

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

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Australian Government
Defence

Select Committee on PFAS Contamination in Waterways and Drinking Water Supplies Throughout
New South Wales

Department of Defence Submission

March 2025

Defence welcomes the opportunity to provide a submission to the Select Committee on PFAS (per- and poly-fluoroalkyl substances) Contamination in Waterways and Drinking Water Supplies Throughout New South Wales (NSW).

Defence PFAS Investigation and Management Program

The Defence Investigation and Management Program commenced in 2015, focusing on 28 priority sites across Australia. Defence prioritised these sites based on the known storage or use of PFAS-containing legacy firefighting foams at the sites. Of these, seven are located in NSW:

- RAAF Base Williamtown
- RAAF Base Richmond
- RAAF Base Wagga
- Blamey Barracks (Wagga Wagga)
- Singleton Military Area
- Holsworthy Barracks
- HMAS Albatross

Defence has completed detailed environmental investigations and is in the remediation and/or management phase at each of these sites. Defence investigates and manages PFAS in line with the *National Environment Protection (Assessment of Site Contamination) Measure 1999* and the *PFAS National Environmental Management Plan*.

More information about these sites is in [Attachment A](#).

In addition to these priority sites, Defence also investigates and manages potential or known detections of PFAS on or from its other sites, as and when required. These include Randwick Barracks and Defence Establishment Orchard Hills. Defence also works with the NSW Government on PFAS contamination on and from Defence property in the Jervis Bay Territory.

PFAS Independent Review

On 5 December 2024, the Australian Government released the Government response to the *Independent review of land uses around key Defence sites impacted by PFAS* (the Review). The Government agreed to 18 of the 19 recommendations.

The Government is establishing a PFAS National Coordinating Body with senior representation from all key portfolios to promote a stronger and more integrated whole of government response to PFAS management.

As a first step, the PFAS National Coordinating Body will establish a Williamtown Working Group to pilot new initiatives in that community, working collaboratively with the NSW and local government.

Managing risks of PFAS contamination

Defence's priority is to minimise PFAS exposure pathways to residents impacted by PFAS contamination from Defence property.

Ensuring water supplies

Where drinking water is impacted, Defence provides alternative water supplies to residents. For example, close to RAAF Base Williamtown, Defence connected 342 properties to reticulated water and installed rainwater tanks at 12 properties. Defence continues to support community members by paying water bills for 400 properties. In September 2023, this assistance was

extended for an additional two years, bringing the total years Defence has provided financial support to eight years.

Remediation

Defence seeks to minimise PFAS-impacted surface water or groundwater leaving Defence property. Investigations have found that PFAS contamination is most concentrated in areas where legacy firefighting foams were previously disposed of, used, or stored. These are called source areas, as they are able to continuously contribute PFAS to groundwater and/or surface water runoff during rain events.

Remedial works target source areas to minimise PFAS leaving a Defence property. Background levels of PFAS are present at varying concentrations within the environment and therefore the remediation of sites to zero PFAS contamination conditions is unlikely in the short to medium term.

Remediation includes a combination of activities such as removal of PFAS sources and ongoing water treatment to target the higher contamination concentrations. Remediation actions are outlined in Defence's site-specific PFAS Area Management Plans, available on the Defence website.

Remediating PFAS in soil on Defence sites includes extraction, onsite treatment, offsite thermal destruction and controlled landfill disposal. Soils with the highest concentrations of PFAS are excavated and taken to a licenced facility for thermal destruction. Soils with lower concentrations of PFAS are often managed onsite through remedial works involving stabilisation or capping. More information about remediation methods is available on the Defence website.

Remediating PFAS in groundwater and surface water on Defence sites includes commercially available treatment methods involving concentration, separation and collection of PFAS. These include the use of materials to absorb PFAS, such as activated carbon or ion exchange resins, or separation processes such as reverse osmosis, nano-filtration and foam fractionation. At RAAF Base Williamtown, Defence uses ion exchange resins to absorb PFAS that is then extracted from the resins in a highly concentrated form and sent for thermal destruction at a licensed facility in Victoria. So far, Defence has treated more than 5.5 billion litres of water at RAAF Base Williamtown using this technology and collected more than 53,000 grams of PFAS.

At some sites, PFAS remedial works target pathways such as drainage to more effectively minimise PFAS leaving a Defence property.

PFAS monitoring

At each program site, Defence has an Ongoing Monitoring Plan, which sets out how Defence regularly monitors PFAS to track changes where PFAS are found and at what concentrations. This allows Defence to manage potential PFAS exposure risks and provide regular updates to impacted communities.

Defence frequently conducts ad hoc sampling of private properties at the request of an owner.

When Defence conducts sampling at private properties, the results are provided and communicated in plain English to the owner.

Defence provides monitoring results to the NSW Environment Protection Authority (EPA) after each sampling event. Defence publishes periodical Ongoing Monitoring Reports and summary factsheets on its website. These are provided to the EPA for input before publication.

Where a resident has requested that property identification be kept private, this information is withheld from public reporting. Defence maintains a comprehensive database of monitoring data from the program.

Blood testing

All Australians are expected to have detectable levels of PFAS in their blood. A broad range of levels would be expected in all communities because of exposure to PFAS in everyday products such as make-up, cleaning products, cookware, or clothing.

Defence's response to PFAS is informed by available research and advice from relevant health organisations, including the Department of Health and Aged Care. Defence does not have a PFAS blood testing program. The Department of Health and Aged Care does not recommend blood tests. Individual results cannot be used to determine whether any medical condition is attributable to exposure to PFAS.

Community engagement

Communities have expressed concerns about PFAS impacts to their physical health, and wellbeing. They are also concerned about impacts on their ability to use and the value of their properties due to contamination of drinking water, groundwater, surface water and the environment more broadly.

Defence delivers a comprehensive program of stakeholder engagement with impacted landowners and the community. To date, Defence has conducted 184 community information sessions, with 48 of these information sessions for NSW communities. Defence invites NSW EPA, Department of Primary Industries and NSW Health to contribute and attend each event to provide an opportunity for community members to speak with government representatives.

Defence has a phone line and a PFAS-specific email address for community members to speak with and receive information directly from Defence representatives. The Defence website is regularly updated with the latest program information.

Defence is committed to supporting First Nations communities impacted by PFAS contamination from Defence bases. Defence is improving engagement with First Nations communities to focus on specific Indigenous communities and the potential impacts of PFAS contamination on those communities.

Coordinating an effective regulatory and management response to PFAS across government

Defence applies national and NSW state guidelines to understand and respond to PFAS contamination from Defence sites within NSW where PFAS has migrated beyond the site boundary. This includes working closely with the NSW Government, NSW EPA and local councils.

Defence engages with state authorities such as the NSW EPA to manage exposure risks presented by PFAS. This has developed into a strong working relationship where PFAS management actions and monitoring results are regularly discussed.

For RAAF Base Williamtown, Defence is working with the NSW Government to assess whether the NSW EPA determined PFAS Management Area and associated precautionary advice remains current. This includes discussions on what additional sampling may be required, and over what timeframe, to address any uncertainties. This work will support the community in understanding the current and future exposure risks presented by PFAS.

International best practice

The Strategic Environmental Research and Development Program (SERDP) is the United States (US) Department of Defense's environmental science and technology program. It operates as a collaborative initiative between the US Department of Defence, Department of Energy, and the Environmental Protection Agency. SERDP is systematically trialing technologies including Super Critical Water Oxidation and Hydrothermal Alkaline Treatment. Defence maintains a close working relationship with international agencies, including SERDP, to remain abreast of emerging technologies.

As a leader in actively remediating PFAS contaminated sites, Defence contributes to key international PFAS technical events and shares knowledge regarding its response to PFAS contamination. For example, at a NATO-hosted PFAS event in 2023 (52nd Applied Vehicle Technology Panel Business Meeting Week), Defence representatives presented on remediation of PFAS contaminated sites at Defence sites.

Areas for reform

There is an increasing focus on other non-Defence sources resulting in appreciable PFAS concentrations in the environment, such as from industrial sources, landfills, sewage treatment plants, and the application of bio-solids to agricultural land.

Government agencies across all levels of government are involved in responding to PFAS contamination. Defence actively seeks ways to collaborate with the NSW Government regarding its response to PFAS contamination. This includes work with the NSW EPA and regulators where PFAS are detected above guideline values in off base sampling. Defence meets regularly with local councils to provide program updates and to coordinate actions to manage PFAS risks.

It is clear that the impacts of PFAS contamination are beyond the remit of any single government entity to manage. Through recommendations of the PFAS Independent Review and the National Coordinating Body, Defence expects communities will receive clear, timely and consistent messages across all levels of government about the actions being taken to reduce their exposure risk to PFAS.

Over the last decade the Defence PFAS Investigation and Management Program has evolved and adapted to apply new approaches and to address changing policy and community expectations.

Defence welcomes any additional recommendations from this Inquiry that can enhance Defence and NSW Government coordination on the PFAS response and that will improve the availability of information to impacted communities.