

Submission
No 30

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

Organisation: Communities Against the Tarago Incinerator

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Submission to the New South Wales Parliament inquiry into PFAS contamination in water in NSW.

Introduction

The proposal to establish a waste incineration facility in Tarago, New South Wales (NSW), raises significant environmental and public health concerns, particularly regarding the potential contamination of drinking water supplies with per- and polyfluoroalkyl substances (PFAS). This submission outlines the scientific evidence indicating that waste incineration can lead to increased PFAS levels in local water sources, including household water tanks and the broader Sydney drinking water catchment. It emphasizes that no waste incinerator can be deemed entirely safe and that existing mechanisms are insufficient to ensure the protection of water quality and public health.

Understanding PFAS and Their Environmental Impact

PFAS are a group of synthetic chemicals widely used for their water and grease-resistant properties in various industrial applications and consumer products. They are often referred to as "forever chemicals" due to their persistence in the environment and resistance to degradation. Exposure to PFAS has been linked to adverse health effects, including cancer, liver damage, and developmental issues in children.

Waste Incineration and PFAS Emissions

Waste incineration is a process that involves burning waste materials to reduce their volume and generate energy. However, this process can release various pollutants, including PFAS, into the environment. Studies have shown that incineration does not effectively destroy PFAS compounds; instead, it can transform them into other toxic substances or release them into the atmosphere and subsequently deposit them onto land and water bodies.

The U.S. Environmental Protection Agency (EPA) has acknowledged the challenges associated with incinerating PFAS-containing materials, noting that incomplete combustion can lead to the release of these substances into the environment. [Environmental Protection Agency](#)

Potential Contamination of Local and Sydney Drinking Water Supplies

The proposed incinerator in Tarago, located within the Sydney Drinking Water Catchment, poses a significant risk to both local water sources and the broader Sydney drinking water supply. Airborne emissions containing PFAS can settle onto land and water surfaces, leading to contamination of surface water and groundwater. Rainfall can wash these contaminants into rivers, reservoirs, and household water tanks, thereby entering the drinking water supply.

A case study by the World Health Organization documented PFAS contamination of drinking water in the Veneto region of Italy, where industrial activities led to pollution of both surface and groundwater, affecting approximately 127,000 residents. [European Environment Agency](#)

Impact on Household Water Tanks

In rural areas like Tarago, households rely on rainwater collected in tanks for their drinking water. Airborne PFAS emissions from the incinerator can deposit on rooftops and other catchment surfaces, leading to contamination of the collected rainwater. Given the persistence and bio accumulative nature of PFAS, even low levels of contamination can pose long-term health risks to residents.

If waste incinerators are approved for rural areas in NSW that rely on rainwater for household usage it must be assumed that their water supplies will be contaminated with PFAS and other pollutants. As such, prior to any waste incinerator being approved, contingency plans must be made by Government to ensure that these communities will have an alternative source for clean, PFAS- free household water such as those afforded suburban communities.

Lack of Safe Waste Incineration Practices

Current evidence indicates that there is no entirely safe method for waste incineration, especially concerning the destruction of PFAS. Standard incineration temperatures are often insufficient to break down PFAS compounds completely, leading to their release into the environment. Moreover, the formation of secondary pollutants during the incineration process can further exacerbate environmental contamination.

A 2024 IPEN (International Pollutants Elimination Network). report, "Waste Incineration and the Environment," provides critical insights into the environmental and health impacts of waste incineration. The report highlights that waste incineration is not a solution to environmental challenges but rather contributes to them by emitting large volumes of CO₂ and releasing a variety of toxic chemicals, including dioxins, mercury and PFAS, in quantities exceeding planetary limits. <https://ipen.org/documents/waste-incineration-and-environment>

The report also emphasizes that communities living near incinerators are at higher risk of health issues due to these harmful emissions. This underscores the potential risks to residents in and around Tarago if the proposed incinerator is established, and to wider NSW residents through contamination of crops and livestock, as well as the Sydney water catchment.

Insufficient Mechanisms to Ensure Safety

Existing regulatory frameworks and technological controls are inadequate to fully mitigate the risks associated with PFAS emissions from waste incineration. Monitoring and controlling the release of these substances are challenging due to their chemical stability and the limitations of current emission control technologies. Additionally, the long-range transport potential of PFAS means that contamination can affect areas far from the incineration site, complicating efforts to protect water sources and agricultural land.

Conclusion

The establishment of a waste incineration facility in Tarago NSW presents a substantial risk of PFAS contamination to local and regional drinking water supplies, including household water tanks and the Sydney drinking water catchment. Given the persistence and toxicity of PFAS, even minimal releases can have long-term environmental and health consequences.

It is also important to acknowledge that clean, safe drinking water is considered a basic human right. As such, rural and regional communities that rely on rainwater collected in

household water tanks have the same right to clean water as those living in major cities. Therefore, it is important that the NSW Government does not knowingly approve industries, such as waste incineration, that will deposit PFAS into the environment and contaminate primary drinking water supplies.

In light of the PFAS evidence presented, it is imperative that the NSW Government reconsider the proposal for a waste incinerator in Tarago. Alternative waste management strategies that do not pose such significant risks to water quality and public health must be pursued and prioritized.

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