

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

Organisation: Tweed Shire Council

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Submission Tweed Shire Council

Inquiry into PFAS contamination in waterways and drinking water supplies throughout New South Wales

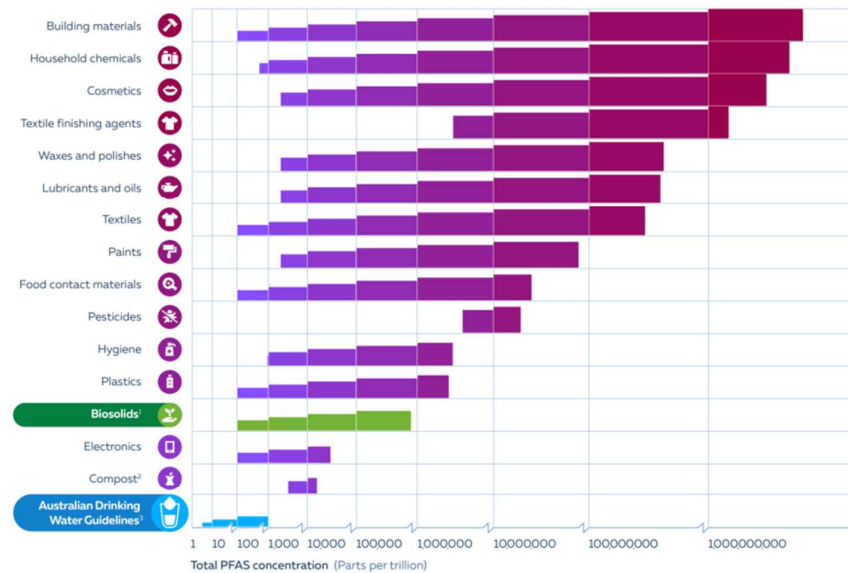
Tweed Shire Council Water & Wastewater units support the submissions of the Water Services Association of Australia (WSAA) and NSW Water Directorate as attached.

Tweed Shire Council share the beliefs that source control is the most effective and sustainable approach to managing PFAS risks. Without action to limit the entry of PFAS into wastewater systems, treatment costs will rise, placing additional pressure on customers and communities. It is essential to emphasise the interconnection of water and wastewater processes with other reuse and resource recovery systems, such as recycled water systems and beneficial reuse of biosolids. Reducing or eliminating PFAS sources is indeed the vital step in protecting the integrity and viability of these interconnected processes and our circular economy achievements in the water sector.

It is also important that PFAS exposure from drinking water and wastewater products such as biosolids is considered carefully in the context of broader range of exposure pathways that contribute to environmental and human health risks. We refer to Figure 1 below, extracted from the WSAA submission to the enquiry.

We reinforce the NSW Water Directorate position that measured decision making is extremely important and that regardless of the contaminant of concern being considered, changes to standards, policies or regulations should not be rushed or influenced by media pressures. Instead, any updates need to be based on detailed evidence-based assessments and be reflective of local conditions and constraints. A whole of government approach is needed with national and state government agencies and regulators. Transparent, timely and evidence-based communication is essential to support public understanding and trust.

Relative concentrations of PFAS in consumer products, drinking water guidelines and biosolids



1. Nguyen, H.T., Thai, P.K., Kaserzon, S.L., O'Brien, J.W., Mueller, J.F. (2024) Nationwide occurrence and discharge mass load of per- and polyfluoroalkyl substances in effluent and biosolids: A snapshot from 75 wastewater treatment plants across Australia. *Journal of Hazardous Materials* 470, 134203.

Moode, D., Coggan, T., Berry, K., Kolobaric, A., Fernandes, M., Lee, E., Reichman, S., Nuggego, D., Clarke, B. (2021). Legacy and emerging per- and polyfluoroalkyl substances (PFASs) in Australian biosolids. *Chemosphere* 275, 129343.

2. Sivaram, A. K., Pannierselvan, L., Surapaneni, A., Lee, E., Kannan, K., Megharaj, M. (2022) Per- and polyfluoroalkyl substances (PFAS) in commercial composts, garden soils, and potting mixes of Australia. *Environmental Advances* 7, 100174.

3. National Health and Medical Research Council (NHMRC). (2024). Per- and poly-fluoroalkyl substances (PFAS) Chemical Fact Sheet (Draft).

Chart developed based on Dewapriya, P., Chadwick, L., Gorj, S.G., Schulze, B., Valerich, S., Samanipour, S., Thomas, K.V., and Kaserzon, S. L. (2023). Per- and polyfluoroalkyl substances (PFAS) in consumer products: current knowledge and research gaps. *Journal of Hazardous Materials Letters* 4, 100086, 1-7.

Note: Total PFAS concentrations in various consumer and industrial product categories globally in comparison with the proposed ADWG and biosolids, presented in ng/L or ng/Kg equivalent to ppt. Concentrations presented provide the range of total PFAS concentrations items contained in the reference studies and do not attempt to convey how much PFAS could contaminate the environment, be ingested or dermally absorbed by people. Data include several types of PFAS commonly found in the market, including but not limited to PFCAs (e.g., PFOA), PFASs (e.g., PFBS, PFHxS, PFOS), fluorotelomers, sulfonamides, PAHs, and other novel PFAS.

Figure 1. Relative PFAS concentrations across various product categories compared to biosolids and drinking water guidelines.

Tweed Shire Council's waste facility is down stream of any drinking water site and the environmental discharge from the site is not flowing into a drinking water supply. Council is in the process of designing a system to seek to close the loop as much as possible on any discharge, whether stormwater or leachate, which will be informed by guidelines developed by the state government, including those relating to biosolids. The cost of processing leachate for discharge to sewer for the removal and treatment of PFAS is likely to have similar impacts to residents as any constraints on drinking water guidelines and management.

The Mayor also represents Council on the Gold Coast Airport Community Consultative Committee where PFAS contamination of groundwater, surface water and edible fish species is an ongoing issue. The recent report to the committee by Aurecon Australasia on the Airports PFAS Investigation program detailed the following as part of their preliminary investigations:

An overview of PFAS in local biota was provided. Six species were targeted in the Cobaki as part of Airservices Australia biota testing in 2017. The regulators have questioned some of the rationale used for sampling and testing of biota. Airservices Australia recently received elevated results within Coolangatta Creek which is why the results were shared with QLD Health and an advisory was issued indicating that people should not frequently consume fish captured from Coolangatta Creek.

An overview of PFAS in groundwater was provided. Historical groundwater sampling locations are predominantly within the airport and the Airservices Australia locations are mainly downgradient of the primary sources. Groundwater within the airport has

elevated PFAS concentrations exceeding guidelines values for drinking water and recreational waters. Groundwater use off-airport relates to spear wells on residential properties with reported concentrations above the drinking water guidelines, hence the health advisory.

An overview of PFAS in surface water was provided. There is a large amount of surface water results available, with abundant testing of water from across the airport estate. There has been limited off-airport testing, including within Coolangatta Creek, at the Kirra Beach discharge point and the Tugun Tunnel. PFAS concentrations are elevated within Coolangatta Creek, and an advisory has been issued by QLD Health.

The mobility of PFAS in groundwater and the implications for wetland areas around the Coolangatta airport which act as important fish nurseries for many economically important species is of great concern to the Committee. The results reported to the committee appear to show increasing levels of PFAS in the ground water since testing began in 2008 which is of great concern to the community.

As such the remediation of this area needs to be a priority and so far there has been a lot of reporting of data but no remediation program enacted as far as we are aware.

Date: 26/05/2025

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