

Submission
No 47

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

Organisation: Stop PFAS - Blue Mountains

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**STOP
PFAS**

STOP PFAS
submission to
the NSW inquiry
on PFAS
contamination in
waterways and
drinking water
supplies
throughout
NSW

Written by
Jon Dee

Petrol tanker fire,
Medlow Bath 1992



‘STOP PFAS’ Submission to the NSW inquiry on PFAS contamination in waterways and drinking water supplies throughout New South Wales.

1) INTRODUCTION

I am writing a submission on behalf of the ‘Stop PFAS’ community group here in the Blue Mountains of NSW. This submission sets out:

- our experience in dealing with drinking water that’s contaminated with PFAS chemicals
- our views on the serious inadequacies in how this PFAS contamination was handled by the NSW Government, NSW Health, Sydney Water and WaterNSW
- our views on the draft Australian Drinking Water Guidelines and the lack of mandated testing of Australian drinking water supplies
- in addition to listing our concerns, this submission also sets out our recommendations on how PFAS contamination could be better identified and handled in NSW and Australia

2) BACKGROUND TO THE BLUE MOUNTAINS PFAS DRINKING WATER CONTAMINATION

Prior to June 2024, Sydney Water and WaterNSW had never tested drinking water in the Blue Mountains for PFAS forever chemicals.

Sydney Water CEO Roch Cheroux informed me that Sydney Water had only previously done a ‘desktop risk analysis’ of the risk of PFAS contamination of our local water supply. He confirmed that prior to June 2024, PFAS tests on our drinking water had never been carried out.

Prior to these June tests being implemented, Sydney Water had wrongly told the public via ABC Radio that **“There are no known PFAS hotspots in our drinking water catchments.”**¹ Assurances by Sydney Water and NSW Government agencies that our drinking water was safe were being made in the absence of actual PFAS testing of drinking water supplies throughout the state.

The first tests carried out by Sydney Water took place on June 25th, 2024. These tests were conducted only after media pressure from the Sydney Morning Herald. Without that scrutiny, the testing would not have occurred, and we would have remained unaware of the PFAS contamination in our water.

Samples taken 25 June 2024			
Water filtration plant	PFOS (µg/L)	PFHxS (µg/L)	PFOA (µg/L)
Cascade – Blackheath	0.0155	0.0136	< 0.0001
Cascade – Katoomba	0.0164	0.0142	< 0.0001
North Richmond	0.0011	0.0014	< 0.0001

ADWG values: PFOS + PFHxS = 0.070 µg/L, PFOA = 0.56 µg/L

The results of Sydney Water’s first PFAS tests in the Blue Mountains in June 2024.

¹ <https://www.abc.net.au/listen/programs/sydney-saturdaybreakfast/pfas-water-testing-wright/103982302>

Sydney Water table sourced from: <https://www.sydneywater.com.au/water-the-environment/how-we-manage-sydneys-water/safe-drinking-water/water-analysis/pfas-and-drinking-water/pfas-monitoring-results.html>

These Sydney Water test results showed that our local Blue Mountains drinking water had elevated levels of PFOS and PFHxS forever chemicals:

- **PFOS:** The PFOS levels in this Sydney Water June 2024 testing were **16.4 ng/L**. This was four times the recommended safe levels of **4 ng/L** that were recently published by the NHMRC in their incoming draft Australian Drinking Water Guidelines (ADWG).
- **PFHxS:** The PFHxS levels were **14.2 ng/L**. This was above the **10 ng/L** safe levels set out in America's National Primary Drinking Water Regulations (NPDWR).
- The **PFOS** levels were also **4 times higher** than the current American safe levels of 4 ng/L.
- The Sydney Water tests from June also showed that PFAS levels in Blue Mountains tap water were **300 times higher** than those in Warragamba Dam, which supplies tap water to Sydney.

In August, the ABC reported that WaterNSW had done tests at its 5 water dams in the Blue Mountains. These results also showed unsafe levels of PFAS chemicals:

“Sources have told the ABC the levels found in the untreated water at Medlow Dam were 0.09 micrograms per litre (µg/L).” **(this is 90 ng/L)**

“The Australian safe level for PFOS and PFHxS, which are both PFAS types, combined is 0.07 micrograms per litre (µg/L).” **(this is 70 ng/L)**

Following these revelations, two of our local five drinking water dams were shut by WaterNSW – these were Medlow Dam and Greaves Creek Dam. Despite the authorities telling us that our local drinking water is safe, these drinking water dams remain closed due to PFAS contamination.

Our own independent research shows that the water currently running into Adams Creek (which then flows into Medlow Dam) has extraordinarily high levels of PFAS chemical contamination.

Our water testing on October 16th, 2024, showed PFOS levels at 2,200 ng/L and PFHxS levels at 980 ng/L. This testing was carried out for our STOP PFAS group by Dr Ian Wright and Envirolab.

Where we tested is extremely close to the 1992 petrol tanker crash scene in Medlow Bath. The petrol tanker was carrying 40,800 litres of petrol when it crashed and caught fire. Over the time it took to put out the fire, a very substantial amount of firefighting foam was used.

I've obtained TV news footage of this crash scene which shows substantial amounts of firefighting foam going into the nearby watercourse. As PFOS comes from firefighting foam, this indicates that our Blue Mountains drinking water has likely been contaminated with PFAS chemicals since 1992.

As such, it appears that our community has been drinking PFAS contaminated water since 1992. We don't know what the PFAS levels have been in our drinking water over that time as Sydney Water and WaterNSW failed to carry out any PFAS testing until June 2024.



The Medlow Bath petrol tanker fire in 1992. Firefighting foam is shown going down the embankment and into the local watercourse.

In 1992, the Great Western Highway - on the right of this image - was at a different level.

The crash scene is indicated in the red circle. The arrow indicates where the firefighting foam entered the water course.

It is only a short distance from here to Medlow Dam which is now shut due to the PFOS and PFHxS chemical contamination that entered our local drinking water.

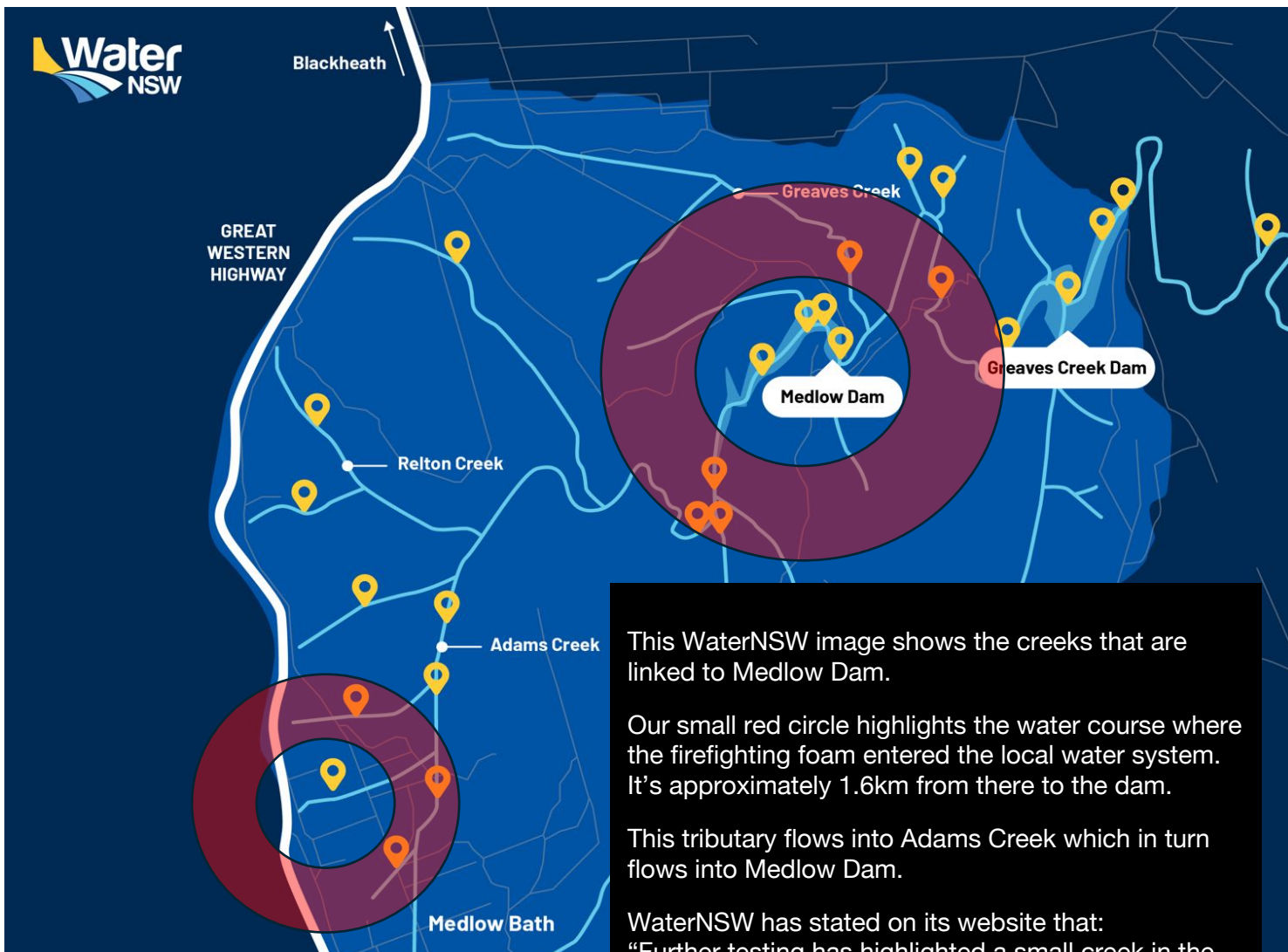


Local people who lived near the crash scene showed us the location of the Medlow Bath petrol tanker crash.

As this news video image shows, significant quantities of firefighting foam flowed a very short distance down the embankment and into the water course that leads to Adams Creek.

32 years after this tanker fire, recent tests of running water in this Adams Creek tributary, show that this firefighting foam left behind significant levels of PFOS and PFHxS forever chemicals.





This WaterNSW quote is from <https://www.waternsw.com.au/community-news/media-releases/2024/monitoring-confirms-negligible-pfas-levels-in-sydney-dams>

This WaterNSW image shows the creeks that are linked to Medlow Dam.

Our small red circle highlights the water course where the firefighting foam entered the local water system. It's approximately 1.6km from there to the dam.

This tributary flows into Adams Creek which in turn flows into Medlow Dam.

WaterNSW has stated on its website that: "Further testing has highlighted a small creek in the upper reaches of the Medlow catchment that flows into the dam, Adam's Creek, as an area for targeted investigations."

3) WHAT THE AUTHORITIES STILL HAVEN'T TOLD OUR COMMUNITY

Since the first testing back in June 2024, Sydney Water, WaterNSW, the NSW Government and its agencies have still not told the Blue Mountains community:

- **Where this PFAS contamination originated**
- **When this PFAS contamination first occurred**
(though it's likely to be the petrol tanker crash and fire in Medlow Bath in 1992)
- **How long Blue Mountains residents have been drinking tap water contaminated with toxic PFAS 'forever chemicals'**
- **At what levels we have been drinking PFAS chemicals in our drinking water since the first contamination took place**
(This will likely remain unknown due to the lack of PFAS testing prior to June 2024.)

As the water expert Dr Wright has correctly pointed out:

"It is unknown how long the Blue Mountains water has contained such elevated PFAS."

Despite this, the NSW Government and its agencies continue to assure our community that our tap water has always been ‘safe’ and remains so.

However, given that none of these agencies can provide clear evidence about the duration or severity of our exposure to PFAS chemicals, we strongly believe that they cannot make this claim.

On November 19th, 2024, Sydney Water acknowledged to us in writing that the current PFOS levels at Cascade Water Filtration Plant “**exceeds the proposed new guideline values for PFOS**”. This raises serious questions about the validity of the claims regarding the safety of our drinking water:

- How can the NSW Water Minister and NSW Health Minister declare our drinking water to be ‘safe’ when they know that our current PFOS levels **do not comply** with the incoming Australian Drinking Water Guidelines (ADWG) on PFOS contamination of tap water?
- How can they assert the safety of our drinking water when no testing has been conducted to determine PFAS levels over the decades since the likely contamination event in 1992?
- How can Blue Mountains residents feel assured of their safety when NSW Health refuses to conduct blood tests to assess the impact of PFAS exposure on residents who’ve been consuming this contaminated water over a long period of time?

Many local residents, myself included, have been diagnosed with alarmingly high cholesterol levels. For example, my cholesterol was measured at 7.5 shortly before the public disclosure of this PFAS contamination, necessitating medication to control it. While other factors can contribute to high cholesterol, studies have linked elevated cholesterol levels to PFAS exposure:

- **Harvard T.H. Chan School of Public Health (2023):** Research indicates that increased exposure to certain PFAS correlates with higher blood lipid levels in adults, suggesting a potential risk for cardiovascular disease.²
- **North Carolina State University (2022):** The GenX Exposure Study found that elevated PFAS levels were associated with increased total cholesterol and non-HDL cholesterol in participants’ blood.³
- **Australian National University (2021):** The PFAS Health Study found “sufficient evidence that higher levels of PFOS or PFOA in a person’s blood are associated with higher blood cholesterol levels.”⁴

Given these concerns, why is NSW Health refusing to conduct community blood tests to determine if our health has been affected by this long-term PFAS exposure?

Furthermore, on December 3, 2024, the ABC News website reported that the government is investing \$80-\$100 million in a major upgrade to our drinking water filtration plant at Cascade. If our water is truly safe, why is such a costly and extensive upgrade necessary? While the Blue Mountains community welcomes the upgrade, the scale and expense of the project undermine government claims that our drinking water has been safe.

Government agencies and politicians have provided no evidence or testing to substantiate their claims that **our drinking water has been safe over the long term** since this PFAS contamination began. The refusal to conduct community blood tests to assess PFAS exposure and associated health impacts suggests a lack of willingness to uncover the truth.

These points illustrate why so many people in our community feel misled and gaslit every time government agencies insist our drinking water is safe. In our view, NSW Health acted negligently by publicly declaring our water to be safe without providing sufficient evidence to support their claim.

² <https://hsph.harvard.edu/news/exposure-to-pfas-associated-with-increased-blood-lipids-possible-cvd-risk/>

³ <https://www.sciencedaily.com/releases/2022/09/220907133218.htm>

⁴ <https://nceph.anu.edu.au/research/research-projects/pfas-health-study/reports>

Our local community is not the only community affected by this potential health misinformation.

Gwydir Shire Council in NSW is the latest community to be affected by PFAS in their drinking water. That council told the ABC on December 11th, 2024, that NSW Health had advised them that continuing to drink the water "**in the short term is unlikely to pose a health risk**" and that it is safe for showering, washing dishes and laundry.⁵

How can NSW Health give this assurance when it has no knowledge as to how long and at what levels the local people in that community have been drinking PFAS contaminated water?

4) PFAS IS A GROWING ISSUE – GOOD TESTING WILL BE CRITICAL

The issue of PFAS contamination is a growing issue. One of our legal advisors informs us that in 2021, there were **170** locations listed on the Australian PFAS chemicals map. Today in 2024, there are **1,152 locations** listed on this map at pfas.australianmap.net.

As more PFAS testing is undertaken around Australia, these figures keep growing. This clearly illustrates why PFAS chemicals are often referred to as “the next asbestos.”

- **RECOMMENDATION:** Mandate proactive, prescriptive, and regular testing and monitoring of all NSW drinking water supplies. Testing should include at least 30 PFAS chemicals and, where feasible, incorporate methods capable of detecting all other PFAS compounds (see my note regarding ‘Total Organic Fluorine’ (TOF) testing on the last page of this document).

The NSW Health Minister did not directly respond to the EDO’s request on my behalf that drinking water suppliers must undertake mandatory and prescriptive testing for PFAS as part of the drinking water quality assurance programs across NSW.

At present this is discretionary.

The Minister has simply indicated that “NSW Health works cooperatively” with the water utilities who have the responsibility to assess risks and monitor drinking water.

This is clearly an issue for law reform and there is no mechanism under the existing regulatory framework to ensure that PFAS screening is undertaken compulsorily, or that the results be made publicly available.

It is my understanding that the EDO will be making a submission to the NSW Parliamentary Inquiry into PFAS recommending that this be mandated. We back their call for this to be mandatory.

- **RECOMMENDATION:** Create legislation to establish a single public authority with comprehensive responsibility for overseeing PFAS contamination management in NSW.

The Albanese Government is establishing a national coordinating body to respond to the needs of communities impacted by PFAS around Defence bases.⁶ We need something similar for non-defence related communities.

At the moment, there appears to be too much buck passing and inaction between agencies when we write to them about our Blue Mountains PFAS water contamination.

- **RECOMMENDATION:** In November 2024, the SMH reported that a Senate inquiry into PFAS heard that “Australian regulators have so far carried out risk assessments on 423 of more than 12,000 kinds of forever chemicals.”⁷

⁵ <https://www.abc.net.au/news/2024-12-11/warialda-pfas-drinking-water-bottled-water/104712620>

⁶ <https://www.minister.defence.gov.au/media-releases/2024-12-05/albanese-government-deliver-meaningful-reform-pfas-impacted-communities>

⁷ <https://www.smh.com.au/national/why-companies-must-come-clean-over-products-containing-forever-chemicals-20241113-p5kqd6.html>

Thousands of these PFAS chemicals are used in industrial processes and consumer products, yet many remain understudied in terms of their environmental and health impacts. Our recommendation is that more funding should be established to study these other PFAS chemicals and their impacts on health and the environment.

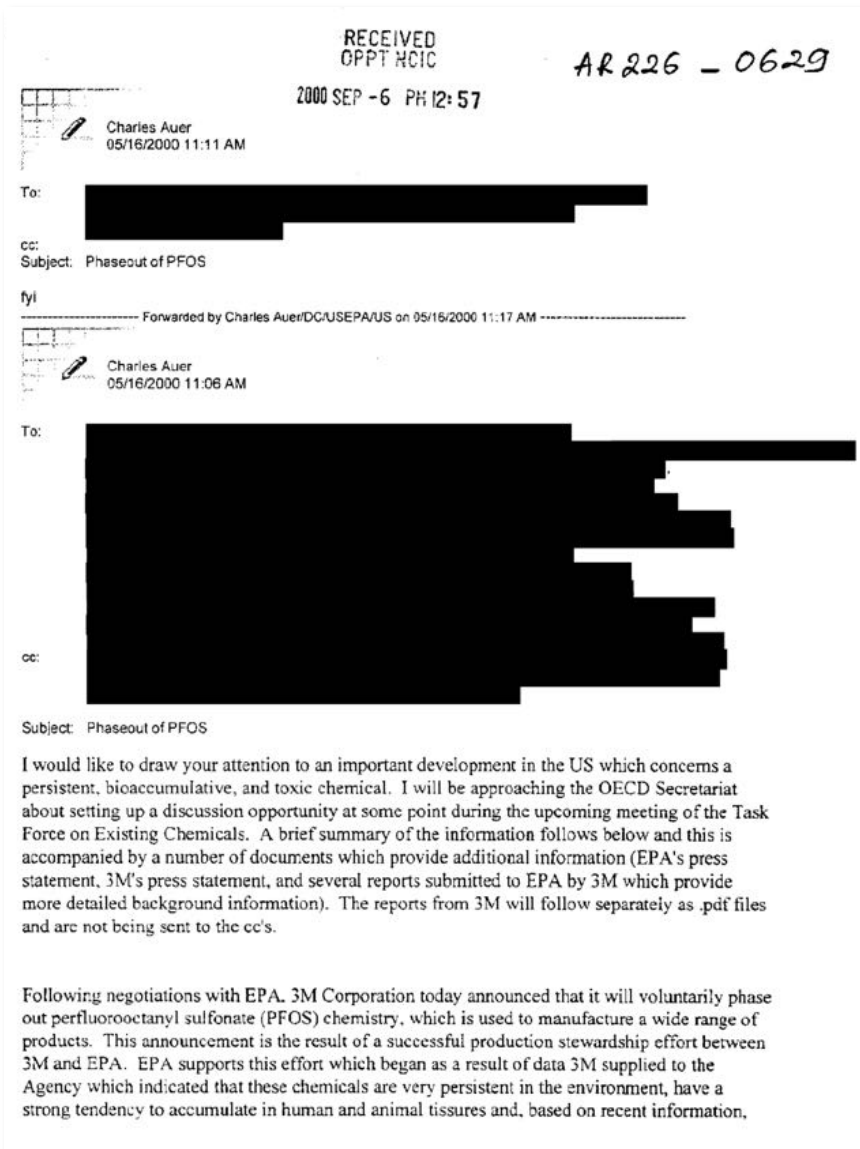
- **RECOMMENDATION:** Improve Government oversight of PFAS testing in Australia.

With better Government oversight, this PFOS problem should have been dealt with back in the early 2000's. Testing protocols should have been put in place during this period.

Back in May 2000, Charles Auer from the US EPA wrote to the Australian Government to formally warn them about the potential health and environmental impacts of PFOS (see image below and his letter which is attached in PDF format).

In his letter, Auer warned Australia about an "important development in the US which concerns a persistent, bioaccumulative, and toxic chemical."

He told the Australian government that the process "began as a result of data 3M supplied to the Agency which indicated that these chemicals are very persistent in the environment, have a strong tendency to accumulate in human and animal tissues and, based on recent information, could potentially pose a risk to human health and the environment over the long term."



After referring to it being found in human blood samples and causing postnatal deaths in a 2-generation rat study test (which was seen to be very unusual), the threats to humans and the environment was clearly spelt out:

"PFOS has been found widely in human blood samples (ppm levels in manufacturing workers, ppb levels in non-exposed workers and in blood bank samples). PFOS has also been found in wildlife species across the US (especially in fish eating birds) and in the Baltic in Sweden."

The response by the Australian government was potentially negligent. No immediate warning was sent out to water companies. No immediate legislation or testing was put in place.

It would be another 24 years before Sydney Water would first test our Blue Mountains drinking water for PFOS chemicals. And despite the warnings in 2000, it was not a mandatory test.

How many people in the Blue Mountains and the rest of Australia have been put at risk by that lack of Government action in response to the US EPA's PFOS warning back in 2000?

The PFOS warning letter that was sent to the Australian Government by Charles Auer at the US EPA in May 2000.

- **RECOMMENDATION:** Our recommendation is that testing for PFAS be standardised, so that people know what is being tested, how it's being tested and that the testing be done in a timely and speedy manner.

We came to this conclusion due to our concerns regarding the way that WaterNSW is going about its testing. In the media, WaterNSW is making many references to its "extensive testing".

However, when we asked them in writing:

- **what PFAS chemicals they were testing for** - they could not tell us
- **if they were testing for organic fluorine** - they could not tell us
- **what testing methods they were using** - they could not tell us

We can share this correspondence with the inquiry. It took us 4 emails to finally get an answer that they had not even tested the sediment in any of the 5 dams in the Blue Mountains.

- **RECOMMENDATION:** We recommend that any investigation into future PFAS contamination should be carried out by independent specialists that have no links to the parties involved in the PFAS contamination. Our reason for this follows.

When WaterNSW informed us that the results of their Blue Mountains investigation would not be available until mid-2025, many people in our community lost confidence that WaterNSW was genuinely trying to identify – in a prompt manner - where the contamination had come from.

Our view was that this was a health and environment concern that required priority testing. Rightly or wrongly, we came away feeling that WaterNSW was treating the testing as a political matter to be downplayed and managed - and if need be, delayed.

- **RECOMMENDATION:** The NSW Government should mandate the ongoing testing of PFAS chemicals in PFAS affected waterways across NSW. They should also assess the potential to clean up any PFAS contaminated sites.

As a result of the 1992 petrol tanker crash, we still have very high levels of PFOS near Adams Creek at 2,200 ng/L. But we're not sure that anything is happening to protect the wildlife and marine life that live in these PFAS contaminated waterways in Medlow Bath.

- **RECOMMENDATION:** When PFAS contamination is identified, local councils should receive additional funding to comprehensively test all water sources within their communities to determine the extent of the contamination.

This testing should encompass not only drinking water but also all other water sources, including those used for recreational purposes and those critical to ecological health.

- **RECOMMENDATION:** When PFAS contamination is detected, testing should be conducted to assess its impact on local fish, marine life, and wildlife. My initial questions regarding the safety of eating our local fish got a non-answer from the Water Minister's office.

However, after my follow up, the NSW EPA commenced this testing on fish and marine life in the Blue Mountains. We're grateful for this effort but believe that such testing should have been initiated proactively, without the need for our request or intervention.

- **RECOMMENDATION:** Here in the Blue Mountains, the NSW EPA refused to test our local spring water sources on the basis that they were advised that our tap water was "safe" to drink. We had to community crowdfund to carry out PFAS testing of our local springs.

Our recommendation is that the NSW EPA should test all publicly accessible spring water sources when PFAS contamination is found in local tap water. Here in the mountains, many people switched to this spring water that comes from 4 local sources.

5) MATCHING THE AMERICAN SAFE LEVELS OF PFAS CHEMICALS IN DRINKING WATER

Back in April 2024, the Biden-Harris administration issued the first-ever national, legally enforceable drinking water standard to protect American communities from exposure to harmful PFAS chemicals.

This drew negative media and public attention to Australia’s current drinking water guidelines, which allow far higher levels of PFAS forever chemicals in Australia’s tap water.

Chemical	Maximum Contaminant Level Goal (MCLG)	Maximum Contaminant Level (MCL)
PFOA	0	4.0 ppt
PFOS	0	4.0 ppt
PFNA	10 ppt	10 ppt
PFHxS	10 ppt	10 ppt
HFPO-DA (GenX chemicals)	10 ppt	10 ppt
Mixture of two or more: PFNA, PFHxS, HFPO-DA, and PFBS	Hazard Index of 1	Hazard Index of 1
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are non-enforceable public health goals.		

As shown above, America’s NPDWR offers people more protection against PFAS forever chemicals than Australia’s incoming draft drinking water guidelines in the table below.

Chemical	Existing ADWG level	Draft updated level
PFOS	70 ng/L or 70 parts per trillion (Less than 0.07 micrograms per litre of PFOS and PFHxS combined)	4 ng/L (Less than 0.004 micrograms per litre)
PFHxS		30 ng/L (Less than 0.03 micrograms per litre)
PFOA	560 ng/L, or 560 parts per trillion (Less than 0.56 micrograms per litre)	200 ng/L (Less than 0.2 micrograms per litre)
PFBS	-	1000 ng/L (Less than 1.0 micrograms per litre)

There are two key areas where the NHMRC’s draft new Australian drinking water guidelines fall short:

- PFOA**
 In America, the safe level for PFOA in drinking water is **4 ng/L**.
 In Australia, NHMRC is proposing a safe level of **200 ng/L** of PFOA in the draft ADWG.
 This is **fifty times higher** than America’s safe level for PFOA in drinking water.
 It’s worth recalling that the W.H.O has declared PFOA to be “carcinogenic to humans”.
- PFHxS**
 In America the safe level for PFHxS is **10 ng/L**.
 In Australia, NHMRC is proposing a safe level of **30 ng/L** of PFHxS in the draft ADWG.
 That is **three times higher** than America’s safe level for PFHxS in drinking water.

For both PFOA and PFHxS, it’s our strong view that we should align our safe levels with America:

- 4 ng/L for PFOA
- 10 ng/L for PFHxS

On December 1st, 2023, the World Health Organisation's 'International Agency for Research on Cancer' released a report which found that:⁸

- "PFOA is carcinogenic to humans (Group 1), on the basis of sufficient evidence for cancer in experimental animals and strong mechanistic evidence (for epigenetic alterations and immunosuppression) in exposed humans."
- "PFOS is possibly carcinogenic to humans (Group 2B), on the basis of strong mechanistic evidence across test systems, including in exposed humans (for epigenetic alterations and immunosuppression, as well as several other key characteristics of carcinogens)."

The US Environmental Protection Agency (US EPA) also cites peer-reviewed studies that show exposure to certain levels of PFAS may lead to other health impacts, including:

- Decreased fertility
 - Developmental delays
 - Increased cholesterol levels (this seems to be an issue in the Blue Mountains)
 - Increased risk of obesity.⁹
- **RECOMMENDATION:** We firmly believe that the final Australian Drinking Water Guidelines should accept the growing body of scientific evidence on the risks associated with PFAS exposure. For this reason, Australia should align its drinking water standards with the stricter PFAS drinking water limits established in the United States.
 - **RECOMMENDATION:** The NSW Government should legally enforce the Australian Drinking Water Guidelines.

At the moment, these drinking water guidelines are not legally enforceable in NSW and the rest of Australia. They are currently only advisory guidelines.

6) CONCERN ABOUT INCORRECT DATA IN NHMRC'S RESEARCH AND FACT SHEET

In the NHMRC PFAS fact sheet on their web site, it states that

"PFOA has been detected at concentrations ranging from below detection to **9.7 ng/L** in Australian raw and/or reticulated drinking water supplies."¹⁰

NHMRC's PFOA figures here are **not correct**.

On November 28, 2024, the Brisbane Times reported that Brisbane had recently had PFOA in its drinking water at **30 ng/L**.¹¹

This is more than **three times higher** than the highest PFOA level stated by the NHMRC in its fact sheet. The raw water figures for PFOA contamination were even higher.

⁸ Source: International Agency for Research on Cancer "IARC Monographs evaluate the carcinogenicity of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) <https://www.iarc.who.int/news-events/iarc-monographs-evaluate-the-carcinogenicity-of-perfluorooctanoic-acid-pfoa-and-perfluorooctanesulfonic-acid-pfos/>

⁹ Source: US EPA "Our current understanding of the Human Health and Environmental Risks of PFAS <https://www.epa.gov/pfas/our-current-understanding-human-health-and-environmental-risks-pfas>

¹⁰ https://consultations.nhmrc.gov.au/environmental-health/australian-drinking-water-guidelines-2024-pfas/supporting_documents/Draft%20Fact%20Sheet%20%20PFAS%20Public%20Consultation.pdf

¹¹ <https://www.brisbanetimes.com.au/national/queensland/cancer-causing-forever-chemicals-found-in-brisbane-drinking-water-20241101-p5kn55.html>

If the NHMRC can be wrong on a basic PFAS fact like this, what else has NHMRC got wrong in its review of PFAS levels in Australian drinking water?

These PFOA and PFOS figures were obtained by the media through an FOI RTI request. Before the media asked these questions, SEQwater had not publicly revealed these PFAS test results to the public or to the media. According to the media, they did not even tell QLD's Water Minister.

The PFOS levels in Brisbane's drinking water during this time were also more than NHMRC's proposed PFOS safe levels in the incoming draft ADWG.

It concerns us that the water sector is not sharing this kind of information with the NHMRC for its PFAS review. Is there any other information that the water sector is yet to disclose to the NHMRC about PFAS chemicals in our water supply and drinking water?

Has the water sector definitely provided the NHMRC with all available data on the Australian public's exposure to PFOA and other PFAS chemicals in drinking water?

- **RECOMMENDATION:** Implement a mandate requiring public authorities or water providers to test for PFAS, in raw or treated drinking water, and to publicly disclose the results (even if those PFAS levels are under the guideline levels)

In the United States, water systems must legally conduct ongoing compliance monitoring and issue public notifications for any testing violations.

Australian water authorities and companies should be subject to the same mandatory disclosure requirements. Australia has ratified the Stockholm Convention, which binds it to Articles 9 and 10 to ensure that communities have access to information about POPs chemicals and their effects on human health and the environment.

It is concerning, however, that the Australian public is often finding out about PFAS contamination via media pressure or via FOI requests.

On November 19th, 2024, Inside Waste magazine reported that:

“A recent GIPA request to Bathurst Regional Council has revealed that the Council has detected PFAS chemicals in its drinking water supply numerous times since 2017.”

“Two detections breached the proposed PFOS guideline of 4ng/L at Montavella Road with one detection being 10 times higher than the proposed guideline level in August 2020.”

“Thirty-eight detections of PFAS chemicals occurred at the water filtration plant between 2017-24, with 35 detections at Montavella Road.”

Here in the Blue Mountains, we've been exposed to PFAS contaminated water for many years. Mandatory testing and disclosure could have prevented this from happening.

7) THE NUMBER OF PFAS CHEMICALS BEING TESTED

There are approximately 9,000–14,000 PFAS chemicals in commercial use today, yet the NHMRC is only considering four for measurement in the ADWG: PFOS, PFHxS, PFOA, and PFBS.

Given the increasing prevalence of PFAS-related problems globally and locally, we believe water entities should be required to test for a broader range of PFAS chemicals, including short and ultrashort chain PFAS.

On November 19th, 2024, Inside Waste Magazine reported that:

“The GIPA request also reveals that the monitoring conducted by Bathurst Regional Council is much more thorough than that done by Sydney Water in 2024.”

“Bathurst Council has been testing for PFAS chemicals since 2017. Most of the detections at both sites consisted of the short chain PFAS chemicals PFHxA, PFHpA and PFPeA. Almost 80 per cent of all detections consisted of these three chemicals. There are no drinking water guidelines for these three chemicals, and none proposed by the National Health and Medical Research Council. A total of 13 different PFAS chemicals have been detected by the Bathurst Council.”

“Bathurst Council is testing for ten times the number of PFAS chemicals than Sydney Water.”

- **RECOMMENDATION:** It’s our understanding that Bathurst City Council test for up to 30 PFAS chemicals in their PFAS tests. Why can’t this wider PFAS testing approach be adopted for drinking water nationwide?

CAN AICIS BETTER MONITOR PFAS CHEMICALS?

The Australian Industrial Chemicals Introduction Scheme (AICIS) is the federal government’s industrial chemical regulator. AAP reported that AICIS has 522 PFAS chemicals listed in its inventory and has tested 423 of these.¹²

Given the thousands of PFAS chemicals in circulation, this indicates that the AICIS inventory may fail to reflect all the forever chemicals that Australian consumers are exposed to.

I’m told that the AICIS inventory relies on companies declaring when PFAS chemicals are intentionally added as ingredients to their products. Yet studies have previously identified that much of the PFAS in consumer products is introduced inadvertently and is therefore not disclosed on product labels.¹³ Many companies may not even be aware that they have a PFAS issue.

- **RECOMMENDATION:** AICIS is a reputable organisation that needs to be given more power and more resources to better manage the risk of PFAS chemicals in products.

Cosmetic products are an area where a strengthened AICIS could perform better in its role. A 2021 study published in Environmental Science & Technology Letters analysed 231 cosmetic products purchased in the United States and Canada. This research showed that over half of them probably contained PFAS chemicals. Lax regulatory requirements in many countries means that many women are potentially at risk from cosmetics containing PFAS chemicals.

How can AICIS better protect Australians from the downsides of these PFAS chemicals?

- **RECOMMENDATION:** Make companies test their products for PFAS in case they inadvertently contain PFAS chemicals. This is an essential change that Australia urgently needs.
- **RECOMMENDATION:** Companies making PFAS chemicals should be compelled to provide information to AICIS and others about the content and impacts of their PFAS chemicals.

AAP reported that UNSW Sydney professor Denis O’Carroll told the federal parliamentary inquiry into PFAS chemicals that companies which produce the chemicals should be more transparent about what is included in the substances.¹⁴

“There’s more PFAS out there that potentially we should be concerned about,” he said.

“It would be useful ... to the scientific community if (companies) were compelled to provide information collaboratively with us... It really would help us get a sense of the environmental burden and the human health burden of PFAS out there.”

¹² <https://www.aap.com.au/news/dozens-of-forever-chemicals-yet-to-be-assessed/>

¹³ <https://pfasproject.com/2022/03/07/unintentional-pfas-in-products-a-jungle-of-contamination/>

¹⁴ <https://www.aap.com.au/news/dozens-of-forever-chemicals-yet-to-be-assessed/>

WHAT CAN BE LEARNED FROM AMERICA?

8) FAILURE TO CONSULT THE US EPA

The US EPA has informed us in writing that the NHMRC did **not** approach it during its review of PFAS levels in Australian drinking water. The US EPA stated:

“EPA has not liaised with Australia’s National Health and Medical Research Council or any related entities regarding PFAS guidelines for drinking water.”

This apparent lack of consultation is very concerning. The US EPA further stated:

“EPA has used the best available peer reviewed science on PFAS to set national standards. The agency's support documents and related materials used to inform development of the PFAS drinking water regulation are available at <https://www.regulations.gov/docket/EPA-HQ-OW-2022-0114/document>.

There are more than 2,100 of these materials, many of which are technical reports, peer reviewed manuscripts, and other technical information.”

Given the US EPA’s extensive research into the health impacts of PFAS chemicals in drinking water, why did the NHMRC not directly approach the US EPA during its PFAS ADWG review process?

If the US EPA claim is accurate, it is deeply concerning that the NHMRC has not directly drawn on the expertise and experience of a major American government agency regarding the PFAS issue.

For instance, why didn’t the NHMRC directly consult the US EPA to understand how they determined their lower safe levels for PFAS in drinking water?

I am very concerned that an agency as big as the US EPA can review 2,100 PFAS related technical reports, peer reviewed manuscripts and other technical information and come away with such different safety levels to NHMRC on PFHxS and PFOA.

I do not understand why NHMRC believes that Australians are safe to drink tap water with PFOA at levels of 200 ng/L when Americans are now expected to drink tap water with only 4 ng/L of PFOA. There seems to be a very big difference in how NHMRC and the EPA are reviewing peer reviewed science on PFAS chemicals to set national standards. This difference is very concerning.

If an Australian were given a choice between a glass of water containing 4 ng/L of PFOA and another with 200 ng/L, they would undoubtedly choose the glass with 4 ng/L. So why can’t Australians have access to drinking water with such low levels, similar to the American standards?

- **RECOMMENDATION:** We strongly urge the NSW inquiry to encourage the NHMRC to adopt the American PFAS safe levels for Australia’s Drinking Water Guidelines.
- **RECOMMENDATION:** Improved liaison with the US EPA is necessary to understand why they implemented stronger health protections for PFAS in drinking water compared to Australia.

As noted above, there was apparently no formal discussion between the NHMRC and the US EPA regarding the rationale behind the US EPA’s decision to establish such stringent safety levels for PFAS in drinking water.

Given that the US EPA put significant resources into their research and decision to tighten up their laws on PFAS in drinking water, we would recommend that the NSW inquiry liaise directly with the US EPA on this matter.

Should this suggestion be of interest, it may be important to prioritise this matter before the Presidential transition takes place.

9) MAXIMUM CONTAMINANT LEVEL GOAL

The US EPA has stated there is no safe level of exposure to PFAS without risk of health impacts. The proposed draft Australian drinking water guidelines do not match this US EPA 'maximum contaminant level goal' for PFOA and PFOS in drinking water. It states:

*"For PFOA and PFOS, EPA is setting a Maximum Contaminant Level Goal, a non-enforceable health-based goal, at zero. This reflects the latest science showing that there is no level of exposure to these contaminants without risk of health impacts, including certain cancers."*¹⁵

- **RECOMMENDATION:** We believe that this health-based goal should be set for all drinking water in Australia. Could the NSW inquiry encourage the NHMRC to consider adopting a similar zero 'maximum contaminant level goal' for PFOA and PFOS in drinking water?

This would encourage best practices for managing PFAS issues in the water industry.

10) MAKING AUSTRALIA'S DRINKING WATER GUIDELINES LEGALLY ENFORCEABLE

- **RECOMMENDATION:** It is our strong view that the Australian Drinking Water Guidelines should be updated to ensure that our PFAS levels are legally enforceable limits in line with America's NPDWR.

11) RECOMMENDATIONS FOR COMMUNITY BLOOD TESTING IN PFAS-AFFECTED COMMUNITIES

Our community wants a formal investigation into whether the PFAS contamination of our drinking water has contributed to higher-than-normal rates of PFAS-related cancers, raised cholesterol and other health issues.

Even though our community has been drinking PFAS contaminated water for many years – potentially decades - NSW Health has told a journalist that it will not be doing any blood testing of our community. In our view, this is highly negligent.

The lawyers who represent me at the EDO also raised our community health issues with the NSW Health Minister. It took him over two months to send an inadequate response.

Far too many people in the Blue Mountains are telling me they have high cholesterol levels for which they are taking medication. I am one of them. Just weeks before our PFAS drinking water contamination became public knowledge, my doctor found that I had a cholesterol level of 7.5 for which I am now taking medication.

Given our community's long-term exposure to PFAS chemicals in our drinking water, we want to know why NSW Health is refusing to do PFAS and cholesterol blood tests in our community.

- **RECOMMENDATION:** NSW Health should conduct blood tests on the Blue Mountains population to evaluate potential health impacts from our long-term exposure to PFAS. This should include blood tests to identify the PFAS and cholesterol levels in our population.
- **RECOMMENDATION:** NSW Health should undertake blood testing of all NSW communities that are found to be affected by PFAS chemicals in their local water supply.

This could also reduce the stress experienced by communities that are exposed to PFAS contamination of their drinking water – particularly when that exposure is found to have taken place over a long period of time.

¹⁵ <https://www.epa.gov/newsreleases/biden-harris-administration-finalizes-first-ever-national-drinking-water-standard>

- **RECOMMENDATION:** Where PFAS contamination of drinking water is found, the NSW Health Minister should invoke the power conferred under section 16 of the Public Health Act 2010 and take appropriate steps to ensure that the drinking water in the affected area becomes fit for human consumption.

In our view, the Health Minister should have used this power in the Blue Mountains when it became clear that the PFAS contamination in our drinking water had been a long-term contamination.

- **RECOMMENDATION:** The NSW Health Minister should liaise with the EPA to implement an analysis of the risk to impacted community members caused by the PFAS pollution incident in our community.

12) TIMELINE FOR RECTIFICATION AND OTHER TESTING RELATED ISSUES

It's not clear from the draft ADWG as to how much time water entities will have to rectify breaches of PFAS safe levels in their drinking water supplies.

A senior lawyer at a major water entity privately informed me that they expected to have a five-year period to upgrade any water filtration plant and bring their water supply back into alignment with the ADWG.

This is clearly too long a period of time to rectify a PFAS breach of the ADWG.

- **RECOMMENDATION:** Where a breach of the ADWG occurs regarding PFAS levels in drinking water, a mandatory timeframe must be established to ensure the water quality is promptly brought back into compliance with the ADWG standards.

This timeframe should prioritise public health and safety, reflecting the urgency required to address any potential risks associated with PFAS contamination.

This should be a period of months rather than years and during that period, the affected community should be provided with water that does meet the ADWG.

Penalties need to be applied when those PFAS levels are not rectified within a set period.

- **RECOMMENDATION:** WaterNSW has informed us that it will complete its PFAS investigation in the Blue Mountains by mid-2025. Could the inquiry please consider recommending time limits for completing additional PFAS testing of water sources and dams once a PFAS contamination has been identified? Given the slow pace at which WaterNSW is conducting its PFAS testing, this recommendation seems to be necessary.

- **RECOMMENDATION:** We discovered that WaterNSW has failed to test the sediment in the two drinking water dams that have been shut down due to elevated PFAS levels.

Could the inquiry consider recommending a standard state or national testing procedure for drinking water dams that includes sediment testing and testing at multiple different levels of the dam – not just the surface water and one metre below the water?

- **RECOMMENDATION:** Mandate the establishment of a publicly accessible database documenting locations where firefighting foam has been used across Australia.

Then carry out mandatory PFAS testing in these areas, with all results published on an easy-to-use online platform that is searchable by postcode.

The SMH reported that: “Fire and Rescue NSW is yet to investigate more than 500 of the 600 sites across NSW flagged as being potentially contaminated with cancer-linked “forever chemicals” despite many of its stations being located in residential areas near schools and daycare centres.”¹⁶

All these locations must be tested, and the results should be transparently disclosed to the public. This transparency is important as firefighting foam has been used at schools in NSW and school children have been photographed playing in toxic firefighting foam.

My youngest daughter’s school, St Columba’s in the Blue Mountains, is listed on the Australian PFAS chemicals map due to the historical use of firefighting foam on its field and squash court. That contamination was identified. How many other schools unknowingly have the same issue?



Children playing in toxic firefighting foam in Kellyville, circa 2001.

Source: Fire Brigade Employees Union

13) THE ‘NOT MADE HERE’ ARGUMENT

There is an argument circulating in Australia that the US EPA adopted its lower PFAS levels mainly because PFAS was manufactured in the United States.

The claim suggests that, since Australia did not manufacture PFAS chemicals, we do not require the same strict safety levels and testing requirements for PFAS in drinking water.

This argument does not stand up to scrutiny.

PFAS chemicals pose a similar risk to individuals through contaminated drinking water, whether they live in America or Australia. PFAS substances can significantly harm both the environment and human health, no matter where they are produced.

Firefighters did not manufacture the PFOS firefighting foam that they used, but regardless of which part of the world they lived in, the firefighters who used it often had similar health reactions to it.

Our liaison with the US EPA also indicates that their lower PFAS levels were developed purely on health grounds—to protect public health and to reduce exposure to PFAS chemicals in American drinking water supplies.

- **RECOMMENDATION:** In our view, Australia should adopt the safer American drinking water guidelines and their lower PFAS levels. Our PFAS testing requirements should be the same as America.

¹⁶ <https://www.smh.com.au/national/nsw/fears-for-schools-daycares-the-500-sites-yet-to-be-tested-forever-chemicals-20241206-p5kwj7.html>

14) IMPROVING COMMUNITY ENGAGEMENT IN PFAS-AFFECTED COMMUNITIES

POOR QUALITY WRITTEN COMMUNICATION

Written communication with PFAS-impacted communities needs to be improved.

It took four emails from me for WaterNSW to admit that it had not tested any sediment in any of our PFAS-impacted dams. This question should have been answered the first time it was asked.

The NSW Health Minister took over two months to reply to my lawyers regarding their questions. It was a poor-quality response that failed to address some of the key issues raised in their letter.

In our correspondence with Sydney Water and WaterNSW, some questions were ignored, inadequately answered, or met with unrelated responses. In this question, for instance, I asked Sydney Water how long we had been consuming PFAS-contaminated water:

***Q:** Given the types of PFAS chemicals in our drinking water, is it safe to assume that we have been drinking PFAS-contaminated water since at least 2010?*

Sydney Water's answer to this, had nothing to do with the question that I asked:

***A:** No. Greater Sydney's drinking water supply is safe to drink as it meets the current ADWG.*

THE COMMUNITY ENGAGEMENT FORUMS

Sydney Water, WaterNSW and NSW Health have all referred publicly to their PFAS community engagement forums in the Blue Mountains. Unfortunately, most of our community only got three days' notice about their PFAS community engagement events before they took place.

Were they organised on short notice to pre-empt the PFAS community event that I was hosting in Katoomba? Their decision to hold a PFAS community event **in the same venue** on the day before my PFAS community event led to a lot of confusion in our community.

WHAT TYPE OF PFAS TESTING IS BEING DONE?

We have had to push hard to get basic details about testing related matters from WaterNSW.

Back on October 11th, I asked WaterNSW these questions in writing:

- **Has WaterNSW has done any testing for organic fluorine?**
- **Also, what PFAS chemicals is WaterNSW testing for, and what testing methods are you using?**

On the same day, WaterNSW replied that:

"We're not able to provide any additional information on the investigation this week, we will endeavour to come back to you next week."

We're now in December and WaterNSW has still not answered these questions to our community, despite its commitment to reply within the week.

We have 1,100 concerned local people who are members of our Blue Mountains STOP PFAS community group on Facebook. We consider it unacceptable to have such basic questions going unanswered about the WaterNSW PFAS testing process.

REFUSAL TO ENGAGE WITH US ON TESTING

Our local community saw our independent PFAS test results from the scene of the petrol tanker crash and asked us to do our own water and sediment testing at the dams.

At the request of our local community, we approached WaterNSW to ask them if we could carry out independent PFAS tests at different water levels in our 5 local dams and to carry out our own PFAS tests on the sediment of the 5 dams.

We offered in writing to allow WaterNSW to observe our testing both at the dam and in the lab, so they could see it was being done professionally and properly.

WaterNSW rejected our request on the grounds that our testing of the dam water "has the very real potential to interfere with the integrity of the current investigation being undertaken."

Given that we were going to use Dr Ian Wright and EnviroLab to professionally undertake this water and sediment testing, we felt that their claim was baseless. Was it more to do with controlling the flow of information regarding the testing results?

At the very least, community members in PFAS contaminated communities like ours should be invited to have a witness present during WaterNSW's own testing process.

Given that WaterNSW failed to properly monitor the safety of our local drinking water dams, community participation in such testing can go a long way to re-establishing trust.

- **RECOMMENDATION:** PFAS-affected communities must be more actively engaged in the PFAS testing process.

Authorities need to enhance communication with PFAS-affected communities to ensure transparency and to address the public's concerns.

Building trust is essential during what is an incredibly stressful and challenging time for the communities that are impacted.

CONFUSION OVER THE SOURCE OF OUR LOCAL DRINKING WATER

From Springwood up to Wentworth Falls, there is public confusion as to where their drinking water is coming from and whether they've been impacted by the PFAS contamination of our drinking water at Cascade water filtration plant.

On the WaterNSW website, it says the Cascade water filtration plant "provides filtered water for the communities from Springwood to Mount Victoria."¹⁷

The three dams on Cascade Creek, supplemented by water from Greaves Creek Dam and the Fish River Scheme, provide the bulk water supply storage for Sydney Water's Cascade filtration plant. This plant provides filtered water for the communities from Springwood to Mount Victoria. During drought water from Warragamba Dam is available for supply, but only for communities as far west as Wentworth Falls.

If you live in any community between Springwood and Wentworth Falls, and you're worried that you've been drinking PFAS contaminated water from Cascade Water Filtration Plant, you can type in your address at Sydney Water's website to see where your drinking water is coming from (this Sydney Water URL is in the footnote below¹⁸).

You are currently told that **"Your water is supplied by the Orchard Hills Water Delivery System."**

¹⁷ https://www.watnsw.com.au/_data/assets/pdf_file/0003/233427/Blue-Mountains-Dam-Booklet.pdf

¹⁸ Sydney Water search tool: <https://www.sydneywater.com.au/water-the-environment/how-we-manage-sydneys-water/water-network/how-water-is-delivered-to-your-property.html>

Orchard Hills is in Western Sydney and the plant treats water sourced primarily from the cleaner Warragamba Dam. The Orchard Hills answer could lead you to think that you've **not been drinking** any PFAS contaminated water from Cascade WFP.

Enter an address to see where your water comes from.

Use current location

i

Your water is supplied by the Orchard Hills Water Delivery System

I checked with Sydney Water about this Orchard Hills search result and asked them where this drinking water was coming from the year before.

On October 15th, Sydney Water stated this in an email:

“There have been several balance point changes between June 2023 and June 2024, however, for 81% of the time the balance point fed from Cascade Water Filtration Plant was down to Faulconbridge Reservoir supply zone (not Faulconbridge the suburb).”

This reply seems to indicate that for 81% of the time in that year, Sydney Water was distributing water from the PFAS contaminated Cascade water filtration plant to communities from Springwood up to Wentworth Falls (and all the way up to Mount Victoria).

This 81% figure is not stated on the Sydney Water website in this Springwood to Wentworth Falls search result – in bold it says **‘Your water is supplied by the Orchard Hills Water Delivery System’**.

The average person in Springwood to Wentworth Falls could potentially come away from this search result comforted that they are not getting PFAS contaminated water from Cascade WFP.

For people in in these communities who are worried about the potential health impacts of PFAS chemicals, this is an important point. Would the current Orchard Hills search result stop them from checking for potential PFAS health impacts like higher cholesterol or cancer etc?

- **RECOMMENDATION:** The Sydney Water website should make it far clearer to customers from Springwood to Wentworth Falls that they have recently been drinking water from the PFAS-contaminated Cascade water filtration plant.

In the event of a PFAS water contamination event, should water entities in NSW be forced to tell customers if they have recently been exposed to PFAS contaminated water?

PRODUCTS CONTAINING PFAS CHEMICALS

PFAS is in the water of a number of Australian communities. But PFAS also affects the whole of Australia. Many of us have PFAS levels in our blood and PFAS chemicals are to be found in hundreds of everyday consumer products, including food packaging, make-up and activewear, to name but a few.

Clear labelling needs to be established in Australia that enables the average consumer to identify and avoid products with PFAS compounds.

- **RECOMMENDATION:** Establish mandatory labelling for products that contain PFAS chemicals. This type of labelling would make it easier for people to choose a non-PFAS option.

As stated earlier, selected companies should also be made to test their products for PFAS in case they inadvertently contain PFAS chemicals that the companies are not aware of.

Court approves 3M settlement over 'forever chemicals' in public drinking water systems



3M Reaches \$10.3 Billion Deal With Public Water Suppliers Over 'Forever Chemicals'

3M reaches nearly \$10.3 billion settlement in 'forever chemical' drinking water lawsuits



Natalie Neysa Alund
USA TODAY

15) WHO'S PAYING THE BILLS? THE COST OF FIXING OUR PFAS PROBLEMS

Following an April 2024 court action settlement in America, 3M will be paying **US\$10.5 billion to US\$12.5 billion** (AU\$16.5 to AU\$19.6 billion) to many U.S. public drinking water systems as part of a multi-billion-dollar settlement over contamination from the potentially harmful compounds used in firefighting foam and several consumer products.¹⁹

As of December 2024, 31 US State Attorneys General (AGs) have initiated litigation against the manufacturers of PFAS chemicals for contaminating water supplies and other natural resources²⁰. Australian states should follow their example.

If 3M are paying out multi-billion settlements to American drinking water entities for PFAS pollution caused by their products, why can't they do the same in Australia? Why should Australian taxpayers pay for these PFAS fix up costs? This public money could be better spent elsewhere.

To date, it's estimated that \$367.2 million in compensation has been paid by the Australian Government to address PFAS contamination issues.²¹ Why should taxpayers foot this compensation bill for the PFAS issues caused by 3M and other major companies that have profited significantly from PFAS-related products?

- **RECOMMENDATION:** The NSW Government said to the ABC that it was spending \$80-\$100 million on upgrading Cascade Water Filtration Plant.²² We recommend that the cost of this should be paid for by 3M. If 3M don't pay for it, the NSW Government or Sydney Water should sue 3M to recoup this cost.

Given that the PFOS contamination in our community has come via a 3M chemical, surely 3M should be paying for these expensive fixes?

¹⁹ <https://apnews.com/article/pfas-drinking-water-settlement-3m-fa41cadfe0d65b9723377a681df43af1>

²⁰ <https://www.saferstates.org/priorities/pfas/>

²¹ **The \$367.2 million dollar Australian compensation figure is the result of the following PFAS settlements:**

\$212m PFAS payout for property value loss and distress, but residents' contamination fears linger:

https://www.abc.net.au/news/2021-03-10/pfas-compensation-cold-comfort-for-residents-with-contamination/13226616?utm_source=chatgpt.com

Commonwealth settles \$132.7 million class action over PFAS contamination across Australia

https://www.abc.net.au/news/2023-05-15/pfas-class-action-commonsettlement-reached-with-30-000-claimants/102346274?utm_source=chatgpt.com

Commonwealth reaches \$22 million settlement with Wreck Bay Aboriginal community over PFAS contamination

https://www.abc.net.au/news/2023-05-25/wreck-bay-pfas-compensation/102390538?utm_source=chatgpt.com

²² <https://www.abc.net.au/news/2024-12-03/multi-million-pfas-mobile-system-nsw-cascade-water-plant/104674212>

16) REMUNERATION FOR PURCHASING WATER FILTRATION EQUIPMENT AND BOTTLED WATER

It appears that our community may have been drinking PFAS-contaminated water for 32 years.

We have been told to continue drinking our tap water on the basis that it is safe under the current guidelines, **despite it being unsafe under the incoming guidelines.**

As a result, many people in our community felt forced to purchase reverse osmosis filtration units, which can cost \$400-\$1,000 or more. These filtration units became a priority purchase for individuals with significant health conditions in our community. Many of these people could not afford this expensive filtration equipment, yet they felt they were left with no choice.

In other industries, consumers are compensated when they do not receive the product or service that they've paid for. Is there a reason why the NSW water industry should be exempt from operating under similar principles? Why are we not getting a discount from Sydney Water?

Due to our loss of trust in Sydney Water, many people in our community have also had to buy large amounts of bottled water (our local supermarkets have regularly had empty shelves in the bottled water aisle). However, our community was also unsure as to whether the bottled water they were buying had PFAS in it as well.

The Sydney Morning Herald reported²³ that "In 2020, US non-profit consumer advocacy organisation Consumer Reports tested 47 brands of bottled still and sparkling water for forever chemicals. PFAS could be detected in nearly all the samples (43 bottles), but mostly at very low levels."²⁴

- **RECOMMENDATION:** In areas affected by PFAS contamination, NSW and the rest of Australia needs to set clear cleanup standards and provide fair and transparent compensation for impacted community members.
- **RECOMMENDATION:** When a community learns that its drinking water is contaminated with PFAS, compensation guidelines should be established to support people who've incurred significant costs purchasing water filtration units to remove PFAS chemicals. Reimbursement should also be considered for people who've had to buy bottled water.
- **RECOMMENDATION:** All bottled water on sale in Australia should be tested for PFAS chemicals. Any failure in meeting the PFAS levels in the ADWG should result in immediate removal of that bottled water from the shelf. The labelling for bottled water should also include the PFAS levels for that bottled water.

17) PHASEOUTS AND RESTRICTIONS

Many Australians are asking why we can't simply ban products that contain these PFAS 'Forever Chemicals'. This is a question that other states and countries are also asking themselves.

There is potential for Australia to follow the lead being set in other jurisdictions.

RECOMMENDATION: Australia should adopt any restrictions or bans placed on PFAS in the EU and align our country with the EU's approach to minimising the use of PFAS chemicals.

The European Chemicals Agency (ECHA) and authorities from Denmark, Germany, the Netherlands, Norway and Sweden have released a progress update on the process to restrict the use of PFAS chemicals in Europe under REACH, the EU's chemicals regulation.²⁵

²³ <https://www.smh.com.au/national/does-your-bottled-water-contain-cancer-causing-forever-chemicals-20240612-p5jlan.html>

²⁴ <https://www.consumerreports.org/water-quality/whats-really-in-your-bottled-water-a5361150329/>

²⁵ <https://echa.europa.eu/de/-/echa-and-five-european-countries-issue-progress-update-on-pfas-restriction>

ECHA has received over 5,600 comments on their PFAS restriction proposal from more than 4,400 organisations, companies and individuals²⁶. So, adopting the EU's eventual approach could potentially reduce duplication and the time needed for such feedback.

- **RECOMMENDATION:** There is potential for HFC and HFO refrigerants to be caught up in overseas restrictions or bans on PFAS chemicals.

In light of these potential refrigerant clamp downs in other countries, Australia should move to phase out HFC and HFO refrigerants and replace them with natural refrigerants.

The European Chemicals Agency (ECHA) is currently reviewing a proposal, which could lead to restrictions or bans on these substances.

As CoolingPoint.com pointed out, “the banning of just five refrigerants under the new PFAS regulation proposals would lead to the banning of virtually all the current lower GWP HFC/HFO alternative refrigerant blends.”²⁷

(Jon Dee note – my understanding is this does not include the low GWP natural refrigerants).

Australia has already moved to phase-down HFCs.

The Department of Climate Change, Energy, the Environment and Water (DCCEEW) reports that “Australia started a gradual phase-down of HFC imports from 1 January 2018. The phase-down is being managed through an annual import quota that will gradually reduce over 18 years. The end point of the phase-down, 15% of the baseline level, will be reached on 1 January 2036.”

Consideration needs to be given to speeding up this phase-down so that it becomes a total phaseout by an earlier date.

In ‘Cold Hard Facts 4’, DCCEEW reported on several positive developments in Australia’s existing move towards natural refrigerants:

- “The transition of new domestic refrigerator sales away from high GWP refrigerants is effectively complete with 99% of domestic refrigerators and freezers sold in 2022 containing HC refrigerant *(Jon Dee note – HC refers to a ‘natural refrigerant’)*.”
- “Since 2020, there has been a significant increase in the import of hot water heat pumps, most of which were charged with high GWP HFCs. This surge was primarily driven by government subsidies aimed at promoting the use of heat pumps to replace natural gas (methane) and electric resistive water heating. However, this trend has largely been curbed. In 2022, approximately 50% of pre-charged imported heat pumps were using high GWP HFC-410A (GWP of 2,088), but the majority are now charged with hydrocarbons (HCs).”
- “The uptake of natural refrigerants has been constant, with steady growth in the use of HCs, carbon dioxide (R744) and ammonia (R717) in the most suitable applications for those gases. Increased uptake of natural refrigerants continues to assist in capping the growth of high GWP refrigerants.”

Woolworths, Coles and ALDI are just some of the major companies who are increasingly adopting natural refrigerants for HVAC&R uses. Unilever is also using natural refrigerant in their Streets ice cream freezers all around Australia.

Australia has already made a successful transition to the use of natural refrigerants in domestic refrigeration, so serious consideration should be given to this recommendation.

²⁶ <https://www.coolingpost.com/world-news/pfas-consultation-receives-over-5600-comments/>

²⁷ <https://www.coolingpost.com/world-news/pfas-ban-affects-most-refrigerant-blends/>

RECOMMENDATION: Australia should look to adopt some of the PFAS bans coming out of Minnesota. Minnesota is the American state where 3M’s global headquarters and research facilities are based, yet the state is taking a strong lead in acting against PFAS chemicals.

On May 24, 2023, Minnesota strengthened its stance on PFAS regulation when Governor Tim Walz signed HF 2310 into law. Effective January 1, 2025, Minnesota will prohibit the sale, offer for sale, or distribution of products containing intentionally added PFAS in the following categories:²⁸

- Carpets or rugs
- Cleaning products
- Cookware
- Cosmetics
- Dental floss
- Fabric treatments
- Juvenile products
- Menstruation products
- Textile furnishings
- Ski wax
- Upholstered furniture

These restrictions also extend to certain types of packaging associated with these products. Notably, PFAS-free alternatives are already widely available for many of these items.

Exceptions may be made for uses deemed “currently unavoidable,” as determined by the Minnesota Pollution Control Agency (MPCA) through a rulemaking process.

THE 2032 COMPREHENSIVE BAN:

By January 1, 2032, Minnesota plans to implement the second stage of the ban - a comprehensive ban on the sale, offer for sale, or distribution of any product containing intentionally added PFAS.

REPORTING REQUIREMENTS:

Starting on January 1, 2026, manufacturers of products containing intentionally added PFAS must provide detailed information to the MPCA, including:

- A description of the product
- The purpose of PFAS usage in the product or its components
- The amount of each PFAS present in the product

Manufacturers are required to update this information whenever there is a significant change or upon request by the MPCA.

These legislative actions position Minnesota among the leading states in regulating PFAS. Australia would do well to follow their lead.

²⁸ <https://www.stoelrivesenvironmentallawblog.com/states/minnesota/minnesota-enacts-sweeping-pfas-restrictions/>

18) FINAL THOUGHT ON PFAS WATER TESTING

- **RECOMMENDATION:** In addition to testing for the key PFAS chemicals, should we review the potential use of '**Total Organic Fluorine**' (TOF) testing in the Australian water sector? This has been suggested to me by PFAS experts in America.

TOF analysis apparently helps scientists to identify all potential PFAS pollution in water, not just the few they can currently test for. This is important because many non-target PFAS might still be harmful, but they remain unregulated or poorly understood.

I'm told that it's a potential tool for uncovering hidden PFAS risks in contaminated water. A traditional PFAS test might only detect a few common PFAS chemicals like PFOA or PFOS. However, TOF analysis can apparently help to identify contamination from PFAS chemicals that don't yet have specific testing methods.

I am not an expert on this TOF testing, but I raise it for discussion by the people who are.

19) SOLUTIONS DATABASE

Many regional and rural water entities in Australia lack the research and staffing resources of water entities in our metropolitan cities. They may not have the resources necessary to know what filtration equipment is best placed to remove PFAS from their water supplies.

- **RECOMMENDATION:** Should NSW look to set up a database of filtration technologies that are proven to remove PFAS chemicals at water filtration plants?

20) CONCLUSION

In conclusion, many people in our Blue Mountains community believe the current Australian Drinking Water Guidelines (ADWG) have left us exposed to unsafe PFAS levels. Water companies and politicians have used the NHMRC's outdated PFAS guidelines to claim that our water is safe, despite our PFOS levels being up to four times higher than the draft ADWG and U.S. guidelines.

For many months, the government used our outdated drinking water guidelines as an excuse for inaction by claiming that they proved our water was 'safe'.

In our view, Australia must align with U.S. standards on PFAS in drinking water and we need to expand our testing to address other potentially harmful PFAS chemicals that are not currently on our radar. This is important as we can't afford to repeat the same mistakes that we've made in the past.

We do hope that the NSW PFAS inquiry will be able to take our above feedback into consideration. I am available for further discussion about the contents of this submission.

With regards,

Jon Dee
Founder and Convenor
Stop PFAS - Blue Mountains

Australian of the Year 2010 (NSW)