Submission No 37

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

Name: Name suppressed

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Select Committee on PFAS Contamination in Waterways and Drinking Water Supplies Through-out NSW – Submission

1. Introduction

Thank you for establishing the process to consider the matters associated with PFAS (*forever chemical*) contamination of our vital natural resource assets that has long evolved, it is very much appreciated.

This submission will be on the experience and evidence from extensive research and review of many documents on the PFAS contamination at Gold Coast Airport (GCA) which sits across the NSW and Qld border N/E NSW. Specifically, it will focus on Airservices Australia's (AA) fire training ground (FTG) within NSW, a leased site on GCA (Commonwealth land) just 600m upstream of the Cobaki Broadwater, lower Tweed River estuary, Tweed Heads West.
The Cobaki coastal lowland estuarine ecosystems are recognised for their National environmental and cultural heritage significance, and economic value as a NSW Class 1 major fishery.

I began my journey of investigation subsequent to PFAS contamination coming to light at Williamtown 2015, and my observing decades of weekly fire training at GCA. Early 2016 I had unearthed a report dated **2008** which confirmed the groundwater in the area of the FTG was contaminated with **PFOS** levels of **470** ug/L. **PFAS** groundwater contaminant levels in this area **2024** are **2,480** ug/L.
Despite groundwater contours/flow vectors from the FTG being to the south, west and S/W to the estuary, the drainage network downstream of the FTG which discharges to the estuary has never been sampled between the estuary and M1 more than 16yrs on. Also, a further key PFAS exposure pathway to an ecological and human receptor being the Coolangatta Creek overflow to the west with another discharge point to the estuary has never been sampled when surface water **PFOS** contaminant levels of **26.4** ug/L were confirmed **2011**, more than 13yrs ago. My research has led to me being linked directly with authorities/experts across the 3 eastern states.

Civilian airports on Commonwealth land prevents Local and State authorities of having any governance regardless of the sites being on lands within Local/State jurisdictions. Relevant to the PFAS contamination on airports dispersing from AA leased sites, AA themselves control the investigations. Hence, a real serious and significant conflict of interest when the polluter is in charge of their own pollution investigations. The consequences in the case of the PFAS contamination at GCA being the investigations/monitoring to date have been extremely limited/selective, and with significant gaps.

It has become evident in my research and review of documents there has been little/no genuine liaising, nor proper disclosure/updates with other authorities, along with ignoring requests and expert advice.
Further, AA has formally and publicly made claims that have been contrary to the documented facts of the status of the PFAS contamination on/dispersing from their source sites on GCA.

2. Chronology

2006: A major spill of 16,000L occurred at the FTG which included Aqueous film-forming foam (AFFF).

2008: Groundwater **PFOS** contaminant levels **470**ug/L and **PFOA 51** ug/L at FTG. Report conclusion included, *there is a potential risk to the environment and to human health due to groundwater impact from PFOS and PFOA.*

2011-2015: Monitoring of groundwater at the FTG shows **PFOS** levels fluctuating up to **2,280** ug/L and **PFOA** up to **64.6**.

2014: AA was the proponent of a development on GCA along the west of the runway (RWY) and on the NSW Crown Reserve adjoining the GCA at the south end of the RWY which included earthworks for realignment of drainage channels and trenching. AA's Referral submitted under the Commonwealth EPBC Act failed to disclose the groundwater at the FTG was contaminated with levels of **PFOS** up to **2,100** ug/L and **PFOA** up to **29.60** ug/L at this time. Further, the figure provided omitted a significant

section of the drainage network adjacent to and downstream of the FTG (east) which had been recommended for sampling (up/down gradient) **2008** *'to determine the potential for impact on the receiving environment'* which to date was never undertaken.

2016: The AA submission (Feb) to the Federal PFAS Inquiry failed to disclose the known high levels of groundwater PFAS contamination at their FTG leased site on GCA. Nor did they disclose this information in their evidence to the Inquiry 7/4/16.
AA also had failed to disclose to NSW authorities the very high PFAS contaminant levels at their leased FTG site (NSW) on GCA – *Contaminated Sites Review - Chronology of knowledge and communications regarding PFOS/PFOA contamination at AA sites* – MP Taylor & I Cosenza - 28/4/16.
With NSW authorities not aware of the PFAS contamination on AA GCA leased site in this N/E corner of NSW I was asked to provide the 2008 report which I did.

3. Terms of Reference – response

a) The extent of monitoring and data collection on PFAS risk sites is grossly inadequate – **urgent provisions for such need to be established.**
b) Reporting and disclosure requirements to the public of monitoring and findings of PFAS contamination of water is seriously inadequate – **urgent provisions need to be established to enable transparent public disclosure and reporting.**
c) Identification of communities at risk from PFAS contamination has seriously failed the precautionary principle – **an urgent audit is required, along with provisions to enact notification**.
d) There has been no proper effectiveness of government engagement, nor support for the communities disproportionately affected by PFAS contamination, including First Nations communities – **governments must learn from the years of denial of the known serious impacts of asbestos and tobacco and take the mounting evidence of impacts of PFAS contamination seriously, along with an immediate ban of primary PFAS chemicals.**
e) The high levels of PFAS contamination have been the consequence of decades of massive use of AFFF for fire training exercises, despite explicit warnings the chemicals must not enter the environment 1987 – **as primary sources of PFAS contamination is emanating from airport and defence sites on Commonwealth lands urgent review is required to establish protocols for the States to have a greater role in governance and Federal funding to the States to advance better monitoring, data collection and reporting. In the immediate term the Federal Government must at the very least adopt Recommendations from the Federal Inquiry Nov. 2018, specifically Rec. 1 for an independent Coordinator will mitigate the gross failures on Commonwealth lands.**
f) There has been a real failure of the precautionary principle with regard to the health, environmental, social, cultural and economic impacts of PFAS – **urgent provisions are required to be established to address these significant matters.**
g) Again there has been a gross failure of the precautionary principle and inter-generational equity to have proper regard to the impacts, monitoring and migration of contamination on livestock, domestic animals and wildlife, including waterbirds, fish and other aquatic life – **urgent establishment of legislation is required to manage these serious matters.**
h) Relevant to Commonwealth lands where major PFAS contamination is emanating from, NSW government agencies have no capacity currently to manage these source sites – **urgent action is required to establish a collaborative mechanism with financial support to the State to address the PFAS contamination impacting water resources/supplies.**
i) The current status of NSW legislative and regulatory framework does not enable adequate and effective testing, monitoring, mitigating and responding to PFAS contamination impacts on human and environmental health – **urgent upgrade and provisions established within legislation and regulations is required with a real focus on international standards and independent expert scientific studies.**
j) Much improved coordination between <u>all</u> relevant agencies is required to manage the risks of PFAS contamination to human health and the environment – **consider establishing a body of all relevant agencies with provision of independent review if required.**

4. Background

PFAS contamination has long evolved with some experts advising we are yet to see the peak of this chemical. However, products containing **PFOS** were known to cause detrimental impacts to the environment and a ban on the manufacture of **PFOS** was imposed early **2000**. In April **2003**, the *National Industrial Chemical Notification and Assessment Scheme* issued a **PFOS** alert and advised that AFFF products containing **PFOS** should not be used for training purposes – **but use continued**.
PFOS and **PFOA** are listed on the *Safe Work Australia, Hazardous Substances Information System* as hazardous substances due to risks to human health.

More than 2 decades on, evidence is much stronger regulations are required for proper effective and meaningful management of PFAS contamination.

The behaviour of PFAS chemicals relevant to transport to groundwater and surface water systems and migration rates, climatic/seasonal conditions and complexities of ecosystems is not yet established with such limited data showing variables across landscapes.

One off annual sampling with no program of collecting climatic/seasonal data fails credible science to understanding the behaviour of the PFAS chemicals, migration/flow rates and variability of groundwater and surface water PFAS concentrations at contaminated sites and beyond. Such methodology defies expert advice, ***this is insufficient to cover different seasonal conditions (such as markedly different history of rainfall), and it is possible that surface water flows, groundwater levels and contaminant concentrations will vary with different seasonal conditions…the investigation has been limited to specific locations, and it is possible that the presence and concentration of contamination will vary in other nearby locations.***

Established facts are that PFAS contaminants migrate from the source locations through environmental pathways with linkages to ecological and human receptors and bioaccumulation over many years, and such dispersion requires robust scientific risk-based objective investigation. Further, PFAS chemicals become part of the food chain, being transferred from organism to organism.

Relevant to waterways, groundwater discharge and groundwater submarine discharge is complex as a vector transporting PFAS into receiving waters requiring specific scientific expertise to understand the dispersion from sources.

We have great teams at our universities with amazing expertise of real scientific independence that need to be part of the team in moving forward with understanding PFAS chemicals and finding pathways to meaningful solutions.

5. Conclusion

It is of real urgency that a truly collaborative, cooperative and transparent approach is taken to establish meaningful provisions to address the matters of the dire impacts of PFAS contamination on human health, environment and our vital water resources, and the economic and social costs.

27/11/24