



## RAAF Base Williamtown

Community update - December 2024

### Overview

Since remediation work began at RAAF Base Williamtown in 2016, more than 14,000 tonnes of PFAS contaminated soil has been excavated from source areas, and more than 5.2 billion litres of groundwater has been pumped and filtered (treated).

While it is not possible to remove all PFAS from the environment, recent sampling results indicate PFAS concentrations are decreasing on and around remediated source areas. Remediation efforts will continue to reduce PFAS moving from the base into the environment.

Information about the locations of the PFAS source areas and the three water catchments where remediation efforts are currently focused is outlined on the map on page 4 of this factsheet.

### Revised PFAS Management Area Plan

To evaluate the effectiveness of our approach to remediation, management and monitoring of PFAS, Defence engaged international and local remediation experts to independently undertake a Groundwater Strategy Review which included groundwater modelling.

The Groundwater Strategy Review found that more groundwater extraction off base and on the southern boundary would decrease the amount of PFAS leaving the base towards Fullerton Cove. In December 2023, a revised PFAS Management Area Plan was published to include the findings of the review.

Planning and delivery of the following new actions is underway:

- Groundwater extraction and treatment in the Western Region (on base), and Central Region (off base)
- Assessment of the former fire training pad within the Central Region

- Moors Drain catchment assessment within the Eastern Region to inform the design of the pumping and treatment system upgrade
- Investigation of PFAS discharge into Dawson's Drain.

### Remediation and management activities

PFAS leaves the base in surface water and via groundwater. Defence is currently planning new remediation activities with a key focus on further water treatment.

### Groundwater extraction systems

The extraction of groundwater for treatment remains a key remediation activity at RAAF Base Williamtown. Defence is currently relocating the groundwater extraction system in the Western Region, to the perimeter of the southern boundary of the base to capture PFAS contaminated groundwater before it crosses the base boundary. When operational, the system is expected to reduce the amount of PFAS leaving the base into the environment at this location by 90%.



**Relocated groundwater extraction wells on the southern base boundary**

Planning approvals are also underway to install groundwater extraction wells south of the base near Cabbage Tree Road. This system will target the PFAS contaminated groundwater within the Central Region and reduce PFAS discharging into Fullerton Cove. Extracted groundwater will be pumped back to the base for treatment.



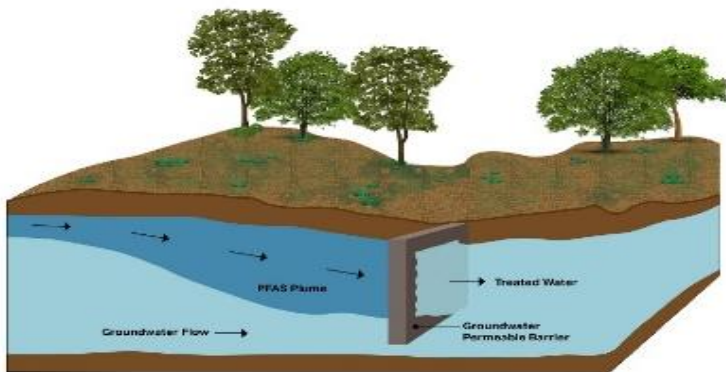
## Moors Drain water treatment plant

Defence continues to investigate PFAS in the surface water drainage network within the Eastern Region to determine how to best reduce PFAS discharges in Moors Drain.

Modifications to the existing plant are likely to be required. This may include treating discharges from the southern branch of Moors Drain in addition to the northern branch to further reduce PFAS leaving the base.

## Groundwater permeable reactive barrier trial

Defence will be trialing an underground permeable reactive barrier near the southern base boundary, south of Lake Cochran. It is anticipated that this system will remove PFAS from groundwater as it flows through it on the southern base boundary.



Example of a permeable reactive barrier being used within a groundwater table

## Lake Cochran and Dawson’s Drain

Defence has completed the passive barrier trial to treat surface water leaving Lake Cochran before it enters Dawson’s Drain. The trial successfully reduced PFAS concentrations in surface water through the granulated activated carbon system. This system will be left in place to continue to reduce PFAS discharges from Lake Cochran.

Additionally, Defence is progressing an investigation to further understand how PFAS is entering Dawson’s Drain. Once understood, remediation efforts can be targeted to further reduce PFAS leaving the base via Dawson’s Drain.

## 2024 Ongoing Monitoring Results

The table below shows the total number of samples collected in April 2024 and November 2024 on and around RAAF Base Williamtown.

Sample type	Number of samples
Groundwater	<b>200</b> samples collected from <b>136</b> locations on and off base, including residential bores
Surface water	<b>49</b> samples collected from <b>25</b> locations
Sediment	<b>52</b> samples collected from <b>26</b> locations
Fish and prawns	<b>12</b> samples collected from Fullerton Cove

## What were the key findings?

### Groundwater

PFAS concentrations were similar to previous results with the highest concentrations detected at or nearby PFAS source areas on the base. There are no changes to the precautionary advice issued by the NSW EPA.

Where remediation has occurred on the base, PFAS concentrations are beginning to stabilise or decrease.

### Surface water

PFAS concentrations were similar to previous results and there are no changes to the precautionary advice issued by the NSW EPA.

### Sediment

PFAS concentrations were similar to previous results, however some localised fluctuating results were observed.

### Fish and prawns

PFAS concentrations reported in fish and prawns were consistent with previous results. Precautionary advice remains in place.



## Precautionary advice

The NSW Environment Protection Authority (EPA) has issued precautionary advice for the area surrounding RAAF Base Williamtown.

For further information, please refer to the EPA website: [www.epa.nsw.gov.au/working-together/community-engagement/updates-on-issues/raaf-williamtown-contamination/williamtown-precautionary-advice](http://www.epa.nsw.gov.au/working-together/community-engagement/updates-on-issues/raaf-williamtown-contamination/williamtown-precautionary-advice)

## Continued community support

Defence continues to ensure eligible residents have a sustainable drinking water supply. Defence has provided the connection of 342 eligible properties to town water. Defence currently pays the water bills for these properties, and is committed to continuing this payment assistance until the specified date for each property. Defence will review the extension of this support next year.

To support the 12 eligible property owners that could not be connected to town water, Defence has provided rainwater tank upgrades and provides water top ups. Defence will review the extension of water tank support prior to the end of the eight-year period and keep property owners informed of any changes to the current arrangement.

## Local catchment flooding review

Defence undertook a review of flooding in the local catchment areas within Williamtown to identify measures to reduce the duration of ponded water during regional flood events.

The review included consultation with NSW Department of Planning Housing and Infrastructure (formerly the Department of Planning and Environment), Hunter Valley Flood Mitigation Scheme, Port Stephens Council, and local stakeholders.

Defence will continue to work with the community and other stakeholders to explore practical recommendations to better manage drainage and mitigate flooding in the Williamtown area.

## Next steps

Over the next 12 - 18 months, Defence will:



Commission the groundwater extraction system on the southern base boundary



Install groundwater extraction wells off base at Cabbage Tree Road



Procure the groundwater permeable reactive barrier trial



Optimise the Moors Drain water treatment plant



Continue monitoring on and around RAAF Base Williamtown, with the next sampling scheduled in May 2025.

Defence will continue to keep the community informed about the management and ongoing monitoring of PFAS on and around RAAF Base Williamtown.

## Looking for more information

Scan the QR code to find out more about Defence's PFAS Investigation and Management program at RAAF Base Williamtown or visit:



[www.defence.gov.au/about/locations-property/pfas/pfas-management-sites/raaf-base-williamtown](http://www.defence.gov.au/about/locations-property/pfas/pfas-management-sites/raaf-base-williamtown)

Alternatively, you can contact:



1800 333 362



[pfas.enquiry@defence.com.au](mailto:pfas.enquiry@defence.com.au)

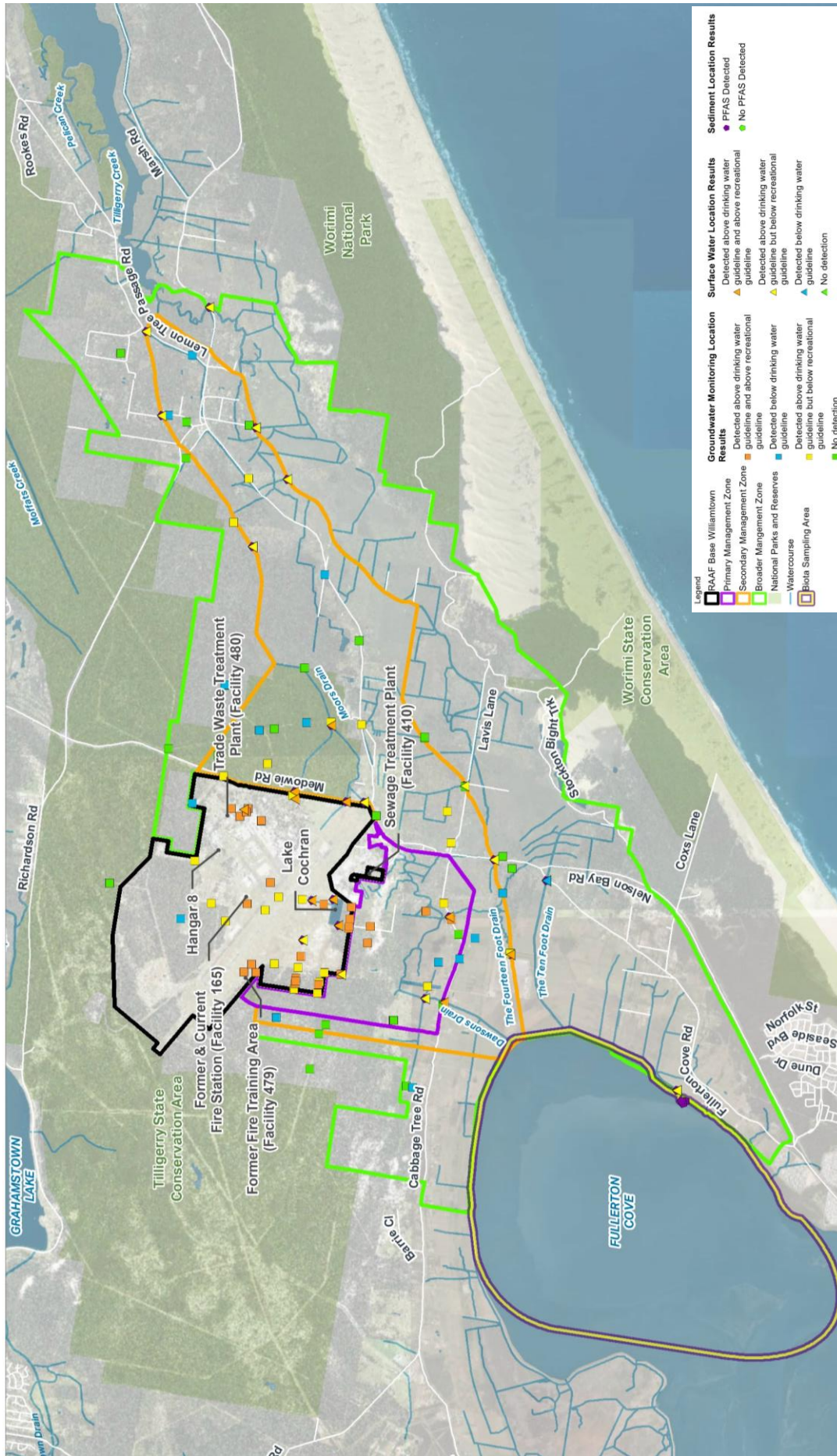
## Health enquiries

Health related enquiries should be directed to the Department of Health and Aged Care on 1800 941 180 or email: [health.pfas@health.gov.au](mailto:health.pfas@health.gov.au)

## Translating and Interpreting Service (TIS National)

For translation assistance, TIS National provides interpreting services 24 hours a day via telephone anywhere in Australia. For more information contact 131 450 or visit: [www.tisnational.gov.au/](http://www.tisnational.gov.au/)





RAAF Base Williamtown sampling results from April 2024 – September 2024