

**STOP  
PFAS**

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submission to  
the Select  
Committee on  
PFAS

Written by  
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Petrol tanker fire,  
Medlow Bath 1992





## 'STOP PFAS' Submission to the Select Committee on PFAS

### 1) INTRODUCTION

I am writing a submission on behalf of the 'Stop PFAS' community group here in the Blue Mountains of NSW. This submission to the Select Committee on PFAS (Select Committee) 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 governmental entities and how this could be improved elsewhere in Australia
- 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 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."**<sup>1</sup> 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 25<sup>th</sup>, 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.

<sup>1</sup> <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 16<sup>th</sup>, 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.

The location 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.



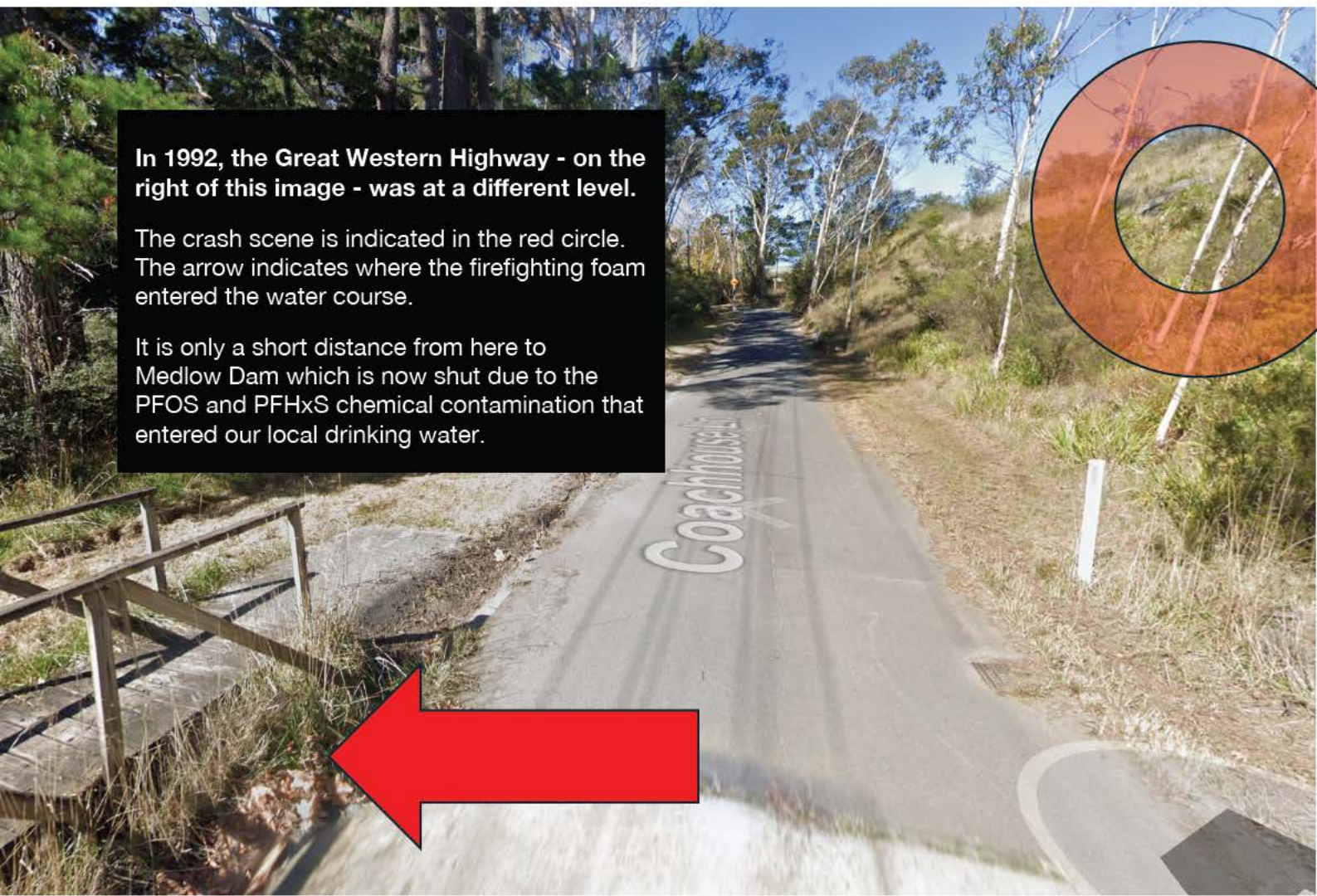
The Medlow Bath petrol tanker fire in 1992. Firefighting foam is shown going down the embankment and into the local watercourse.



**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.



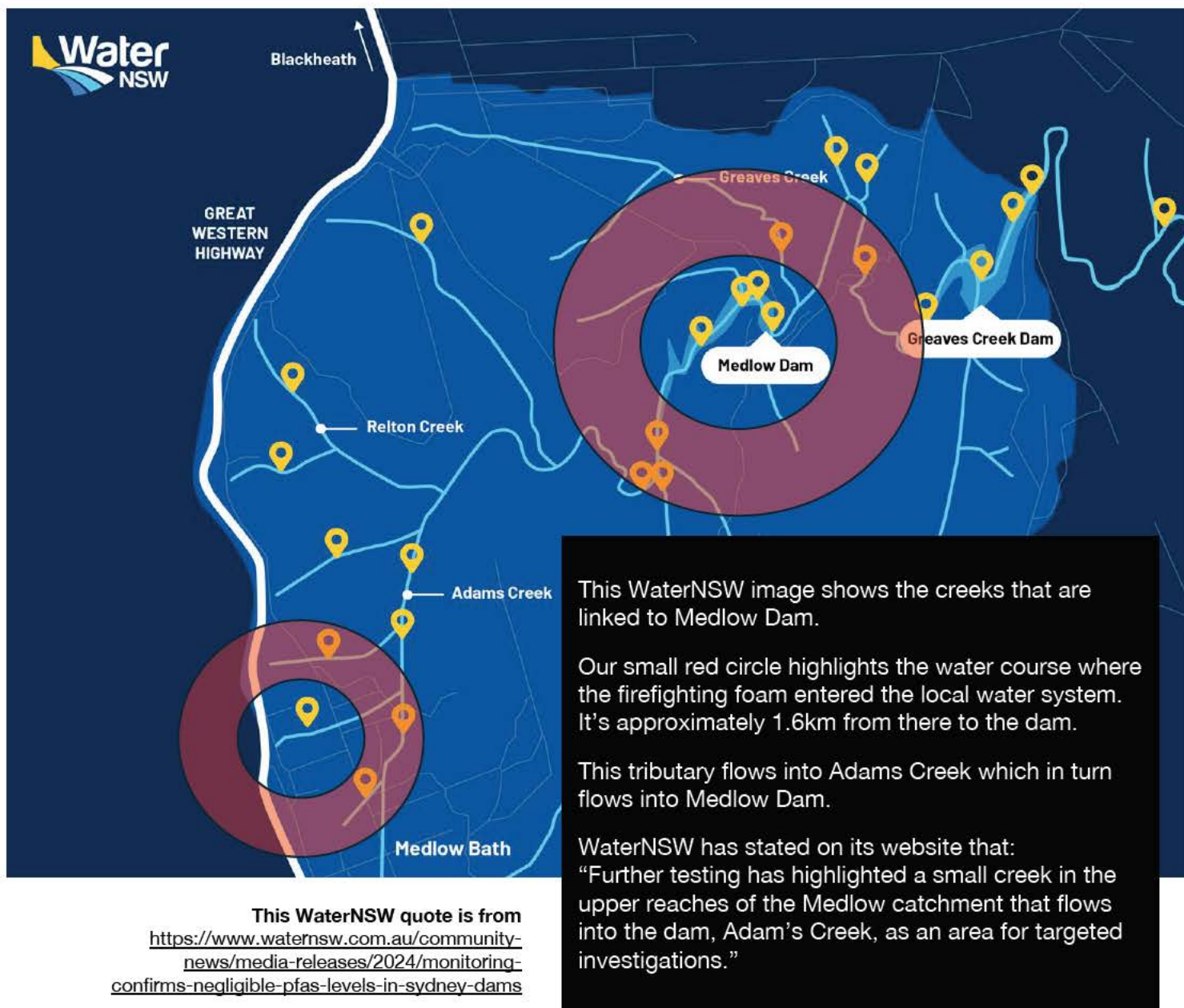
**Local people who lived near the crash scene showed us the location of the Medlow Bath petrol tanker crash.**

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







### 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.** Their view is based on the very high PFAS levels that are permitted by the current NHMRC Australian drinking water guidelines.

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 19<sup>th</sup>, 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.<sup>2</sup>
- **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.<sup>3</sup>
- **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.”<sup>4</sup>

Despite these concerns, NSW Health is 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.

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

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

<sup>4</sup> <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 11<sup>th</sup>, 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.<sup>5</sup>

In our view, no health entity should 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](https://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 Australian drinking water supplies. Testing should include 40 PFAS compounds (Sydney Water already do this in the Blue Mountains in NSW). Where feasible, methods capable of detecting all other PFAS compounds should also be used (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. This needs to be mandatory across Australia.

The NSW Health 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.

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

The Albanese Government is establishing a national coordinating body to respond to the needs of communities impacted by PFAS around Defence bases.<sup>6</sup> 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 the Senate Committee 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."<sup>7</sup>

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

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

<sup>7</sup> <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.

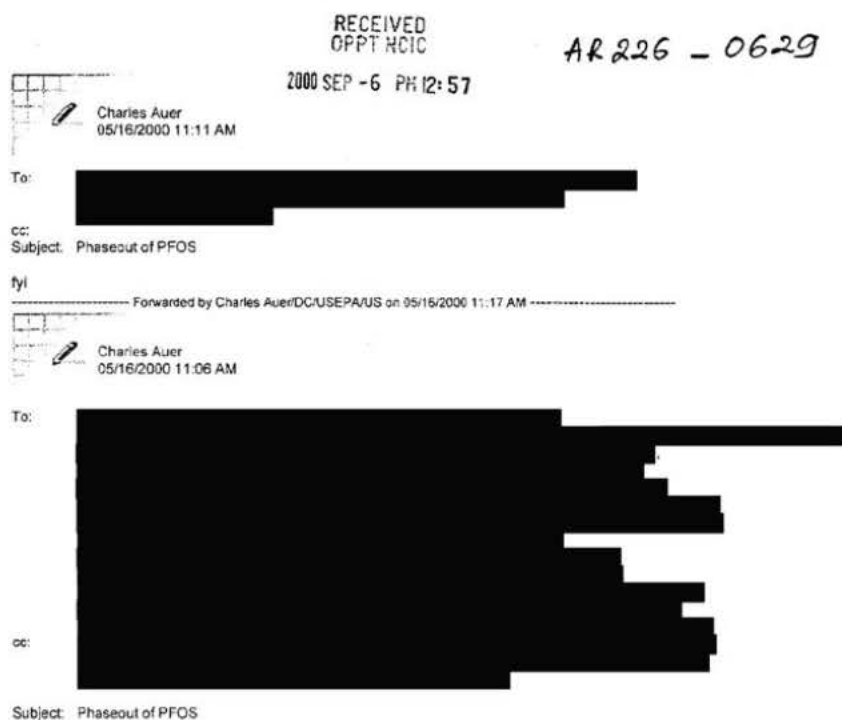
- **RECOMMENDATION:** Improve Government oversight of PFAS testing in Australia.

With better federal 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?

I would like to draw your attention to an important development in the US which concerns a persistent, bioaccumulative, and toxic chemical. I will be approaching the OECD Secretariat about setting up a discussion opportunity at some point during the upcoming meeting of the Task Force on Existing Chemicals. A brief summary of the information follows below and this is accompanied by a number of documents which provide additional information (EPA's press statement, 3M's press statement, and several reports submitted to EPA by 3M which provide more detailed background information). The reports from 3M will follow separately as .pdf files and are not being sent to the cc's.

Following negotiations with EPA, 3M Corporation today announced that it will voluntarily phase out perfluorooctanyl sulfonate (PFOS) chemistry, which is used to manufacture a wide range of products. This announcement is the result of a successful production stewardship effort between 3M and EPA. EPA supports this effort which 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,

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 around Australia, 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 Select Committee. 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 federal government should mandate the ongoing testing of PFAS chemicals in PFAS affected waterways across Australia. Government at all levels 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 NSW.

- **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 NSW 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 local councils or water entities 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
<b>Maximum Contaminant Level Goal (MCLG):</b> 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	<b>70</b> ng/L or 70 parts per trillion (Less than 0.07 micrograms per litre of PFOS and PFHxS combined)	<b>4</b> ng/L (Less than 0.004 micrograms per litre)
PFHxS		<b>30</b> ng/L (Less than 0.03 micrograms per litre)
PFOA	<b>560</b> ng/L, or 560 parts per trillion (Less than 0.56 micrograms per litre)	<b>200</b> ng/L (Less than 0.2 micrograms per litre)
PFBS	-	<b>1000</b> 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 1<sup>st</sup>, 2023, the World Health Organisation's 'International Agency for Research on Cancer' released a report which found that:<sup>8</sup>

- "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.<sup>9</sup>
- **RECOMMENDATION:** We firmly believe that the upcoming 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 federal government should legally enforce the Australian Drinking Water Guidelines.

At the moment, these drinking water guidelines are not legally enforceable in 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."<sup>10</sup>

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**.<sup>11</sup>

This is more than **three times higher** than the highest PFOA level stated by the NHMRC in its fact sheet. The highest levels of PFOA detected in Australia were at Glenmore treatment plant in Rockhampton – this was recorded at 0.89ug/L over 2022/23.<sup>12</sup>

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<sup>8</sup> 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/>

<sup>9</sup> 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>

<sup>10</sup> [https://consultations.nhmrc.gov.au/environmental-health/australian-drinking-water-guidelines-2024-pfas/supporting\\_documents/Draft%20Fact%20Sheet%20%20PFAS%20Public%20Consultation.pdf](https://consultations.nhmrc.gov.au/environmental-health/australian-drinking-water-guidelines-2024-pfas/supporting_documents/Draft%20Fact%20Sheet%20%20PFAS%20Public%20Consultation.pdf)

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

<sup>12</sup> [https://pfas.australianmap.net/2022-23-glenmore-water-treatment-plant-qld-pfoa-pfos/#:~:text=PFOA%3A%200.01ug%2FL%20\(,ug%2FL%20\(av.\)](https://pfas.australianmap.net/2022-23-glenmore-water-treatment-plant-qld-pfoa-pfos/#:~:text=PFOA%3A%200.01ug%2FL%20(,ug%2FL%20(av.))



**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?**

The PFOA figures for Brisbane 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.

It concerns us that the water sector in Brisbane and Rockhampton 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 19<sup>th</sup>, 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. This is despite the fact that Sydney Water is currently testing our PFAS-contaminated drinking water for **forty** PFAS compounds. **Why doesn't the NHMRC measure those 40 PFAS compounds too?**

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 19<sup>th</sup>, 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.”

- **RECOMMENDATION:** It’s our understanding that Bathurst City Council test for up to 30 PFAS chemicals in their PFAS tests. On December 19<sup>th</sup>, 2024, Sydney Water informed us in writing that it was testing for 40 PFAS compounds. Why can’t this wider PFAS testing approach be adopted and publicly reported on 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.<sup>13</sup>

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.<sup>14</sup> 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 Select Committee inquiry into PFAS chemicals that companies which produce the chemicals should be more transparent about what is included in the substances.<sup>15</sup>

“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.”

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<sup>13</sup> <https://www.aap.com.au/news/dozens-of-forever-chemicals-yet-to-be-assessed/>

<sup>14</sup> <https://pfasproject.com/2022/03/07/unintentional-pfas-in-products-a-jungle-of-contamination/>

<sup>15</sup> <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 Select Committee on PFAS 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 Select Committee on PFAS 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."*<sup>16</sup>

- **RECOMMENDATION:** We believe that this health-based goal should be set for all drinking water in Australia. Could the Select Committee on PFAS 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 believe that all PFAS-exposed communities in Australia should undergo widespread PFAS and cholesterol blood tests.

- **RECOMMENDATION:** Health authorities Australia-wide should conduct blood tests on PFAS-affected populations to evaluate potential health impacts from exposure to PFAS. This should include blood tests to identify the PFAS and cholesterol levels in affected populations.

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.

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<sup>16</sup> <https://www.epa.gov/newsreleases/biden-harris-administration-finalizes-first-ever-national-drinking-water-standard>



- **RECOMMENDATION:** Where PFAS contamination of drinking water is found, Health Ministers around Australia should take appropriate steps to ensure that drinking water in the affected areas becomes fit for human consumption.

In our view, the NSW Health Minister should have invoked his power conferred under section 16 of the Public Health Act 2010 in the Blue Mountains when it became clear that the PFAS contamination in our drinking water had been a long-term contamination.

- **RECOMMENDATION:** Health Ministers should liaise with their agencies to implement an analysis of the risk to impacted community members caused by any PFAS pollution incidents.

## **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. This seems very slow. Could the Select Committee please consider recommending time limits for completing additional PFAS testing of water sources and dams once a PFAS contamination has been identified?

- **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 Select Committee 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.”<sup>17</sup>

All such locations must be tested around Australia, and the results should be transparently disclosed to the public. This transparency is important as firefighting foam has been used at schools around Australia and Aussie 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.

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<sup>17</sup> <https://www.smh.com.au/national/nsw/fears-for-schools-daycares-the-500-sites-yet-to-be-tested-forever-chemicals-20241206-p5kwj7.html>



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

### 14) 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.<sup>18</sup>

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 resources<sup>19</sup>. 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.<sup>20</sup> 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 federal government should sue 3M to reimburse it the cost of the \$367.2 million that the federal government has given in compensation to Australians affected by PFAS.
- The NSW Government said to the ABC that it was spending \$80-\$100 million on upgrading Cascade Water Filtration Plant in the Blue Mountains.<sup>21</sup> 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?

<sup>18</sup> <https://apnews.com/article/pfas-drinking-water-settlement-3m-fa41cadfe0d65b9723377a681df43af1>

<sup>19</sup> <https://www.saferstates.org/priorities/pfas/>

<sup>20</sup> **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](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](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](https://www.abc.net.au/news/2023-05-25/wreck-bay-pfas-compensation/102390538?utm_source=chatgpt.com)

<sup>21</sup> <https://www.abc.net.au/news/2024-12-03/multi-million-pfas-mobile-system-nsw-cascade-water-plant/104674212>

## 15) 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.<sup>22</sup>

ECHA has received over 5,600 comments on their PFAS restriction proposal from more than 4,400 organisations, companies and individuals<sup>23</sup>. 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."<sup>24</sup>

*(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').*"

<sup>22</sup> <https://echa.europa.eu/de/-/echa-and-five-european-countries-issue-progress-update-on-pfas-restriction>

<sup>23</sup> <https://www.coolingpost.com/world-news/pfas-consultation-receives-over-5600-comments/>

<sup>24</sup> <https://www.coolingpost.com/world-news/pfas-ban-affects-most-refrigerant-blends/>



- “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.

**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:<sup>25</sup>

- 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.

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<sup>25</sup> <https://www.stoelrivesenvironmentallawblog.com/states/minnesota/minnesota-enacts-sweeping-pfas-restrictions/>

### 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.

## 16) 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 40 PFAS compounds 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 the commonly known 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.

## 17) 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 the federal government 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 that the current Australian Drinking Water Guidelines (ADWG) have left us exposed to unsafe PFAS levels.

In our view, 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 – due to their claim that the guidelines 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 Select Committee 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)**



**Charles Auer US EPA letter  
to the Australian Government  
– sent in May 2000  
warning about the dangers  
of PFOS chemicals**

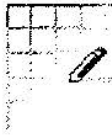


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Charles Auer  
05/16/2000 11:11 AM

To:

cc:

Subject: Phaseout of PFOS

fyi

----- Forwarded by Charles Auer/DC/USEPA/US on 05/16/2000 11:17 AM -----



Charles Auer  
05/16/2000 11:06 AM

To:

cc:

Subject: Phaseout of PFOS

I would like to draw your attention to an important development in the US which concerns a persistent, bioaccumulative, and toxic chemical. I will be approaching the OECD Secretariat about setting up a discussion opportunity at some point during the upcoming meeting of the Task Force on Existing Chemicals. A brief summary of the information follows below and this is accompanied by a number of documents which provide additional information (EPA's press statement, 3M's press statement, and several reports submitted to EPA by 3M which provide more detailed background information). The reports from 3M will follow separately as .pdf files and are not being sent to the cc's.

Following negotiations with EPA, 3M Corporation today announced that it will voluntarily phase out perfluorooctanyl sulfonate (PFOS) chemistry, which is used to manufacture a wide range of products. This announcement is the result of a successful production stewardship effort between 3M and EPA. EPA supports this effort which 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. The company plans to exit worldwide from production of these chemicals by the end of the year.

PFOS (perfluorooctane sulfonic acid) is a member of a large family of sulfonated perfluoro-chemicals (total annual production < 5 million kgs) which are used for a wide variety of industrial, commercial, and consumer applications (including use as a component of soil and stain-resistant coatings for fabrics, leather, furniture, and carpets (under the Scotchgard line), in fire-fighting foams, commercial and consumer floor polishes, cleaning products, and as a surfactant in other specialty applications); pesticidal and indirect food use products are also made from this technology. Final formulations for these uses contain less than 1% of the PFOS chemicals. All of these chemicals have the potential to degrade back to PFOS which does not appear to degrade further (it is thus highly persistent). 3M Corporation is the sole US manufacturer of the PFOS family of chemicals; 3M also has a production facility in Belgium. Available information suggests that there may be production facilities in Italy, Germany, Japan, and the Russian Federation, although 3M appears to be the dominant producer.

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. It was detected in naive (unexposed) laboratory rats (the PFOS contamination was traced back to fish meal used in the rat chow).

PFOS caused postnatal deaths (and other developmental effects) in offspring in a 2-generation reproductive effects rat study (NOAEL of 0.1 mg/kg/day and LOAEL of 0.4 mg/kg/day). At higher doses in this study, all progeny in first generation died while at the LOAEL many of the progeny from the second generation died. It is very unusual to see such second generation effects.

PFOS accumulates to a high degree in humans and animals. It has an estimated half-life of 4 years in humans. It thus appears to combine Persistence, Bioaccumulation, and Toxicity properties to an extraordinary degree.

Several years ago, in response to the blood findings, 3M launched a major research effort on PFOS to characterize its environmental presence, environmental and human effects, and environmental fate.

## **EPA REVIEW**

Preliminary data indicated to EPA that PFOS is of significant concern on the basis of evidence of widespread human exposure and indications of toxicity in a 2 generation rat study. In addition, EPA's preliminary risk assessment indicated potentially unacceptable margins of exposure (MOEs) for workers and possibly the general population. There are many assumptions and considerable uncertainty in these arguments and analyses. It is not possible at present to judge the adequacy or accuracy of the MOE analyses or whether the exposure levels used in the above estimations may be considered representative of the affected populations at large. EPA requested detailed information from 3M and a large body of information has been received but



not reviewed.

3M has raised questions regarding the possible relevance to humans of a proposed mechanism (effects on cholesterol biosynthesis) for PFOS's lethal effect in the 2-generation study. The proposed mechanism, the company argues, affects reproductive outcomes in litter bearing animals due to its inhibitory effect on a burst of cholesterol biosynthesis in the critical period just before birth. The proposed mechanism would, if demonstrated, have broad implications for and present significant potential concerns for humans and environmental organisms.

#### **RECENT DEVELOPMENTS**

Following a series of discussions with EPA, and based on concerns about the widespread presence and longer term risks presented by PFOS, 3M decided that it would exit worldwide from this market by about the end of the year, although it may need to extend the time period for some critical uses (e.g., fire fighting foam). The company had previously launched a major research efforts on PFOS to provide an in-depth understanding of the problem and its human and environmental consequences; this research effort would be continued despite the commercial decision. 3M has expressed interest in collaborative efforts with EPA as they withdraw from the market and in the development of safer substitutes.

#### **NEXT STEPS FOR EPA**

EPA is preparing a communications strategy for conveying clear messages in response to 3M's announcement. We will be alerting other US Agencies (FDA, CPSC, OSHA, NIOSH), OECD governments, and international agencies (UNEP, IPCS). We do not believe that PFOS presents an imminent harm from use in consumer products during the phaseout (it is used in high molecular weight polymers which do not appear to result in exposure to PFOS during normal use; residual PFOS contamination occurs at very low levels). At the same time, we agree that continued manufacture and use of PFOS represents an unacceptable technology that should be eliminated to protect human health and the environment from potentially severe long term consequences. Regulatory action would have been difficult and time consuming at best and, given EPA's view that a rapid phase out is necessary and appropriate, EPA believes that 3M has taken a responsible corporate decision in quickly moving away from this technology.

EPA is currently examining appropriate regulatory steps necessary to ensure protection of human health and the environment.

#### **PFOA**

PFOA (perfluorooctanoic acid) is closely related structurally to PFOS and is used as a solvent for certain polymerization reactions. EPA has requested information from producers and will be preparing an assessment. Based on preliminary information, PFOA presents a different hazard, exposure, and risk picture compared to PFOS. 3M has also committed to ending production of PFOA. There are other producers in the US and EPA is examining its options regarding action on PFOA.

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EPA Press Statement  
May 16, 2000

Following negotiations between EPA and 3M, the company today announced that it will voluntarily phase out and find substitutes for perfluorooctanyl sulfonate (PFOS) chemistry used to produce a range of products, including some of their Scotchgard lines. 3M data supplied to EPA indicated that these chemicals are very persistent in the environment, have a strong tendency to accumulate in human and animal tissues and could potentially pose a risk to human health and the environment over the long term. EPA supports the company's plans to phase out and develop substitutes by year's end for the production of their involved products.

"Today's phaseout announcement by 3M will ensure that future exposure to these chemicals will be eliminated, and public health and the environment will be protected," said EPA Administrator Carol M. Browner. "EPA will work with the company on the development of substitutes to ensure that those chemicals are safe for the environment. 3M deserves great credit for identifying this problem and coming forward voluntarily."

PFOS chemicals are used to produce a range of products from fire fighting foams, coatings for fabrics, leather, and some paper products, to industrial uses such as mist suppressants in acid baths. The company is continuing a major research effort on these chemicals to enhance the understanding of any potential risks that may be associated with this class of chemicals. EPA will also be evaluating the chemicals to determine how individuals and the environment are exposed and what potential adverse effects may exist. If future regulatory actions are required, EPA will take them.

At present, 3M is the only US manufacturer of PFOS. EPA will be contacting foreign governments and other chemical manufacturers, both domestically and internationally, to seek their support for a voluntary phaseout of PFOS and related chemicals.

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PFOS 3M pre

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## **3M News**

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### **FOR IMMEDIATE RELEASE**

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### **3M Phasing Out Some of its Specialty Materials**

**ST. PAUL, Minn. – May 16, 2000 –** 3M today announced it is phasing out of the perfluorooctanyl chemistry used to produce certain repellents and surfactant products.

The affected product lines represent about two percent of 3M's nearly \$16 billion in annual sales. These include many Scotchgard™ products, such as soil, oil and water repellent products; coatings used for oil and grease resistance on paper packaging; fire-fighting foams; and specialty components for other products. 3M said it plans to substantially phase out production by the end of the year and will work with customers to accomplish a smooth transition.

"Our decision anticipates increasing attention to the appropriate use and management of persistent materials," said Dr. Charles Reich, executive vice president, Specialty Material Markets. "While this chemistry has been used effectively for more than 40 years and our products are safe, our decision to phase out production is based on our principles of responsible environmental management."

"We're reallocating resources to accelerate innovation in more sustainable opportunities and technologies. This decision is not only in the public interest, it's in the best interests of all our constituencies ... our employees, customers, communities and investors," Reich said.

Sophisticated testing capabilities – some developed in only the last few years – show that this persistent compound, like other materials in the environment, can be detected broadly at extremely low levels in the environment and in people. All existing scientific knowledge indicates that the presence of these materials at these very low levels does not pose a human health or environmental risk.



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About 1,500 out of 3M's global work force of 71,000 employees have jobs associated with these products. "Innovation at 3M is at an all-time high, and there are many great opportunities for employees across the company," Reich said.

3M expects to meet consensus earnings estimates for the rest of 2000. This excludes a one-time charge on the order of \$200 million, that will be taken sometime this year.

"Our growth engines are more powerful than ever and we're confident in our ability to continue delivering on expectations," said L.D. DeSimone, chairman and CEO. "Many of our new technology platforms directly address the fastest-growing segments of the new economy such as electronics, telecommunications and flat-panel displays."

"We expect the positive momentum in our financial performance to continue into 2001 with earnings somewhat above current analyst estimates," DeSimone said.

3M is a leading manufacturer of innovative products for industrial, consumer, transportation, safety, health care and other markets, with operations in more than 60 countries worldwide. The company is well known for its "Pollution Prevention Pays" environmental initiative, and its emission reduction programs including water-based replacement of solvents in manufacturing and replacements for ozone-depleting chlorofluorocarbons (CFCs).

**Forward-Looking Statements**

Certain portions of this news release that do not relate to historical financial information constitute forward-looking statements. These forward-looking statements are subject to certain risks and uncertainties. Actual future results and trends may differ materially from historical results or those expected depending on a variety of factors, including: (1) worldwide economic conditions; (2) foreign exchange rates and fluctuations in those rates; (3) the timing and acceptance of new product offerings; (4) raw materials, including shortages and increases in the costs of key raw materials; and (5) legal proceedings.

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