

## Question on Notice

*Do you believe Australia's current PFAS safety thresholds in drinking water reflect the best available science?*

The International Agency for Research on Cancer (IARC) has classified PFOA as carcinogenic to humans (Group 1) and PFOS as possibly carcinogenic to humans (Group 2B). In line with emerging scientific evidence, the U.S. Environmental Protection Agency (EPA) has recently established legally enforceable maximum contaminant levels (MCLs) of 4 nanograms per liter (ng/L) for both PFOA and PFOS in drinking water. These decisions reflect a growing body of research demonstrating the adverse health effects associated with exposure to these and other PFAS compounds. Given this evidence, and in comparison to international standards, it is prudent and scientifically justified for Australia to adopt more stringent drinking water guidelines to better protect public health.

## Supplementary Questions:

*In your view, how effective are biomonitoring programs in tracking PFAS exposure and informing public policy?*

Biomonitoring is a highly effective approach for tracking PFAS exposure. Without data on PFAS levels in the population, it is difficult to understand the extent of community exposure, monitor trends over time, or detect the emergence of newer PFAS compounds. Biomonitoring also enables regulatory agencies to identify specific PFAS present in populations, which can help pinpoint potential sources of exposure and inform targeted policy responses. In addition, people are exposed to PFAS through various pathways including food, water, air, and consumer products. Biomonitoring helps us to understand the overall burden of PFAS exposure.

*Could you explain any known cumulative health effects of multiple PFAS compounds and how these complicate regulatory standards?*

Humans are always exposed to multiple PFAS at the same time and the effect of these PFAS may lead to greater effects on human health than single PFAS. PFAS mixtures have been associated with a range of adverse health outcomes, including metabolic disorders, liver dysfunction, immune suppression, developmental toxicity, and increased cancer risk.

It is difficult to set regulatory standards because PFAS is a class of chemicals made up of more than 12,000 chemicals. Therefore, it is time-prohibitive to regulate every single PFAS

and set standards for each of them. However, regulatory agencies in both the US and the European Union have been considering regulating PFAS as a class.

*How important is early intervention and precautionary regulation in protecting communities from long-term PFAS impacts?*

These chemicals are highly persistent in the environment and the human body. Once contamination occurs, it is difficult and costly to reverse exposures and health risks. As a result, communities may experience years of exposure before the associated health effects are fully understood.

*What lessons can New South Wales take from US approaches to community engagement and PFAS health surveillance?*

Timely reporting of results is essential. Communities have the right to access their own data and should be notified promptly when PFAS results are available. Providing community-level summaries alongside individual results can help people understand how their levels compare to others in their area. It is also important to be prepared to share practical guidance on how to reduce PFAS exposure. Individuals who receive high PFAS results will understandably want clear answers and support on steps they can take to protect their health.

*Do you have recommendations for integrating PFAS biomonitoring into public health policy, particularly in rural and regional areas?*

It is important to begin by testing private wells and public water sources to identify potential PFAS contamination hotspots. Based on these findings, a targeted strategy can be developed to engage affected communities and conduct biomonitoring of PFAS levels in individuals using contaminated private wells and public water sources.

To better characterize exposure in the general population, a well-designed sampling framework should be implemented, allowing for population weighting and estimation of PFAS levels at the national or regional level. Additionally, if certain high-risk groups are more likely to be exposed, such as those living near industrial sites or in rural areas, oversampling should be employed to ensure sufficient data is collected to accurately estimate PFAS exposure in these subpopulations.