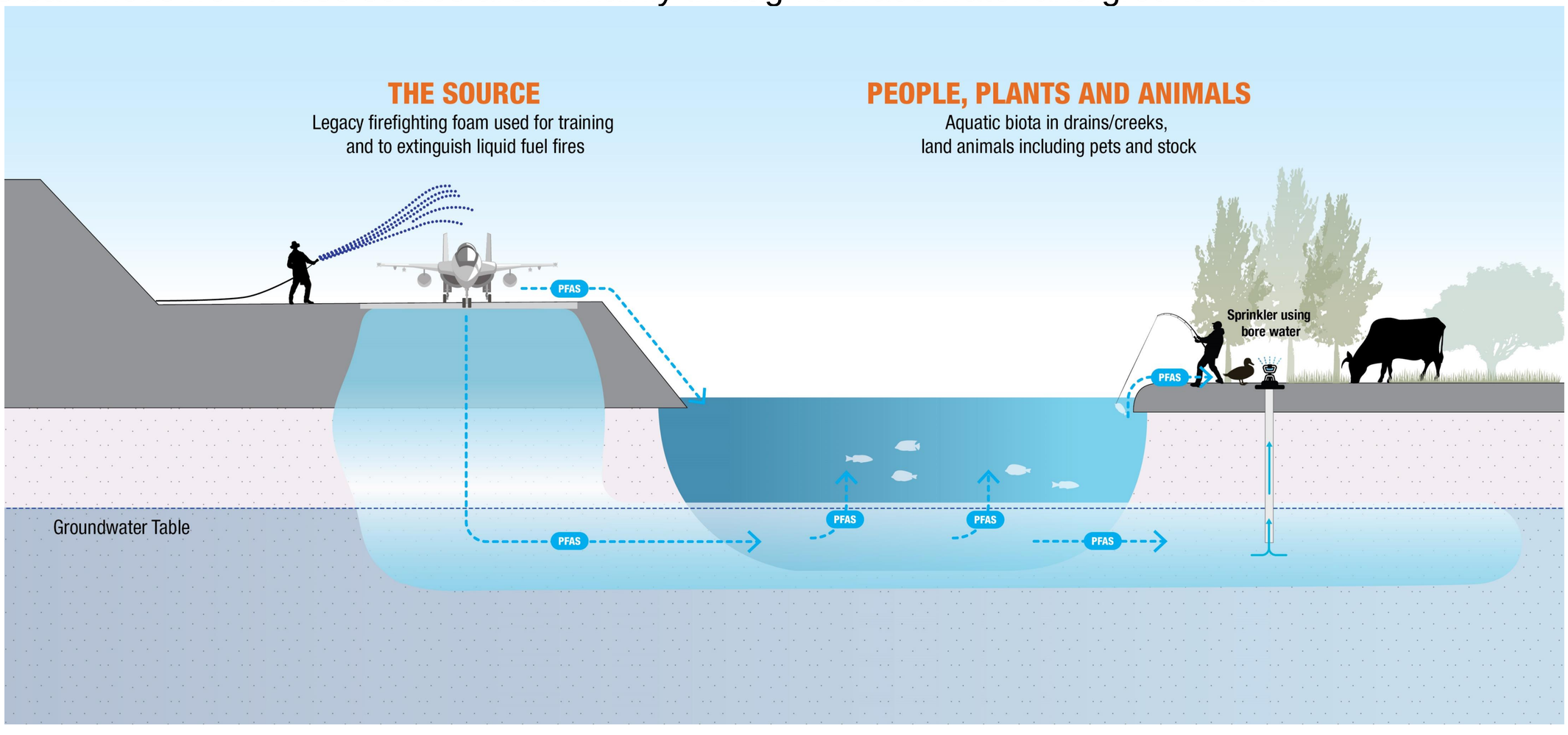
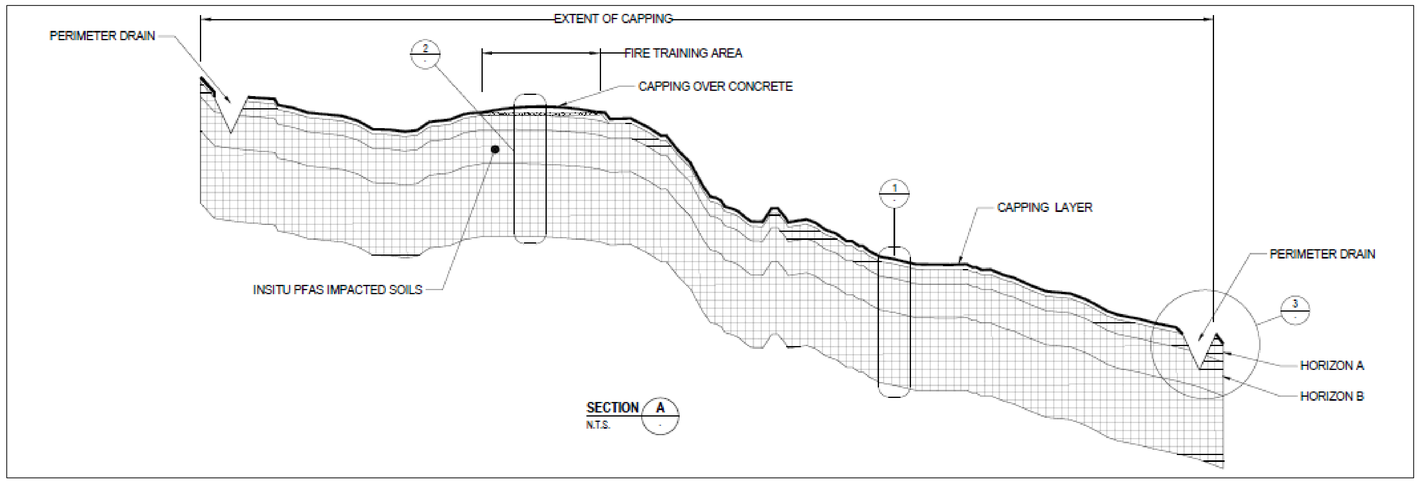
How does PFAS move through the environment?

Per- and poly-fluoroalkyl substances (PFAS) are found in soils and on the surface of areas where legacy firefighting foams containing PFAS were used or stored on base. These are commonly referred to as source areas.

PFAS can move from these source areas mainly through surface water and groundwater.



Remediation of the Former Fire Training Area



23,000 m^3 of soil containing 62 kg of PFAS within the source area.

Action

Multi-layer non-permeable cap will be installed over and beyond the source area.

Outcome

PFAS migration from this source area to be reduced to the extent practicable.

The site will be reshaped using cut and fill to:

- ✓ prevent pooling of water
- ✓ divert clean water away from the area
- ✓ remove the oil water separator for disposal at a licensed facility.

The engineered cap will prevent rainwater from picking up PFAS and is:

- ✓ suitable for managing large volumes of PFAS contaminated soil
- ✓ a sustainable option
- ✓ no soil is planned to be removed.

The remediation effectiveness:

- ✓ will be independently validated with oversight by a Technical Advisor, who will be a NSW EPA accredited auditor
- ✓ will be monitored as part of the ongoing monitoring program.

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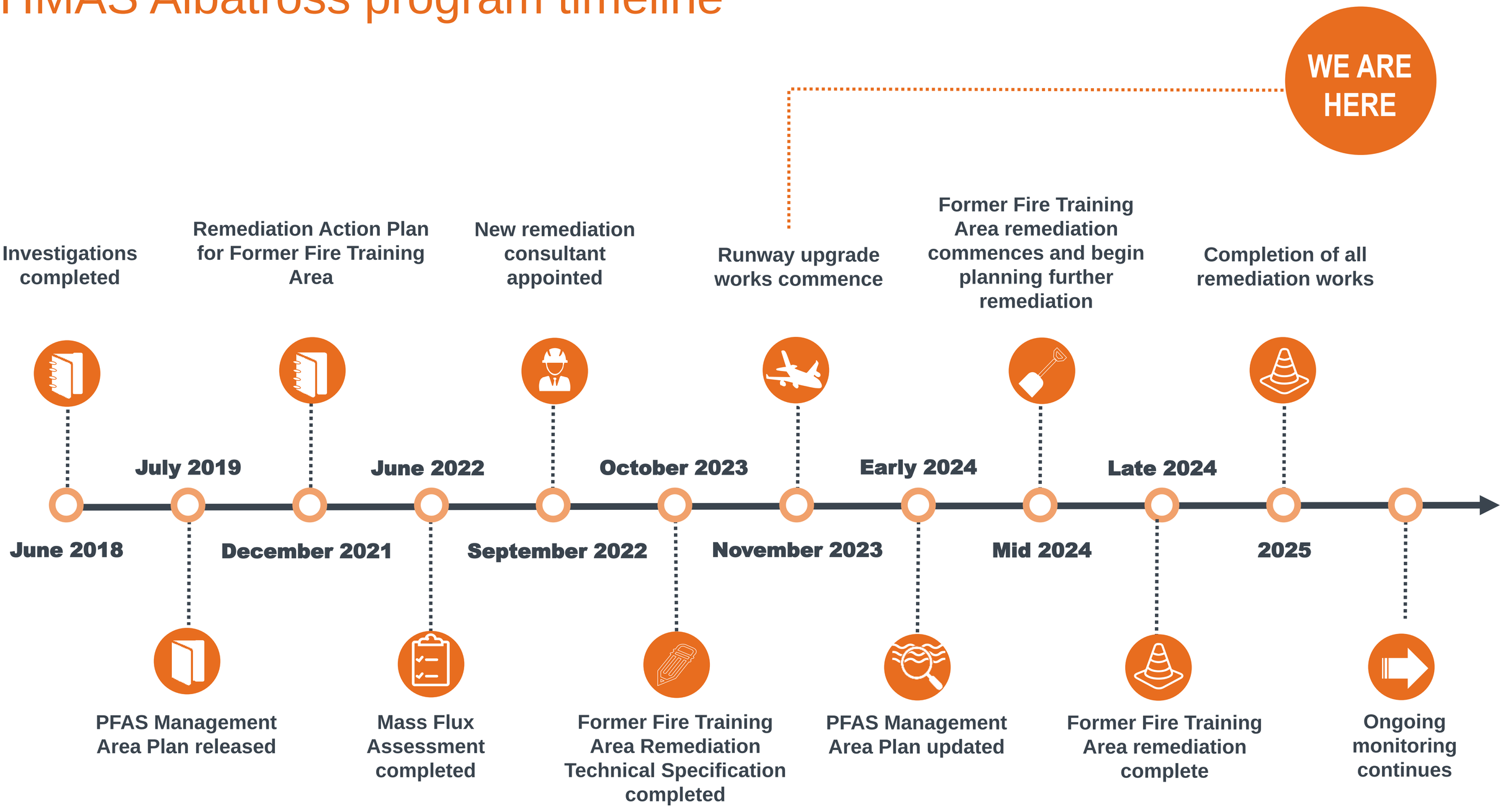
HMAS Albatross program timeline



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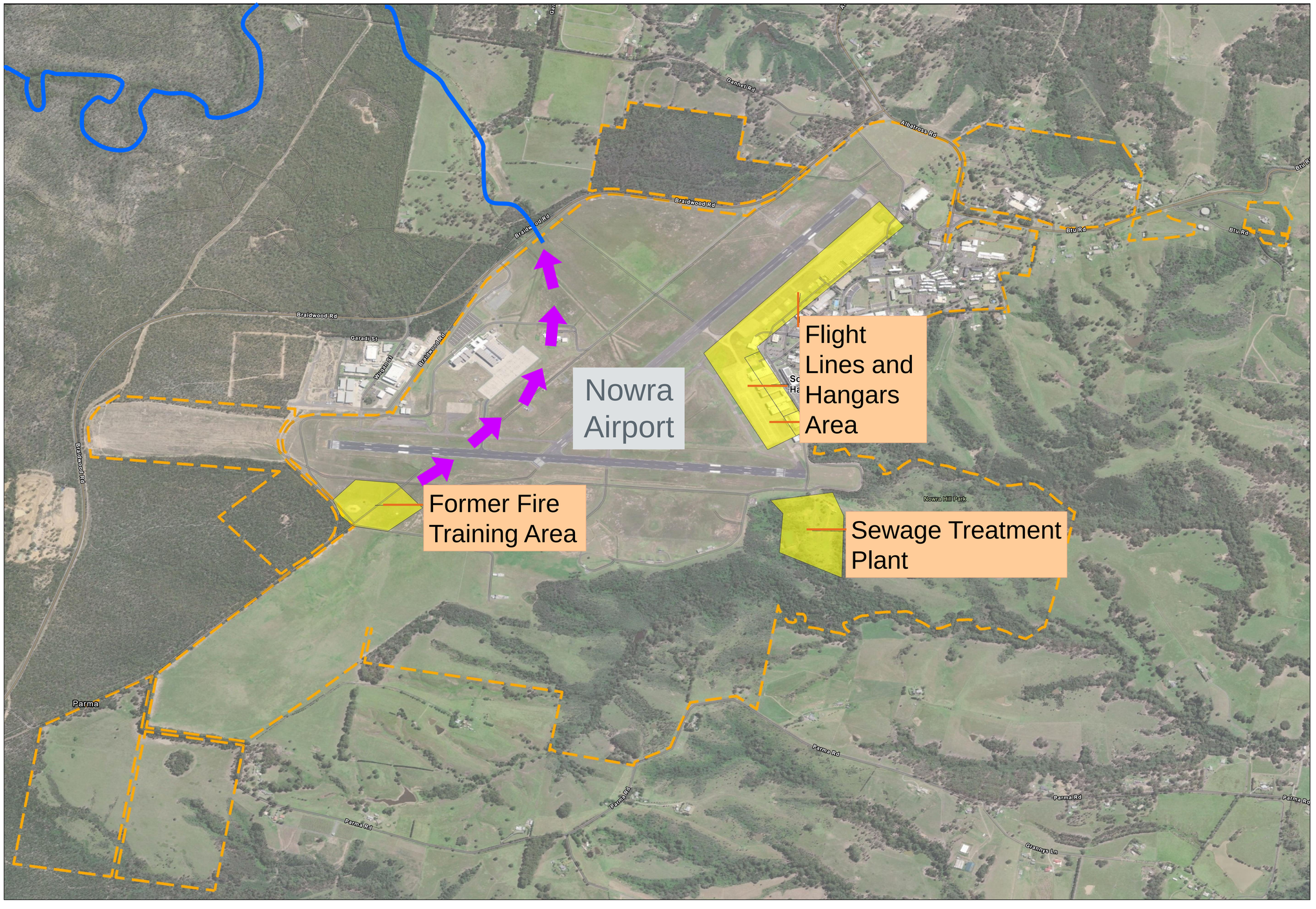
HMAS Albatross



Legend

	Source area
	Base boundary
	Braidwood Road drain
	Primary direction of surface water flows

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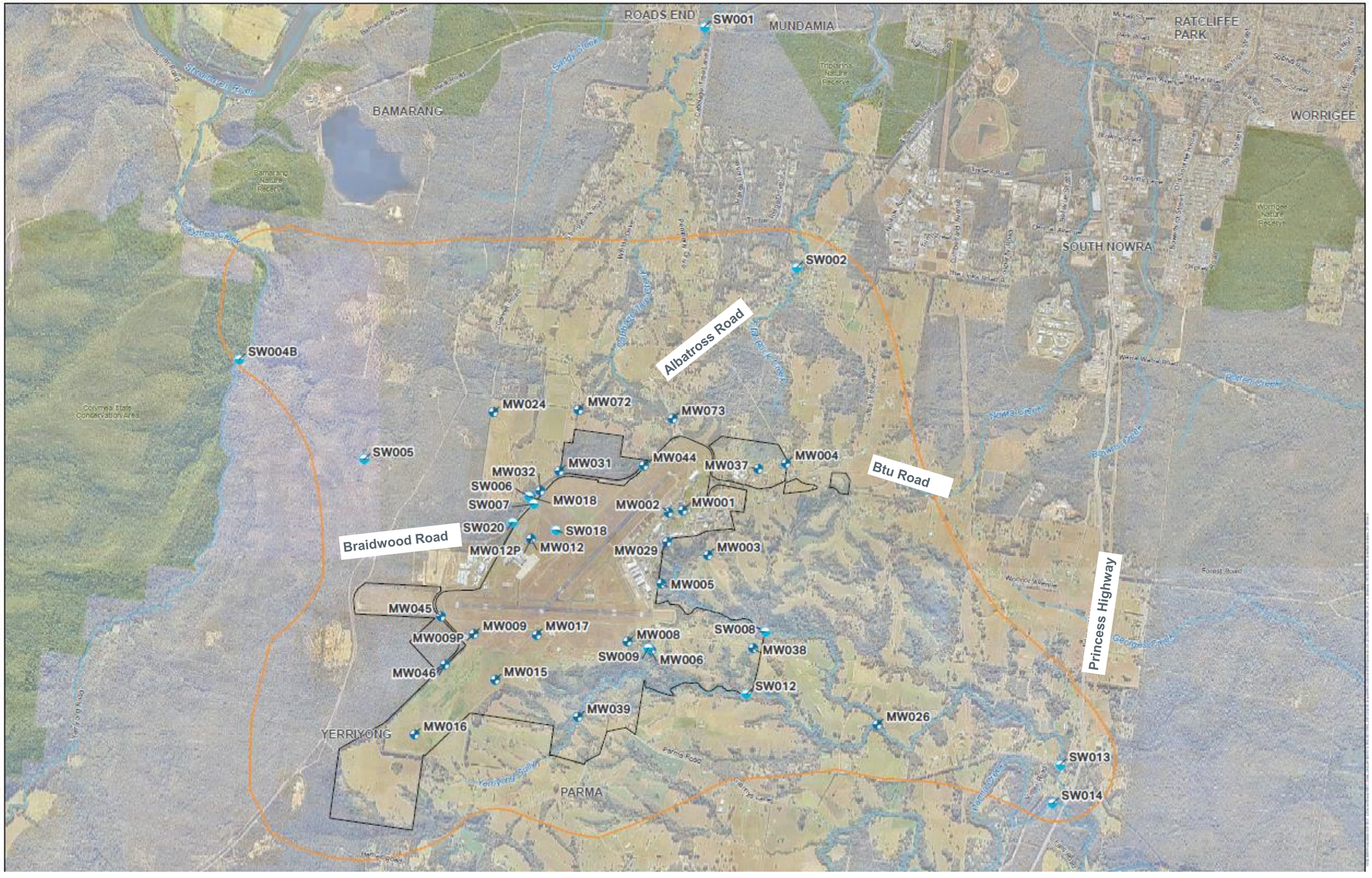
2022 Ongoing Monitoring Sampling Locations



Legend

	Management Area
	Base boundary
	Groundwater sampling location
	Surface water sampling location

Monitoring information

- Sampling undertaken biannually (February and August).
- Sampling last undertaken August 2023.
- February sampling is taken from 28 groundwater and 13 surface water monitoring locations.
- August sampling includes 13 surface water monitoring locations.

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2022 Ongoing Monitoring Interpretive Report key findings

Sampling	Findings
Groundwater	• 26 groundwater samples were collected in February 2022. • Groundwater elevations were generally higher than historical observations during the monitoring period due to above average rainfall experienced across the region between 2021 and 2022. • Concentrations of PFAS in groundwater were generally consistent with historical results, with the exception of new maximum concentrations reported in four monitoring locations contained within the eastern side of HMAS Albatross. • The new maximum concentrations of PFAS are likely attributed to the movement of PFAS as a result of the above average rainfall experienced during the monitoring period.
Surface water	• 26 samples taken. • Concentrations of PFAS in surface water were generally within historical ranges in locations sampled. • No first-time detections or new exceedances of human health or ecological screening criteria for PFOS+PFHxS and/or PFOA reported during the monitoring period.

Conclusions

- No significant changes were identified to source, pathway or receptors at the base and within the Management Area.
- Risk profile to human health, plants and animals in the Management Area remains unchanged.

Terminology

Source area: The area where PFAS is originating from.

Pathway: The way PFAS is moving through the environment such as primarily through groundwater and surface water.

Receptors: Plants, animals and/or humans that are exposed to PFAS.

Who reviews the report?

- The 2022 Ongoing Monitoring Interpretive Report is provided to the NSW Environment Protection Authority (NSW EPA) and reviewed by NSW EPA and NSW Technical Advisory Group.

Where can I find the Ongoing Monitoring Interpretive Report?

- Once the report has been reviewed by NSW EPA, Defence will publish the report along with a factsheet summarising its results, on the Defence website, www.defence.gov.au/about/locations-property/pfas/pfas-management-sites/hmas-albatross.

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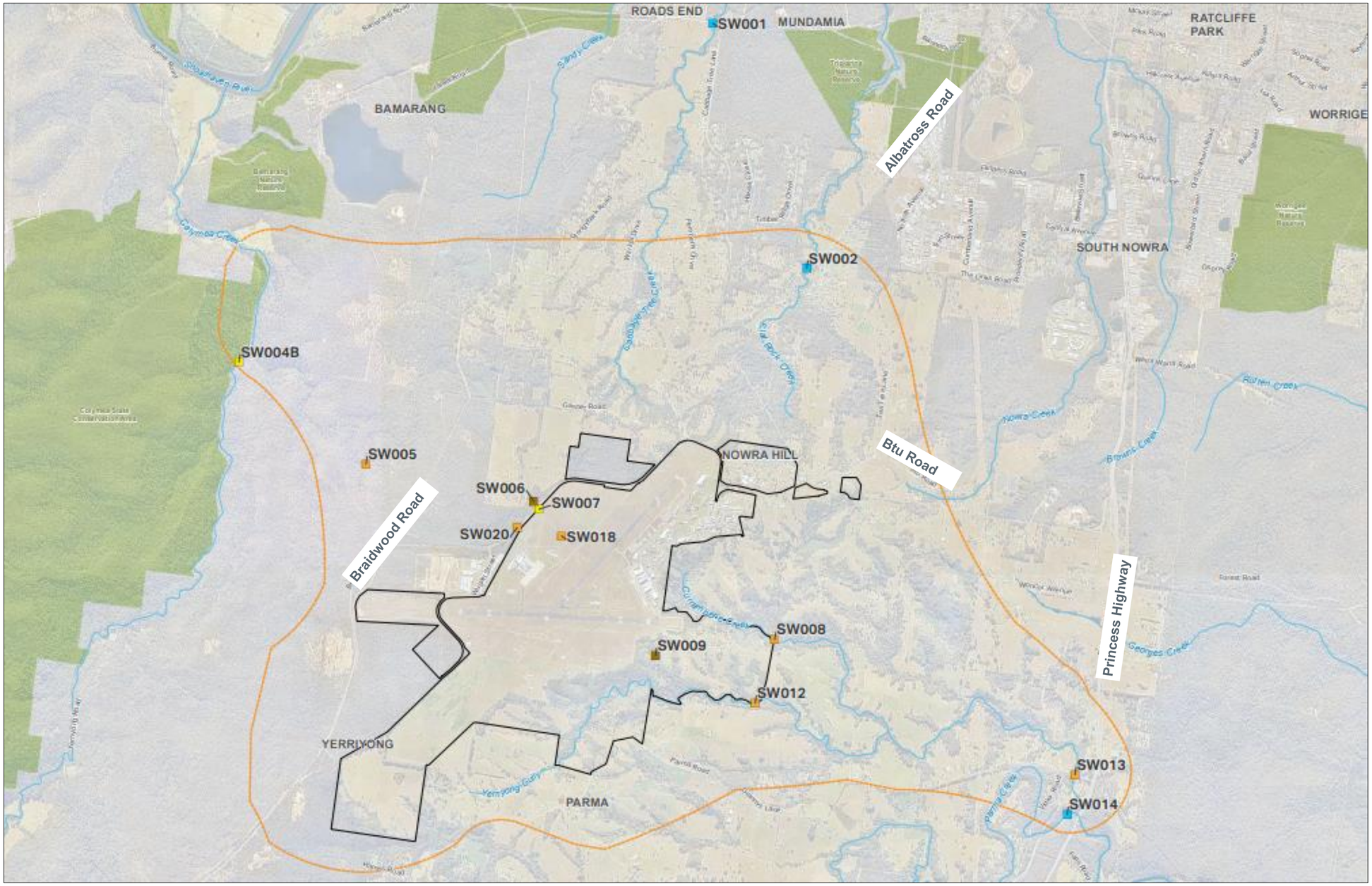
Recent surface water sampling results



Recent findings

The map shows the results of surface water samples collected in August.

- **Blue** represents results below drinking water guidelines.
- **Yellow** represents results where PFAS was detected above drinking water guidelines, but below recreational guidelines.
- **Orange** and **brown** exceed both drinking water and recreational guidelines.

Drinking water guidelines is 0.07 micrograms per litre.

Recreational water guidelines is 2.0 micrograms per litre.

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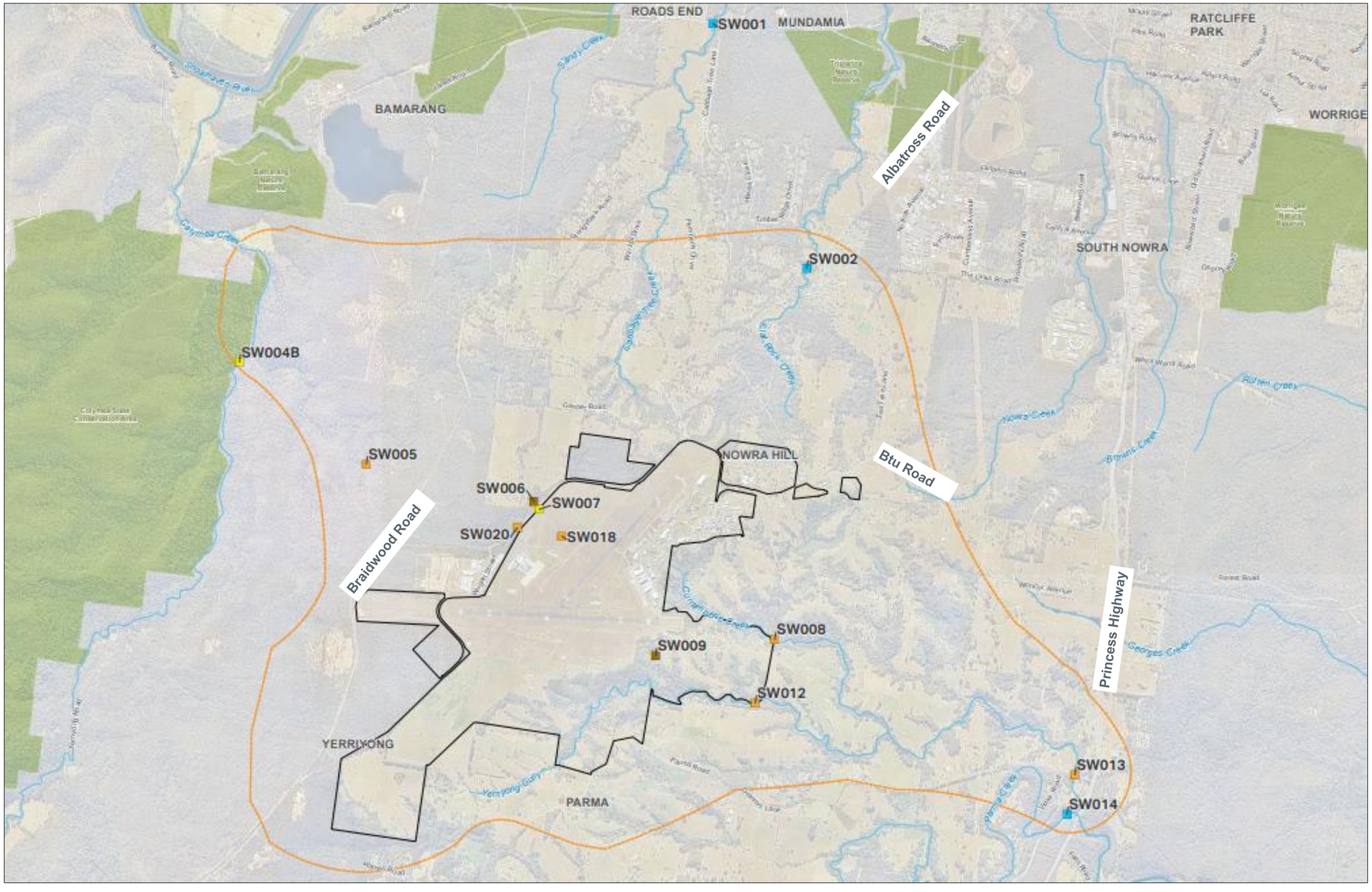
Recent surface water sampling results



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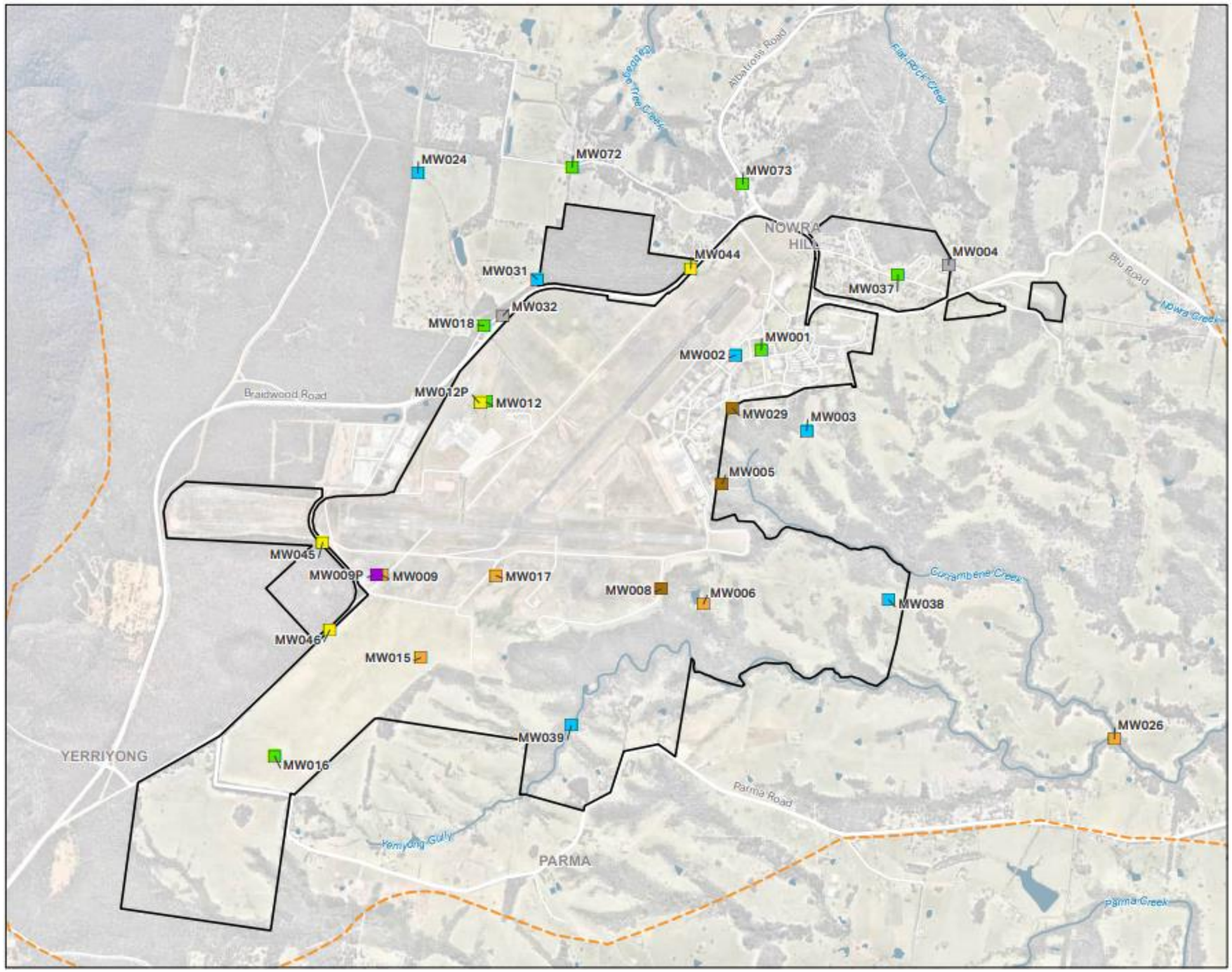
Recent groundwater sampling results



Recent findings

The map shows the results of groundwater samples collected in February.

- **Green** represents PFAS result was not detected.
- **Blue** represents PFAS results is below drinking water guidelines.
- **Yellow**, **orange**, **brown** and **purple** represents results where PFAS was detected above drinking water guidelines.

Drinking water guidelines is 0.07 micrograms per litre.