

REPORT ON PROCEEDINGS BEFORE

**SELECT COMMITTEE ON PFAS CONTAMINATION IN
WATERWAYS AND DRINKING WATER SUPPLIES
THROUGHOUT NEW SOUTH WALES**

**INQUIRY INTO PFAS CONTAMINATION IN WATERWAYS AND
DRINKING WATER SUPPLIES THROUGHOUT NEW SOUTH WALES**

CORRECTED

At Blue Mountains Cultural Centre, Katoomba on Monday 3 February 2025

The Committee met at 9:45.

PRESENT

Ms Cate Fachrmann (Chair)

The Hon. Scott Barrett

The Hon. Greg Donnelly

The Hon. Aileen MacDonald

The Hon. Cameron Murphy

The Hon. Taylor Martin

The CHAIR: Welcome, everybody, to the second hearing of the Committee's inquiry into PFAS contamination in waterways and drinking water supplies throughout New South Wales. I acknowledge the Dharug and Gundungurra people, the traditional custodians of the lands on which we are meeting today. I pay my respects to Elders past and present, and celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of New South Wales. I also acknowledge and pay my respects to any Aboriginal and Torres Strait Islander people joining us today.

My name is Cate Faehrmann, and I am the Chair of the Committee. I ask everyone in the room to please turn their mobile phones to silent. Parliamentary privilege applies to witnesses in relation to the evidence that they give today. However, it does not apply to what witnesses say outside of the hearing. I urge witnesses to be careful about making comments to the media or to others after completing their evidence. In addition, the Legislative Council has adopted rules to provide procedural fairness for inquiry participants. I encourage Committee members and witnesses to be mindful of these procedures.

Mr JON DEE, Founder and Convenor, Stop PFAS Blue Mountains, affirmed and examined

The CHAIR: Welcome and thank you for making the time to give evidence. Would you care to start by making a short opening statement?

JON DEE: Yes. I just wanted to state that I've got no conflicts of interest to declare and I've received no payment for my work on the PFAS initiative. I want to very quickly just set out my credentials and then set out the four key areas where I think I can best give you evidence on this issue. In terms of my expertise, I've been a professional environmentalist since 1986. I was the main co-founder of Planet Ark, and I ran that organisation for many years. I write business guidebooks, which have shifted 140,000 copies, so I'm used to doing lots of research that has to be properly researched and annotated. I wrote 115 episodes of my own TV show on Sky News Business Channel all about business sustainability, so I've got a huge amount of expertise in looking at issues, researching them and then communicating them.

With regard to the water sector, I ran the Go Tap campaign. Even though I'm in the media questioning the quality of tap water, for many years I've been an advocate of tap water—hence all the bubblers you see around New South Wales. Finally, my point on my credentials is that Sydney Water valued my expertise enough in 2021 to pay me to be interviewed by Sydney Water CEO Roch Cheroux in front of Sydney Water staff, so I'm viewed as someone who knows what they're talking about.

I'll briefly cover the four key points and I would welcome questions on any of these matters. I particularly want to talk about our community and the impact it's had on us, and I want to cover the research that we've done into the actual causes of the PFAS contamination of our tap water. I want to talk about how government agencies have misled the community on the safety of PFAS in drinking water and how government agencies have conspired to withhold evidence from any media that asked tough questions. In particular, the ABC and *The Sydney Morning Herald* have been blocked from interviewing Ministers, and I will detail that because I have internal correspondence to prove it. I want to talk about the health concerns of our community. Like many others in our community, I've found that I've got dangerously high levels of cholesterol, and I'm having to take medication for that. Despite that, NSW Health and the New South Wales health Minister will not undertake any community-wide blood testing to see the impact that this has had on our community.

Finally, I want to finish off by talking about the NHMRC's current and incoming new drinking water guidelines, which clearly are not good enough. I'll quickly just cover it off, because I understand I've got five minutes to kind of do a brief introduction and then I can go into more detail. In June 2024 Sydney Water undertook its first ever PFAS testing of our local Blue Mountains water. Before June 2024 they had done absolutely no testing of our drinking water, and WaterNSW had done no testing for PFAS of the drinking water dams. The testing we did have was only carried out because *The Sydney Morning Herald* carried out a campaign demanding action and asking questions about why Sydney Water weren't testing for PFAS in our drinking water. Without that pressure from *The Sydney Morning Herald*, there's no doubt that we wouldn't be here today. We'd still be drinking contaminated water and we'd have no idea that our water had been so badly contaminated.

WaterNSW then found out that it had a major PFAS contamination of the water in its Blue Mountains dams. It was so bad they've had to shut down two of the five dams that we have locally, and those dams are still shut down today. As you can imagine, this discovery really rocked our community. Many of us moved here because we wanted to be in a pristine environment to bring up our kids, and we thought we were getting away from pollution. It turns out we came straight into the heart of it. Yet we were told that this exposure to PFAS chemicals would have no impact on our health. I truly believe that that is false. There are strong reasons why our community doesn't believe that, and I'll quickly set those out because I think it's important to understand where we're coming from.

Firstly, the PFOS levels in the Sydney Water June testing was 16.4 nanograms per litre. That was four times higher than the recommended safe levels of four nanograms per litre that were recently published by the NHMRC in their incoming draft *Australian Drinking Water Guidelines*. It's also four times higher than what is considered legally safe in America as well, with their drinking water guidelines. The PAH excess levels were 13.6 nanograms per litre. That's above the 10 nanograms per litre safe level set out in America's National Primary Drinking Water Regulations.

In addition to that, there are four other key issues where we do not trust the assurances. Sydney Water, WaterNSW, the New South Wales Government and various political representatives have still not told the Blue Mountains community what year this PFAS contamination first occurred. They've not told us where this PFAS contamination originated. They have not told us how long Blue Mountains residents have been drinking tap water

contaminated with toxic PFAS forever chemicals. Very importantly, none of them have told us at what levels we've been drinking PFAS chemicals since this first contamination took place.

Given that no PFAS testing of our drinking water was undertaken before June 2024, the simple fact is that the Government and its agencies and representatives have no data or testing to prove, before June 2024, how high are the levels we have been exposed to in our community. I think that is a really critical point. We have pulled together our community under the Stop PFAS community initiative that I started. We have 1,100 local members, so I'm not just here on my own today; I'm representing 1,100 people in our local community who are members but representing, we hope, all of our community.

Firstly, we want to know how long we have been drinking this contaminated water, and I'll briefly take you through what we found. We found that NSW Fire and Rescue state on their website that in 2007 all firefighting foams containing PFOS were removed and destroyed. Given the main pollutant in our drinking water is PFOS—PFOS comes from firefighting chemicals—that indicates that we have been drinking water contaminated with PFOS since at least 2007. Nobody in government is talking about this basic fact. We've been drinking this contaminated water for a very, very long time, since at least 2007. That's sixteen to seventeen years. But we wanted to find out the causes of this because, when we've been asking questions of WaterNSW, they've not been forthcoming. They've refused to let us test the local drinking water dams. They've been very uncooperative, in our view.

Everyone in our community said—when we asked the question, "Where has there been a very large usage of firefighting foam in our community?" everyone points to the September 1992 petrol tanker crash in Medlow Bath. The locals took us to where the crash took place. It was extremely close to a waterway entrance that leads to the drinking water dam. At most, it's about 80 metres away from the crash scene. Our testing in October last year of the waterway near that crash scene showed PFOS levels of 2,200 nanograms a litre, and PFH excess levels at 980 nanograms a litre. Now, to put that in context, that is raw water, but if you look at drinking water, the new incoming safe water guidelines in Australia are four nanograms a litre. So 2,200 nanograms a litre is what is happening right now in Medlow Bath, in running water that leads into Adams Creek that leads into Medlow Dam.

We then obtained news footage of the firefighting crews from a local camera operator. We've got all the raw footage, and we obtained helicopter footage from Channel 7. What they clearly show is that a huge amount of firefighting foam ended up in our creek in the Blue Mountains, in Medlow Bath. That leads us to the conclusion that our drinking water—what we do know for sure is that Blue Mountains waterways have been severely polluted with PFAS forever chemicals since 1992. That pollution took place in a tributary that led into Adams Creek, which feeds into Medlow Dam, and WaterNSW have admitted that now Adams Creek is the focus of their investigation. That leads us to believe that we've been drinking PFAS-contaminated water since 1992. So we've been drinking this for 32 years. Again, what government is not talking about is how long we've been drinking it and at what levels. The reality is, whether we accept the 2007 figure or the 1992 figure, there is absolutely zero data and zero testing to show what levels we've been exposed to.

In 30 seconds, I'll wrap up with the rest. I'm really keen to talk about the way that the public and the media have been misled by the media, and I would welcome questions about how the government agencies conspired to ensure that the ABC and *The Sydney Morning Herald* were deliberately refused interviews with the Minister, relating to the PFAS contamination here in the Blue Mountains. The same documents that I can read to you today also show how government agencies worked together to ensure that no Minister would debate our community in the media regarding our community's exposure to PFAS chemicals. I'm very keen to talk about the lack of blood testing in our community, to see what impact this PFAS exposure has had on the health of our community.

Finally, I'm keen to give detailed evidence on how the National Health and Medical Research Council, also known as the NHMRC, has failed to protect the Australian public from PFAS chemicals in their drinking water. I want to publicly ask why the NHMRC failed to directly liaise with the US EPA, who tell us—in writing—that the NHMRC did not consult them regarding why America set such tough regulations on PFAS chemicals in drinking water. Normally, I cover all these kinds of issues in a 45-minute presentation; I clearly don't have that today. I'm happy to take any questions you have.

The CHAIR: Thank you, Mr Dee. That was very comprehensive. At the outset, I state that this is a State parliamentary inquiry, so possibly the questions around the NHMRC and the US EPA—people obviously can ask what they want, but we may not have time to cover that. There's a Senate inquiry going on into the same issue, of course. I'll begin with the first question. You made the point in your opening statement and the submission that, if it wasn't for an investigation by *The Sydney Morning Herald*, Sydney Water would still not be testing for PFAS and that Sydney Water stated in June that there are no known PFAS hotspots in our drinking water catchments. They didn't look very hard, did they?

JON DEE: No, they didn't. I actually get on very well with Roch Cheroux, who's the CEO of Sydney Water. I've known him—and, as I said, Sydney Water paid me to be interviewed by Roch in front of their staff. When I asked Roch Cheroux why they hadn't tested any of our water, he said they'd done a desktop risk analysis, which basically means that they looked at the contamination that was taking place in places like Richmond, in military bases, and where firefighting foam had been used very regularly. They had come to the conclusion that because no PFAS chemicals had been made in the Blue Mountains—they considered it almost zero risk, so therefore they had not done any water testing. What has been very clear is that there are also many other communities, both in New South Wales and around the country, where water authorities have just basically done no testing unless it has been slammed in their faces, right in front of them.

I should point out for members of the inquiry how inept government has been on this particular area, both at a State and a Federal level. A gentleman called Charles Auer from the US EPA wrote an official warning in writing to the Australian Federal Government back in May 2000, warning them about 3M's PFAS chemicals. 3M clearly were about to be outed and finally told the US EPA just how toxic the PFAS chemicals were in their firefighting foam. As of three days ago, Rob Bilott, the lawyer from America, has given me an unredacted copy of that letter, which I'm happy to submit to the inquiry. Basically, nothing happened because the very first time that we then get any testing in the Blue Mountains is June 2024.

I asked Sydney Water why it was that they hadn't tested earlier. The first testing that Sydney Water did in New South Wales was in 2015. That was the very first time they bothered to actually test any water for PFAS chemicals. They cannot argue that in 2015, and onwards, they did not know of the risk of PFAS chemicals. The reality is, as a professional environmentalist, I was aware of the 3M issue in 2000 when this first became a major global story. One has to ask questions as to why Sydney Water totally failed—just as a basic matter of professional pride, that they didn't actually bother to just do some basic testing. PFAS is really easy to test for. You've got to be very careful how you test for it, but it's not a difficult test to do, and many countries around the world have been testing since the early 2000s. Why we didn't do it is beyond me.

The CHAIR: Does it sound to you, Mr Dee, that they prefer not to know because once they knew the problem, it is probably too big, they think, to deal with? This is the impression that I'm certainly getting at this point—that they don't want to know what is out there because it's just going to be too big to clean up.

JON DEE: If you look at the quote you said at the start where, before Sydney Water undertook their testing in June 2024, they told the media—I believe it was the ABC—there were no PFAS hotspots anywhere in the Sydney Water drinking catchment—yet, as with many other claims that have been made on PFAS, it was based with no testing and no data to back that up. What I have been told by people in the water sector, confidentially, is that they're quite happy not to test for PFAS because once you test for it, you know you're going to find it. If you look at the PFAS map that is available online, which is in my submission, we've gone from a situation where there were hundreds of PFAS hotspots around Australia where we're now starting to get into the thousands of PFAS hotspots. That is purely because people are actually bothering to test for the first time. Are we testing enough? No, we're not. If you look around the country—again, I know this is not New South Wales, but Seqwater in Brisbane were just caught out with freedom of information having 10 members of staff whose sole job was to stop that journalist finding out just how bad the PFOA contamination was in Brisbane's tap water. It set out exactly how they planned to stop him finding out and, if need be, offer him an exclusive to do a different story.

I've worked with the water sector. When I ran the GoTap! campaign, I was giving keynote speeches in lots of major water industry events. I got to know the culture of the water sector. The culture is very blokey. As an example, actually in this very room, when Sydney Water, WaterNSW and NSW Health came to say to our community on two days notice that "Don't worry, the water is safe," one of the head engineers from Sydney Water sat where you are, Ms Faehrmann, and said to me that if I wanted to carry on my good relationship with Sydney Water, I had to pull my head in. The attitude is "Keep quiet." There's a song sheet in the water industry. It says, "Australia has the best tap water in the world. Keep singing that song." And that's what they've done. If you question that song and the claim that we have the best tap water in the world, then you are very quickly on the outer within the water sector.

The Hon. TAYLOR MARTIN: Thank you, Mr Dee, for appearing today and for your work in this area. I want to take you back to the very beginning of your opening statement where you made the link between your own levels of cholesterol and these forever chemicals. Are you able to give us a bit of an overview as to the link between the two?

JON DEE: Yes. If you look at PFAS chemicals, they are known to have a variety of potential impacts on people's health. Probably the best known one is the potential link to the cancer-causing aspect of PFAS chemicals,

particularly PFOA, which the World Health Organization said in 2023 was a definite carcinogen, so it causes cancer in humans. Luckily, the levels of PFOA in Australia are not as bad as in America. However, in Brisbane recently there were 30 parts per trillion in filtered drinking water and 34 parts per trillion in raw water—when you consider that in America four parts per trillion is the safe level.

PFOS chemicals are also associated with high cholesterol levels. As you see in my submission, there are a number of scientific papers which have looked in detail at that, and a few—I spoke at length with the US EPA. They had about 2,100 peer-reviewed documents and research reports into the impacts of PFAS chemicals. Again, many of those documents—there's a link in my submission to that—indicated it is known that high cholesterol in people is a known side effect of long-term exposure to PFAS chemicals, in particular PFOS. When I spoke to Rob Bilott, who is our legal adviser in America—he's the man who was portrayed by Mark Ruffalo in the film *Dark Waters*—he said the Australian health sector is very, very behind on accepting the very strong link between PFAS chemicals and increased cholesterol.

Before this broke as a news story, I turned 60 and I thought, "Okay, I should go and get some blood tests," just to do a general health check on myself. Just because I decided to go and get tested, this is the only reason I know that I have dangerously high cholesterol. I've got a cholesterol level of 7.5, so that means I have to take medication to try and bring that down. What has really, really worried me is, since I went public on that in our Stop PFAS community group on Facebook, I've been inundated by people saying, "I've got really high cholesterol levels too. I'm on medication. What are you?"

As an example, I was in a cafe recently and there were eight of us around the table. I mentioned the fact that I'd had a really difficult afternoon. I had to go to sleep because the medication was having an impact on me. Another person said to me, "Oh, I've got that too and I've just had to start taking medication." Then another person said it and another person said it. So of half the people at the table—there were eight of us—four of us were having to take medication for very high levels of cholesterol. Cholesterol can lead to strokes, heart disease and various other issues. It was so bad for me that I had to have one of those scans on my heart to test if there was any long-term damage.

There's also a range—as I set out in my submission—of lots of other health impacts that can be had from PFAS chemicals. What worries us, given that we know that there are lots of people in the Blue Mountains with very high cholesterol levels, is that this could come from other issues. You can get high cholesterol from other sources, but I do not understand why NSW Health and the New South Wales health Minister will not do the most basic blood testing of our community. We've been told by journalists that when they've inquired with NSW Health as to why they aren't doing blood testing of the Blue Mountains community, they've just said they have no plans to do so because the water is safe.

I hope in my opening statement that I've given cause to explain why we do not believe the assurances that we've been given, because it's a bit like Sydney Water saying there are no hotspots. If you've not done the testing and you don't have testing and data to back up your claim, you should not be making that claim. We believe strongly that if you look at the health impacts here, it does appear that way too many people do have dangerously high levels of cholesterol in their system. I believe we'll need community-wide testing to assess are we the same as other communities or, because of our long-term exposure to PFAS chemicals, are we actually substantially higher than other communities?

The Hon. TAYLOR MARTIN: Yes, I totally agree. Thank you.

The Hon. SCOTT BARRETT: Are you concerned there's still PFAS entering the waterways?

JON DEE: There's definitely PFAS in our waterways in the Blue Mountains. The issue that the authorities have been doing—and quite rightly in this instance—is to make sure that what we're drinking does not have PFAS chemicals in. We would agree with the strategy that's been undertaken, which is to make sure we take the PFAS chemicals out of the drinking water. That was one of our initial demands, and we're very glad the Government have done that.

Why do we know we've definitely got PFAS in our waterways? Basically, once we saw the footage of the firefighters in 1992, you can clearly see the foam going directly into the waterway that leads to Adams Creek; it goes directly to the drinking water dam. We got Dr Ian Wright, who is an independent water testing expert, together with Envirolab, which is a test to professional conditions, to go and take samples from running water—it's important to stress we took samples from running water—in Medlow Bath itself, probably about 200 metres in from the crash scene, where the foam first entered.

We know that the PFOS levels today from that foam that was used 32 years ago has left a footprint of chemical contamination where the running water still has today 2,200 nanograms per litre of PFOS and, as I've

mentioned, a substantially very high number as well of the PFHxS. So we know that is still in our waterways. What the EPA are doing now, after our request was initially declined by the water Minister, the EPA is also now testing the fish in our local community, because we've asked them. Given how, where there is PFAS contamination, it is so high, nobody is looking at the impact that is having on the platypuses, the fish and the wildlife that are dependent on that water. That is, I think, a really key concern that we have in our community.

The Hon. SCOTT BARRETT: Are you concerned that it is still entering—new sources are entering our waterways?

JON DEE: No, there is a reason why—

The Hon. SCOTT BARRETT: Or is it historic?

JON DEE: I think it's a very good question. They're called forever chemicals because once those forever chemicals contaminate an area, they almost stay there forever—well, for a substantially long time. That's why we know—if you look at the PFOS stock being used by the fire service in 2007, according to their website. So that means, where did the PFOS chemicals that currently contaminate the water in Medlow Bath—where did they come from? There is only one crash that took place with a large amount of foam in that part of the Blue Mountains, and it was the 1992 petrol tanker crash. We tested exactly where that foam entered the water. Unfortunately, when PFOS chemicals get into the environment, they stay there. Even though it's in running water, we're still seeing dangerously high levels of PFOS that are in running water in Medlow Bath leading towards the Medlow Dam, which is still shut due to that PFAS contamination.

The Hon. SCOTT BARRETT: Can you point to—you sort of implied South East Queensland weren't doing it well—other regimes that are testing and filtering well? Are there other places we should be looking at?

JON DEE: This is one of the issues: There is not a national database where you can go online, and this is one thing we're wanting to see in Australia. We believe that we should have a national testing regime where every single water authority tests two things: one, the raw water that supplies their drinking water facilities and, again, a test at the filtration plant. Whether they meet the water drinking guidelines or not, we believe that those tests should be disclosed on a regular basis where you could type in your postcode and find out exactly what the PFAS levels are in your water in your local community, because there is a tendency in the water sector to cover up when they have a problem.

Certainly, if you look at the freedom of information that has come out of Queensland, there was a ridiculously blatant cover-up and, if you look at the letters that I would like to read to the panel today, there was also collusion between all of the government agencies in New South Wales to cover up just how bad things were, and they blocked the ABC. They actually talk in the letter about how they were blocking the ABC and *The Sydney Morning Herald* from interviewing the Minister and from having any engagement with me and any engagement with the Blue Mountains community. It causes us real concern that when there is a problem in the water sector they go into full cover-up mode, and we certainly saw the cover-up mode going into place with the PFAS chemicals here in the Blue Mountains.

The Hon. SCOTT BARRETT: I think we should explore that a bit more and at least get you to table them. What about internationally? Are there other international jurisdictions that are doing this testing and reporting well?

JON DEE: Minnesota is very interesting. Minnesota really was where a lot of this began with 3M. Tim Walz, who stood as the vice-presidential candidate, signed into law a law basically banning PFAS and phasing it out. They have done a lot of very good testing in Minnesota. If you look at America, there are 2,100 peer-reviewed reports that have gone and looked in detail. America now is being—the Biden administration that's just finished up has been giving billions of dollars to water entities, and 3M has been forced to come to an agreement in court to pay US\$10½ billion to US\$12½ billion—that was last year—to public water entities to allow them to both test more for PFAS chemicals in their waterways and also try and remediate and put in place filtration to remove PFAS chemicals from their drinking water supply. There are five countries in the European Union which are now calling for a phase-out of PFAS chemicals and products, so in Europe we're seeing a lot more testing for PFAS chemicals as well.

The Hon. SCOTT BARRETT: You obviously wanted to go a bit more into this collusion you were talking about between the government agencies.

JON DEE: Yes. I guess, from my standpoint, I'm a professional communicator, so I've made 350 TV adverts, I have written hundreds of media releases, and I've had my own TV show, so I really know how comms work. What concerned me was there seemed to be a—I know the water sector well enough that when there's an

issue, there's a song sheet that is produced and everyone sings off that song sheet. I know; I've had meetings with Roch Cheroux. It's interesting that what Roch was saying in that meeting is then almost repeated word for word when WaterNSW and Sydney Water came here; they were saying exactly the same stuff.

Then you hear Professor Stuart Khan, both in *The Guardian* and on radio and TV, saying exactly the same things. I would point out that when he's been doing those interviews, what Professor Khan has not done is disclose he's been a contractor recently for Sydney Water. He's put across as being an independent academic, but he's actually been a paid contractor for Sydney Water. I've got that on Sydney Water letterhead that I can submit to the inquiry to verify that. He's also a chair of an important NHMRC committee. Yet when he's talking about the guidelines, I've not seen any media articles where he discloses his role with the NHMRC. My concern is, again, we've had our local member of Parliament, Trish Doyle, talking about how safe our water is. Only last week, in a Sydney Water press release, Ms Doyle was saying how grateful she was to Sydney Water for all their efforts in delivering us high-quality water. The exact quote is in the media release that they put out.

What concerns me is that this collusion that's taken place—I'll read the letters for you so you can actually hear it for yourselves. Basically, I did an interview with Simon Marnie on his radio show on ABC. Simon Marnie had been saying that he had been trying for years to get someone to come on his program at a ministerial level or any kind of senior level to explain what the approach was to dealing with PFAS chemicals in our community, both in terms of whether it's military bases or in drinking water et cetera. No-one was ever getting back to him. So he was complaining about this live on air. Basically, Katherine Kalk, who works—she's senior media adviser for Water Group at the New South Wales Department of Climate Change, Energy, the Environment and Water. I've got her email that she sent to Sydney Water, and it was copied into other people as well. She said:

Hi Skye and Elodie,

Flagging this interview with Jon Dee went to air on ABC on Saturday which was highly critical of Sydney Water and the Minister for "not being available" to go on air and answer questions over PFAS.

It also opens with the implication that "residents in the Blue Mountains have been unwittingly drinking contaminated water" and that government is "too busy" to talk to them, simply providing statements that don't answer their basic questions.

Their argument continues to hinge on American PFAS guidelines being lower than Australian guidelines, therefore they don't believe that the water is safe to drink.

Not sure if you were contacted with an interview request over the weekend or whether it would be worth it for the Minister or Sydney Water to go on ABC to dispel some myths? Will obviously need to coordinate with the whole of gov group.

That is our first acknowledgment there's a whole-of-government group dealing with the communication of this.

FYI this one was flagged by Amanda Jones as particularly concerning. Let us know if we can assist with anything.

Interview below:

Then, basically, she gets the reply and this is the one that kind of really sets out just how much collusion there was between government agencies on making sure the public did not get the full story on the Blue Mountains. It was Emily Waters, who is media manager at Sydney Water. Her reply to, again, all these people was:

Hi Katherine,

Thanks for reaching out regarding the below.

ABC contacted all relevant agencies, including the MO, Sydney Water, and WaterNSW, for an interview. In a show of unity—

she literally types "in a show of unity"—

all agencies, including Sydney Water, declined the interview. This decision was measured and considered and reflects our collective approach to the situation.

So clearly setting out this whole thing has been—there's large collusion going on.

At this stage, Sydney Water, WaterNSW, and the Minister have received the brunt of the criticisms, so while we understand your concern, it is more appropriate to let us work out the best approaches moving forward.

For additional context, we were well-prepared and anticipated the comments that Simon Marnie was going to make. This was not a surprise, and Skye and I had extensive discussions last week in anticipation of this.

Sydney Water will not be engaging with ABC radio on this topic—

they're actually stating very clearly that they're not going to engage with the ABC, the main public broadcaster—

there is no way I will be putting a rep up to speak to be ambushed by these guys and potentially put our talent in a position where John Dee confronts them live on radio—

this is incorrect—

and forced to debate him, the impact of putting someone one outweighs the benefit as they have their agenda like the SMH ...

Our agenda? Our agenda is we want to drink bloody well safe drinking water and we want to know what the impact has been on us. That's our so-called agenda, but we're treated like somehow we're doing something wrong:

It doesn't matter what you tell them or try to dispel their arguments, they are set on their course and no amount of reasoning will work—

That's how they view our community—

We do provide statements; they simply choose not to use them. There is also a wealth of background activity and information being responded to by the relevant agencies. Rest assured, we are actively working to address the situation, even if they don't like what they are being told.

Thanks again,

...

Emily Waters

That tells you that the main public broadcaster is being deliberately ostracised, kept away from any interviews with the Minister and blocked from getting information.

The CHAIR: I just need to make sure all members get time to ask questions. Thanks, Mr Dee. I will go to Government members.

The Hon. GREG DONNELLY: Back to 2015, could you please return to that reference in your opening comments about what actually happened then in terms of work done to look at or comment or reflect on the matter?

JON DEE: I get on well with Roch Cheroux at Sydney Water, and I always believe that even if you're on different sides of the fence on a topic, you've got to remain friendly and liaise with each other. I met up face to face with Roch at Sydney Water to ask him, "When did you first know about PFAS chemicals?" I was aware at that point that we'd been warned formally by the US Government in May 2000 about the dangers of PFAS chemicals. I was interested in finding out when that warning turned into awareness and when that awareness turned into action. I asked Roch Cheroux, "When was it that Sydney Water first became aware and when did they first start testing?" Clearly, contamination was taking place near military bases in Australia. Legal action had started, so it was very clear this was going to end up in the courts. It was clear that there were going to be substantial payouts which, for some reason, the Australian Government is funding, rather than 3M, who caused the pollution in the first place, which I think needs to be addressed.

The very first testing that Sydney Water did was in 2015, and they restricted that testing to what they considered to be areas that were at high risk of contamination. My understanding is that they kept their testing to those military-type bases. Sydney Water will give you a more appropriate answer, given it's their decision. I don't want to talk on their behalf, but that is what I was told. With regard to other communities, they did what Roch Cheroux called a desktop risk analysis, which was "Is there any risk? No." Instead of just doing a relatively easy PFAS test, they didn't bother. Yet they went out to the community, through ABC and other media, and incorrectly told us there were no PFAS hotspots. There were no PFAS hotspots because they didn't bother testing for them, because if they had tested for them, they would have found them. As we are now seeing, as the testing rolls out around New South Wales, we're now starting to see a lot more PFAS hotspots being reported.

The Hon. CAMERON MURPHY: To follow up on that, the response now, though, has been much faster, hasn't it, since the revelations in *The Sydney Morning Herald*? You've got a degree of action from local government and also from the State government agencies to, as you said, prioritise making that water safe. The drinking water that's coming in is being prioritised and, in contrast to 2015, there is action that's happening quite quickly now. It may not be enough as you see it, but it is moving forward.

JON DEE: I think the main reason why is that I was on the front page of *The Sydney Morning Herald* and I'd lined up a lot of lawyers to sue the Government on behalf of our community. There's no doubt that one of the reasons why the Government moved is that we were going to sue them. We had been working with a number of lawyers, both here and overseas, to undertake that legal action, and we were going to undertake that legal action if we didn't get drinking water that we considered to be safe. The reason why the Government finally moved to take PFAS out of the source at the Cascade filtration plant is the NHMRC finally got their act together with regard to the PFOS levels in the incoming drinking water guidelines.

The current drinking water guidelines for the water you are drinking today here are woeful. They are utterly not fit for purpose. The NHMRC were changing what is considered acceptable safe levels of PFOS down to four parts per trillion—four nanograms a litre, which is the same as America. And so Sydney Water and the

Government knew that as soon as—the NHMRC had published draft guidelines to say it was going to go to four parts per trillion. That means that, once they were introduced—this farcical nonsense that the Government and agencies and representatives have been saying, "Well, our water meets the Australian drinking water guidelines. Therefore we are told that it's safe," that was a very convenient excuse. Everyone hid behind those inept NHMRC guidelines, which we still apparently have. But what was going to happen was, coming into this year, once that hits four parts per trillion, they knew we were going to be drinking unsafe drinking water, and then we had clear grounds to sue. One of the reasons why—I would say the key reason why—they have moved to do that is they knew that they were legally exposed. I think it's a matter of pure self-interest that they finally moved to do it.

The Hon. CAMERON MURPHY: I just want to come back to one last issue. You made the comment earlier, and it's also in your submission, that you advocate for much wider testing: testing of waterways, testing of the water when it is consumed and also blood testing to test for PFAS levels in the population. The comment you made is that it's relatively easy to do that testing. Can you just take me through that? How easy is it?

JON DEE: Yes, this is the interesting point again in terms of the lack of disclosure by Sydney Water. At the moment, Sydney Water, on their website, are disclosing three PFAS chemicals. I have been asking Roch Cheroux, "Are you really only testing for three chemicals, given that"—

The Hon. CAMERON MURPHY: Don't we need to get a standardised test first so that we know what we are testing for?

JON DEE: I'm going to come on to that. If I can give you an example, because, Mr Murphy, it's a very good question. There is a lack of—there needs to be some kind of national standard that standardises testing. If you look at Bathurst, they are testing for more than 30 PFAS chemicals. I asked in writing to Roch Cheroux, "How many PFAS chemicals are you testing for in Blue Mountains water?" because they are only reporting on three of them. It turns out, I was told just before Christmas, that Sydney Water have been testing for 40 PFAS chemicals and they are only telling us about three of them. My argument is that whether you are—

The Hon. CAMERON MURPHY: Aren't there more than 14,000 variants of PFAS chemicals?

JON DEE: There are, but in terms of the chemicals that are of most concern—this is what I am told—

The Hon. CAMERON MURPHY: It just seems to me that if you were to test for all 14,000 of them it would be a very complex and expensive exercise.

JON DEE: No, there is a way. My understanding is that I think it's called the TOR test, which Rob Bilott took me through. I referred to it in my submission. Just to finish my answer to that, we found that Sydney Water are at least testing for 40; 40 is better than nothing. My view is that we should be testing for all of them and that we should be phasing out and banning PFAS chemicals. But I do want to let you know and reveal to this inquiry and to the media, and to the Blue Mountains public, the really strong reason why we should have all PFAS chemicals tested for, as you have alluded to. Because, over Christmas when they were putting in place the water filtration plant, we had a spike in a PFAS chemical that we have never had an issue with in this community. Roch Cheroux said it was a one-off.

He sent me, very kindly—and I wanted to say thank you to Roch Cheroux for sending this—the results from the 40 chemicals they tested for over a period of four weeks in December. There was a spike in the PFBA PFAS chemical where that was the majority PFAS chemical of the top five chemicals that are of most concern, and yet they didn't tell anybody. I don't think they have told the water Minister. They certainly haven't gone public with that. One of the things I would like to do for the inquiry is submit some new evidence that I found. This is one of them, where we have had a spike in the PFBA chemical in our local drinking water and nobody was told. I only found out because I actually analysed all 40 chemicals over a period of four weeks and mapped it and put it in a pie chart, and yet that has not been told. I think that there should be full testing for all PFAS chemicals and I think, certainly, we should also see all those tests being made public.

The Hon. CAMERON MURPHY: One follow-up—could you take this on notice? Are you able to provide the Committee with some information about what that might cost to implement your testing regime?

JON DEE: Yes, I can. I'll come back to you.

The CHAIR: Thank you, Mr Dee, and thanks so much for your evidence. Clearly, you have a lot of information to provide the Committee after this. There are quite a few documents you referred to, so the secretariat will be in touch with you about that. Committee members can also put in questions to you afterwards and the secretariat will be in touch with you, if that is the case. Thanks so much for your very extensive work for your community in this area.

JON DEE: Thank you for having me here this morning. I appreciate it.

(The witness withdrew.)

Mr WILL LANGEVAD, Director Environment and Planning Services, Blue Mountains City Council, affirmed and examined

Ms EMMA KENNEDY, Acting Program Leader Healthy Waterways, Blue Mountains City Council, affirmed and examined

The CHAIR: I welcome both witnesses to this next session. Is there a short opening statement one of you would like to make, or both?

WILL LANGEVAD: Yes. I'll start with a short opening statement. The Blue Mountains Local Government Area, by way of context, is located just over 50 kilometres west of Sydney's CBD on the traditional lands of the Dharug and Gundungurra people. It is one of only two cities in the world surrounded by a World Heritage area. Blue Mountains waterways sustain an enormous diversity of life, contribute to both local and regional drinking water supplies for over five million people, and provide a significant recreation and tourism resource for Greater Sydney and the world generally. The living waterways of the Blue Mountains also hold great cultural significance for Dharug and Gundungurra people.

The Blue Mountains LGA is home to 80,000 residents. It hosts over four million domestic and international tourists a year. It is located within the surrounds of the Greater Blue Mountains World Heritage Area and has 350 square kilometres of sub-catchments which drain into Sydney's drinking water catchments and the primary drinking water source of Greater Sydney. From an urban governance perspective—and just to note, I've been leading council's planning for the better part of two decades—the provision of a safe and reliable water supply is the critical urban infrastructure. Expectations around its management understandably are very high, and not just with community but with the council and all stakeholders who we work with, both State and the Commonwealth.

The Blue Mountains City Council is the primary stakeholder at the interface of affected communities and the potentially catastrophic environmental impacts leading from PFAS contamination. We'll talk to that in a moment. The level of concern demonstrated by our local community cannot be ignored and, in response to this, the council calls for a "full and proper account of what caused the elevated PFAS levels, and the impacts to the environment and community health", and that's as per a mayoral minute which was passed unanimously by council on 30 October 2024.

By way of a high-level summary, we're looking at rigorous and proactive public testing for contamination as a basic expectation for urban management; investigations into the cause or causes of contamination and proposals to eliminate PFAS from the area's drinking water; the remediation and prevention strategies proposed by the New South Wales Government; and the timely completion of the current review of PFAS levels in the *Australian Drinking Water Guidelines*, which, as we know are well progressed; and appropriate responses to ensure that the safety of drinking water supplied to the Blue Mountains community is in keeping with the new guidelines.

By way of an important context in terms of council's role, there is a direct line of sight from the Commonwealth through the *Australian Drinking Water Guidelines* through to the responsibility of each State and Territory to manage drinking water and standards applied to it through to council's role, particularly as our interface with community. As this issue has emerged, there have been representations made to council by concerned community, by concerned constituents. It's really in this role that the council has its key role. Like many agencies, we're concerned with urban governance/environmental governance and that's why we see the need for proactive assessment and monitoring of water so we have confidence that the most critical urban infrastructure is being properly and fully managed.

The CHAIR: Thank you. Nothing from you, Ms Kennedy?

EMMA KENNEDY: No.

The CHAIR: I'll just start with a question regarding consultation generally. This is prior to June 2024, so prior to the water being tested. What role did council play in helping identify PFAS-contaminated sites? There's been a history with the EPA working with Fire and Rescue, for example. Was there any role that the Blue Mountains City Council played in looking at this historically, looking at this site? Were you contacted about that? Were you involved in any committees?

WILL LANGEVAD: No, I don't have awareness of it. Council has a role working with the water board—as it was in the early '80s—to define the inner catchments or the special areas. These are highly restricted areas in terms of development. Council is a consent authority for managing development within some of the catchments. Some are, of course, within national park areas. But certainly it was Sydney Catchment Authority in the late '90s

and then through to WaterNSW who have that primary responsibility. We became aware of the PFAS issue around the time the public did, particularly from June 2024. Obviously, as I said, we were approached by community at that time and we undertook our own testing of our recreational watercourses and primary contact areas. That's where we were able to test ourselves and fairly readily identify, even from the information that became available in 2024, where the sources of contamination were likely to be. We very much saw them as a point source contamination and there were discussions anecdotally about firefighting foam generally and the potential for that to be a contaminant within that Medlow Bath area.

The CHAIR: Yes, your submission does make the point about the Blue Mountains being a highly bushfire prone area with a history of use of firefighting foams. Clearly we think of so many fires across the State and the use of firefighting foams historically—but particularly in this area. Then you've also got here the history of major crash incidents requiring the use of firefighting foam. The waterways feeding these dams connect directly to the Great Western Highway and Medlow Bath. You make the point that it's understandable that many community members therefore see this as a breach of trust by government agencies: the fact that they didn't at least—not identify contamination in the area but at least suspect that there could be and then actually act to see what was going on. Would you care to expand upon that?

WILL LANGEVAD: With the first point I made, if we take ourselves to June 2024—as you've identified, the Blue Mountains is one of the most bushfire prone areas in the country. We've had very close involvement with the RFS, obviously most recently with the Black Summer fires. An example there—I was the acting CEO during the Black Summer fires. I was meeting with incident control each day for a period of three weeks. We also know the fire was in close proximity to Warragamba Dam and we saw explicit instructions and efforts by National Parks and RFS to monitor the procedures and processes followed to deal with firefighting in proximity to that waterway. There was an understanding then clearly that you need to be careful in relation to the approaches that are adopted. Once we became aware of the issue in 2024, in June-July, the issue for us became understanding the catchments.

As I mentioned, the inner catchments are highly protected. We don't have a situation of development in those areas. We don't have a situation where the neutral or beneficial effect on water quality was breached in any way. So what we were looking for was understanding—working with WaterNSW, who approached us at that time—what were the potential activities that could have given rise to a contamination event. A lot of our staff, including our manager of environment and our emergency management team, are very practised firefighters—captains and deputy captains in fire brigades—and there was a general awareness of the potential for foam being used in relation to RFS activities, particularly training activities and particularly in the vicinity of Medlow Bath and that particular catchment. So the question became, if we had had testing done not in June 2024 but in 2015 et cetera, you would have been locating that contamination and then being able to work up each stream in the tributaries to understand where that localised pollution was coming from.

Just to be clear, council's role as a planning authority is one of protecting the inner catchments, which it does hand in glove with the State government and the lead agencies. Particularly on that count, I'll just add that when we had the creation of the Sydney Catchment Authority at the end of the '90s in relation to the Warragamba Dam incident, which we're all very familiar with, those authorities worked very closely with council in the planning process. They have what we call a concurrence role, where they sign off on activities in relation to those catchments. So it's highly regulated. We had to turn our thinking to those: either the firefighting foams in relation to RFS activities or potentially to the truck accidents, which have been mentioned in relation to the Great Western Highway. The highway is a road of national importance and there had been truck accidents particularly in that area as well.

The CHAIR: This is my last question before I throw to others. Is council concerned about whether the PFAS contamination in the waterways that you've identified could put at risk the World Heritage values of the Blue Mountains World Heritage area?

WILL LANGEVAD: Yes. Councils give great primacy to World Heritage values. We're obviously a key part of the nomination—managing the "urban interface", as we call it, between the Blue Mountains settlement and the World Heritage area. That's why we're so concerned with water quality, along with State government agencies who've also led that work. That's why the neutral or beneficial effect test was brought in: to stop or limit that impact on the World Heritage area. We know that water is not just important to the Dharug and Gundungurra people but anyone involved in environmental regulation, and the community. We have a situation that the Blue Mountains is located above the drinking water catchments. Its geography is such that all water moves down into that catchment, a lot of which is a national park and drinking water catchment, so anything that contaminates that water supply is a high-level concern for council and certainly the community as well. In terms of the listing risks, we've had a number of risk areas. There was obviously the Black Summer bushfire and the environmental impact

from that. Council's on record as raising concern with the Western Sydney International Airport and the potential risks there. This would be in that category as well.

The Hon. AILEEN MacDONALD: Thank you for coming today. I note in your submission that you state that community members are experiencing distress and anxiety over the long-term exposure to PFAS. What specific guidance or support has the New South Wales Government provided to help address or alleviate these health concerns?

WILL LANGEVAD: Did you want to start with that?

EMMA KENNEDY: Last year, WaterNSW and Sydney Water did a number of community engagement sessions in the mountains, and answered various questions from the community on their concerns. That's pretty much the extent of that. I think Jon Dee has probably commented on the impact of that and the adequacy of that.

The Hon. AILEEN MacDONALD: Just as a follow-on, have you received any reports on the elevated health issues, as the previous witness said, with regard to high cholesterol or cancers among local residents? Have you received any other or further reports about that?

EMMA KENNEDY: Not to my knowledge. But I guess the big point to make here, in terms of community concerns, is that, because the testing for PFAS only began in June last year—and yet it seems clear that this pollution has been happening, potentially, for many decades—we don't actually have a dataset there that we can refer back to, to understand what the levels of exposure to the community have been. A big area of concern is just that we actually don't know what we've been exposed to and for how long.

The Hon. AILEEN MacDONALD: And also you have made, in your submission, the formal request for NSW Health to conduct community-wide PFAS blood testing. Have you followed that up with a request too? Or is it just in your submission?

EMMA KENNEDY: Council has written a letter to the Commonwealth Minister for Health and Aged Care, requesting. And I have a copy of the letter here, which I can table for the inquiry.

The Hon. AILEEN MacDONALD: That would be great. And if, say, NSW Health refused, in your request, to conduct testing, would the council consider partnering with independent medical researchers at all, to get a sort of a base?

WILL LANGEVAD: I might take that. I think the issue is that the role of State Government is fairly significant here, as the catchment manager, water supply manager and, obviously, a health manager, in terms of the New South Wales system. So council wouldn't take a role, in my submission or in my view, in terms of health testing. I think that is a role for the State, and it's not one that the council would move into. We would certainly advocate for it if it was found to be necessary and effective. I think what we're understanding—and this is unrolling for the whole community. This is longitudinal. This is a 70-, 80-year process in which these water standards, the *Australian Drinking Water Guidelines*, talk to. Simply not knowing whether this is a six-month problem or a 15-year problem is really quite significant.

I work closely with WaterNSW and with Sydney Water, and they're very good agencies to work with, so I'd say that at the outset they are a positive agency to work with. But the shortfall here is that, where you have a standard or a guideline, if you don't test to that standard, there is no point in having the standard, because, simply, we're dealing with ignorance. We don't know if we're complying or not, and I think that's where council has emphasised in its submission the need for that monitoring to be proactive. I think there's a catch-up required here. If that monitoring had been in place for a longer period, it would've identified the contaminant source earlier. The fact that that hasn't occurred gives a stronger case to argue that there probably does need to be an intervention by State Government in terms of the health issue. That'd be council's submission.

The Hon. SCOTT BARRETT: You do touch in your submission about the lack of clarity about who has the pen on this, who has the reins, and I can imagine the headaches that is causing. In your eyes, who should be the lead agency on this? And how important is it that someone actually stands up and says, "We have control here"?

WILL LANGEVAD: It's a really important point. I think what council looks for—and I've used the word "urban governance". We can call it "environmental governance". How do we work with Government and stakeholders to achieve appropriate regulation in this space and a suitable outcome? The line of sight, as we understand it, is the Commonwealth is setting the standard by national best practice, and we've seen the revision of the *Australian Drinking Water Guidelines*. As a point of concern, we then have a situation where the States or Territories may regulate largely up to the State and Territories. So what is the standard? What is the expectation about the implementation of those guidelines? And there are many, many areas in our regulatory framework that

the Commonwealth sets standards. EME, for instance, in relation to mobile phone towers is an example. Then the States pick it up and take it through.

I was working as the program leader of city planning during the late '90s when the Warragamba incident occurred. It was serious. And there was a very rapid response. There was a rapid response in terms of the regulatory framework; it changed almost overnight and we had the creation of the Sydney Catchment Authority. The importance of Warragamba for a global city like Sydney is such that the safety and reliability of its water source is paramount, and so it would deserve a high level of regulation and a framework to deal with it.

As we understand it, there are at least three agencies—possibly four—that are dealing with this issue. We have the management of the storages, which is WaterNSW. Previously it was Sydney Catchment Authority, and the dissolving of the Sydney Catchment Authority is interesting in this case because we have a water catchment issue and we have a framework that has been used previously, so I'll just park that there for a moment. Then we have the role of Sydney Water. We've got a NSW Health issue as well, and possibly—in Victoria, for instance, the EPA have a role.

At the moment we don't have a clear line of sight; it's fairly frustrating. The problem for council and the problem for community is, if I've got those guidelines all the way set by the Commonwealth, there should be a dashboard which is publicly demonstrating the regular testing and reporting on that testing, and that testing is clearly available to all stakeholders at all times. If there's a contamination issue then that gets acted on and prioritised. There have been actions—clearly, strong actions, I think—by WaterNSW and Sydney Water in terms of the infiltration issue, increasing the public testing and, since June 2024, starting to see the public reporting of levels. That's all positive. It is difficult to see why you wouldn't have a lead agency for Sydney's drinking water. I don't understand how that would occur, given our learnings and our framework that we had in place from 1998-99.

The Hon. SCOTT BARRETT: You have touched on this in a few different places, and we heard this from Mr Dee as well, but what's lacking as far as the communication with the community? What do you need from the State government to give your community that assurance that, at the very least, things are moving in the right direction?

WILL LANGEVAD: I think information is critical. Moving towards a more sophisticated dashboard for water quality would be the first step. We've got some steps taken from June 2024. I think that availability of information demonstrating that the contamination levels are suitable and acceptable would be useful. What I have found, and I think council has found this as well in preparing its submission—the actual information on PFAS from the State government, from the agencies, is actually quite limited. We actually need to look elsewhere, including to the United States, including to specialist reports that are done.

I think there just needs to be a lot more information that is credible. The information I was concerned to hear from Sydney Water is that they are taking a risk-based approach to water monitoring. What does that mean? Does that mean if I don't know about it, I won't test? "Risk-based approaches" do not have to mean proactive testing. So what I would suggest is every single requirement of the *Australian Drinking Water Guidelines*, as an example—every one of them—would need to be tested proactively, not reactively but proactively, and reports provided in terms of assessment that are understandable to the community.

I think that would assist, and I think just the information. The health information is similarly porous, and I think we need to see more information. If a community is coming to council or to local members or to councillors saying, "What is the likely long-term impact?", there's no clear answer there that council has been able to see. I think at each one of those levels, when you're dealing with a concern to people's health, the normal response is not crisis communication; it actually becomes standard communication, open communication, about the risks and possible remedies, if that's occurring.

EMMA KENNEDY: I think there's also space to—the CRC for Water Sensitive Cities back in 2017 did national research into the water literacy of Australians, so their understanding of what a catchment is, where the water goes when it rains, the connections between stormwater and water quality. They found that Australians generally had quite a low level of water literacy. So taking it from an education perspective, there's definitely a space for more community education in that area so that people can understand, when things go down the stormwater drains, that they end up in our drinking water catchments.

The Hon. SCOTT BARRETT: We're hearing, obviously, more and more calls for increased testing. Are you concerned the burden of that will fall on you as a council, and where do you think that should sit?

WILL LANGEVAD: No, testing doesn't fall on council at all. When we're dealing with the testing of water within all special area water catchments, that's with WaterNSW. What council did do in response to its

community concerns—you can imagine there's a concern about drinking water. Then there were concerns about the water quality in Wentworth Falls Lake and in our other recreational water bodies and areas. So council commissioned testing. Within five days we had the results, which were positive. There was no issue there. We were able to do that testing. I think the elevated concern around PFAS in relation to drinking water definitely moves into some of council's areas. As I mentioned at the opening, we've got a very large area—350 square kilometres that we manage, along with the agencies—so I think the community expectation around primary water contact areas will also increase. It's only in that area. I want to be clear: Council doesn't have a role in testing water quality for drinking water.

The Hon. GREG DONNELLY: On behalf of the Committee, thank you both for the important work you do for the community. Just on page 4 of your submission, third last paragraph, it's apropos of the comments you just made in terms of what council's aquatic scientists are doing. You say one round of PFAS testing. Was that done in response to endeavouring to establish, in the context of what is happening, additional information to inform council and its thinking? Or are there other reasons behind that testing?

EMMA KENNEDY: It's primarily done in response to community concerns. Because, you can imagine, media has been very strong around this issue in the Blue Mountains, and we were getting a lot of concerns from people, particularly people who, for example, swim in Wentworth Falls Lake regularly. We were getting phone calls from community members saying, "There's foam in the lake. What is it? Is it safe to swim?"

The Hon. GREG DONNELLY: That's interesting, because it goes on to say in the second sentence that testing results show that PFAS is present at most sites but at levels below the NHMRC PFAS guidelines for recreational water quality.

EMMA KENNEDY: Yes, it's really to reassure the community that, while we understand there are background levels of PFAS there, it's still safe to swim.

The Hon. GREG DONNELLY: Just on that point—it's an important one—in terms of engaging with the community at large on a matter like this, has the council met challenges of the distinction between the drinking water quality matter and the more broader issue of recreational use and how one clearly makes that distinction—it's my word—to provide a level of comfort and reassurance to the community? Is there a challenge there?

WILL LANGEVAD: That's a good point you've made. I think, yes, there is a challenge there. Council—as the Committee may be aware—we've been doing water monitoring and testing in the Blue Mountains of our catchment for two decades, for 20 years.

The Hon. GREG DONNELLY: That's a long time.

WILL LANGEVAD: It's a long time. It's one of the longest, certainly, of any council in New South Wales. That issue is around the environmental health of the catchment. Where we have issues—we do particularly focused testing where we have recreational water use in terms of water bodies, so we've got a fairly strong basis from which to say to community, "Yes, water quality's not always high." Sometimes it's not, and we're quite transparent. We report to our community each year on that across the whole Blue Mountains. With that framework in place, when those concerns were raised, it was a natural thing for us to do, to do that additional testing in relation to PFAS and in relation to the recreation areas. I'm not sure if other Sydney councils are testing their water bodies, or their recreational water bodies, for PFAS. That might be an area to look at. Certainly, council would then be guided by whatever framework is in place for that.

The Hon. GREG DONNELLY: Once again, the period of time demonstrates the commitment to the point we are discussing here. Within the council, the aquatic scientists over this period of time must have built some quite significant expertise and a database of records of their testing. Is that a fair comment?

EMMA KENNEDY: Yes, we recently developed a publicly available accessible dashboard, which is now on council's website, and community members can go on and access that 20-something years of data from various sites across the Blue Mountains.

The Hon. GREG DONNELLY: What has the feedback been like on that?

EMMA KENNEDY: It's fairly new.

The Hon. GREG DONNELLY: Early days?

EMMA KENNEDY: Yes, it's early days. We also publish a summary of our testing results every year in a printed brochure format and send that out to every ratepayer once a year. But, to answer your question before, yes, it is a challenge to communicate the difference between different types of water testing, because people hear "water testing" and they think you're testing for everything. There's looking at the ecological health of waterways;

that's one form of testing that we do. Then there's the recreational water quality, whether it's safe to swim; that's another form of testing that we do. Of course, these tests are different from whether something is safe to drink.

The Hon. CAMERON MURPHY: I just wanted to follow up in the same vein. I know there's an enormous amount of community concern about the safety of drinking water. But once the elevated levels of PFAS, as a result of the Medlow Bath potential contamination coming from that truck spill, were identified, it's right that the catchment was immediately cut off, or that area was immediately cut off from the drinking water catchment. In effect, that has protected the safety of that drinking water, and people shouldn't be alarmed about that. Is that right?

WILL LANGEVAD: Yes, that's correct. What we've acknowledged in the submission—and council acknowledges generally that there were a number of steps taken by government at that time. Obviously, the almost immediate cutting of the Medlow Dam out of the sequencing, in terms of water supply, was necessary and prudent, and that occurred. I think that you've got two issues. One is a residual concern around PFAS, in terms of the years that had passed, and families who brought up children et cetera are now asking the question of how safe is the drinking water. So there's that issue. Then you've got the immediate—so taking Medlow Dam what I would call offline—and then also the investment in filtration devices to monitor is important. Certainly, the last step that we see as a point of concern is very much isolating—the work that the Government is doing currently, which is to identify the source of the contamination, and then remedy as possible. They're the required immediate steps, I would say, in terms of a crisis management response, and I think they're certainly underway.

The Hon. CAMERON MURPHY: Yes, it's an issue in relation to recreational use of those waterways and other uses. But, just to be absolutely clear, there's no issue with the drinking water as far as council is concerned?

WILL LANGEVAD: Yes, that's correct. I think the issue is also—these are special areas, so there's no public access to these waterways anyway, just to clarify that point.

EMMA KENNEDY: I guess the question comes in with the new draft National Health and Medical Research Council guidelines for PFAS in drinking water, in which the levels are significantly lowered for PFAS. Since June last year, the levels at the Cascade filtration plant for PFOS have varied between two and four times the new proposed guideline. That's obviously an issue that council is expecting timely—

The Hon. CAMERON MURPHY: But as testing is ongoing, that will provide a greater picture and that timeline of evidence that you talk about so that we can see whether it's environmental events—for example, high rainfall and other things—that may cause elevated levels in the waterways from time to time, or do we just not know until we have that data?

EMMA KENNEDY: We don't know at this stage. We don't have that long-term data to tell us.

WILL LANGEVAD: I think the issue—and there are always lessons learned out there. Going forward, I would suggest that the State government regulation around water testing and monitoring and ensuring that framework is in place is obviously critical, in terms of that community. We don't want a situation—and we can't have a situation—where we're saying, "We didn't know," and then we have a contamination event. Now that we've got that, I think that, going forward, there needs to be very regular monitoring required—not voluntary but required testing—to ensure that if there's any elevation like that in the water storages, that it's dealt with along the lines you just suggested.

EMMA KENNEDY: Obviously the focus now is on PFAS, but there's a question around what other harmful chemicals are out there that we are not currently testing for. I bring up an example. Council did a 2017 assessment with the University of Melbourne and we analysed creek sediment samples from 29 sites across nine Blue Mountains sub-catchments for a range of pesticides, heavy metals and petroleum hydrocarbons. We found that these contaminants are widely detected in our local streams at concentrations known to be toxic to aquatic life. This study included sites in the Kedumba, Leura Falls and Jamison catchments that feed into Sydney's drinking water supply at Warragamba Dam. That's just an example of other chemicals that might be out there that we may not actually be testing for.

The Hon. CAMERON MURPHY: We might need to extend our terms of reference to look at heavy metals and other things, because in this inquiry we're confined to PFAS, unfortunately.

The CHAIR: I want to jump in and get you to talk about the study that council has commissioned in consultation about the platypus—the three-year study. You mentioned the CSIRO research into turtles and turtle hatchlings which found a significant effect of PFAS on turtle hatchlings, which I think is interesting. We will have

the CSIRO appearing before this Committee on Wednesday. Could you talk a bit about what that means in terms of that research and why council thought it was so important to commission a study into platypus in the region?

EMMA KENNEDY: Starting with that 2017 study looking at the other pollutants that are going into waterways, it was really an opportunity to partner with the University of Western Sydney to look at the long-term impact on platypus populations in the Blue Mountains World Heritage area. A major driver for that is our understanding of wherever you have directly connected impervious surfaces—hard surfaces that are directly connected via traditional stormwater channels to creeks and waterways—you are going to have an impact. We know that that's an ongoing thing, and we also know that that's one of the number one causes of damage to our local streams and waterways, and a prime concern for our World Heritage area. That's the driver of that, I guess—that knowledge of wherever you have directly connected urban areas and streams and waterways, you are going to be getting issues. We wanted to look at that.

The Hon. SCOTT BARRETT: I'd like to know more about what you think the integrated water management system you talked about would look like.

WILL LANGEVAD: You asked that in your earlier question in terms of the responsible agencies. I think it's fairly clear that both tiers of government have a role. Where we have standard setting on a national best practice, the Commonwealth clearly have a role there. I think with drinking water catchments, I said that has primacy. I think that's self-evident. The question then becomes whether the Commonwealth Government has a concern about water quality—of course it does. And so what is it able to regulate in terms of setting up an appropriate framework that the States and Territories would follow?

I was concerned to understand there was actually limited guidance in that way—that very much the States and Territories do as they see fit. Then I think where we have the standard setting, that framework is in place and we've got the *Australian Drinking Water Guidelines* in place—the word "guidelines" is a bit concerning. I would have thought the word "standard" would be what we'd call up in legislation to give it traction and give it application. It is very difficult for council or most stakeholders dealing with community to clarify or justify why we've got water not of the quality that the guidelines require. I think that's the first thing: that legislative requirement to manage water quality.

There has in the past with Sydney Catchment Authority—as I mentioned, we worked very closely with that agency. It was highly resourced, highly expert and a lot of original research came from Sydney Catchment Authority. They were best practice in that space. What we expect from government is that, when it comes to the application of water technologies, managing contaminants and managing catchments et cetera, Australia should really be leading in that work. If it's the State Government leading that, as opposed to the Commonwealth, I think we need to see a lot of emphasis on information which is clearly available to the public but also determines what best practice looks like.

That best practice framework then needs to be regulated. This is a space where we have regulated in the Blue Mountains, since 1982, development in relation to water catchments, as I mentioned at the beginning. Of course, not just the Blue Mountains but there are other parts of Sydney that have that challenge. It then becomes a case where you have a lead agency that sets best practice and regulates independently. We do have the double role between WaterNSW and Sydney Water. I don't think that's unhealthy. I think that can be beneficial. There's a crosscheck there because it's so important. I think we need to look at how we have that lead information research being done best practice. Then, as Emma indicated earlier, it has to be for all of the guideline requirements and keep that up to date, so we make sure that emerging risks are identified at the earliest point.

What we understand is that it was the 1950s, we started talking about PFAS; '70s, we got a bit concerned; '90s, we started saying we've got to regulate this. In 2001 we had reliable testing methods available and yet it was actually in 2024 that we landed the testing in Medlow Dam. That shouldn't happen. We need to break down those—the transfer of information in a regulatory sense has to be in real time so we end up with the best practice outcome. I think it's the lead agency overall responsibility for drinking water catchments.

When we deal with the World Heritage area, which is also in that Sydney area, we are dealing with a global recognition of the importance of water quality going into the national park. If there's ever a place where you're going to set up a lead agency dealing with water quality—World Heritage area, global city—it would probably be in Sydney. That would then filtrate out into the rest of the New South Wales system. I don't think the diffusion of WaterNSW across the whole State was as effective as the Sydney Catchment Authority model. I think it was much more concentrated and I think it was warranted. Then it's the information out to community.

The Hon. SCOTT BARRETT: Finally and quickly, are you worried that this whole issue is doing damage to your brand and the reputation of this area?

WILL LANGEVAD: I think it is, yes. We had concerns. The Blue Mountains deals with impacts on tourism, for instance, quite regularly. Bushfire is a classic case that we have to deal with. I think that the brand will endure, but our brand is all about the quality of the environment, the integrity of our catchments, the World Heritage area. It's about the natural environment of the lands of the Dharug and Gundungurra people. That's what we're about in the Blue Mountains. I think there were very few stakeholders who weren't surprised and concerned to learn that there was possibly a water quality problem in the Blue Mountains. I think that is a brand problem.

EMMA KENNEDY: I was going to say, if you talk to the people on the ground at the visitor information centres and say, "What do people come up to the Blue Mountains to see? What do they come here for," it's a clean, green environment and they want to see waterfalls. Imagine how those people feel if they consider those waterfalls might be full of PFAS or other pollutants.

The CHAIR: Also the water testing that you've undertaken is just about recreational water quality guidelines, isn't it? It's not about the guidelines—which are less, I understand—for ecologically sensitive rivers. Is the council looking at conducting water tests for that? Are you aware of those guidelines, which are much more strict than the recreational guidelines, I understand?

EMMA KENNEDY: We do the recreational water quality testing but we also do ecological testing. So we do two different types of testing.

The CHAIR: The testing that you referred to in your submission, was that just the recreational water guidelines?

EMMA KENNEDY: No.

The CHAIR: Would you be able to provide—

WILL LANGEVAD: We could take that on notice.

EMMA KENNEDY: We'll take that on notice.

The CHAIR: Could you provide the Committee with the results of both?

EMMA KENNEDY: Yes.

WILL LANGEVAD: Yes. That's a better way to go.

The CHAIR: Thank you. That's our time. Thank you so much for your evidence and your submission, which was very extensive. There are lots of really good recommendations in there, so we really appreciate it.

(The witnesses withdrew.)

(Short adjournment)

Assistant Commissioner MICHAEL MORRIS, JP, CF, Assistant Commissioner Metropolitan Operations, Fire and Rescue NSW, affirmed and examined

The CHAIR: Welcome to our next witness, Assistant Commissioner Michael Morris. Do you have a short opening statement for the Committee?

MICHAEL MORRIS: Yes, I do. I would like to acknowledge the traditional custodians of the land on which we meet, the Dharug and Gundungurra people, and I pay my respects to Elders past and present. Fire and Rescue NSW recognises the concern around the impacts of PFAS and remains committed to a robust and integrated whole-of-government response to minimise community exposure and ensure the protection and safety of our New South Wales communities and firefighters.

Fire and Rescue NSW ceased using aqueous film forming foam containing PFOS and PFOA as active ingredients in 2007 and does not use any firefighting foams containing PFAS. We continue to monitor and investigate the impacts of PFAS contamination in the environment and work closely with the environmental protection agency to identify, assess and manage sites with legacy PFAS contamination. We are guided by the PFAS National Environmental Management Plan, the Australian Government department of health, and the national Environmental Health Standing Committee's advice on PFAS, and we are committed to being informed by robust advice.

We work closely with WaterNSW and multiple government agencies to explore historical land use, including potential activities where PFAS has been used, such as our firefighting activities. We also acknowledge that we have historically undertaken limited training activities using foam due to station size and cost of the foam involved at some fire stations, including those in the Blue Mountains, with other historic practices, including truck wash-down, hose clean-out and demonstrations on open days. Fire and Rescue NSW has undertaken extensive efforts to ensure that legacy firefighting foams containing PFAS have been removed from Fire and Rescue NSW sites and disposed of appropriately. We continue to be guided by advice from relevant agencies and work closely with the NSW EPA to ensure program alignment with the proposed guidelines when responding to PFAS contamination and minimise the exposure to the community and firefighters.

We understand that the Blue Mountains system and particularly Medlow Dam remain a priority for the WaterNSW investigation into the source of elevated PFAS levels at Cascade's water treatment plant. We have provided incident reports to WaterNSW for all incidents along the Great Western Highway between Medlow Bath and Blackheath from the mid-1980s to 2007 to assist in investigating the 1992 and the 2002 fuel tanker fires as potential sources of PFAS in the Cascade Catchment, given their approximate locations. I have reviewed all of the available records regarding the 1992 and 2002 petrol tanker fires, and I am happy to take questions from the Committee.

The CHAIR: Thank you very much for appearing today. We will start with the research that you said has been undertaken in terms of the incidents from the mid-1980s to 2007. This is along the Great Western Highway, is that correct?

MICHAEL MORRIS: That's correct, yes.

The CHAIR: Do you have the data there in terms of how many incidents involved firefighting foam?

MICHAEL MORRIS: We'd have to take on notice the total number of incidents involving foam. I do have the details regarding the two tanker fires that are obviously high profile and with the footage et cetera of foam being in use.

The CHAIR: Let's start with those then. The 1992 incident—do you have the detail in terms of how much foam was used?

MICHAEL MORRIS: For the 1992 incident, the incident report doesn't actually record the volume of foam used, but we can't deny that we used it. It is evident in the footage that is available from the time. The 2002 incident we can, from the fire records, report that 240 litres of foam concentrate was used at that incident.

The CHAIR: That's 240 litres of the concentrate—

MICHAEL MORRIS: Yes.

The CHAIR: —which is then diluted, isn't it, in what you're spraying onto the fire?

MICHAEL MORRIS: That's correct.

The CHAIR: That's then diluted.

MICHAEL MORRIS: Yes.

The CHAIR: That's a significant amount. In 2002, was it?

MICHAEL MORRIS: That's the 2002 fire, yes.

The CHAIR: Was there a particular time when it became mandatory to include in the incident report the quantity of firefighting foam being used, or is it just that that was slipped up in 1992?

MICHAEL MORRIS: Those fields have been part of the incident reporting for quite a while. Unfortunately in the 1992 incident that wasn't recorded in the fire report.

The CHAIR: But it was probably mandatory at the time.

MICHAEL MORRIS: In terms of the fields, there are multiple fields and drop-down boxes, and a reporting officer at the time goes through and fills that out. Whether by omission or whatever, that hasn't been recorded at that particular incident.

The CHAIR: There's no doubt, though, Assistant Commissioner, that there was a significant quantity of foam. Were you in attendance, by the way? I don't know your background or history.

MICHAEL MORRIS: No, I wasn't in attendance at either of those incidents, but I am aware of, obviously, the details, and I've reviewed the records and the footage.

The CHAIR: Have you spoken with firefighters who were present there? I understand, potentially, the current stationmaster of Katoomba, John Martin, was in attendance. Have you spoken with him about it?

MICHAEL MORRIS: I have seen a record of interview with Mr Martin and his record of what occurred. He doesn't have much memory of the particular incident.

The CHAIR: Does the interview that you said you've seen with Mr Martin talk about the firefighting foam used or just the scale of the accident?

MICHAEL MORRIS: He doesn't recall the volumes of foam used. As I said, there's no denying that we used foam. I just can't give you an accurate figure on the volume that was used at the particular time.

The CHAIR: You've seen the photos. From what you've seen, is it your view that a significant quantity of that foam did make its way into the local waterways?

MICHAEL MORRIS: It's undeniable that the foam that was used at that particular incident was closely adjacent to the water supply and, as we've seen, the location of that particular gully feeds directly into the Medlow Dam, so there's no question. That's correct.

The CHAIR: Just to be clear, this isn't to lay fault. Obviously at the time it was a significant accident. It was 1992, and the firefighters did what they could at the time to contain a very serious accident. But was there anything put in place to try to prevent the foam reaching the waterways? Or was that not really happening in 1992?

MICHAEL MORRIS: There were still efforts underway. At that particular incident there were efforts for the dirt culvert that's adjacent to the highway to be dammed and try to contain the run-off as best it could. There's evidence that there were clean-up operations involving removing the contaminants from there, including the soil that was used to temporarily dam that. But obviously there's the absorption of the materials into the surrounding earth-ways.

The CHAIR: This is one incident that's been identified in 1992. You said that there's been some research undertaken of all the incidents. Is it your understanding that there could have been quite a decent number of incidents along the Great Western Highway that did require firefighting foam containing PFAS to put them out?

MICHAEL MORRIS: As I said, we're working our way through that particular evidence: work with WaterNSW, with all of the records, and reviewing all of those to try to determine whether the foam has been used in other locations. I would have to take on notice any details about the numbers or other particular incidents apart from the two that I'm referring to.

The CHAIR: Did Sydney Water approach Fire and Rescue NSW to ask about what incidents have firefighting foam been used, historically, to determine contamination sites in the Blue Mountains? It was in June, of course, last year, when they said there are no known hotspots within the catchment. Did they communicate with you to determine that there were no known firefighting hotspots in the catchment, particularly in relation to traffic accidents on the highway where firefighting foam can flow into rivers? Have they consulted with you about that?

MICHAEL MORRIS: I can't speak for the time frame of June last year, but we've certainly been in contact with WaterNSW and in consultation with them, as I said, providing all the historical records to do that review of where contamination may have come from.

The CHAIR: This is after *The Sydney Morning Herald* investigation that put it on the front page?

MICHAEL MORRIS: Correct.

The Hon. AILEEN MacDONALD: Thank you for coming. Should Fire and Rescue NSW be taking a more proactive role in monitoring and remediating where PFAS contamination has been linked to past incidents?

MICHAEL MORRIS: As indicated, we are working with the EPA and WaterNSW and a whole range of other government departments to look at that. We do have a significant body of ongoing work around the sites that we control and looking at all of those in terms of the remediation and prioritising those over a program of works.

The Hon. AILEEN MacDONALD: With regard to work health and safety for the firefighters, in the last hearing we heard from the Fire Brigade Employees Union. They identified that there were still fire stations that stored PFAS chemicals. What has been done since then to remediate or remove those chemicals?

MICHAEL MORRIS: As I said, in 2007 we withdrew all the PFAS foams. There has been a series of ongoing surveys and re-evaluation of that. Unfortunately, we have on occasion found stores of PFAS foam. As late as last year, there was another survey around that particular material. To the best of our knowledge, we should have all of the PFAS-containing foams removed from the sites.

The Hon. AILEEN MacDONALD: They also talked about blood testing, and I think there was an announcement shortly afterwards to say that blood testing would be available. Can you clarify that for me?

MICHAEL MORRIS: That's part of the ongoing award requirements between the union and the department. I'm not involved in those, but I understand that the procurement of the necessary service provision to get that testing done is underway. I don't have a time frame about when that will start.

The CHAIR: Just to be clear, in terms of blood testing, what is being tested? Is it all PFAS within blood? Is that your understanding?

MICHAEL MORRIS: I would have to take on notice the detail of the testing but, in broad terms, it is for PFAS in the bloodstream, yes.

The Hon. SCOTT BARRETT: Thanks so much for appearing. You talked about that ongoing work that's happening. What assistance have you asked for? What assistance do you need to get that done as quickly as public expectations are calling for?

MICHAEL MORRIS: Like everything, it all comes down to funding, and we're regularly making our case around the requirements that we need to progress that work. There are some limitations on the availability of specialists to assist in that work, so even if the magic bullet was delivered with a large volume of dollars, it would still be a significant body of work to get all of the work done over time.

The Hon. SCOTT BARRETT: Have we lost anything, as far as our firefighting capacity goes, removing this product?

MICHAEL MORRIS: No. We've replaced the PFAS-containing foams with other types of foam. From all reports, it works just as well as what we've previously had.

The Hon. SCOTT BARRETT: Calling on your expertise in this area, with some of the equipment that was used in those days when we were using PFAS materials, is there a concern that there might be residue in those materials? I'm thinking specifically—and this is probably an RFS question—of RFS trucks that were then onsold to the cockies that now use them as water trucks and those sorts of products. Is that a concern?

MICHAEL MORRIS: Sorry, I can't speak to the RFS and their management of their fleet.

The Hon. SCOTT BARRETT: But the general products that you might have had, such as old hoses, old trucks and old containers that once upon a time would have stored this product—if they're still being used, is there a risk that there's residue in those products?

MICHAEL MORRIS: They were cleaned through but, as we've heard, the chemicals remain, so there is always that risk.

The Hon. GREG DONNELLY: The figure—the 240 litres, with respect to the 2002 incident on the Great Western Highway—could you just explain, Mr Assistant Commissioner, is that 240 litres of PFAS chemical? Could you please elucidate on what that 240 litres means?

MICHAEL MORRIS: Sure. That's 240 litres of foam concentrate that obviously has had the PFAS as a component of that foam concentrate. Depending on the decisions operationally on the day, that would have been applied at anywhere between 1 per cent and 6 per cent solution to get the volumes of water and foam produced in the system.

The Hon. GREG DONNELLY: I know this is looking back in the rear vision mirror, but that is the way it was done then? The concentrate was carried or sought for the incident and then a decision was made operationally? Was that mixed with water? What was the mixture?

MICHAEL MORRIS: That's correct. The foam concentrate is mixed with water to create the foam solution.

The Hon. TAYLOR MARTIN: Do you mind if I jump in off the back of that question? You mentioned 6 per cent. To be clear and so I haven't misunderstood, the concentrate makes up 6 per cent of the total solution, so 94 per cent water? That is the volume of material fluid that was—

MICHAEL MORRIS: Yes, that's correct. It's the ratio of the foam to water solution that gets produced, mostly. Depending on its use, it's between 1 per cent and 6 per cent.

The Hon. GREG DONNELLY: And that's for its retardant use? Presumably, the higher percentage is because of the need for a stronger retardant on the fire. Is that right?

MICHAEL MORRIS: In the case of these particular incidents, it's a running fuel fire. The purpose of laying a foam blanket over the top of those is to stop the vapours being released from the hydrocarbons and create a barrier between the hydrocarbon and the heat source and the take-up of oxygen. Once that's smothered, we have control of that and then attempt to recover the product.

The Hon. CAMERON MURPHY: I just want to come back to this issue you raised, which is that in a sense there is a bottleneck in cleaning up the residual PFAS that's there. You were saying that even if you have the money there just aren't sufficient experts who are properly trained to be able to do that work. Is that right?

MICHAEL MORRIS: Yes, that's my understanding: that there are constraints around the resourcing.

The Hon. CAMERON MURPHY: Do you know how many there are and how many experts are available or who we are competing with for those experts? Is it a matter of some of them working on defence or other areas?

MICHAEL MORRIS: I would have to take that on notice. I know there was some commentary about that in the previous evidence, but I'm not familiar with the exact numbers of consultants in the area.

The Hon. CAMERON MURPHY: But the nub of the problem, though, is that there is a bottleneck until we train people up who have the right skills and who would be able to do that clean-up safely. Is that right?

MICHAEL MORRIS: Yes, that's certainly my understanding.

The Hon. GREG DONNELLY: This is a technical question which may go beyond your specific knowledge to be able to answer, but please feel free to do so; you might have some valuable insight. In your submission, or the New South Wales Government's submission, on page 5—I will take you to that. It is something that has been exercised in my mind for a little while. It is the third paragraph specifically that I would like to take you to, if I could, please. Perhaps I will let you read it. There are two sentences. That might be the easiest way.

MICHAEL MORRIS: Yes.

The Hon. GREG DONNELLY: We have got this situation where the chemical PFAS and its other related chemical brothers and sisters, if I could use that vernacular—which we understand could be up to 14,000, which is a very large number, quite obviously—is found quite widespread, and that is clearly understood. I am trying to work out with respect to whether or not we end up with a double counting situation, potentially, where there is a focus here with respect to PFAS associated with the firefighting foam and the identification particularly by Fire and Rescue and government agencies that may be assisting in regards to where specifically that would be associated with the component elements of the PFAS used at the time that may be in storage and whatever hasn't been disposed of.

But, when the work is done to look at these Fire and Rescue sites, is there, as part of that work, an attempt to understand if there are background components of PFAS which may be unrelated to the PFAS that was used?

I know that sounds like an obscure question, but if it's background and it's everywhere—as often is asserted—is there potential for double counting or lapping over on your sites? Or this is not a matter that's really—

MICHAEL MORRIS: I'm not familiar with the science to be able to provide an informed answer about those particular questions.

The Hon. GREG DONNELLY: So it would be fair to say that the primary concentration is on where there's the firefighting and PFAS, which has either been used in the past, or in storage or whatever the case may be.

MICHAEL MORRIS: Certainly the areas where we've had control of the property and we know the use and history of what we've done, and then going through the evaluation and remediation processes to address where we've been a contributor.

The Hon. GREG DONNELLY: With respect to the PFAS contamination that's found on these sites, do you have any insights into how it got there in this sense: Was it training? Was it work that was done using this? Perhaps was it surplus to use when they went to an incident and came back and had some left and that was just, for example, thrown out? Have we got any insights into how it took place?

MICHAEL MORRIS: Yes. As indicated in my opening statement, in some of the areas that we're responsible for, it's our training facilities, so regular use of those products. In others, it is related to bringing back material, like the hoses et cetera that have been referred to and washing them down at the site; in some circumstances training at particular locations with small amounts of foam; and in other locations, as I mentioned, around where we've had blazes where we've produced foam.

The Hon. GREG DONNELLY: So there would be significant variances, potentially. There might be some sites with quite modest contamination, but obviously at a training facility one wouldn't be surprised to find—

MICHAEL MORRIS: Yes. I think that's quite logical, yes.

The CHAIR: Assistant Commissioner, under the Protection of the Environment Operations Act, there's an exemption from the PFAS firefighting foam regulation. I understand that individuals/businesses can apply for an exemption. Do you know whether any of the firefighting stations—have there been any exemptions applied for within the Blue Mountains area?

MICHAEL MORRIS: None to my knowledge and, as an organisation, we certainly haven't applied for an exemption. My understanding of that is particularly around some of the major petrochemical facilities et cetera where it still remains the most effective product.

The CHAIR: I think NSW Ports has had one. I think that's extended year upon year. With the extensive aerial fighting of fires that's been undertaken in the Blue Mountains area, is there any kind of data in terms of incident logs that collate whether and where firefighting foam with PFAS has been used?

MICHAEL MORRIS: The use of foams for aerial firefighting would be a matter for the RFS and I wouldn't have the content knowledge to comment on it.

The CHAIR: So just to be clear, any aerial spraying of firefighting foam is through the RFS and you don't have that data—Fire and Rescue NSW doesn't have that data?

MICHAEL MORRIS: That's correct.

The CHAIR: You don't know whether that's collected?

MICHAEL MORRIS: As I said, I can't speak to the RFS operations on the data that they collect.

The CHAIR: Who actually overall, then, has responsibility for the fact that these are toxic chemicals that are being used to fight fires? The community government agencies surely should be collecting this and knowing what's being sprayed out there. If Fire and Rescue doesn't know, do you think the EPA would hold that?

MICHAEL MORRIS: As I said, we are working with the EPA and a range of other government departments around the coordination of those issues. It's just not a personal knowledge matter that I can speak to on behalf of the RFS.

The CHAIR: So what you've given to the EPA, what Fire and Rescue has been asked to give to the EPA, on this matter is you're looking at the traffic incidents where you have sprayed firefighting foam historically. Have they asked for anything else?

I know there are the contaminated sites. Is there anything else that we need to be aware of or that's missing here?

MICHAEL MORRIS: There is ongoing consultation with WaterNSW. As we work through the data, there are requests for more data. That's an ongoing process of consultation to look at the historic records and expand or contract or home in on particular searches as required.

The Hon. AILEEN MacDONALD: To your knowledge, is there a system in place where you have that data, say, from historical fire events so that when another agency says—are you able to easily access that information or data?

MICHAEL MORRIS: I wouldn't say "easily access" but we do have the fire reports that were produced at the time, paper record occurrence books from the stations at the time. At a point in history we transition from paper-based records to electronic ones, so, where the electronic records exist—obviously much easier to search. But that's an ongoing process depending on what is required at any particular time to look through the historic records.

The Hon. AILEEN MacDONALD: I suppose there is a gap in that record keeping where it was paper and now it's electronic so the electronic versions are easily accessible but the paper ones—

MICHAEL MORRIS: Are stored in accordance with the records requirements of government and are retrievable as required—just obviously becomes a different level of resource intensity for those searches compared to electronic searches.

The Hon. AILEEN MacDONALD: With today's firefighters, how is Fire and Rescue NSW ensuring that they're not exposed to legacy contamination issues? There's Medlow Bath but there are other sites. How are you ensuring that they're not exposed to those sites?

MICHAEL MORRIS: We have a number of processes in place and work directions around the land use for our sites, particularly around not growing anything in the soils around the station, not keeping chickens onsite—all of those sorts of things that limit any of that exposure. The reality for most of our stations is that they are hard surface concrete areas so there is limited exposure to the soils. Then, as I said, we have a body of work assessing all of our sites and undertaking remediation work on a prioritised basis.

The Hon. AILEEN MacDONALD: For the firefighters that attended in 1992, are you aware if any of those firefighters have been later diagnosed with health conditions that could be as a result of PFAS exposure?

MICHAEL MORRIS: I couldn't speak to the individuals and their medical histories, no.

The Hon. AILEEN MacDONALD: So you haven't had any. And none of those have had blood testing as yet?

MICHAEL MORRIS: No. The blood testing regime in accordance with the award hasn't commenced yet.

The Hon. AILEEN MacDONALD: It's only if they've done it individually themselves?

MICHAEL MORRIS: That's correct.

The CHAIR: What happens when a firefighter comes—do they go to management within Fire and Rescue if they do have concerns about fighting fire historically with this foam with PFAS, which the World Health Organization has deemed as possibly carcinogenic? What happens when they say that they have high cholesterol, that they have cancer? Firstly, what does Fire and Rescue do? Secondly, what data is being kept on this? Is it public even if it's de-identified, of course, which it would need to be? What does that look like in terms of the regime of keeping track of the health impacts across the force?

MICHAEL MORRIS: Some of those elements I'd have to take on notice. As I said, there are the award provisions around the establishment of the testing regime. As you've heard previously, there is presumptive legislation for firefighters around a number of cancers. Historically we've relied, as I said, on the medical advice around the testing regimes and whether it was appropriate or not. As the science has grown, so too has the knowledge and that's been moved through and now we're in this position where we have the award provision and undertaking the preparations to commence the blood testing for PFAS of our firefighters.

The CHAIR: Could you just expand? When you said "relying on the medical advice" in relation to the testing regimes, what does that mean? What did that mean five years ago, for example, when you say you've been relying on the medical advice? Which medical advice and who from?

MICHAEL MORRIS: In terms of PFAS and the cancer risk in the medical advice, we follow the Federal department of health advice regarding PFAS, which recommends adopting a precautionary approach and that human exposure to PFAS be minimised. We have adopted this precautionary approach in managing it across the

State. The health advice was that PFAS exposure has been associated with a number of health effects and that there are potential associations with two types of cancer, though a causative relationship between those health effects and PFAS exposure has not been established to date.

The CHAIR: Assistant Commissioner, what you're reading out is not advice for people who were working with this toxic, cancer-causing foam in firefighting incidents on a weekly basis. What you're reading out is not for firefighters. Are you seriously saying here today that Fire and Rescue never had separate advice in terms of what they should be doing for people working with a chemical that was phased out in 2007 because it was potentially cancerous?

MICHAEL MORRIS: Yes. As I said, there are ongoing negotiations with our union and it is part of the current award to implement those testings. Prior, the NSW Health advice suggested that blood testing had no current value in informing clinical management of people with potential exposure to PFAS.

The CHAIR: I've just been to the USA on a study tour of PFAS, and the firefighters' union there is absolutely all over this. They worked out to get testing years ago. It just beggars belief that Fire and Rescue NSW did not know this was happening in other jurisdictions. Did you have firefighters coming to you, begging you to test their blood to see what was happening with PFAS chemicals? I bet you had a lot.

MICHAEL MORRIS: I would have to take that on notice.

The Hon. SCOTT BARRETT: How big is the general resource that you are putting into dealing with this issue? Have you got staff allocated specifically to this?

MICHAEL MORRIS: In terms of the site remediations et cetera, we have a PFAS team of two people who are working on the project management and working with the other government agencies around the coordination of all of that particular clean-up activity. Then obviously we've got a health and safety branch, which has been involved in establishing the requirements to initiate the testing regimes as per the award requirements.

The Hon. SCOTT BARRETT: We've heard in other evidence that things could be streamlined to be a little easier if one person had control over this whole issue. Would you concur with that statement?

MICHAEL MORRIS: We work with the rest of the government and all of the relevant agencies in terms of that coordination and do what we can within our remit.

The CHAIR: You just referred to the National Health and Medical Research Council guidelines in terms of dealing with PFAS. Is Fire and Rescue NSW now looking at anything stronger in terms of assessing the ongoing impact to workers who have worked with and fought fires with this? Particularly on training days, people talk about how it was all over their uniforms, not to mention the community that was also in this foam. What has Fire and Rescue NSW now done to research the extent of the potential contamination and what that means for the health of firefighters—because the National Health and Medical Research Council advice that you referred to, Assistant Commissioner, is not for firefighters who worked with it daily. Firstly, you're aware of that?

MICHAEL MORRIS: I'd have to take that on notice.

The CHAIR: Are you aware—you quoted it and you've got it in your book there—that that's just for everyday Australians who consume food and water? That's a drinking water guideline. It's not for people who work with the substance as firefighters. Are you aware of that?

MICHAEL MORRIS: In terms of the current state of research in Fire and Rescue NSW, I'd have to take that on notice.

The CHAIR: The document that you quoted from the National Health and Medical Research Council, in your folder that—

The Hon. GREG DONNELLY: I think the witness has indicated he's going to take on notice.

The CHAIR: I'm just asking him whether he is aware, in terms of that NHMRC document, whether it specifically deals with firefighters, the part that you quoted.

MICHAEL MORRIS: As I said, I'll take on notice the question around that particular element.

The CHAIR: If you could also take on notice, then, please, what Fire and Rescue rely upon, the research that you're currently relying upon, in terms of the potential health impacts of firefighting foam containing PFAS chemicals, that would be extremely helpful for the Committee.

MICHAEL MORRIS: Certainly, Chair.

The CHAIR: Thank you so much, Assistant Commissioner, for making yourself available. The secretariat will be in touch for anything you've agreed to take on notice.

(The witness withdrew.)

Ms GEM GREEN, Chair, Cadia Community Sustainability Network, before the Committee via teleconference, affirmed and examined

Mrs FRANCES RETALLACK, Vice Chair, Cadia Community Sustainability Network, sworn and examined

The CHAIR: Welcome to our next witness. I understand Ms Gem Green will join us online shortly. I think you've got an opening statement for us, Mrs Retallack. Please proceed.

FRANCES RETALLACK: Good morning. Thank you for the opportunity to share our experience. Cadia Community Sustainability Network was established by community members in the Cadia Valley district to work with Newcrest, now Newmont, to safeguard for all the economic, social and environmental future of our region. In 2023, CCSN attended the parliamentary inquiry Current and potential impacts of gold, silver, lead and zinc mining on human health, land, air and water quality in New South Wales. We did not expect to be attending another inquiry so soon.

In May 2024 we discovered that ponds adjacent to the Belubula River on farms immediately south of Cadia Valley Operations' tailings dam, were heavily contaminated with a cocktail of PFAS, hydrocarbons and heavy metals. And I have here images—if you've seen the movie *Dark Waters*—this is my farm last winter, and it was like this for months. This is my neighbour's farm at the same time. That foam is half a metre deep, and that's a known platypus hole. This discovery led to a program of monitoring and testing in our district, with help from Associate Professor Dr Ian Wright.

In July 2024 the community identified significant banks of foam accumulating on the Belubula and some of our creeks. Testing of the foam revealed it was hyper-accumulating contaminants. CCSN believes the deposition of this highly concentrated contaminated foam along the riverbanks represents a significant risk to the livestock industry in our district. Just by illustration, it runs down the river. It accumulates along the edge and we end up with what we called the white stripe, quite clearly defined in a localised area on the Belubula and down certain creeks. You could drive around and see, "Oh, the foam has been here; it's not been there". It was very specific.

The EPA also commenced a testing program focused on sampling the river for PFAS at a number of locations in our district. The EPA has identified PFOS concentrations in the river at between 0.014 and 0.23 micrograms per litre. EPA Victoria has determined that sites with mean livestock drinking water concentrations as low as 0.003 micrograms per litre may result in exceeding the European community maximum limit for PFOS in cattle meat. Our district is primarily cattle grazing country but has PFOS in the drinking water at up to 1,000 times the lifetime exposure limit required to meet EU export standards.

As a result of the concerns raised by the community, the EPA has made a number of changes to Cadia's environmental protection licence, including a requirement to produce a report investigating potential sources of PFAS at Cadia by the end of September 2025. That's nine months to write a report about where they might have used PFOS. By the time this report is produced, almost 18 months will have passed since the farmers in our district identified a problem. In the meantime, our cattle drink from a contaminated river, with the glacial pace of investigation putting at risk Australia's beef export industry.

The risks of PFAS contamination have been recognised overseas for decades. Why has there been no general monitoring of our rivers and waterways? We've heard today the discovery of this contamination has been the result of some non-experts happening to test something that they didn't understand. I've repeatedly been told—I tested the foam on the Belubula. I was told by Professor Wright, "Why did you do that? Nobody tests foam." I was told by the EPA, "Oh, it'll be surfactants. Don't worry about it." Why does it come as a surprise when we discover, quite by chance, that our rivers providing drinking water for people and livestock are contaminated?

The EPA is now conducting a more extensive round of testing. However, this program makes a simple comparison with the amount of PFAS per litre, without considering the volume of flow in each watercourse. This is the Belubula. They're comparing the amount per litre in Belubula to the amount per litre in Cowriga Creek—no comparison of the volume of water flow. The EPA does not consider the cocktail of contaminants found in our water. We believe the cocktail of contaminants provides a signature for a source. The EPA has not considered testing protocols for elements, such as diesel, which float on the surface. The department of planning has told us there are protocols for testing for diesel that's on the surface. It's not being done by the EPA.

The EPA did not consider the impact of fault lines and alluvial channels identified by the Independent Expert Scientific Committee. There are two papers produced by the Independent Expert Scientific Committee—one for Paul Scully, one for Tanya Plibersek, in 2023 and 2024—both of which draw the conclusions that contamination from the tailings dams will seep into the groundwater, will seep into the creeks and waterways and,

surprisingly, will flow downhill to the river. In the metals mining inquiry of 2023, many of the recommendations put forward were not adopted by the committee. However, sadly, most of them remain relevant today and are relevant to many industries.

Once again, CCSN suggests that reports on all aspects of operations should be produced by independent experts, selected by a panel and managed by the appropriate regulatory agency. Buffer zones must be appropriate. Cadia's buffer zones have not changed since the original licence, 25 years ago, yet production is five times greater.

There must be full and prompt enforcement of all regulations, with significant fines. In addition, relevant to today, we strongly recommend the system of self-measurement, self-monitoring and reporting must stop. The system is being abused. Enforcement of environmental regulations should not, and must not, be open to political pressure and interference. The very survival of our agricultural industry depends upon our regulators being allowed to enforce regulation without pressure from political parties and industry lobbyists. We ask that regulators apply the regulations in a clear and transparent manner.

The CHAIR: I just wanted to get a sense of the water in the Belubula River around where you tested. All these really shocking pictures of foam—in one of which I think you said the foam was half a metre deep. Cattle, livestock drink out of that river. You said something about families as well. Is that water pumped and used for irrigation? Talk to us about the uses of that water.

FRANCES RETALLACK: Farmers in the district have, basically, an entitlement for livestock and domestic use. There are many farms in the district that would pump it out and use it for drinking water. There are also farms in the district where they top up their water tanks from the aquifers assuming, because we tested it 20 years ago, that it's okay. It's widely recognised that cattle, in particular, do best and are most productive and most profitable if they have a very good supply of fresh water. Many farms in the district have troughed their properties entirely off the river only to discover now that the river is contaminated. To be clear, it's not just PFOS. This is a regulated river. It's described by NSW Fisheries as being a critically endangered ecological habitat in danger of extinction. We have huge Murray cod in the river, but it is on the precipice. It's gone from being what should be 99 per cent species survival under the aquatic standards to now not being suitable for livestock.

The CHAIR: Have advisories been issued to people in the area?

FRANCES RETALLACK: No.

The CHAIR: No advisories have been issued from the EPA, NSW Health?

FRANCES RETALLACK: No.

The CHAIR: Cattle are, potentially, drinking the water and still being sold, I assume.

FRANCES RETALLACK: Sorry, I should also tell you that we tested—our experience at CCSN has been problematic with the regulators in terms of the lack of regulation in our district. I think that's quite well documented. One of our philosophies has been to get ahead on data. We tested carp. The carp in the river are heavily contaminated with PFOS and copper. NSW Fisheries was sent out to our property two weeks ago by the EPA. They'd been asked to collect 40 cod and 40 carp. They arranged to go to three different properties because they didn't think they would get that number of cod in one place. Sorry, 20 cod and 20 carp. They came to our property, Millamolong, and they collected the 20 cod from one hole. They were thrilled that we had managed to preserve this environment to such an extent that we'd been able to breed the numbers up. They will be contaminated. There is no question.

I believe the focus of the EPA's testing—when you ignore the volume of water in the river, the only conclusion you can actually come to, and be reaching, is how contaminated are the fish? How much fish can you eat? You're not going to be able to reach a conclusion as to a source. You might find multiple sources, but you're not going to be able to find the solution to my problem or a specific problem along the river. And if you don't find a solution and a source accurately, you can't solve the problem.

The CHAIR: I'll just come back to that in a second. We weren't able to get Ms Green on the Webex, but we have her on the phone, I think. Ms Green, can you hear me?

GEM GREEN: Good afternoon, Cate. My sincere apologies. Of course, this all worked perfectly last week with the secretariat.

The CHAIR: It's always the way. You could hear that Frances was talking just then. We'll just keep going to questions.

GEM GREEN: Thank you.

The CHAIR: With the carp that you said that you tested and it had high levels of PFAS in it, what have you done with that data? Have you given it to any government agency?

FRANCES RETALLACK: We passed it on to DPE and the EPA. The EPA then organised for NSW Fisheries to come and collect fish, and they're doing a similar testing program—testing cod and carp.

The CHAIR: Have any signs been established along the river? Any notifications or advisories to the community to not fish or be cautious about eating it?

FRANCES RETALLACK: No. We have repeatedly suggested to the local council and to the EPA that—Bakers Shaft is a public reserve upstream from where our property is. It's a very, very popular camping and fishing reserve. The council, who has been advertising it as a tourist attraction—go there and go gold panning. The last time we were there collecting samples with Ian Wright—I think it was back in September school holidays—there were families there playing in the mud, panning for gold. The most toxic mud in our district is at Bakers Shaft. I'll give you some numbers: Bakers Shaft PFOS last September—1,500,000 parts per trillion of PFOS in the sediment. That's 50,000 times greater than the PFOS in the river at the same site, at the same time. It is accumulating.

The CHAIR: Where was the sediment taken from, when you said the sediment?

FRANCES RETALLACK: From the edge of the riverbank. This was by Dr Wright; I just drive along. The river water is 30 parts per trillion. PFOS in the foam was more than 16,000 times the safe ecosystem guidelines. That was on 21 September 2024. I was alarmed to hear the Blue Mountains Council saying they get phone calls, saying, "Can we go swimming?" when there's foam on the river. My kids would not be going swimming where there is foam, because, in our experience, the foam is an accumulator. We have colossal heavy metals, hydrocarbons and PFOS in the foam. The EPA tried to tell us—and I got the same message from the Blue Mountains Council—that the foam could be surfactants. When we went through the Standing Order 52 documents that your department got—

The CHAIR: I wish I had a department.

FRANCES RETALLACK: —having been told for months that the surfactants are natural, one of the science departments has provided the EPA with an email, saying, "This is not a natural source of surfactants."

The Hon. AILEEN MacDONALD: I'm not sure who to put the question to. In the submission, you raise concerns with how the EPA are taking water samples from the middle of the river, approximately 15 centimetres to 30 centimetres below the surface.

FRANCES RETALLACK: Yes.

The Hon. AILEEN MacDONALD: Can you outline to the Committee why this is of concern to you and if this practice differs from any New South Wales or national standard?

FRANCES RETALLACK: I'm not an expert to have an opinion about the standards.

The Hon. AILEEN MacDONALD: Me either.

FRANCES RETALLACK: But what I do—if I'm getting samples for myself to go and see what's happening, I choose the same spot every time. I try to get it in a quiet spot. Where are my cattle drinking? They aren't drinking in the middle of the river; they're drinking on the edge of the river. That said, the EPA consistently samples in the middle of the river, in the flow of water. Their PFOS exceedances, which are just colossal, are in the middle of the river. That system will pick up, I believe, what is dissolved in the water; it will not pick up, I don't think, diesel. And so I have—

The Hon. AILEEN MacDONALD: Yes, you said that.

FRANCES RETALLACK: That's the pond—all of us can see that's heavily contaminated. That's a pond on my property. The properties running on either side of us—and we're quite large farms in this strip of the river—all have diesel in the ponds. The river fills up when we get a lot of rain and then breaks into a permanent channel and then a series of ponds. The ponds, as the water settles and stops, develop a film on top. The EPA, the first time they came out, I said to them, "Can you test this?" "Oh, no, it won't be anything. This is how you check for diesel quickly. Throw a stone in. If the water goes back together, it's diesel." Well, sure enough, it goes back together. That foam blanket I showed you that's half a metre thick, we threw a massive rock into it and it goes back together like—it's like some sort of creature from outer space. It was quite a shock the first time we saw it. But it's diesel.

The Hon. AILEEN MacDONALD: And so the way the EPA—

FRANCES RETALLACK: They won't find diesel. They're testing running water. You don't find diesel in—it's on the surface.

The Hon. AILEEN MacDONALD: But they would test to a standard?

FRANCES RETALLACK: I guess, yes.

The Hon. AILEEN MacDONALD: You also said in your submission that you think that PFAS contamination has made its way into the Cadia from sources like Orange and the Blayney wastewater treatment plants going back as early as 1998. Where have you got those records, and have you provided that information to the EPA?

FRANCES RETALLACK: Yes. The first report the EPA put out, when they tested the river, they omitted Cadia, Orange wastewater treatment and the dewatering plants in Blayney for Cadia as potential sources of PFOS. But Cadia has been taking most of the treated wastewater from Orange, which is contaminated—all of the biosolids from Orange since 1998. They've been stockpiling it. They've also been using PFOS in firefighting foam. They have on average a fire every six weeks underground, based upon resource regulator documents. So there is PFOS on the site and there might be other sources as well.

The Hon. AILEEN MacDONALD: Did you commission these testings or the data or evidence?

FRANCES RETALLACK: This started because we had ponds that look like that, and I wanted to know what it was. I thought, "I'll test for something anthropogenic." And so we got the sample bottles and tested for PFOS. I never expected to find PFOS—not in a million years. But let's test for that. Let's test for hydrocarbons and see what that comes up with. Let's test for the metals. And that's where this all started. About the same time, Ian Wright's student was writing up about PFOS and platypus.

The Hon. AILEEN MacDONALD: So he's been testing as well?

FRANCES RETALLACK: We know Ian Wright from doing some water tank testing over the last couple of years for us. I sent him our results. One Friday night I'd got the results back late, and I'd just sent them through to him, and we had a very long conversation. He was blown away.

The Hon. AILEEN MacDONALD: I'm conscious of the time.

FRANCES RETALLACK: Sorry, it's the realisation of the impact. It has evolved. You find out you've got a problem and then the cogs start to turn and you start to realise these are the ramifications. And then you find the Victorian EPA paper saying this is how low PFOS needs to be in the drinking water for cattle, and you realise you and all your neighbours are cattle businesses.

The Hon. SCOTT BARRETT: You've touched a bit on your engagement with the EPA. What other government agencies have you dealt with through this?

FRANCES RETALLACK: Planning.

The Hon. SCOTT BARRETT: And a similar experience with them? I'm leading to a question and saying what do you think these agencies could be doing better, as far as their outreach and engagement with organisations and community on this issue?

FRANCES RETALLACK: What I find very different—I'll say one thing and then Gemma might want to chip in. The EPA updated the EPL last year. They approach the community and asked if we would like to comment on it. I think we had 90 submissions. We have about 500 members. That's a pretty good hit rate. The new EPL was published on 23 December at around about four o'clock. In that EPL they ask Cadia to produce the report—basically an audit of all your possible sources of PFOS—and you've got nine months to do it. The department of planning come out with their changes for every modification the mine puts in. They've just spent a year going over a modification. When they ask for them to do a report they're given three months, and then they start knocking on the door, "Where is it? Where is it? Where is it?" I guess people have different experiences. I believe that we have achieved, as a community group, substantial change in the operation and what will be the health outcome for the long-term for the community through the department of planning, as opposed to through the EPA.

The Hon. SCOTT BARRETT: Have you spoken a lot about the impact on the cattle industry and engagement with government in that regard?

FRANCES RETALLACK: No, not at this time. One of my neighbours is a very highly respected person in the cattle industry. He's had a lot of discussions with Meat and Livestock et cetera. There is a research project

going on between, I think, the University of South Australia and UQ on PFAS contamination in grazing animals in the cattle industry, particularly looking at where biosolids have been spread.

The CHAIR: I want to check, Ms Green, whether you have anything to add to any of the questions at this point?

GEM GREEN: The only thing I would like to say is that the stress, the strain and the mental health impacts on what the CCSN has established in the last eight months have been very, very hard for the community. We're seeking answers. We're spending a lot of money on testing because we've found an issue. That's been a really big challenge—how we all look after ourselves and each other as we progress through this further issue of contamination in our community.

The CHAIR: Before I go to Government members, I wanted to ask—I was going to ask this question later—about the testing and the personal resources that you've put into it. How much has the community spent on these tests?

GEM GREEN: I'll have to take that on notice, Chair, to be clear. But it would be in excess of \$30,000, is my recollection. Frances, would you add to that?

FRANCES RETALLACK: Yes. It's over \$30,000—well over. We have testing labs that are now saying—for example, Envirolab. We wanted to test the carp and they phoned up and said, "We'll do it for free," because they know we've got a problem. They phoned us up and talked to us about a presentation the EPA gave about our water tank testing and said, "You should be aware this is what is being said," because they knew what our water tanks look like and they know that our water tanks aren't normal.

The Hon. GREG DONNELLY: Could I return to the matter of the contamination of meat and livestock? I'm looking at page 4 of your submission, if I could take you to that. Specifically I'm looking at the penultimate paragraph on that page and the one above it. With respect to guidance or regulation around contaminants in meat, including PFAS, is it your understanding that there is no provision in regard to that with respect to New South Wales currently?

FRANCES RETALLACK: Yes.

The Hon. GREG DONNELLY: There is not?

FRANCES RETALLACK: But it's coming. We all have to sign quality assurance documents every time you send livestock to market.

The Hon. GREG DONNELLY: Sorry to interrupt, when you say it's coming, what's coming?

FRANCES RETALLACK: You will be required to report whether or not your livestock have been exposed to PFOS. To my understanding, that is coming this year. Is that right, Mark?

The CHAIR: It's got to be through you, Frances. He's not a sworn witness.

FRANCES RETALLACK: Sorry. My understanding is that requirement on the documentation will be changing this year. But the problem—

The CHAIR: Just to be clear, that's the biosolids review, is that right, that you're referring to?

FRANCES RETALLACK: No, that's the requirement for quality assurance for meat sales. The problem is, if you are selling into the European markets—and my neighbour is Euro accredited; he has the ability to sell into the European market. The buyers all know he's EU accredited, so he needs to be able to tick the box saying "I'm okay". He's already been told he's got a black flag against his name that he may not be okay.

The Hon. GREG DONNELLY: Sorry, who's placed the black flag on him?

FRANCES RETALLACK: The buyers, because the PFOS map is out there. Also, he's got a requirement coming from, I think, Meat and Livestock Australia—EU accreditation will have to put in your postcode. So we all happen to be next door to a known contamination site.

The Hon. GREG DONNELLY: I'm just a little bit confused, because with respect to the earlier evidence included in your opening statement you referred to the Victorian standard; I think that's the phrase you used. I'm not trying to be critical. I'm just trying to seek clarity. It is in the Victorian standard. I accept it's an article by a person who's titled Professor Mark Patrick Taylor, et al.

FRANCES RETALLACK: EPA Victoria has determined—so it's a research paper. It's not a standard. It's a research paper where they worked out—effectively, they worked backwards and said, "Given how much

cattle drink, given all of these locations we've tested, how much PFOS can be in the drinking water in a lifetime exposure before the cattle no longer meet the EU standard?" It's the European standard that they were working backwards to work out how do you satisfy the European standard. They came up with this incredibly low level of PFOS.

The Hon. GREG DONNELLY: The researcher did. That's what you're saying.

FRANCES RETALLACK: Yes.

The Hon. GREG DONNELLY: There's no equivalent standard in New South Wales that currently exists?

FRANCES RETALLACK: No.

The Hon. GREG DONNELLY: Just to follow on that, this prospective Commonwealth standard—that's coming, is it?

FRANCES RETALLACK: There's a prospective requirement to disclose if your cattle or your livestock have been exposed to PFOS. At the moment, we have to tick, for example, they have not been exposed to batteries—you haven't stored old lead batteries and they've licked those et cetera. We have to tick the box and say, "No. No exposure to any of those elements." We're going to be required to say the same about PFOS, and the problem is it's in the river.

The Hon. GREG DONNELLY: When you say no exposure, is there a threshold above which or below which PFOS—

FRANCES RETALLACK: I don't know what the document will say. What we tick at the moment is yes/no.

The Hon. GREG DONNELLY: You may not have the knowledge of this, but this is part of the challenge that there is an argument that there is no safe standard full stop because it's referred to as the "forever chemical" and we sort of understand those arguments that are run in the public domain. But then you've got the, dare I say, scientific regulatory bodies which talk about a standard or a minimum of exposure. I accept that may vary across jurisdictions. But when you make a blanket statement that the EU has put the black flag up, I'm just wondering—

FRANCES RETALLACK: No, the Australian buyers. The local buyers—the way it works is the industry buyers go around all of the saleyards. They've got their orders to fill, and they tend to know the Wongalong cattle are like this. Over time they know what they're buying, what the quality is and what they expect. They know, "This property is cleared to sell through to the EU and I've got an order from the EU." All of a sudden, this property may not be cleared to sell to the EU. We talked a little bit earlier on about the taint in your tourism. It's a taint on your meat business. The real concern I have is that if we don't get on top of this in some way—I don't believe PFOS is everywhere yet. It isn't in the streams that we have that flow from the south to the river.

The Hon. GREG DONNELLY: Sorry to interrupt, but if we are to believe what is said quite openly by many people who feel strongly about this matter, it's argued that it's manifestly everywhere. This is part of the challenge that we're facing with this inquiry. There are the statements making, dare I say, a claim or argument and lining that up against others who have different views, which are, in an absolute sense, far apart, through to those who say, "Listen, we agree in principle but we're going to talk about the margins or the difference." Do you understand what I'm saying?

FRANCES RETALLACK: Yes, I do. But I know it's not in the creeks that we have flowing from the southern side of the river to the river.

GEM GREEN: Correct.

FRANCES RETALLACK: It's in the river. The problem, if you're a livestock producer—maybe, sadly, in 20 or 30 years it will be everywhere if we don't get on top of things now. The opportunity is to try to perhaps do things differently and to clean up after ourselves and protect the water for the future for everybody.

GEM GREEN: Mr Donnelly, if I could add to what Frances has just shared, we'd appreciate taking on notice the seeking of information—I think it's from SAFEMEAT Australia—in relation to any form of drafts that they may have currently available for producers to share with the Committee.

The Hon. AILEEN MacDONALD: I'm not sure who to direct this to, so I'll just put it out in the open. With the international studies that link PFAS exposure to serious health conditions, to your knowledge has NSW Health offered any form of blood testing or health assessments in the area?

FRANCES RETALLACK: One of the things I have found really remarkable today was to hear that New South Wales hasn't been testing firefighters—that they've refused the Blue Mountains residents the blood tests. NSW Health banned our district from getting blood tests for heavy metal contamination. Because of the metal contamination in our drinking water tanks, we went privately and did it ourselves, and that caused a bit of a furore. No, to my knowledge—I'm amazed by the decisions that seem to be made based upon no information.

The Hon. AILEEN MacDONALD: That will bring me to my next question. Are residents and producers facing additional costs due to contamination concerns? Are they buying bottled water or are there medical expenses? In accreditation for EU, are there additional costs in doing all of this?

FRANCES RETALLACK: Yes, and the EPA—Steve Beaman stood in my kitchen and basically said that we could mitigate the PFOS problem by providing our cattle with alternative water and feed sources, which is putting the whole cost onto the farmer. But we didn't cause the problem. Already in our district, many people are buying water. We have water provided by the mine. The mine is subsidising some people with filtration on their drinking water tanks. We've already got additional costs. I am very concerned about the practicality and even the possibility to provide alternative clean water for cattle. Cattle will drink 100 or 150 litres a day. It's not a practical option to say, "You can't use the river. Go and get it from somewhere else."

The Hon. AILEEN MacDONALD: You have said you have community-led efforts in that you are doing independent testing. Do you know, to your knowledge, are they through the same channels that, say, EPA are testing?

FRANCES RETALLACK: You mean the same labs?

The Hon. AILEEN MacDONALD: Yes. Are they accredited?

FRANCES RETALLACK: Yes, they are accredited.

GEM GREEN: Yes, they are accredited, correct.

FRANCES RETALLACK: We either go to ALS or Envirolab. But they are accredited.

The Hon. AILEEN MacDONALD: What message would you have for policymakers and regulators who are responsible for addressing PFAS contamination in New South Wales?

FRANCES RETALLACK: Act now before it's too late, and don't give up. We need to all change and we need to hold the polluters to account.

The CHAIR: Mrs Retallack, do you have any opinion about the role that the EPA has played in all this? Do you think that they are doing the job that they should be doing?

FRANCES RETALLACK: We, as a group, often use the phrase, "They're either complicit or incompetent." A lot of their so-called—it has been described to me as a pseudoscience—scientific reports are extraordinarily flawed. In going through the Standing Order 52 documents last week, we sent in—just by way of example, they did some work on our water tank contamination. We sent in a rebuttal document. They sent parts of that to expert scientists who then came back to them and said, "Well, actually, the community is right about that one. You are wrong." Conclusions have been drawn that should not have been drawn based upon inaccurate information, and it's a pattern.

The CHAIR: Do you think that sometimes it looks like they might be working to protect the polluter over the public?

FRANCES RETALLACK: Yes.

GEM GREEN: I think political interference is a very big issue, Cate, in a lot of these approvals and State significant developments. I think there is huge potential there. If I could just add, in addition to Frances's comments from the group's perspective on the EPA, we have often found it to be very underwhelming and reactive in nature, not proactive for the community and the environment.

FRANCES RETALLACK: I don't understand how a known contamination risk for 20 years can have been discovered because I went and got an esky full of foam from the river. That is just ridiculous.

The CHAIR: It seems to be a common theme that the EPA is not discovering it—the community is and journalists are. I know you have been part of the community advisory group at some point and you have got a fairly good understanding of Cadia's operations.

FRANCES RETALLACK: Yes.

The CHAIR: Do you know if Cadia has used PFAS chemicals in the past or is still using them? Do you have any understanding of that?

FRANCES RETALLACK: Yes, they've admitted that they used it as firefighting foam until 2015. They were having a fire underground every six weeks.

The CHAIR: Sorry, what were they doing every six weeks?

FRANCES RETALLACK: Putting out a fire underground, unbelievably. They told us recently that after all the recent publicity they had done an audit onsite and discovered two drums which they had struggled to have properly disposed of. We have been told they have been dumped in the pit. If they had properly disposed of them in the past, they wouldn't have struggled to dispose of two drums today. That is my belief.

GEM GREEN: I'm happy to provide further details on that question on notice. We would appreciate sending through extra information.

The CHAIR: You are saying that you think they used them up until 2015. Is it your understanding that this is the same kind of firefighting foam that was phased out in 2007 by Fire and Rescue NSW or are we talking something different?

FRANCES RETALLACK: My understanding is it's PFOS foam—PFOS firefighting foam.

GEM GREEN: I'm not sure that we definitively know the answer to that with regards to chemical composition—is where I'm coming from.

The CHAIR: Okay. At this point, can I just ask whether either of you know—because there's the exemption that exists for the use of firefighting foam for some extreme fire situations—whether there's an exemption or if the mining industry is using this foam? Do you have any knowledge of that, either of you?

FRANCES RETALLACK: Don't know. They have put in writing.

GEM GREEN: Don't know.

FRANCES RETALLACK: Sorry, Gemma, they have put in writing that they stopped using PFOS foam in 2015.

GEM GREEN: Correct, yes.

The CHAIR: Thank you both so much for appearing. Thanks, Ms Green, for appearing on the good old-fashioned telephone. The Committee will be in touch. You've agreed to take some things on notice. The secretariat will be in touch with you about that. Thank you so much for appearing. That's the end of our Katoomba hearing today. Thanks, everybody, for coming.

GEM GREEN: Thanks for your patience with having me on the phone. I really appreciate that.

(The witnesses withdrew.)

The Committee adjourned at 12:50.