for wastewater treatment plants to better treat wastewater for reuse.

- proactively ban fluorinated containers/packaging,
- proactively ban chemicals with PFAS in pesticides
- provide health-based advice to reduce worker PFAS exposure
- manage biosolid stockpiles
- prioritise waterway health and protection of aquatic life
- Prioritise PFAS management that has been ignored for 2 decades.

Australia must align with international standards. Reducing PFAS exposures cannot be achieved collectively unless:

- Update acts and guidelines to enforce industry compliance to address regulatory capture by industry.
- Better resource EPA to improve PFAS testing and monitoring to protect communities in highly exposed areas.
- Review and improve the federal government PFAS portal for *Government Action*[32] and *About PFAS*[33] due to factually incorrect, misleading and outdated information.

(k) areas for reform, including legislative, regulatory, public health and other policy measures to prevent, control and manage risk

The current approach for PFAS management is 'bottom up', bit by bit, without urgency therefore, not precautionary and certainly not proactive. There also appears to be a deliberate policy to avoid blood testing of the public in PFAS hotspot regions. This is nothing more than suppression of evidence. Australia cannot complain about the lack of human health studies when it fails to collate its own evidence and data.

Disclosures

The presence of PFAS ingredients in consumer products, including those used by children and adolescents, is not typically disclosed to consumers on product labels. The only issue stopping Australia for applying disclosures and enforcing labelling of PFAS as an ingredient is the political will.

How to protect food growing regions from PFAS contamination

There appears no policy directive or leadership that prioritises food producing areas from PFAS contamination.

[32] https://www.pfas.gov.au/government-action
[33] https://www.pfas.gov.au/about-pfas

RECOMMENDATIONS:

- Improvement in land use planning for areas that interface with PFAS contaminated land with potential for PFAS plume movement via ground and surface water – consider PFAS contaminated overlays and buffers
- Strengthen state planning provisions and framework to identify and protect clean land/soil
- Better management of residential encroachment
- PFAS contaminated land to be on title to prevent

Appendix 1 Letter to FSANZ Board

20 February 2023

Chair of Food Standards Australia New Zealand Board

By only email: secretariat@foodregulation.gov.au

Dear and FSANZ Board members,

RE: Updating PFAS TDIs to reduce risk exposures for the Australian population

I am writing to you and the Board seeking clarification on matters related to human health risks from PFAS contaminated food, the conclusions set by the *27th Australian Total Diet Study* and the most recent proposals and regulatory changes in the European Union to set PFAS common limit values for meat, fish and eggs.

As a brief overview, I am an informed community advocate and have a blog website, www.communityovermining.org focusing on PFAS with pages relevant to *Food Safety*[1] and *PFAS contaminated Livestock*[2] providing evidence how FSANZ's Tolerable Daily Intakes (TDI) are being abused. The information provided to the community via the most recent *27th Australian Total Diet Study*[3] (ATDS) is outdated and a poor representative snapshot in time. The study cannot clearly establish PFAS dietary levels are safe to protect both the general populations particularly those in highly contaminated areas. Additionally, the Food Safety Code does not address producers and buyers knowingly selling PFAS contaminated livestock and produce for human consumption.

As you can see by my webpage, other peak industry associations, purporting to be independent, are defaulting back to FSANZ TDIs to justify their own position status when challenged about the risk assessments and safety of PFAS contaminated food sold to both domestic and export markets for human consumption. They are using FSANZ's non-regulatory trigger points[4] to identify whether further investigation may be required if PFAS is detected in analysed foods. The problem is the food is not

analysed. With the focus on just three PFAS compounds, PFOA, PFOS and PFHxS this is also having far-reaching consequences for both our environment and biodiversity.

The Federal Food Safety Code,[5] does not permit foreign chemical agents in food unless they are legislated. PFAS (all compounds) are not legislated therefore the background level should be zero. This means it is unlawful in every state and territory under state-based Food Acts to knowingly sell PFAS contaminated foods for human consumption. The *criteria for the establishment of maximum levels in food* [6] are also extremely outdated. As PFAS should not be in food, whatever FSANZ apply is based on outdated, flawed reports and criteria.

These appear to be in contradiction to the TDIs and trigger points as non-regulatory measures because FSANZ's assessment has determined a small number of PFAS compounds are safe at a certain end point which FSANZ cannot and has not proved. These are potentially culpable assertions.

- Is FSANZ prepared to consider advising the Minister[s] to reassess some/all PFAS compounds as hazardous in line with five EU national authorities[7] and United States EPA *proposal to designate PFOA and PFOS as hazardous substances* ?[8]

Our Australian TDIs are used as 'safe end points' for risk assessments but how safe are they when our contemporaries have declared they are not? I put the question to an online Victorian consultation forum about the draft NEMP 3 being outdated based on the new EU PFAS common limit values and if they were liaising with FSANZ. I was told '*FSANZ were involved in the process of developing the Draft NEMP 3, so the NEMP 3 takes guidance and criteria from FSANZ to inform the risk assessments which is the standard we have in Australia.'*

This means all other relevant authorities and industry sectors can declare this value, although not legally binding, as the set parameters for modelling what is safe and appropriate for risk assessments. NEMP 3 will allow PFAS contaminated sewerage sludge as biosolids applied to agricultural land to produce food for human consumption and fodder for livestock because FSANZ says it's safe.

Do the Board now consider:

- their previous advice[9] for health-based guidance values (HBGVs) for PFOS, PFOA and PFHxS are safe?
- drafting a new food regulatory measure for the Minister[s] considerations as the most appropriate risk management response?
- If not, why?

While the TDIs are based on guidelines that are conveniently not legally binding, the *Food Standards Australia New Zealand Act 1991* is. The *State of Knowledge* on what ought to be known can clearly be established.
But for FSANZ, as a Commonwealth entity with statutory obligations, this is an entirely different story and could leave FSANZ Board members legally exposed having relevance with ***section 9***, *Operation of Act.*[10]

I note the Board's endorsement of the three ***section 18***, 'core' objectives[11] for the development of food standards but how are the Board applying them?

> *(1) The objectives (in descending priority order) of the Authority in developing or reviewing food regulatory measures and variations of food regulatory measures are:*
>
> *(a) the protection of public health and safety; and*
> *(b) the provision of adequate information relating to food to enable consumers to make informed choices; and*
> *(c) the prevention of misleading or deceptive conduct.*

Section 3, *Objects of the Act*[12] is relevant for consumer confidence in the quality and safety of food produced, processed and sold for human consumption. Our communities need to be able to trust Commonwealth entities tasked with fulfilling policy obligation to protect public health and that of the environment. Maintaining TDIs are safe through misleading messaging is deceptive conduct. But ongoing advice[13] from the Australian Government states the following because of the TDIs and Health-Based Guidelines Values set by FSANZ.

> *PFAS exposure has not been shown to cause disease in humans. However, it has been associated with mildly elevated levels of cholesterol, effects on kidney function and effects on the levels of some hormones. The differences reported for these associations have generally been small and unlikely to be important to health outcomes.*

On this point, I specifically challenge the FSANZ Board on the following sections of the *Finance, Audit and Risk Management Committee Charter*,[14]

> ***2. Objective*** *The objective of the Committee is to provide independent assurance and advice to the Board, including on the appropriateness of FSANZ's financial and performance reporting, system of risk oversight and management, compliance, governance framework, and systems of internal control.*
>
> ***7.1.3 Systems of risk oversight and management; and***
> ***7.1.4 System of internal control***
>
> - *Internal control framework*
> - *Legislative and policy compliance*
> - *Business continuity management*
> - *Delegations*
> - *Ethical and lawful conduct*

as obligated and in compliance with Section 17 of the Public Governance, Performance and Accountability Rule 2014,[15] section 45 and section 16 of the Performance, Governance and Accountability Act 2013[16] (PGPA Act).

> ***SECT 16 - Duty to establish and maintain systems relating to risk and control[17]***
>
> *The accountable authority of a Commonwealth entity must establish and maintain:*
>
> *(a) an appropriate system of risk oversight and management for the entity; and*
> *(b) an appropriate system of internal control for the entity;*

Victoria's Chief Environmental Scientist has stated that while long-chain PFAS are reducing in pooled blood of the general population, short-chain PFAS are increasing. However, this is not relevant for heavily contaminated areas as they are still exposed to legacy long-chain PFAS selling highly contaminated livestock and produce into the market because FSANZ have decreed the set levels are safe. Conveniently, no one is analysing PFAS levels in food from contaminated areas.

It is not happening because risk assessments based on FSANZ trigger levels ensure polluters can determine human health risk as low. No data so no problem.

- Do FSANZ continue to support the following comment –
  '*In Australia, exposure of the general population to perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) is low and declining, and there is no consistent evidence that this exposure has been harmful to human health.*' [18]

PFAS research is dependent on pooled blood testing of the general population - what were PFAS levels in the past, present and how PFAS blood levels will change in the future. This highlights two very valid points that FSANZ are both misleading our communities and/or ignoring.

1. Long chain PFAS is reducing in the general population because of regulation[19] which highlights political will and common-sense actions by other Statutory bodies can make a difference in reducing PFAS exposures in the general population to protect public health.
2. If short-chain PFAS compounds are increasing in pooled blood samples in the general population this would indicate there is greater exposure to PFAS from both dietary and different environmental media that FSANZ are not capturing in their surveys to provide evidence for their TDIs.

The 27th ATDS by FSANZ references their European Union equivalent, European Food Safety Authority (EFSA) 2020 journal[20] but selectively used data not including the assessment by EFSA to reduce the EU's Tolerable Weekly Intake (TWI) to 4.4 ng/kgbw/week for the sum of 4 PFAS compounds together FOR THE GENERAL POPULATION.
Converting TWI to TDI is 0.63ng/kgbw/day for all 4 together - PFOA, PFNA, PFHxS, and PFOS in food.
This is much lower than Australia's TDI of 20ng/kgbw/day for the sum of 2, PFOS/PFHxS plus 160ng/kgbw/day for PFOA.

- Is the Board now aware that the EU's new TWI for PFAS came into effect this year (January 2023) which will eventually have an impact on export trade of livestock and food produce?
- The Food Safety Code establishes that a foreign chemical agent should not be in food, therefore the background level for PFAS should be zero. Will FSANZ change their position and provide advice to Minister[s] that Maximum Levels (MLs) should be set now the EU has set MLs for PFAS.[21]

The food consumption data that was used[22] from city and regional retail outlets is not even credible including food types chosen from where around Australia?

Similarly, is there more updated data than referenced[23] (ATDS section 4.3.4) with the 2011-12 Australian National Nutrition and Physical Activity Survey (NNPAS).[24] Are our diets, nutrition, physical activities and behaviours the same as a decade ago? Along with using mean data from 90th percentile dietary exposures, this survey was already outdated before the predetermined outcomes were assessed.

Table 3: Estimated mean and 90th percentile (P90) dietary exposures to PFOS for Australian consumers aged 2 years and above

Statistic	Estimated consumer dietary exposure to PFOS* (ng/kg bw/day)		
	Lower Bound	Middle Bound	Upper Bound
Mean	0.011	0.83	1.7
P90	0.032	1.3	2.6

Note: The ratio of consumers to respondents for PFOS is 77% at LB, and 100% at MB and UB.
* Based on the average of two days of consumption data from the 2011-12 NNPAS.

Australian consumption of PFOS contaminated food for both middle and upper bound ranges would be above EUs new regulatory TDIs which includes the sum of 4 PFAS compounds so the risk characterisation conclusions *that there are no public health and safety concerns for Australian consumers from dietary exposures to PFAS* can and will be challenged.

- Will FSANZ manage PFAS risk exposures from the general food supply on the same business-as-usual model claiming the levels of PFAS in the general Australian food supply are as low as reasonably achievable and acceptable from a public health and safety perspective?

Risk assessments based on TDIs, and trigger levels are being abused and need updating for hazard characterisation for all human health risks based on current scientific literature[25] rather than selective studies not only for PFAS in foods but for drinking water as well.[26]

- How can FSANZ prove their trigger values are now safe when other countries are proposing PFAS be declared a hazardous substance, EU have significantly lowered their TDIs and US EPA are proposing drinking water guidelines to levels, yet unable to be detected by existing technology?

Additionally, I have read all meeting communiqués from the Food Ministers' Meetings[27] with no mention of PFAS. This is particularly relevant as obesity is associated with PFAS[28] and is one of the Food Ministers priorities[29] of the Food Regulation System:

- *Supporting the public health objectives to reduce chronic disease related to overweight and obesity.*

Also, there is no reason why this Minister's forum cannot develop informed labelling of potential additives of PFAS giving consumers the right to know what is in the food they purchase. Being proactive on labelling declarations for PFAS ensures producers and manufacturers are more accountable for foreign chemicals that should not be in food.

These PFAS residues potentially tainting food could be significant as the NEMP 3 noted manufacturing of food, food packaging and food preparation products as activities associated with PFAS contamination.

These include baking paper, aluminium foil, fast food wrappers, non-stick equipment including food processing facility surfaces, pipes, tanks and valves, and firefighting especially at facilities where bulk oil is used. Lack of any insights by FSANZ on fluorinated containers and wrappers leaching PFAS into food is irresponsible as the packaging issue is unchecked in Australia. Food Safety includes removing residues of PFAS and other PoPs from consumed food. The Ministerial Food Forum now needs to collaborate with ALL our international traders on the Maximum Levels for consistent international agriculture trade.

In conclusion, I believe the following has relevance for the FSANZ Board to consider regarding their due diligence.

Directors Duties - Hutley SC/Davis [the Hutley Opinion] advice on Climate Change litigation,[30] could potentially apply[31] to FSANZ directors past, present and future, who may also find themselves legally liable for failing to adopt 'best practice' international TDIs. The Hutley Opinion warned that climate change being a foreseeable risk imposed a duty of care and due diligence obligation on directors under the Corporations Act 2001, s180.[32] Their opinion was that "company directors who fail to consider climate change risks now could be found liable for breaching their duty of care and due diligence obligation in the future. [And that] "a negligence allegation against a director who had ignored climate risks was likely to be only a matter of time.[33]

Importantly, the Hutley Opinion was adopted by the Victorian Government entitled "Guidance to Managing Climate Risk - Guidance for Board Members and Executives of Water Corporations and Catchment Authorities, June 2019.[34]

Likewise, were FSANZ to ignore "best practice' international standards, it could find itself the subject of negligence litigation for having ignored foreseeable risks when setting its TDIs.

Class actions are increasing and defending them increasingly expensive. Inevitably, decisions made by FSANZ in relation to the safety of TDIs, based on your reports, will be used to show negligence and failure to exercise due diligence and duty of care. FSANZ witnesses will be called and, if FSANZ loses, the financial penalties could be substantial. Furthermore, the public scandal that would surround such a court case would also present significant reputational risk to FSANZ and even the Government.

I await your response with interest.

Your sincerely

Tracey Anton
Community Over Mining

References

[1] https://communityovermining.org/pfas-food-safety.html

[2] https://communityovermining.org/pfas-livestock.html

[3] https://www.foodstandards.gov.au/publications/Documents/27th%20ATDS%20report.pdf

[4] *'Trigger points are the maximum concentration level of these chemicals that could be present in individual foods or food groups so even high consumers of these foods would not exceed the relevant TDI. Trigger points were proposed for a range of food commodities which may be sourced on or near potentially contaminated sites including fish and seafood, animal products, fruit and vegetables. They may be used by authorities analysing PFAS in food to indicate when further investigation may be required (FSANZ, 2017c).'*
https://www.foodstandards.gov.au/publications/Documents/27th%20ATDS%20report.pdf

[5] Victorian FOOD ACT 1994 - SECT 4E - Meaning of *unsuitable food:*
(1) For the purposes of this Act*, food is unsuitable if it is food that--*
(d) contains a biological or chemical agent, or other matter or substance*, that is foreign to the nature of the food.*
(2) However, food is not unsuitable for the purposes of this Act *merely because--*
(d) it contains any matter or substance that is permitted by the Food Standards Code.

[6] *Contaminants in food are substances that serve no technological purpose and whose presence may lead to adverse health effects. Therefore, robust risk assessments and management options are used to reduce any risk from a contaminant to 'As Low As Reasonable Achievable' (ALARA) (ANZFA; 1998a; Abbott et al, 2003)).*
… Proposed MLs will be consistent with Codex levels, where possible. However, harmonisation with Codex is secondary to measures put in place to protect the public health and safety of Australians and New Zealanders (NFA 1999).
https://www.health.gov.au/sites/default/files/documents/2022/07/perfluorinated-chemicals-in-food-criteria-for-the-establishment-of-maximum-levels-in-food.pdf

[7] https://echa.europa.eu/-/echa-publishes-pfas-restriction-proposal

[8] Proposed Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances https://www.epa.gov/superfund/proposed-designation-perfluorooctanoic-acid-pfoa-and-perfluorooctanesulfonic-acid-pfos

[9] https://www.foodstandards.gov.au/consumer/chemicals/Pages/Perfluorinated-compounds.aspx

[10] **Section 9 - Operation of Act**
(1) Without prejudice to its effect apart from this section, this Act has effect for any or all of the following purposes:
(a) for purposes connected with fixing:
(i) the standard of food sold by corporations; or
(ii) standards in relation to activities undertaken by corporations in respect of food before, or in connection with, its sale, where, in the case of trading corporations, those activities are undertaken for the purpose of the trading activities of the corporations;
(b) for the purpose of ensuring, to the extent that the Constitution permits, that trade and commerce in food:
(i) between Australia and places outside Australia; or
(ii) among the States;
is carried on in an efficient and profitable manner;
(c) for purposes connected with the regulation of food and food standards in the Territories;
(d) for purposes connected with controlling the standards of all food supplied to the Commonwealth, its authorities and its instrumentalities;
(e) for purposes connected with the fixing of weights and measures in respect of food…
http://classic.austlii.edu.au/au/legis/cth/consol_act/fsanza1991336/s9.html

[11] **Section 18 - Objectives of the Authority in developing or reviewing food regulatory measures and variations of food regulatory measures:**
(1) The objectives (in descending priority order) of the Authority in developing or reviewing food regulatory measures and variations of food regulatory measures are:
(a) the protection of public health and safety; and

(b) the provision of adequate information relating to food to enable consumers to make informed choices; and
(c) the prevention of misleading or deceptive conduct.

(2) In developing or reviewing food regulatory measures and variations of food regulatory measures, the Authority must also have regard to the following:
(a) the need for standards to be based on risk analysis using the best available scientific evidence;
(b) the promotion of consistency between domestic and international food standards;
(c) the desirability of an efficient and internationally competitive food industry;
(d) the promotion of fair trading in food;
(e) any written policy guidelines formulated by the Forum on Food Regulation for the purposes of this paragraph and notified to the Authority…
http://classic.austlii.edu.au/au/legis/cth/consol_act/fsanza1991336/s18.html

[12] **Section 3- Object of Act**

The object of this Act is to ensure a high standard of public health protection throughout Australia and New Zealand by means of the establishment and operation of a joint body to be known as Food Standards Australia New Zealand to achieve the following goals:
(a) a high degree of consumer confidence in the quality and safety of food produced, processed, sold or exported from Australia and New Zealand;
(b) an effective, transparent and accountable regulatory framework within which the food industry can work efficiently;
(c) the provision of adequate information relating to food to enable consumers to make informed choices;
(d) the establishment of common rules for both countries and the promotion of consistency between domestic and international food regulatory measures without reducing the safeguards applying to public health and consumer protection.
http://classic.austlii.edu.au/au/legis/cth/consol_act/fsanza1991336/s3.html

[13] https://www.health.gov.au/topics/environmental-health/what-were-doing/environmental-toxins-and-contaminants

[14] https://www.foodstandards.gov.au/about/board/Documents/FARMC%20Charter.pdf

[15] https://www.legislation.gov.au/Details/F2014L00911

[16] http://www6.austlii.edu.au/cgi-bin/viewdoc/au/legis/cth/consol_act/pgpaaa2013432/s45.html

[17] **Section 16 - Matters that may be included in standards and variations of standards**

(1) Standards, and variations of standards, developed by the Authority may relate to any of the following:
(a) the composition of food, including:
(i) the maximum amounts of contaminants or residues that may be present in the food; and
(ia) the maximum or minimum amounts of additives that must or may be present in the food; and
(ii) its microbiological status and safety; and
(iii) the method of sampling and testing the food to determine its composition;
(b) the production of food;
(c) the handling of food;
(ca) the prohibition of the sale of food:
(i) either in all circumstances or in specified circumstances; and
(ii) either unconditionally or subject to specified conditions;
(d) any information about food including labelling, promotion and advertising;
…http://classic.austlii.edu.au/au/legis/cth/consol_act/pgpaaa2013432/s16.html

[18] https://foodregulation.gov.au/internet/fr/publishing.nsf/Content/pfas

[19] *Study finds evidence of chemicals in Australians dating back to 1975*
https://www.uwa.edu.au/news/Article/2022/November/Study-finds-evidence-of-chemicals-in-Australians-dating-back-to-1975

[20] https://www.efsa.europa.eu/en/efsajournal/pub/6223

[21] *1.3.2 Regulation of PFAS in foods*

For Australian and New Zealand foods, FSANZ sets MLs for specific contaminants in Schedule 19 of Standard 1.4.1 of the Code (FSANZ, 2021c). MLs are only established for contaminants that present a significant risk to public health and safety and in foods that are major contributors to total dietary exposure to those chemicals. MLs are set at levels which are as low as reasonably achievable while reducing dietary exposure to chemicals of public health concern.
There are currently no MLs for PFAS in foods in the Code or overseas regulations. In the absence of MLs, general Code provisions apply including that food must be safe and suitable and levels of PFAS should be kept as low as reasonably achievable.

[22] https://www.foodstandards.gov.au/publications/Documents/Appendix%203%20-%20Summary%20of%20PFOS%20analytical%20results%20for%2027th%20ATDS%20samples.pdf

[23] *Food consumption data used in the calculation of PFOS dietary exposures for Australians aged 2 years and above are from the 2011-12 Australian National Nutrition and Physical Activity Survey (NNPAS) component of the 2011-13 Australian Health Survey (ABS, 2014). Only those respondents with two days of food consumption data were considered in this assessment (n=7,735).*

[24] https://www.abs.gov.au/statistics/microdata-tablebuilder/available-microdata-tablebuilder/australian-health-survey-nutrition-and-physical-activity

[25] FSANZ continues to carefully monitor the developing scientific literature on the potential health effects of PFAS.

[26] *The recommended TDIs were used by the National Health and Medical Research Council (NHMRC) to establish health-related guideline values for drinking water. These are established for PFOA and the sum of PFOS and PFHxS at 0.56 µg/L and 0.07 µg/L respectively. While not mandatory standards, they can be used by regulators and authorities to determine the quality of Australian drinking water. They indicate a concentration "that does not result in any significant risk to the health of the consumer over a lifetime of consumption" (NHMRC, 2019).*

[27] https://foodregulation.gov.au/internet/fr/publishing.nsf/content/forum-communique-2022-November

[28] Certain PFAS were positively associated with greater body size and body fat, and higher rates of change over time. PFAS may be an underappreciated contributing factor to obesity risk. https://www.nature.com/articles/s41366-021-00848-9

[29] Supporting the public health objectives to reduce chronic disease related to overweight and obesity.

[30] Centre for Policy Development, Noel Hutley and Mr Sebastian Hartford Davis, Supplementary Memorandum of Opinion, 26 March 2019. https://cpd.org.au/wp-content/uploads/2019/03/Noel-Hutley-SC-and-Sebastian-Hartford-Davis-Opinion-2019-and-2016_pdf.pdf

[31] https://cpd.org.au/wp-content/uploads/2019/02/CPD-Discussion-Paper-Public-authority-directors-duties-and-climate-change.pdf

[32] http://classic.austlii.edu.au/au/legis/cth/consol_act/ca2001172/s180.html

[33] No 2, p2/34 - THE CENTRE FOR POLICY DEVELOPMENT "Climate Change and Directors' Duties" SUPPLEMENTARY MEMORANDUM OF OPINION 26 March 2019
In the 2016 Memorandum, we expressed opinions that, as matter of Australian law, company directors can, and in some cases should be considering the impact on their business of climate change risks, to the extent they intersect with the interests of the firm. Climate-related risks (including physical, transition and litigation risks) represent foreseeable risks of harm to Australian businesses. This requires prudent directors to take positive steps: to inform themselves, disclose the risks as part of financial reporting frameworks, and take such steps as they may see fit to take, with due regard to matters such as the gravity of the harm, the probability of the risk, and the burden and practicality of available steps in mitigation. We indicated that, in our view, company directors who fail to consider climate change risks now could be found liable for breaching their duty of care and diligence in the future. Indeed, we considered then (as now) that a negligence allegation against a director who had ignored climate risks was likely to be only a matter of time.

[34] https://www.delwp.vic.gov.au/__data/assets/pdf_file/0023/428054/ISBN-Managing-Climate-Change-Risk-Guidance-Water-Entities-20190702-02-.pdf