



# Community Information Session

## PFAS Investigation and Management Program

**Bandiana Military Area**

PFAS Investigation and Management Program update

Tuesday 18 June 2024





## Acknowledgement of Country

We would like to acknowledge the Traditional Owners of the lands on which we are meeting today.

Defence acknowledges the Traditional Custodians of Country throughout Australia. Defence recognises their continuing connection to traditional lands and waters and would like to pay respect to their Elders both past and present.

Defence would also like to pay respect to the Aboriginal and Torres Strait Islander peoples who have contributed to the defence of Australia in times of peace and war.







## Outline



### About PFAS

- What are PFAS?
- How PFAS moves in the environment
- PFAS and health

### How Defence responds to PFAS contamination

- Led by science
- Investigation and planning
- Remediating and managing

### PFAS at Bandiana Military Area

- Initial investigations
- Remediation and management planning
- Groundwater, surface water and sediment monitoring
- Precautionary advice
- Next steps

### Questions





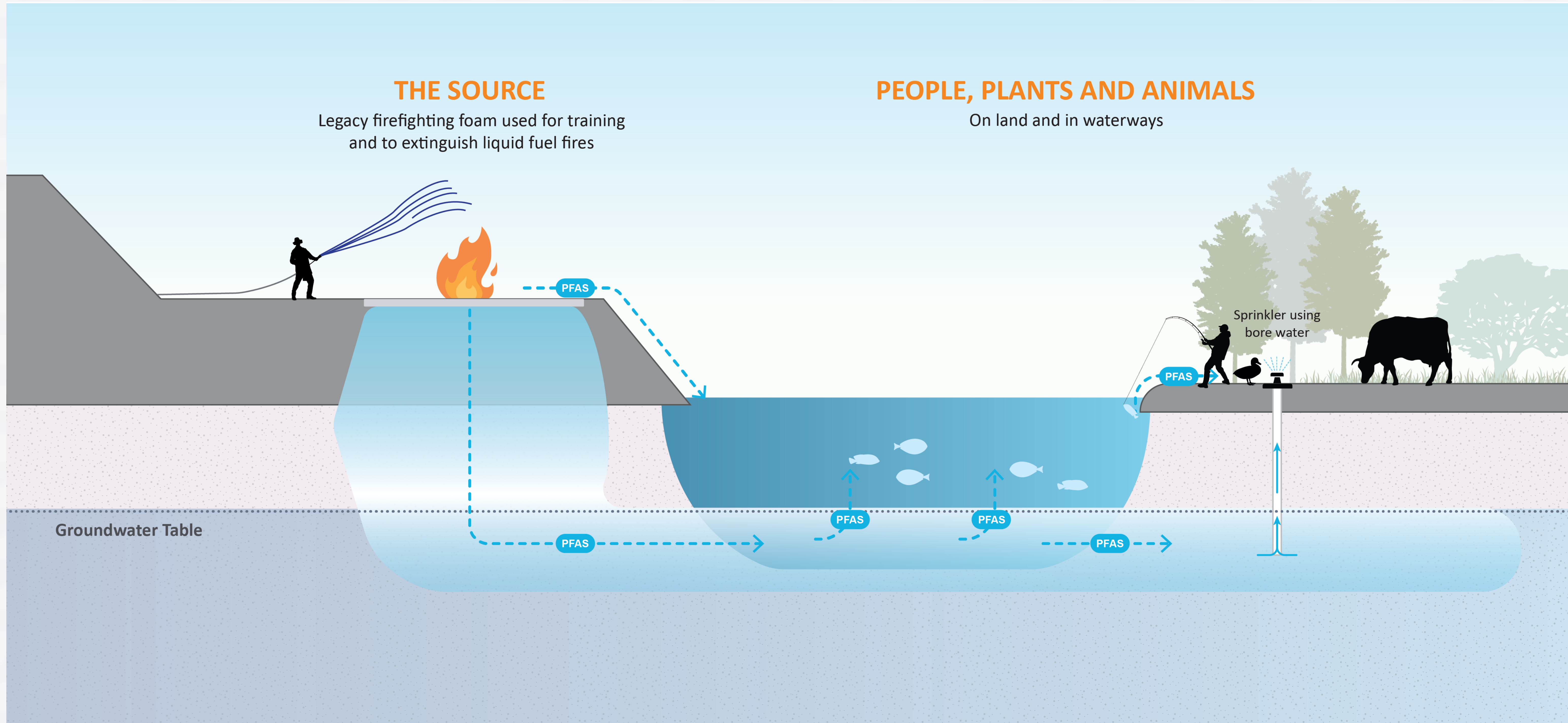
# About PFAS







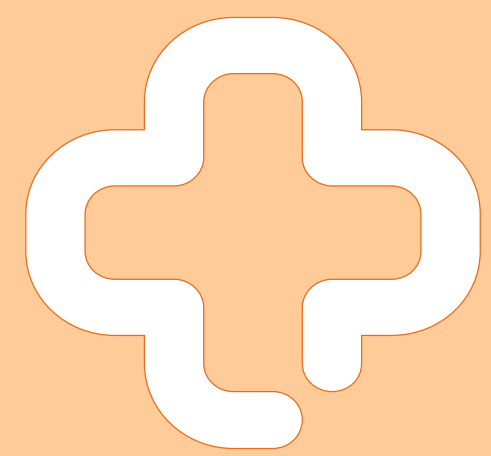
# How does PFAS move?





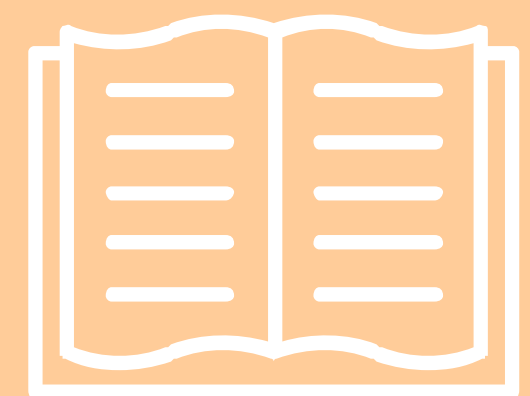


## PFAS and health



Defence relies on health guidance from the Department of Health and Aged Care, Food Standards Australia New Zealand and relevant state authorities.

The Commonwealth Government takes a precautionary approach and recommends PFAS exposure is minimised where possible.



Research on the health affects of PFAS undertaken in Australia and internationally is continuously evolving. Defence will respond accordingly as new guidelines and health advice become available.





## Responding to PFAS contamination – led by the science

- The PFAS Investigation and Management Program was established in 2015.
- PFAS science, technologies, and environmental management practices continue to evolve.
- Defence works with other agencies and industries in Australia and internationally to share knowledge and work together to ensure the most appropriate remediation techniques are used and to continuously improve our management approach.



Soil sample taken as part of the Defence and CSIRO collaborative research program.





## Health-based guidance values

**PFOS**

**PFOA**

**PFHxS**



Drinking water guideline



Recreational water guideline





## Our approach



### **Phase 1**

Investigating and planning



### **Phase 2**

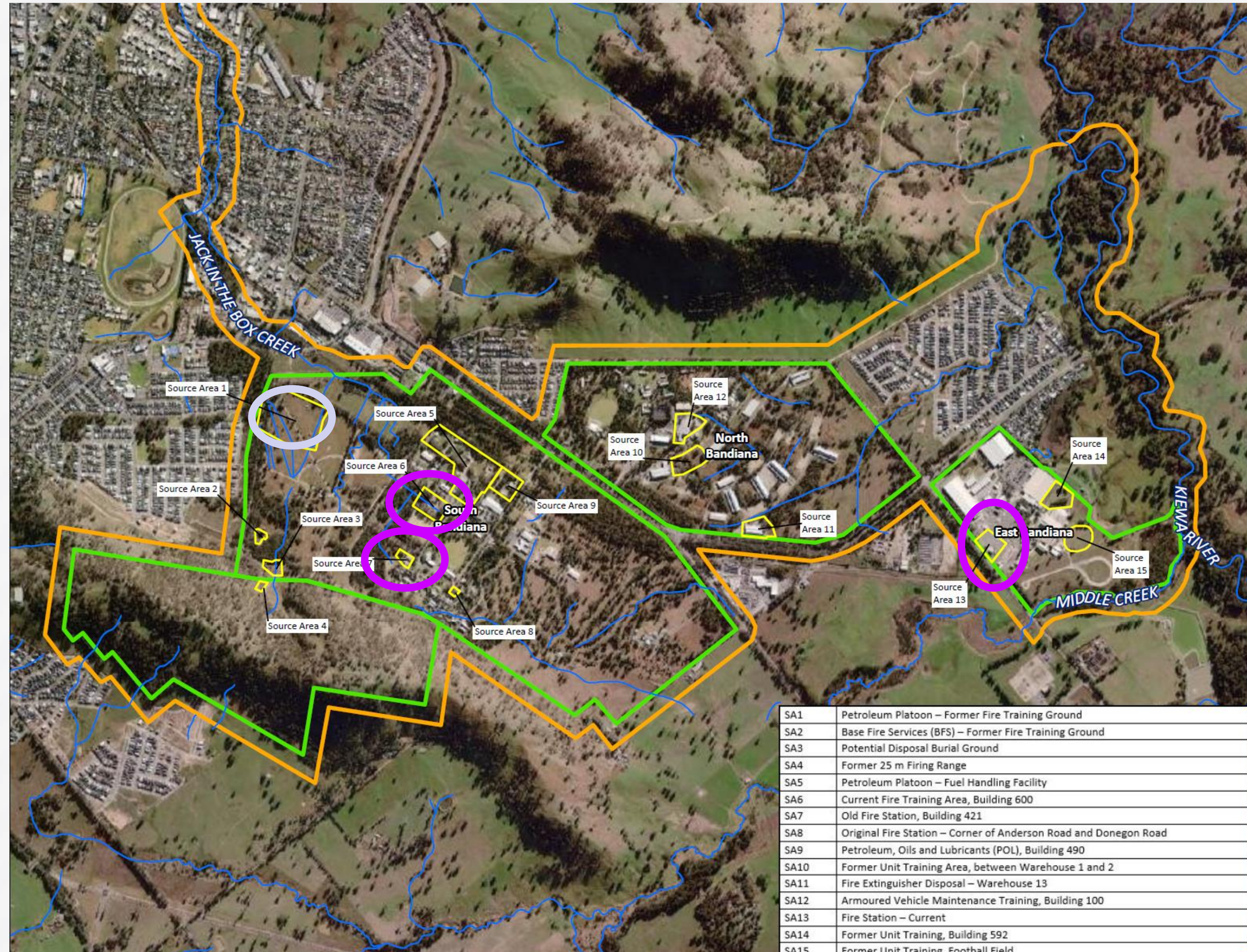
Remediating, managing and  
ongoing monitoring





## Initial investigations at Bandiana Military Area

- A detailed site investigation completed in 2018 identified 15 PFAS potential source areas across Bandiana Military Area.
- Human Health and Ecological Risk Assessment report completed in 2020.







## Management approach



### **Source controls**

Manage the source areas



### **Pathway controls**

Targets the paths by which PFAS leaves the base



### **Exposure controls**

Follow existing precautionary advice to reduce exposure





## Further investigations

- Further studies of key source areas to understand distribution and movement of PFAS.
- Aquifer studies across Wadsworth Barracks.



***Above: surface water monitoring equipment installed within an on base drainage channel..***

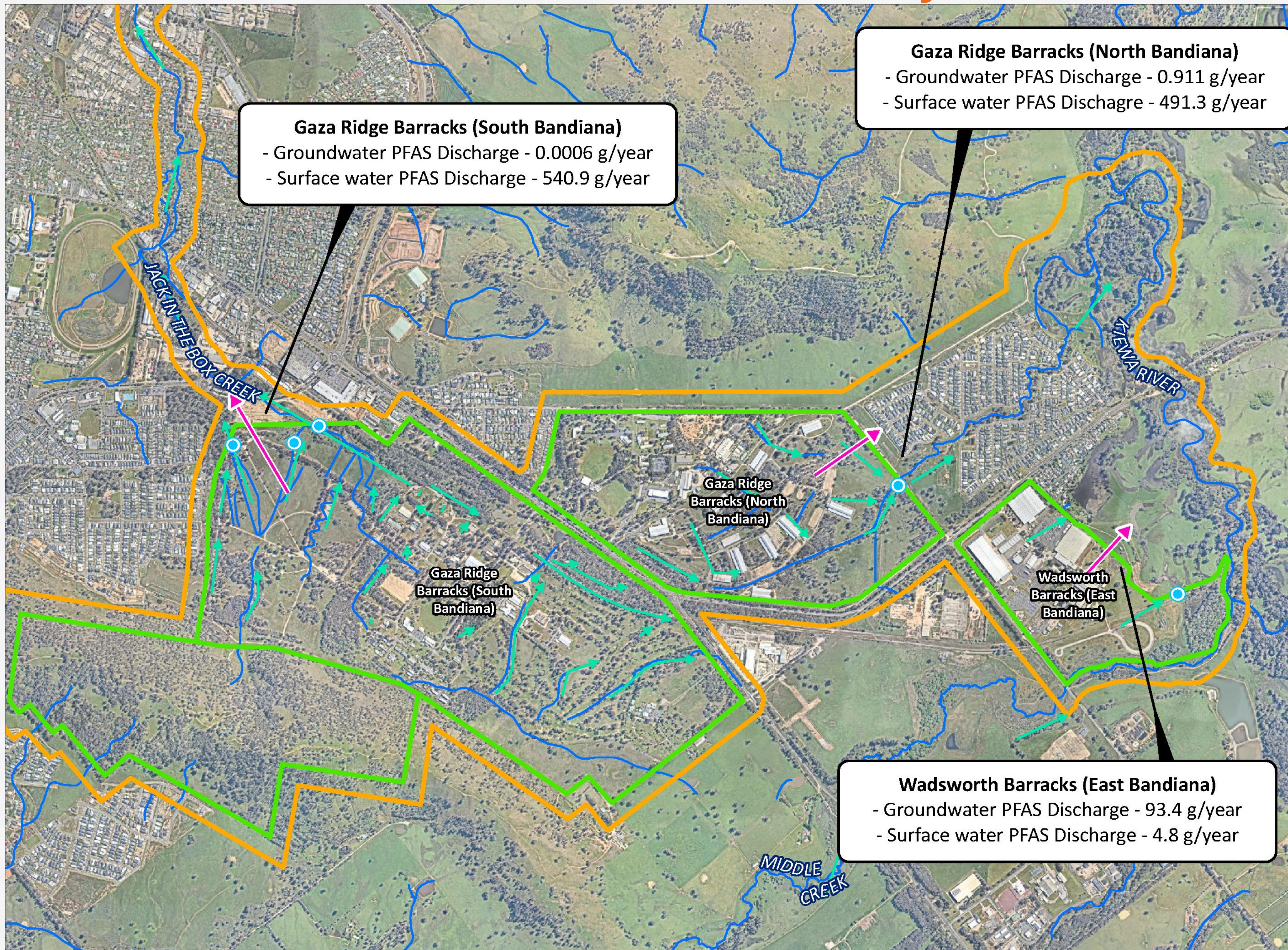


***Left: soil sampling undertaken as part of source area investigations.***





# PFAS movement at Bandiana Military Area



- Management Area
- Bandiana Military Area
- Groundwater Flow Direction
- Surface Water Flow Direction
- Watercourse
- Primary Surface Water Discharge Point





## Key source area remediation



***Above: Current fire station and base car park on Wadsworth Barracks (East Bandiana)***



***Above: Former fire training facility and surrounding area on Gaza Ridge Barracks (South Bandiana)***





## Remediation at Gaza Ridge Barracks

Soil will be excavated for stabilisation or thermal destruction off base.

**Action** →

Stabilisation involves mixing soil with activated carbon granules

**Outcome** →

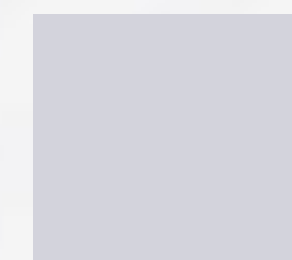
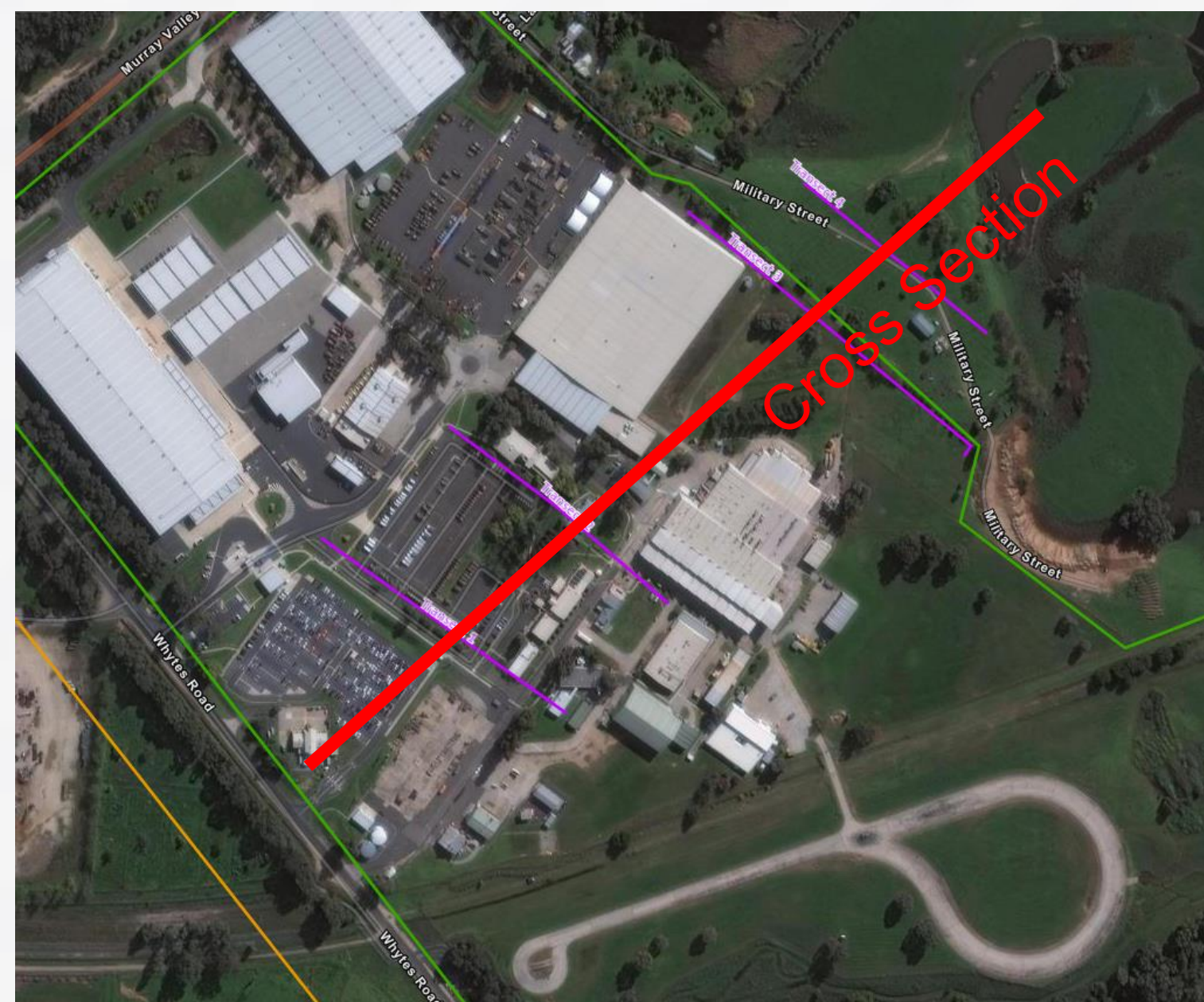
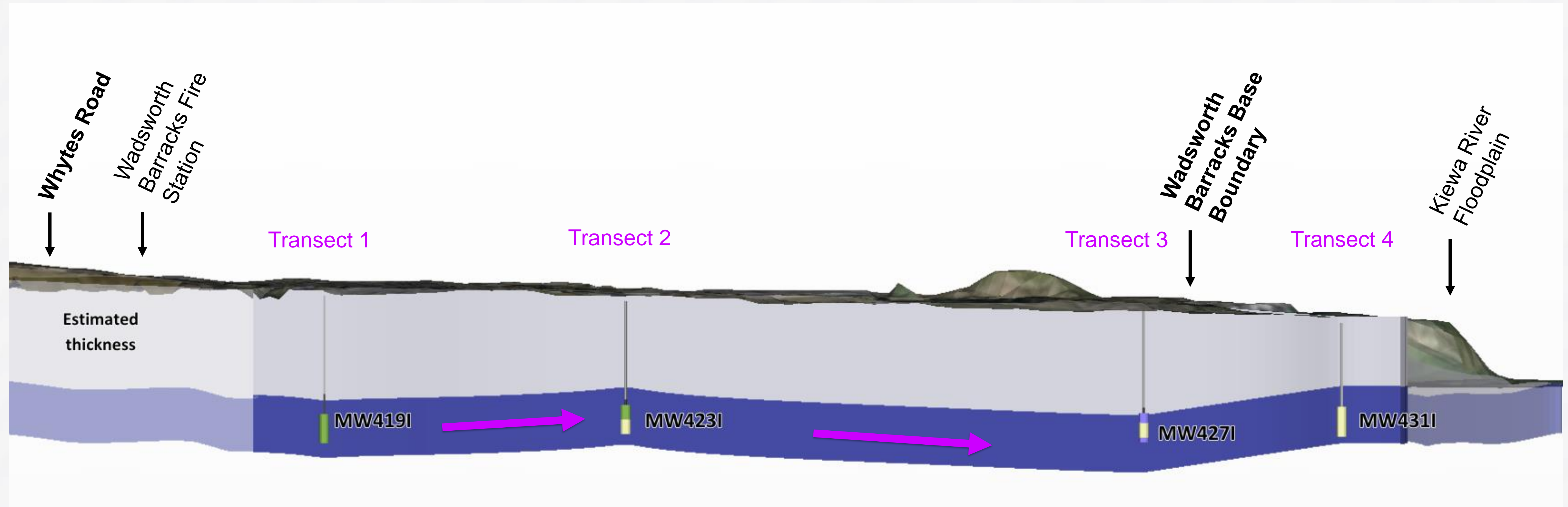
Stabilised soils may be reinstated – now PFAS cannot runoff these stabilised soils







# Remediation at Wadsworth Barracks



Soil



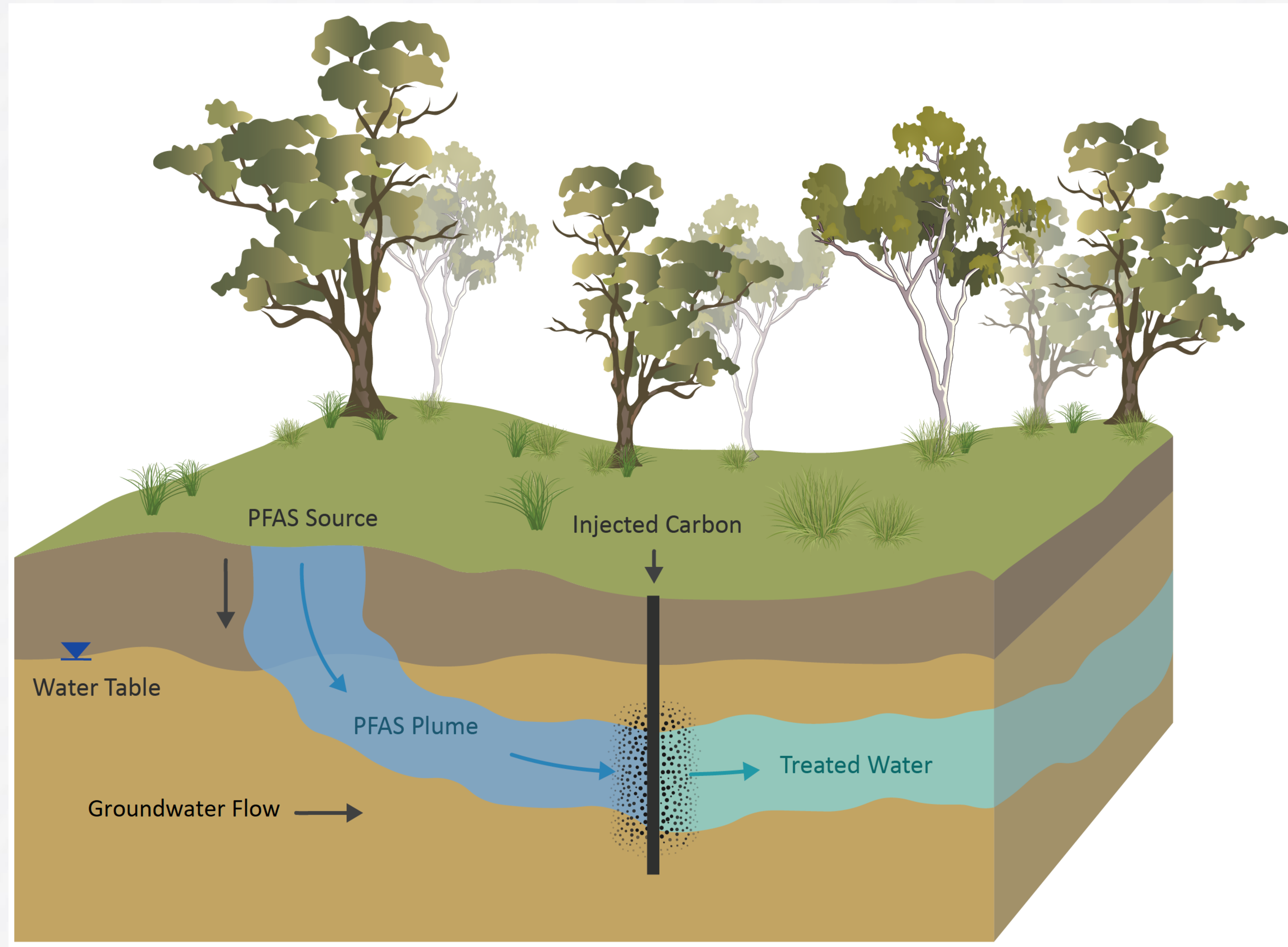
Sandy layer - main pathway for PFAS groundwater migration





## Remediation at Wadsworth Barracks

- Defence will install remedial measures to capture PFAS in groundwater at the base boundary of Wadsworth Barracks, east Bandiana.



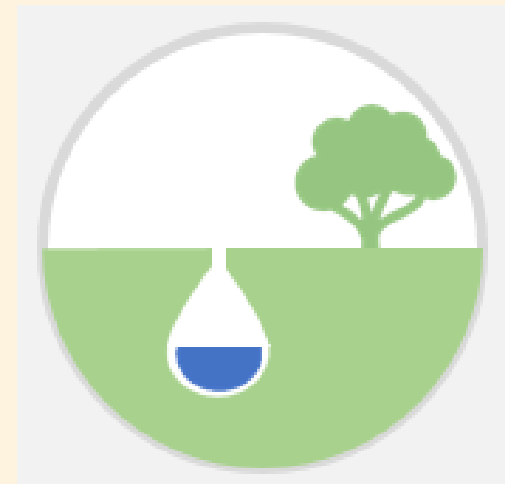




## Groundwater, surface water and sediment monitoring

### Number of samples collected from the May and October 2023 sampling

#### Groundwater



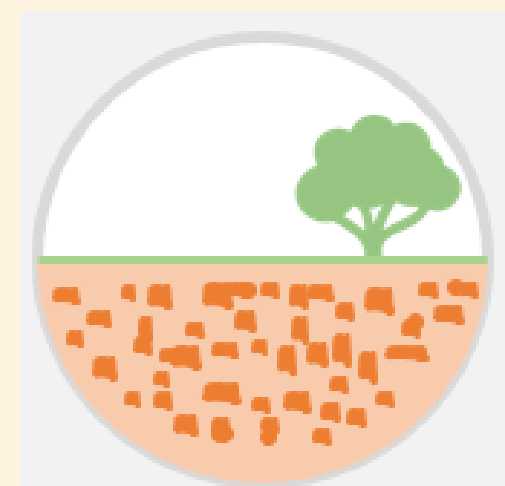
73 samples collected from groundwater monitoring locations.

#### Surface water



93 samples collected from surface water monitoring locations.

#### Sediment



12 samples collected from sediment monitoring locations.

### Key findings

- Highest PFAS concentrations were found on base and close to identified source areas.
- Five new groundwater maximum concentrations were identified - results linked to above average rainfall during the monitoring period.
- No significant changes identified in exposure at the base and within the management area.
- Risk profile to human health, plants and animals in the management area remains unchanged.





# Precautionary advice regarding carp consumption

EPA Victoria has issued precautionary advice regarding carp consumption from the Kiewa River.

**CAUTION**

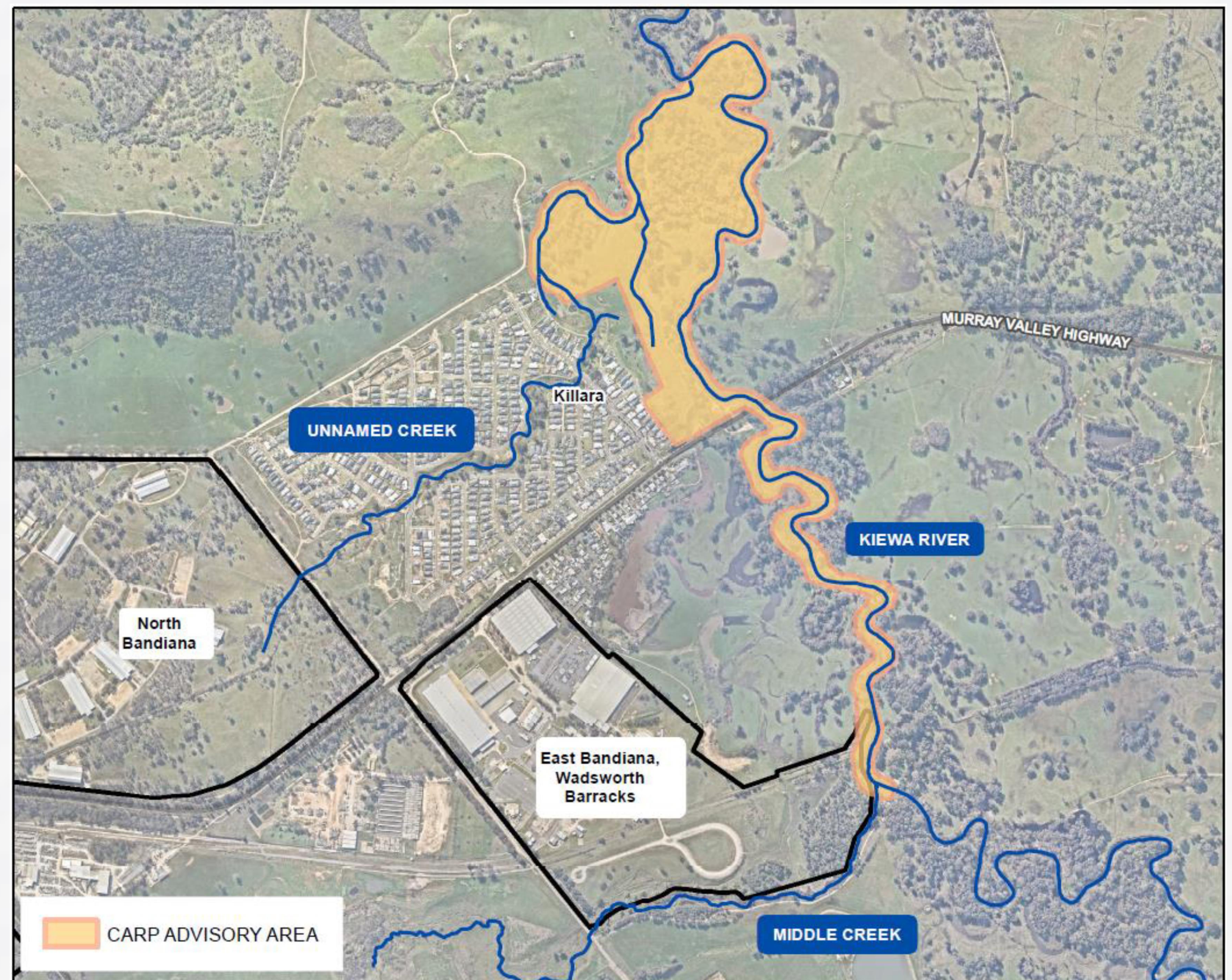
This area has been tested for PFAS contamination. EPA Victoria recommends you do not eat carp caught in this location.

**This advice is only relevant to carp and does not include other fish species.**



For further information, please contact  
[www.defence.gov.au/environment/pfas/Bandiana/](http://www.defence.gov.au/environment/pfas/Bandiana/) or  
phone 1800 531 615









## Next steps

Complete a remediation action plan to detail remediation and management specifications for the Bandiana Military Area.



Commence remediation of the key source areas.



Continue keeping the community informed.





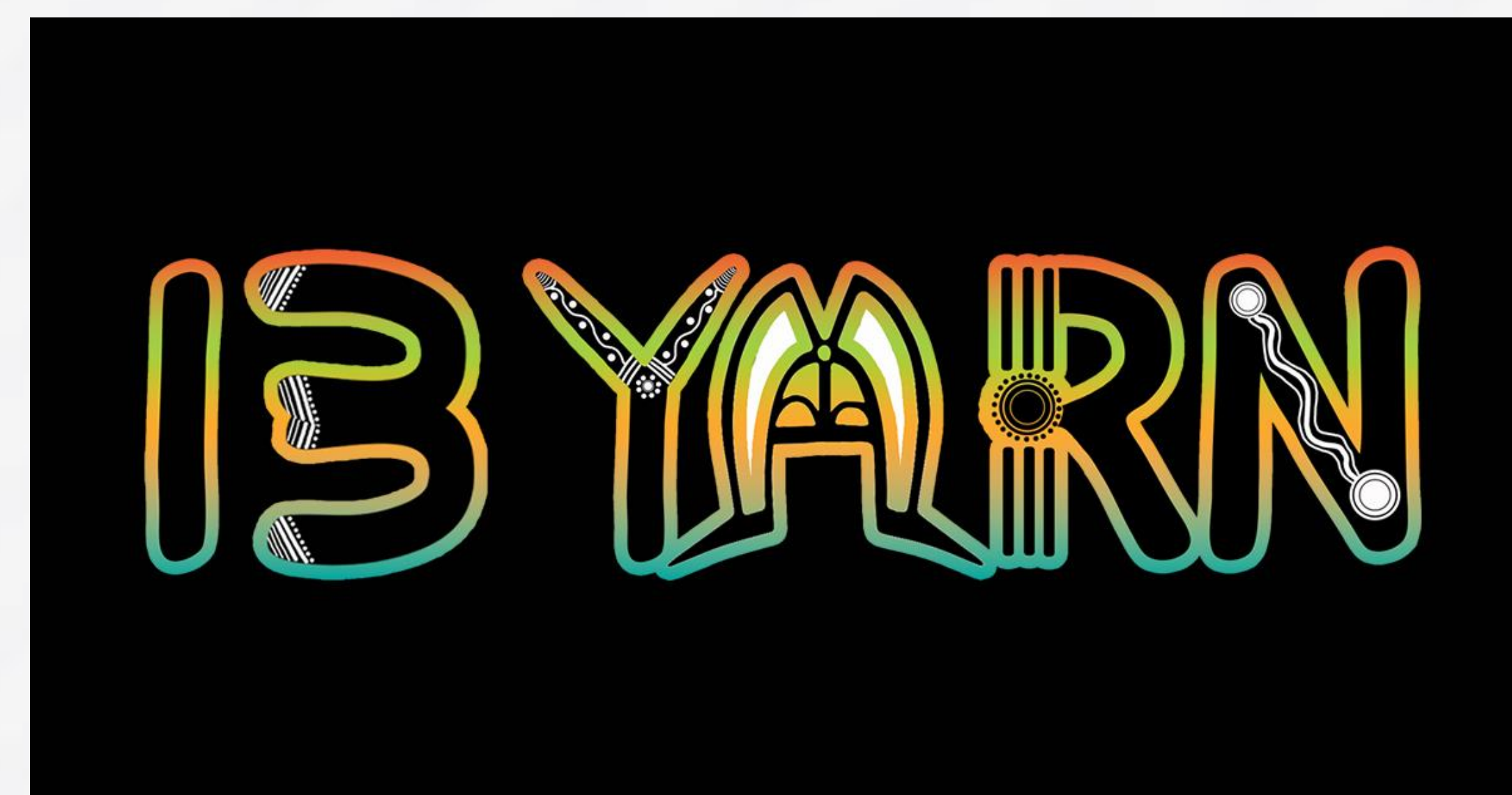


# Support



**Australian Government**

**Department of Health and Aged Care**







**Questions?**





## Contact us



**Phone:** 1800 333 362



**Email:** [pfas.enquiry@defence.gov.au](mailto:pfas.enquiry@defence.gov.au)



**Website:** [www.defence.gov.au/about/locations-property/pfas/pfas-management-sites/bandiana-military-area](http://www.defence.gov.au/about/locations-property/pfas/pfas-management-sites/bandiana-military-area)

