



Community Information Session

PFAS Investigation and Management Program

RAAF Base Richmond
PFAS Investigation and Management Program update
Tuesday 22 August 2023





Acknowledgement of Country

We would like to respectfully acknowledge the Dharug people, the traditional custodians of the land on which this meeting takes place, and also pay respect to Elders both past and present.

We would also like to pay our respects to the Indigenous men and women who have contributed to the defence of Australia in times of peace and war.





Welcome



Outline

- What are PFAS?
- Findings from the environmental investigation
- PFAS Management Area Plan
- Remediation progress update
- Ongoing Monitoring
- Next steps
- Questions

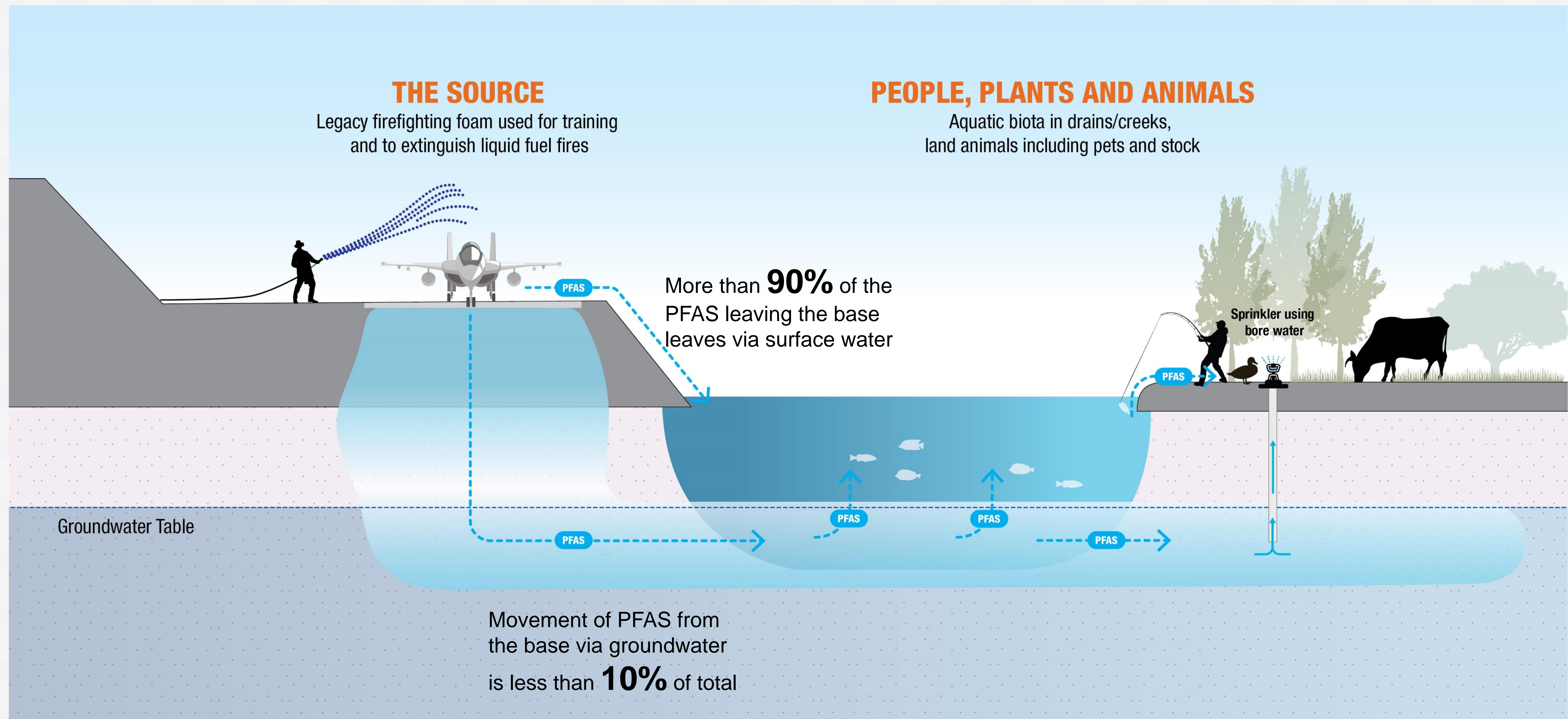


What are PFAS?





PFAS movement through the environment





Human Health Risk Assessment - November 2018

- Undertaken to understand potential exposure risks of PFAS to people.
- Key finding: Some exposure scenarios have potential for an increased risk of PFAS exposure.
- Residents should continue following NSW Government health advice.

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Findings from the Human Health Risk Assessment	
Scenario	Risk
Unintentionally ingesting, touching or inhaling dust, sediment or water	
Eating finfish from local waterways (e.g. Hawkesbury River)	
Eating home-grown fruit	
Eating home-grown vegetables	
Eating large amounts of home-grown eggs	
Eating large amounts of home-grown red meat	
Eating large amount of finfish from local waterways	
Eating large amounts of home-grown poultry	



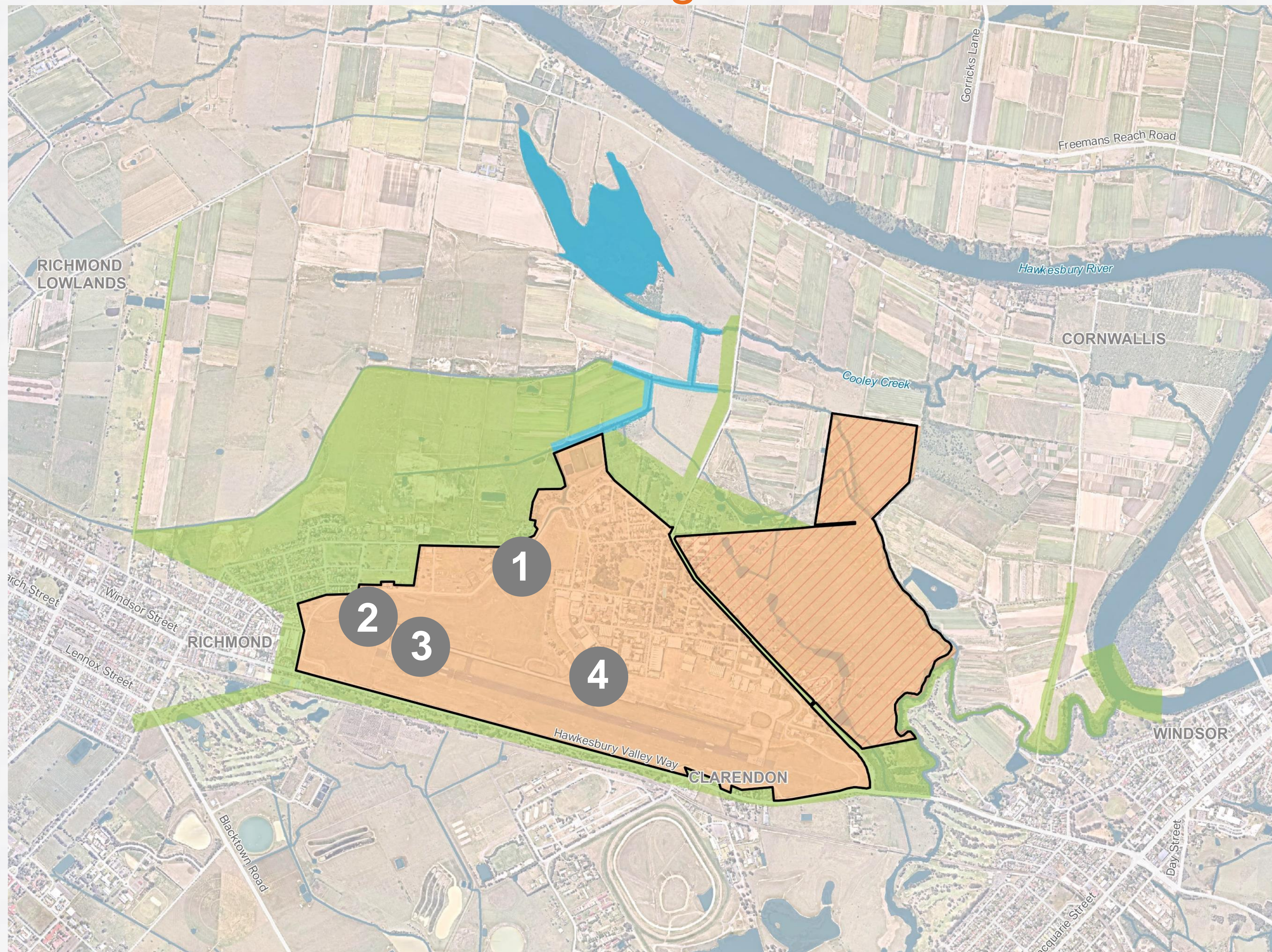
Low and acceptable risk



Potentially elevated exposure risk



RAAF Base Richmond Management Area



Legend

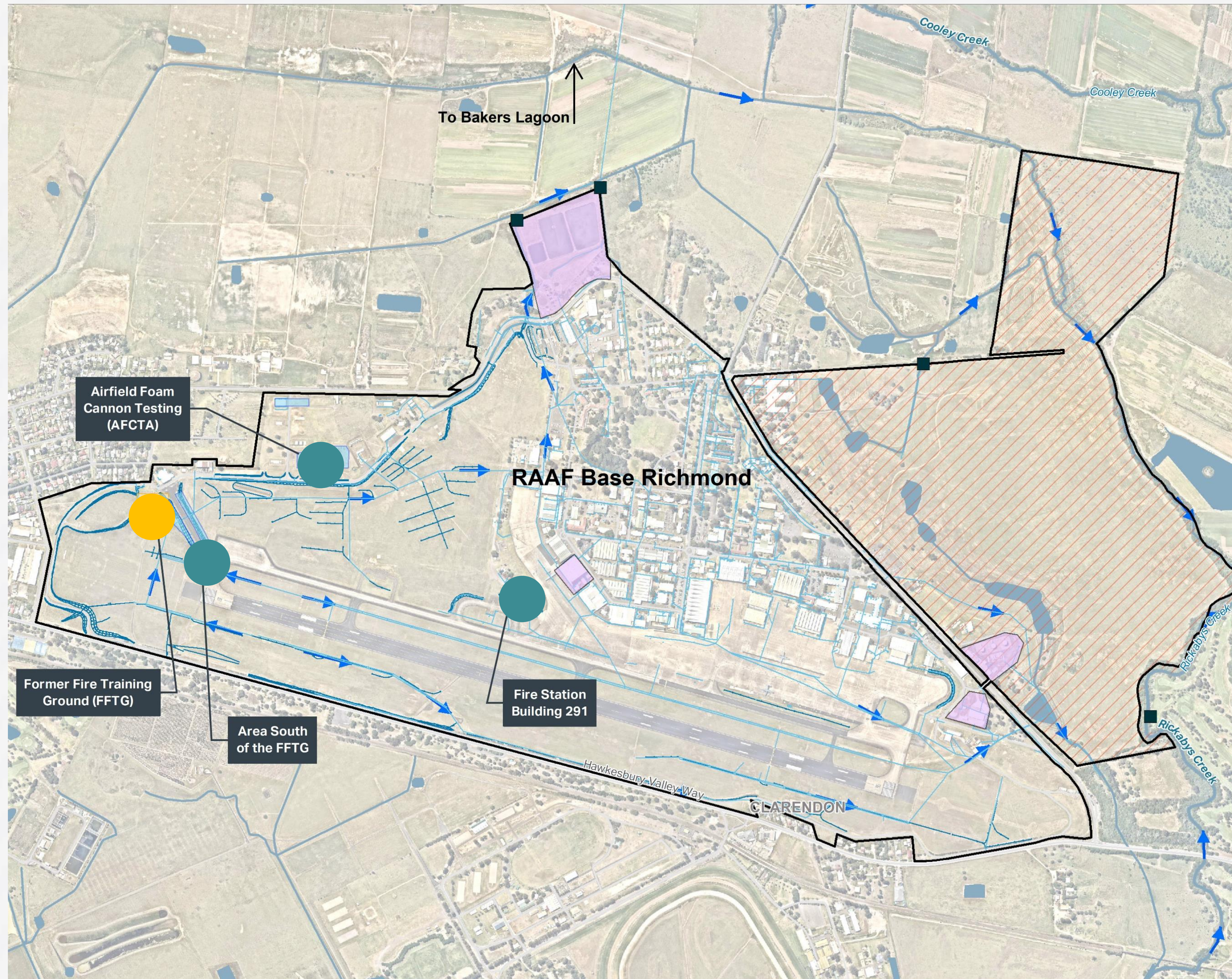
- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

ID Key PFAS Source Areas

- 1** Airfield foam cannon testing
- 2** Former fire training ground (FFTG)
- 3** Areas south of FFTG
- 4** Current fire station building



PFAS Management Area Plan recommendations



Legend

- Defence Site Boundary
- Rickabys Drop Zone
- Off-site Discharge Point
- Drainage Flow Direction
- Stormwater Line
- Drainage Swale/Line
- AFFF Testing Area
- Soil Remediation - completed
- Remediation planned



Completed remediation - former fire training ground

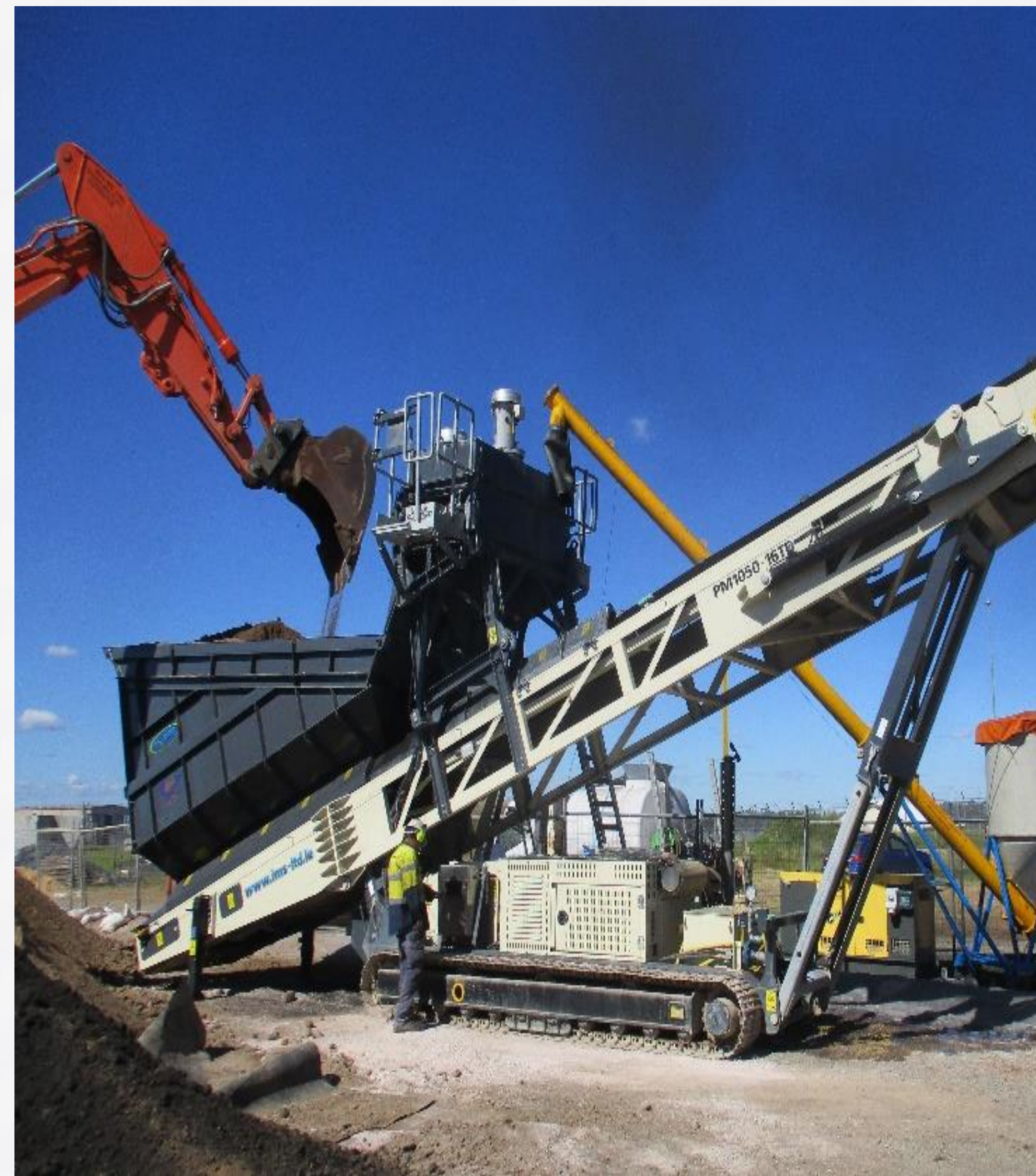
3,900 m³ of soil excavated for treatment off base.

Action

Clay liner placed in excavation pits above remaining PFAS contaminated soils.


Outcome

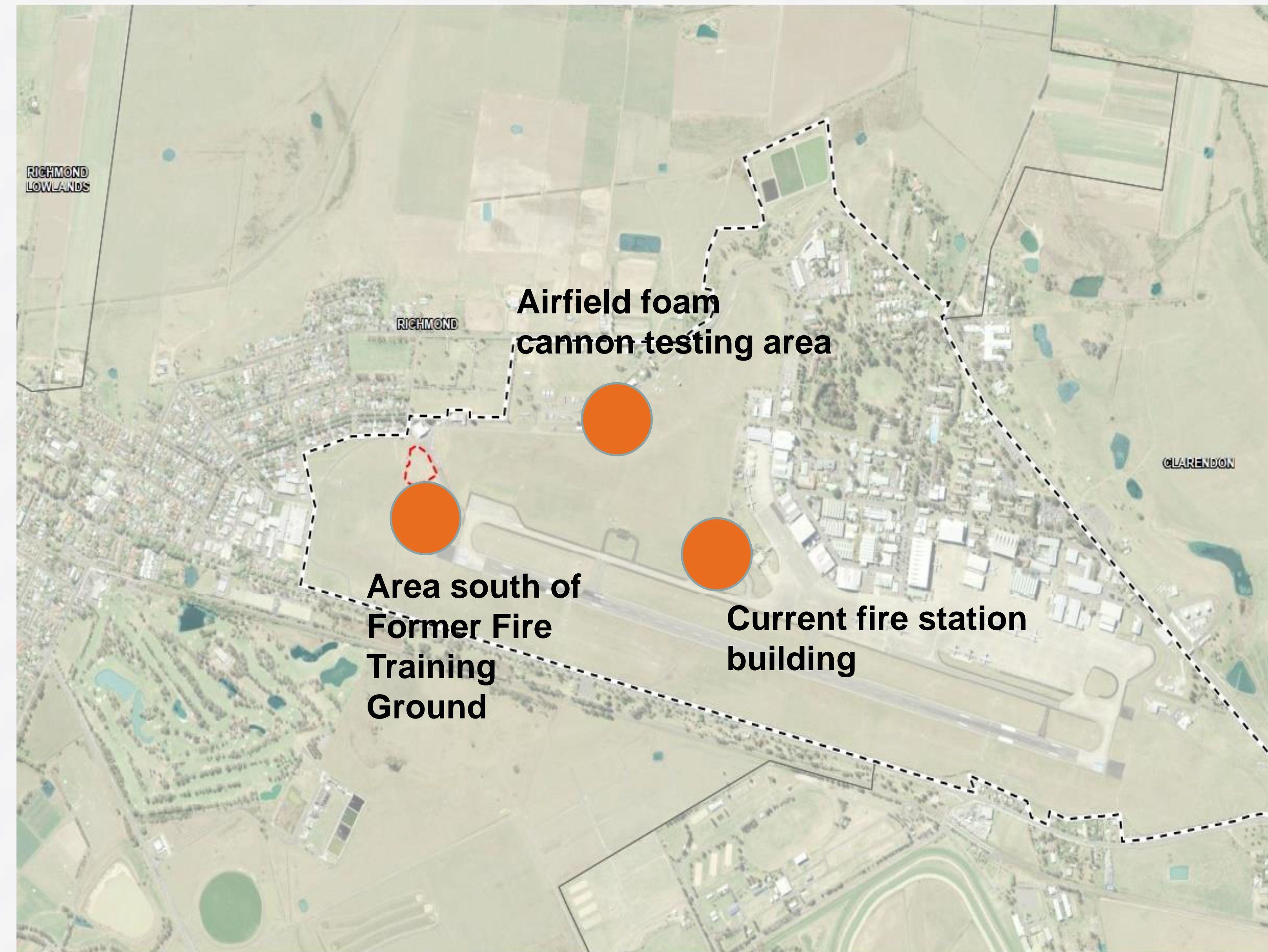
PFAS migration off site from this source area reduced by almost 99%.





Proposed further remediation

- 
- 2022** Remediation data gap analysis completed.
 - 2023** Targeted groundwater investigation.
 - 2023** Remediation Action Plan prepared for:
 - airfield foam cannon testing area
 - area south of the former fire training ground
 - current fire station building.
 - 2023** Remediation commences.





Proposed groundwater remediation

Testing of groundwater at the northern boundary reported a sudden increase in PFAS concentrations.



A further 20 groundwater wells were installed and soil samples were collected in the area to locate a possible source of the PFAS.



Heightened PFAS levels were found in shallow groundwater near the base boundary. This may have been the result from heavy and prolonged rainfall.



While the overall amount of PFAS moving through groundwater at the northern boundary is low, Defence will conduct some targeted groundwater remedial works in this area.



Proposed groundwater remediation map





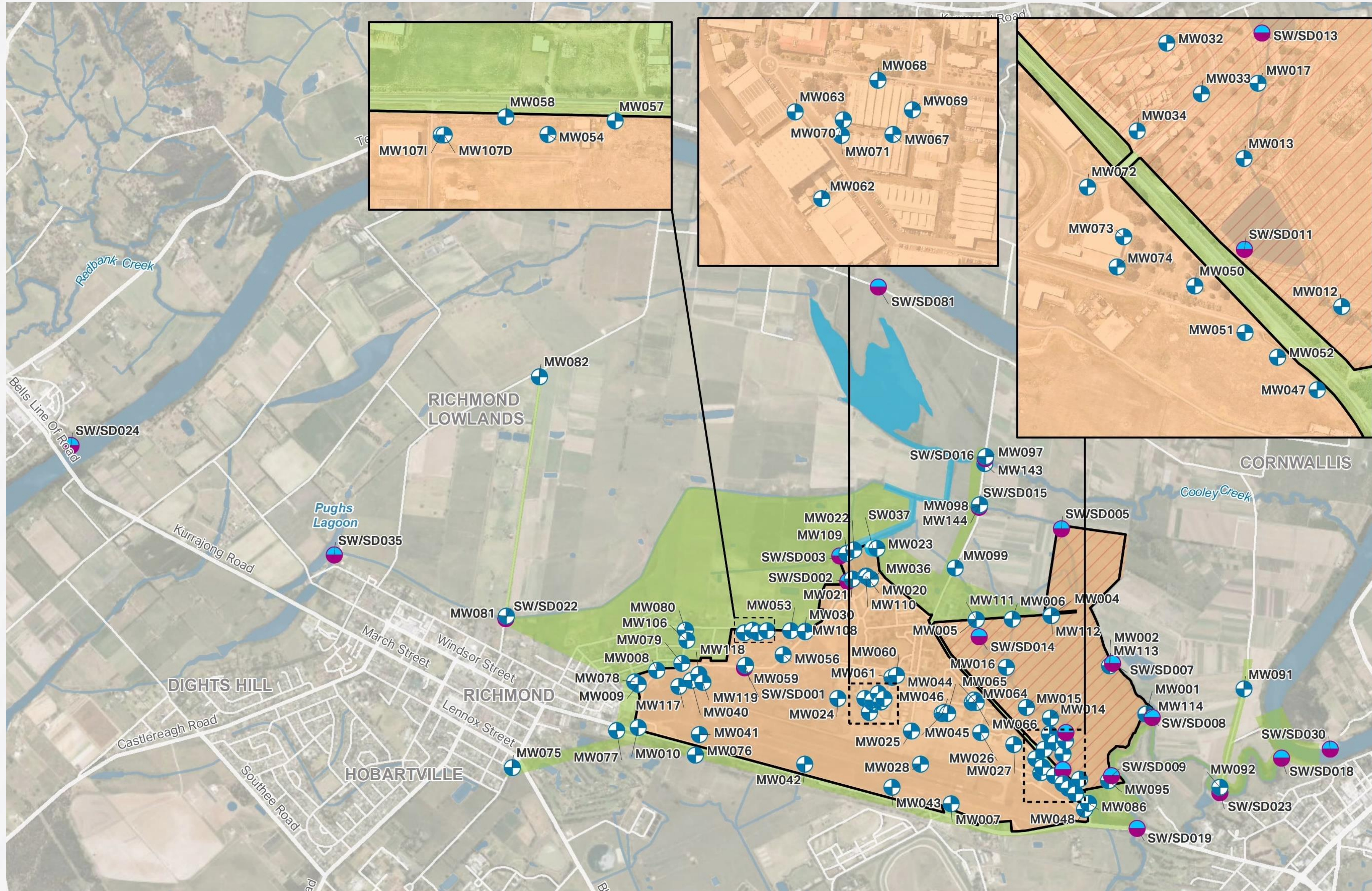
Remediation end point

2024

- Remediation works are expected to be completed in late 2024.
- An independent Technical Advisor will review the works and determine if Defence has completed all the works in the PMAP satisfactorily.
- Defence will continue monitoring and measure remedial works overtime to ensure the possible risks are being identified and managed.






Ongoing Monitoring Plan



- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Sample Location
- Surface Water Sample Location
- Collocated Surface Water and Sediment Sample Location



2023 Ongoing Monitoring Interpretive Report

Number of samples collected between 2021 and 2023	
Groundwater 	301 samples collected from groundwater monitoring wells.
Surface water 	88 samples collected from surface water.
Sediment 	61 samples collected from sediment.

Key findings:

- No change in risk profile
- Over 90% of PFAS moving across the base moves in surface water.
- Highest PFAS levels were found along the northern base boundary.
- Decrease in PFAS levels at the former fire training ground source area.
- PFAS in groundwater above historic levels were identified north of the base, between the Sewage Treatment Plant and Bakers Lagoon.
- PFAS in surface water and soil varied with some new detects and new maximum levels.





Next steps

Begin additional remediation works at key PFAS source areas.



Continue monitoring.

Investigate and remediate the area of higher PFAS in groundwater on the northern boundary.



Continue keeping the community updated.





Questions





Thank you

Contact us



Phone: 1800 333 362



Email: pfas.enquiry@defence.gov.au



Website: <https://www.defence.gov.au/about/locations-property/pfas/pfas-management-sites/raaf-base-richmond>

