



**Australian Government**  

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**Defence**

# **Senate Select Committee on PFAS (per and polyfluoroalkyl Substances)**

## **Department of Defence Submission**

**November 2024**

## Introduction

Defence welcomes the opportunity to provide a submission to the Senate Select Committee on PFAS (per- and poly-fluoroalkyl substances).

Since 2015, Defence has delivered the Defence PFAS Investigation and Management Program to manage risks associated with PFAS contamination on and around Defence properties resulting from the historic use of legal firefighting foams.

In this submission, Defence outlines the current Defence response and management approach to PFAS, relevant to the terms of reference and identifies potential areas of improvement for future management.

## The Defence PFAS Investigation and Management Program

Since the Defence Investigation and Management Program commenced in 2015 Defence has developed a comprehensive understanding of the potential sources of exposure to PFAS from the Defence estate and has collected a large dataset relevant to PFAS distribution and concentrations.

Detailed environmental investigations are now finalised at 28 sites across the Defence estate and remediation and management actions are underway (see [Attachment A](#) for sites).

Investigations have found that PFAS is mostly concentrated in areas where legacy firefighting foams (in use from the 1970s until Defence commenced transitioning away from 2004) were previously used, stored or disposed. These are called source areas. The PFAS in these locations can be found in soil and groundwater. In some instances, PFAS is distributed from these source areas via surface water transport (i.e. drainage lines and creeks) and/or groundwater flow (the water that moves through rock and soil).

Defence conducts site investigations, and human health and ecological risk assessments, in line with the National Environment Protection (Assessment of Site Contamination) Measure 1999 and the national PFAS National Environmental Management Plan. The investigations assess the nature and extent of PFAS contamination, and any associated human health and/or ecological risks. Defence uses the findings to address elevated risks to people and the environment identified in the investigation and risk assessments.

Since 2015, Defence has collected a significant data set from sampling on and off the Defence estate near its 28 sites. Data collected during investigations on PFAS contaminants in environmental media, including soil, groundwater and surface water and biota, is shared with relevant State and Territory environmental regulatory authorities. Where a resident has requested that property identification be kept private, this information is withheld. Defence maintains a Contaminated Sites Register that contains sampling data for identified contaminated sites across the Defence estate.

The PFAS Investigation and Management Program reports are publicly available on the Defence website <https://www.defence.gov.au/about/locations-property/pfas>

Defence continues to monitor PFAS, to track changes in where PFAS is found and at what concentrations. The Ongoing PFAS Monitoring Program allows Defence to monitor and manage exposure risks and provide regular updates to impacted communities.

## Addressing the health, environmental, social, cultural and economic impacts of PFAS.

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

In specific communities, there is concern that PFAS contamination has reduced property values, both actual and perceived. These concerns are ongoing despite the settlement of legal claims.

In addition to health impacts, First Nations people have concerns about the impact of PFAS contamination on areas of cultural significance and cultural practices, for example use of ochre or plants for smoking ceremonies.

Defence's priority is to manage, remediate and monitor PFAS contamination to mitigate the environmental impacts of PFAS contamination and reduce the pathways that might expose people to contamination, such as for example, the use of bores.

***Defence is mitigating the potential health impacts of PFAS for communities***

Since 2015, Defence has provided a range of support to PFAS-impacted communities, and provided funding to contribute to the whole-of-Australian Government response to PFAS contamination. Defence does this by providing drinking water where required, remediating to minimise the further movement of PFAS from Defence establishments, and by providing communities with timely and relevant information.

For instance, when PFAS was detected in groundwater bores used for drinking and domestic purposes at 28 properties within the RAAF Pearce management area, the Australian Government committed to connect properties in the management area to reticulated water. In the meantime, Defence provides residents with bottled water. A new pipeline to connect residents to reticulated water has now commenced design and construction by Civcon Civil and Project Management at a value of \$22 million and works anticipated to be complete by March 2026. Defence has funded the construction, operation and gifting of Water Treatment Plants at Katherine to the NT Power and Water. Defence has also connected 378 other properties to town water, paid water bills and provided bottled water for 869 properties for up to eight years from first detects at those properties.

***Defence is keeping communities informed and linking impacted community members to additional support.***

Defence acknowledges that the unknown nature of PFAS contamination can be unsettling and supports community members to access a range of available mental health support offered by the Department of Health and Aged Care, the Department of Veteran's Affairs for ADF members, Beyond Blue and 13Yarn.

Defence delivers a comprehensive program of stakeholder engagement with directly impacted landowners and key community members in all impacted communities.

Commencing at Oakey in 2012 through to the end of 2024, Defence has conducted 184 community information sessions to keep communities informed. Defence has dedicated phone and email addresses for community members to receive information directly from Defence representatives. Hotlines are directly managed by site teams for five sites, including RAAF Base Pearce, Swartz Barracks, RAAF Base Tindal, RAAF Base Williamtown and HMAS Creswell.

Defence also frequently offers ad hoc sampling of properties on request to provide assurance to concerned community members.

Defence participates in a regular NATO forum to discuss management of PFAS contamination associated with defence forces. Defence remains the only participating nation with a systematic engagement program for neighbouring communities impacted by PFAS.

Defence is committed to supporting First Nations communities impacted by PFAS contamination on and around Defence bases. To date this support has been specific to some bases, but Defence is seeking to improve engagement with First Nations communities more broadly.

*Wreck Bay: A case study of evolving Defence engagement with First Nation's communities.*

Since 2016, Defence has conducted six community consultation events for the Wreck Bay and Jervis Bay communities impacted by PFAS contamination migrating from the Jervis Bay Range Facility and HMAS *Creswell*. Precautionary advice is in place to protect the health of local residents. Mary Creek remains closed for all use. It is recommended that consumption of wild caught fish in other waterways be avoided.

In June 2024, Defence met with the Wreck Bay Aboriginal Community and committed to establish a genuine partnership to manage PFAS exposure risks. Defence will soon provide better access to plain English educational material and signage that can support community members to mitigate their PFAS exposure risks. Defence will offer regular, tailored updates on the results of PFAS monitoring and remediation, and conduct additional biota sampling of species that have cultural importance to the community. Defence will train local First Nations rangers to conduct ongoing sampling within Wreck Bay. Significant remediation works are scheduled to commence in early 2025 at Jervis Bay Range Facility and HMAS *Creswell*.

Defence has continued to engage with the community on the risks and has supported, for example finding alternatives sources of sediment to be used in cultural ceremonies.

***The Defence investment in the whole of government response to PFAS***

To date, Defence has invested \$807 million to manage, remediate and conduct research on PFAS contamination (not including the legal costs associated with action against the Commonwealth). The total cost includes approximately \$26 million in funding for 21 research and technology programs to support PFAS investigation and remediation activities. In 2017, Defence and the Department of Health and Aged Care provided \$12.5 million to establish a National Research Program to study the potential effects of PFAS exposure on human health. Since 2018, Defence and CSIRO have been working together on a PFAS research program. The outcomes of this research are applied to remediate and manage PFAS contamination at Defence bases, and to develop better processes for construction and maintenance work where PFAS is encountered.

The current Defence PFAS Investigation and Management Program has approved funding to 2026-27 for ongoing investigation, management and remediation.

***The costs of PFAS contamination***

Since 2020, Defence has settled five class actions across 11 communities adjacent to its sites totalling \$367.2 million (this amount does not include the Commonwealth's legal or other costs of the class actions). It has also handled over 413 non-litigated claims from local communities.

Any individual or business who considers they have suffered loss or damage as a consequence of Defence's activities involving PFAS can make a legal claim directly to Defence.

Defence accounts for the estimated cost of contamination remediation with legal and constructive obligations as liabilities in the Defence financial statements. The current reported Defence liability for the 2023-24 financial year is \$527.6 million for a range of known contaminants on the Defence estate. This figure does not account for the liability for the cost of PFAS management and remediation obligations.

**Coordinating an effective regulatory and management response to PFAS across government.**

Defence applies national and state guidelines to understand and to respond to PFAS contamination. This includes working closely with the states and territories and local governments where PFAS has migrated beyond the base boundary.

The PFAS National Environmental Management Plan (NEMP) establishes a practical basis for nationally consistent environmental guidance and standards for managing PFAS contamination. It was developed by all

Australian jurisdictions and New Zealand. Defence operates within NEMP guidelines. Version 3.0 of the NEMP is expected to be released in early 2025.

There is significant work underway across the Commonwealth and internationally that will inform the current health based guidance and the future response to PFAS.

The Australian Drinking Water Guidelines (ADWG) provide guidance on monitoring and managing drinking water quality. They indicate the amount of PFAS in drinking water a person can consume on a daily basis over a lifetime without any appreciable risks to health.

The National Health and Medical Research Council (NHMRC) has recently proposed lower drinking water guideline values for three types of PFAS and have introduced a new value for a fourth PFAS, also relevant to Defence. It is standard practice in PFAS environmental management to compare PFAS sampling results against the guidelines. Results inform management actions, including the supply of alternative water supplies for communities. If adopted, the guidelines, could have significant implications for Defence, including additional community precautionary actions (e.g. water supply), further investigations and risk assessments and adjusted remedial works programs (e.g. operation of water treatment plants).

Clear and consistent public messaging about proposed changes to guidelines is important, particularly on issues relating to the human health risks from PFAS.

Early consultation and coordination amongst agencies that develop and implement changes to guidelines, such as the proposed drinking water guidelines is important. Defence needs to understand the implications of changing guidelines for PFAS program delivery, including the potential, future costs.

Defence management of PFAS contamination will continue to be guided by the latest government advice, research and scientific evidence, including any finalised changes to the ADWG.

### **Enhanced national coordination supports integrated responses and communication**

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.

Ambient PFAS (sometimes known as 'background levels') refers to the widespread presence of PFAS in the environment. State and territory agencies have collected ambient data for some locations in Australia but this data largely relates to urban areas. Ambient PFAS is often without a known origin or source area. The proposal by the National Health and Medical Research Council to lower the Australian drinking water guidelines means that better knowledge of ambient PFAS concentrations is needed. Comparing PFAS sampling results with ambient concentrations will assist in developing plans to manage PFAS contamination.

Many different government agencies are involved in responding to PFAS contamination. Defence actively seeks ways to collaborate across the Commonwealth and jurisdictions in the delivery of the Defence PFAS Program. This includes work with the state and territory environment agencies and regulators where PFAS is detected above guideline values in off base sampling. Defence meets regularly with state, territory and local government agencies to provide program updates and to coordinate action to manage PFAS risks, particularly on bases where precautionary health advice applies in surrounding areas.

It is clear that the impacts of PFAS contamination are beyond the remit of any single government entity to manage. Enhanced national coordination could facilitate more integrated Commonwealth, state, territory and local government's responses to PFAS contamination and support coherent communication to the public.

Previous parliamentary inquiries into PFAS contamination have sought to improve national coordination in the PFAS response. A national approach would support government to understand and to manage PFAS, including the non-Defence sources of PFAS now widely identified in the Australian context.

The Commonwealth, states and territories, and local governments need to present clear and consistent messages to inform communities about the actions government is collectively taking to reduce their exposure risk to PFAS from all sources and exposure pathways.

### **Defence's role in the remediation of PFAS, including applying international best practice and ongoing research.**

From 2004, Defence commenced transitioning away from legacy firefighting foam containing PFAS. In 2018, Defence commenced an ongoing program to transition to fluorine-free foams. Defence firefighting vehicles transitioned to fluorine-free foams in 2020, becoming one of the first militaries to do so. Transitioning fire suppression systems in fixed infrastructure, including hangars and bulk fuel facilities, is the current focus for Australian Defence and militaries worldwide.

PFAS Management Area Plans for each of the 28 priority program sites set out the actions Defence is taking to manage and remediate PFAS contamination in the environment. They are available on the Defence website and are discussed at Community Information Sessions.

Defence's remediation response consists of a) management measures to reduce PFAS exposure risks to base personnel and surrounding communities and b) remedial works to minimise the continued movement of PFAS from Defence bases, so far as reasonably practicable.

Defence implements measures that are effective at managing PFAS exposure to impacted communities. Defence has treated or removed over 160,000 tonnes of contaminated soil. To date more than 200 properties have been supplied rainwater tanks, more than 150 have been provided bottled water and more than 378 properties have been connected to reticulated towns water. Defence works cooperatively with local regulators to provide advice (usually) regarding the consumption of home grown produce and locally caught fish that may be PFAS impacted.

There is a growing body of global evidence that PFAS are widespread in the environment and mostly at low concentrations.

Defence recognises that large areas impacted with PFAS are difficult to remediate in a meaningful timeframe due to limitations in the ability to recover or eliminate PFAS at scale from groundwater and surface water. Defences remedial works focus on addressing PFAS sources on bases such as former fire training areas, and managing significant contamination flow pathways (such as groundwater or stormwater drains) where it is reasonably practical to do so. This is an important step to contribute to the longer term reduction of PFAS in the broad areas surrounding PFAS impacted Defence sites. Remediation of source areas has commenced at eight Defence sites and works will commence at several others in 2025.

Given current available technologies, completely stopping the movement of PFAS from a base is not possible but Defence is leading globally in the scale of our remediation efforts.

Defence is engaging internationally to accelerate Defence's management of PFAS. The majority of scientific research into PFAS environmental behaviour and treatment technologies occurs outside Australia, with a significant program conducted by the US Department of Defense's SERDP and ESTCP Program. Defence's own research efforts are closely aligned with its needs for the management of PFAS on and from the Defence estate. Defence seeks to engage to understand the application of research and technology programs conducted by SERDP and ESCTP in the Australian context.

Defence contributes to key international PFAS technical events due to our expertise and experience, for example, at the 2023 NATO PFAS event, Australia was the only country asked to present on remediation.

Ongoing PFAS remediation and management actions on the Defence estate require long term funding that will need to be budgeted for in future base redevelopments and estate maintenance programs if Defence does not have specific, ongoing PFAS remediation program funding. e.g. for ongoing operation of water treatment plants.

## **Conclusion**

Defence notes that the Government is considering the PFAS Independent Review of land uses around key Defence bases that was delivered in April 2024. The Review's Terms of Reference overlap with some of the terms of this Inquiry and the Government response may propose areas of reform that this Inquiry may also consider.

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. This includes continued implementation of agreed recommendations from previous Inquiries.

Defence welcomes any additional recommendations from this Inquiry that can enhance national coordination on the PFAS response and that will improve the availability of accurate, up-to-date and credible information to impacted communities.

Attachment A

## Defence Investigation and Management Program – Site Summaries Table

NOTE: Routine sampling of surface water, groundwater, and sediment taken from on and off-base locations occurs at all sites.

SITE	REMEDIATION AND MANAGEMENT STATUS	COMMUNITY
<b>JERVIS BAY TERRITORY</b>		
<b>JERVIS BAY RANGE FACILITY</b>	<p>A permanent water treatment plant is expected to start construction in 2025, replacing the temporary plant.</p> <p>A temporary on base groundwater treatment plant has treated over 21 million litres of water.</p> <p>Remediation works, including soil excavations and contaminated water capture systems are scheduled to start in early 2025.</p>	<p>Nine community engagement sessions held, with the most recent in February 2023.</p> <p>Defence engages with Wreck Bay Aboriginal Community Council (WBACC) to keep them informed of the program works.</p> <p>Defence last met with WBACC in November 2024 at the Range Facility to discuss remediation works on site.</p>
<b>NEW SOUTH WALES</b>		
<b>BLAMEY BARRACKS</b>	Defence is aligning its PFAS remediation strategy with base redevelopment works to mitigate any potential planning and development conflicts.	Four community engagements held, with the most recent in April 2023.
<b>HMAS ALBATROSS</b>	Defence is aligning its PFAS remediation strategy with base redevelopment works to mitigate any potential planning and development conflicts.	<p>Seven community engagements held, with the most recent in November 2023.</p> <p>Defence engages with the Jerrinja community to keep them informed of program works.</p>
<b>HOLSWORTHY BARRACKS</b>	Defence is currently undertaking a mass flux study to better understand how much and how PFAS is leaving the base.	Five community engagements held, with the most recent in June 2020
<b>RAAF BASE RICHMOND</b>	<p>Soil remediation at former fire training ground complete.</p> <p>Additional soil remediation works are scheduled to commence in 2025.</p>	Eight community engagements held, with the most recent in August 2023.



SITE	REMEDIATION AND MANAGEMENT STATUS	COMMUNITY
<b>RAAF BASE WAGGA</b>	<p>In 2023 PFAS was detected below the health-based drinking water guidelines in two off base groundwater monitoring wells located near Riverina Water County Council's East Wagga borefield. Defence is working with stakeholders including the Riverina Water County Council, Wagga Wagga City Council, NSW Department of Planning and Environment and NSW EPA to ensure the integrity of the Wagga supply in connection with PFAS from Defence property.</p> <p>Soil and infrastructure remediation works commenced in 2024.</p>	<p>Eight community engagements held, with the most recent in April 2023.</p>
<b>RAAF BASE WILLIAMTOWN</b>	<p>Defence has completed a field trial of a passive barrier system at Lake Cochran to treat water flowing into Dawson's Drain. Defence is planning further groundwater and surface water remediation works.</p> <p>Aquatic biota (fish and prawn) sampling is undertaken biennially from Fullerton Cove.</p> <p>Three on-base groundwater treatment plants have treated over 5.5 billion litres of water. Over 14,300 tonnes of PFAS-contaminated soil has been excavated from the base and disposed off-site at licensed facilities.</p> <p>Defence has connected 342 properties to town water and installed rainwater tanks to 12 properties.</p> <p>Defence pays the water bills for 440 properties in the Management Area. In September 2023, water bill payment assistance was extended for an additional two years. Further extension of the payment assistance will be reviewed in 2025.</p>	<p>11 community engagement sessions held, with the most recent in October 2022.</p> <p>In 2022/2023 the Assistant Minister for Defence held a number of closed stakeholder sessions including representatives from Commonwealth, state and local government, and leading community members.</p> <p>The next community information session is December 2024.</p> <p>Defence engages with the Worimi community to keep them informed of program works.</p>
<b>SINGLETON MILITARY AREA</b>	<p>No active remediation activities planned. PFAS exposure risks to people are low, and managed through the ongoing monitoring program.</p>	<p>Four community engagements held, with the most recent in December 2021</p>
<b>NORTHERN TERRITORY</b>		

SITE	REMEDATION AND MANAGEMENT STATUS	COMMUNITY
<b>RAAF BASE TINDAL</b>	<p>Two groundwater treatment plants have been in operation since February 2019, to date treating more than 3.11 billion litres of PFAS contaminated groundwater.</p> <p>Soil remediation completed at fire station in 2023. Soil remediation at the fire training area completed in 2024.</p> <p>Installed 109 rainwater tanks to 83 properties with PFAS-impacted bore water above health-based guidance values. Defence funds the water top ups for these properties.</p> <p>In May 2024, a Defence funded water treatment plant commissioned, securing the long-term water supply for Katherine. Replaced an interim water treatment plant operating since 2017.</p>	<p>13 community engagements held, with the most recent in October 2024. Defence engages with the indigenous organisations to keep them informed of program works.</p> <p>Defence engages with several First Nations organisations to keep them informed of program works. The last meeting was held with the Jawoyn Association in 2023</p>
<b>RAAF BASE DARWIN</b>	<p>Soil remediation at former fuel farms and the current fire training area is underway.</p> <p>Soil remediation at the former fire training area and wrapped soil stockpiles completed in November 2023.</p>	<p>10 community engagements held, with the most recent in October 2024.</p> <p>Defence engages with the Larrakia Nation to keep them informed of program works. Defence last met with the Larrakia Nation CEO on Wednesday 6 November 2024.</p>
<b>ROBERTSON BARRACKS</b>	<p>No remediation activities planned. PFAS exposure risks to people are low, and managed through an ongoing monitoring program.</p> <p>Routine sampling of groundwater, surface water and aquatic animals taken from on and off base locations.</p>	<p>Five community engagements held, with the most recent in July 2018.</p> <p>Defence last with the Larrakia Nation CEO on Wednesday 6 November 2024.</p>
<b>QUEENSLAND</b>		
<b>HMAS CAIRNS</b>	<p>No remediation planned. PFAS exposure risks to people are low, and managed through an ongoing monitoring program.</p>	<p>Four community engagements held, with the most recent in August 2020.</p>
<b>LAVARACK BARRACKS</b>	<p>Soil remediation at the former fire station to commence in 2025.</p>	<p>Seven community engagements held, with the most recent in October 2023.</p>

SITE	REMEDIATION AND MANAGEMENT STATUS	COMMUNITY
<b>RAAF BASE AMBERLEY</b>	<p>Ongoing works to upgrade stormwater and wastewater infrastructure and to replace the sewage treatment plant.</p> <p>Two wastewater treatment plants are operating to treat run-off from the fire training pads. Remediation planning is underway for two other areas on the base.</p>	Six community engagements held, with the most recent in August 2024
<b>RAAF BASE TOWNSVILLE</b>	<p>Soil remediation completed at the former fire training ground in 2023.</p> <p>Soil remediation at the fuel farm and fire station commenced in 2024, and scheduled to be complete in 2025.</p>	<p>Seven community engagements held, with the most recent in October 2023.</p> <p>Defence and the Department of Infrastructure, Transport, Regional Development and the Arts will meet with First Nations stakeholders in December 2024 to discuss RAAF Base Townsville and the Townsville Airport.</p>
<b>SWARTZ BARRACKS</b>	<p>Remediation will commence at four source areas in 2025.</p> <p>Soil remediation works at the former fire training ground completed.</p> <p>A groundwater treatment plant on the eastern side of Swartz Barracks, (for the fire station) has treated around 300 million litres of contaminated groundwater to date.</p> <p>Defence funded the connection of 36 eligible properties to town water.</p> <p>Defence has installed and/or upgraded 42 rainwater tanks to 19 properties with PFAS-impacted bore water above health-based guidance values.</p> <p>Defence funds water top ups for 6 properties. Another 13 residents are eligible to request Defence-funded top ups during low rainfall.</p> <p>In September 2023 water top ups for Defence-funded rainwater tanks were extended for an additional two years (to a total of eight years).</p>	<p>Defence regularly meets with the Oakey irrigator community. The next meeting is 26 November 2024.</p> <p>15 community engagements held, with the next engagement on 27 November 2024.</p>

SITE	REMEDIATION AND MANAGEMENT STATUS	COMMUNITY
<b>WIDE BAY TRAINING AREA</b>	No remediation activities planned. PFAS exposure risks to people are low, and managed through an ongoing monitoring program.	Two community engagements held, with the most recent in September 2020.
<b>SOUTH AUSTRALIA</b>		
<b>RAAF BASE EDINBURGH</b>	<p>Final remediation works scheduled for quarter 1, 2025.</p> <p>Soil remediation works completed at 7 source areas in 2023. A groundwater treatment plant in 2019 remains operational and has treated over 231 million litres of contaminated groundwater.</p> <p>Although monitoring to date has not identified any changes to the risk profile for the community, the South Australian EPA has established precautionary measures to prevent bore access to shallow aquifers impacted by PFAS.</p>	<p>Six community engagements held, with the most recent in July 2019.</p> <p>Defence participation in SA EPA events relating to groundwater prohibition areas.</p>
<b>WESTERN AUSTRALIA</b>		
<b>RAAF BASE PEARCE</b>	<p>Soil remedial works at the grounds maintenance area complete, with soil remedial works at the fire station scheduled for 2025. This will complete soil remediation works for the base.</p> <p>Defence has awarded a contract to install a 19.78 kilometre pipeline to connect up to 205 eligible properties in West and South Bullsbrook with a reticulated water service.</p> <p>Works commenced in October 2024, scheduled for completion in March 2026. Approximately 650 metres of pipeline has already been installed.</p>	<p>14 community engagements held, with the most recent in October 2023.</p> <p>When eligible properties are connected to the pipeline, Defence will fund water usage and rates to connected properties for eight years. This is in line with water bill payment assistance Defence has provided for Williamstown, Swartz and Tindal.</p> <p>28 of the 205 properties currently have bores impacted by PFAS, with Defence providing bottled water to 27 impacted properties (one property declined).</p> <p>A further 93 properties are provided bottled water on a precautionary basis (this is available to residences within the management area upon request). This will continue until properties have access to reticulated water.</p>
<b>GIN GIN SATELLITE AIRFIELD</b>	No remediation activities planned. PFAS exposure risks to people are low, and managed through an ongoing monitoring program.	Three community engagements held, with the most recent in November 2018.

SITE	REMEDIATION AND MANAGEMENT STATUS	COMMUNITY
<b>HMAS STIRLING</b>	No remediation activities planned. PFAS exposure risks to people are low, and managed through an ongoing monitoring program.	Five community engagements held, with the most recent in October 2018.
<b>NAVAL COMMUNICATION STATION HAROLD E HOLT A &amp; B</b>	No remediation activities planned. PFAS exposure risks to people are low, and managed through an ongoing monitoring program.	Four community engagements held, with the most recent in May 2019.
<b>RAAF BASE LEARMONTH</b>	No remediation activities planned. PFAS exposure risks to people are low, and managed through an ongoing monitoring program.  No off-base properties provided with water. On-base community is supplied bottled water.	Four community engagements held, with the most recent in May 2019.
<b>VICTORIA</b>		
<b>RAAF BASE EAST SALE</b>	Soil remediation works completed in 2024, approximately 22,000 tonnes of PFAS impacted soil treated. Remediation planning for other locations is ongoing.	Six community engagement sessions held, with the most recent in August 2018.
<b>HMAS CERBERUS</b>	The site has transitioned to ongoing monitoring only  Soil remediation works completed in 2023, with approximately 32,000 tonnes of PFAS impacted soil managed (encapsulated in two containment cells).	Six community engagements held, with the most recent in June 2024.
<b>BANDIANA MILITARY AREA</b>	Developing a remediation strategy.  Defence is aligning its PFAS remediation strategy with base redevelopment works to mitigate any potential planning and development conflicts.	Five community engagement sessions held, with the most recent in June 2024.

SITE	REMEDIATION AND MANAGEMENT STATUS	COMMUNITY
RAAF BASE WILLIAMS - LAVERTON AND RAAF BASE POINT COOK	Defence is currently undertaking a mass flux assessment to inform if any remediation is required.	Four community engagements held, with the most recent in December 2021