



RAAF Base Tindal – Updated Investigation Area PFAS Investigation and Management Program

RAAF Base Tindal Investigation Area

In March 2017, Defence engaged an independent environmental consultant, to conduct a detailed environmental investigation into per- and poly-fluoroalkyl substances (PFAS), relating to historical use of firefighting foams on RAAF Base Tindal.

The Detailed Site Investigation (DSI) commenced in April 2017 and involved the sampling of soil, sediment, groundwater and surface water both on- and off-base as well as bore drilling. A Detailed Site Investigation report was published in February 2018. Findings from the Detailed Site Investigation will inform the Human Health Risk Assessment and Ecological Risk Assessment.

The Investigation Area has been determined by understanding the soil, water flow and aquifer boundaries as well as where testing has confirmed no detectable concentrations of PFAS.

PFAS moves off-base at RAAF Base Tindal by leaching into the Tindall Aquifer (groundwater) and through surface water run-off via drains and Tindal Creek.

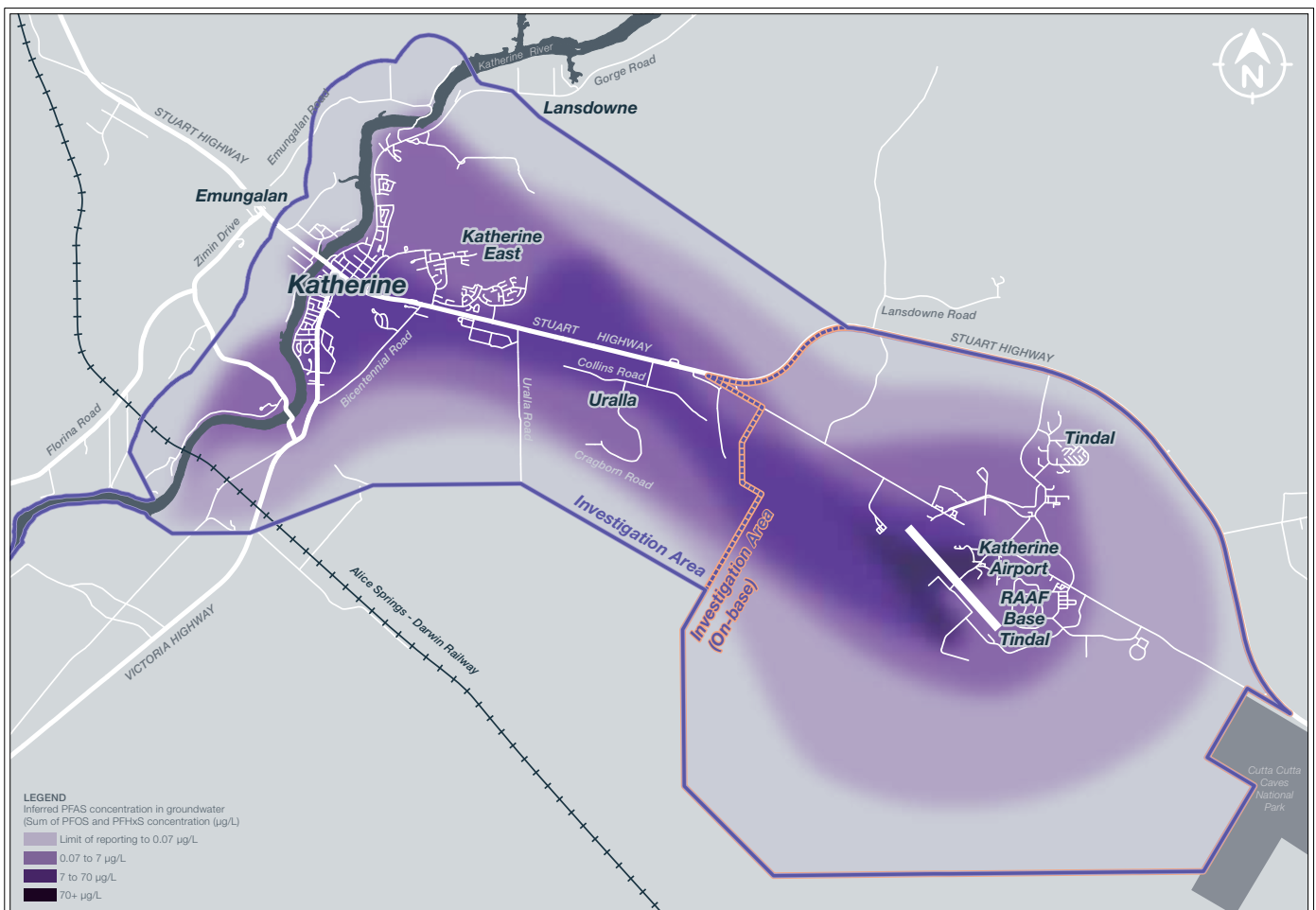
Updated Investigation Area

Recent sampling has indicated the presence of PFAS close to the Katherine River in deep bores in the Tindall Aquifer (inside the existing Investigation Area) and in shallow bores in the Jinduckin Aquifer (close to Zimin Drive) in Cossack, west of the river.

As a precautionary approach while further investigation activities are conducted, Defence has extended the Investigation Area boundary on the western side of the Katherine River from 200 m to 1 km. The boundary will be reviewed once the Lead Consultant has been able to complete further testing.

Defence expects the Tindall Aquifer contamination on the western side of the Katherine River is as a result of contaminated groundwater flowing under the Katherine River and discharging to areas along the river. The detections in the Jinduckin Aquifer are likely to be a result of PFAS migrating from the river into groundwater. Many bores within the extended Investigation Area have been demonstrated to not contain PFAS.

Figure 1: Updated Katherine Investigation Area showing PFAS, PFOS and PFHxS concentrations in groundwater





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Inside the Investigation Area

Is the Katherine River impacted?

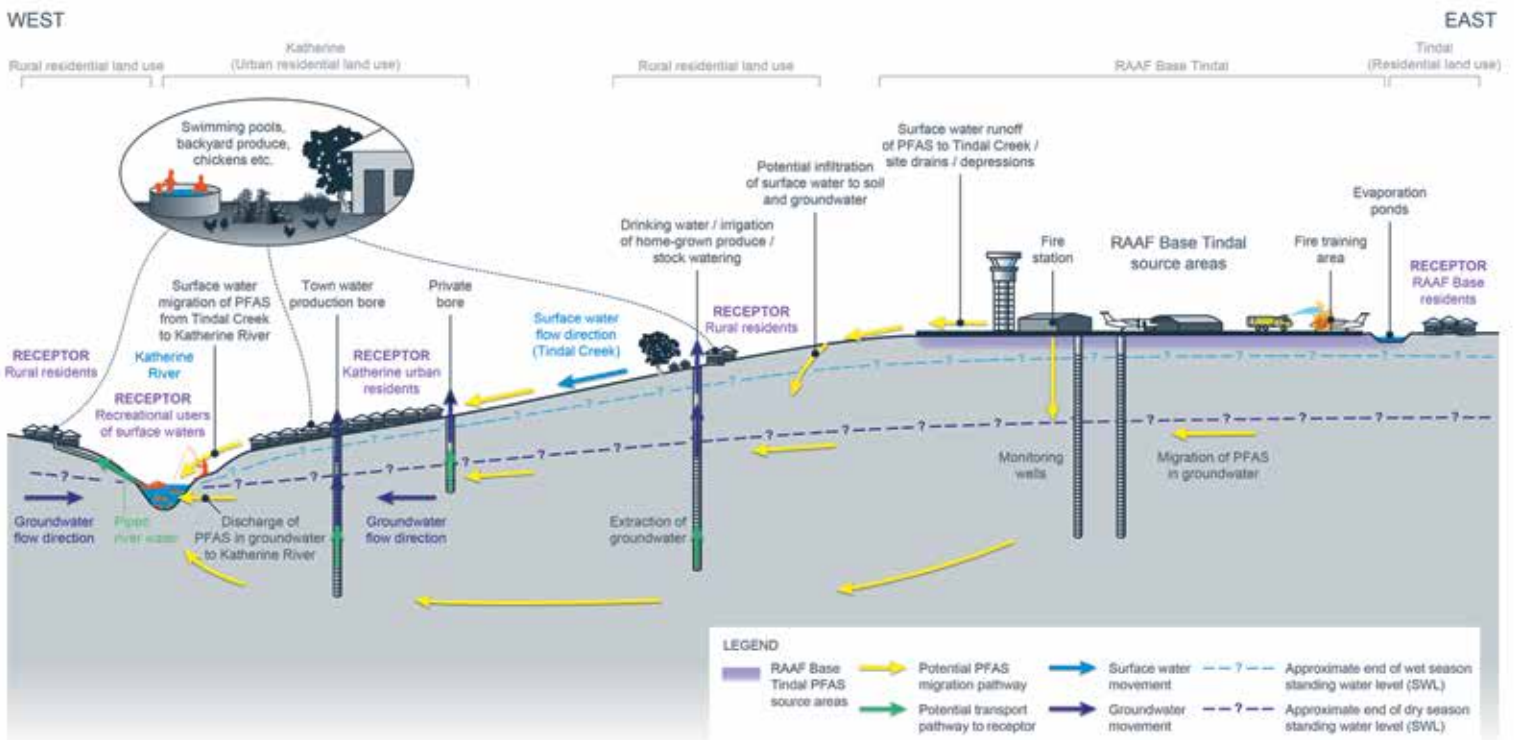
The Tindall Aquifer flows underground from the eastern and western side of the Katherine River in the direction of the River. Groundwater travelling off-base via the Tindall Aquifer flows into the Katherine River through springs and seeps along the river bank (see Figure 2). Some groundwater flows under the river before discharging to springs, but this is limited to areas very close to the river. Sampling of the Katherine River has confirmed that PFAS concentrations in the Katherine River between Knotts Crossing and the Daly River exceed guidance values for drinking. Water from the Katherine River should not be used as the primary source of drinking water in this area.

PFAS concentrations in the Katherine River are not above Health Based Guidance Values for recreational use, and therefore contact with river water while swimming or irrigating is not a risk to human health.

I live inside the Investigation Area. What does this mean for me?

Residents with a town water connection can continue to drink the town water. The Katherine town water supply is safe to drink, with recent testing confirming undetectable levels of PFAS.

Figure 2: Katherine Conceptual Site Model showing the water flow from RAAF Base Tindal



The Katherine Town water supply is delivered to Katherine, Katherine East and RAAF Base Tindal and is a blend of treated river and ground water.

Residents living inside the investigation area who draw drinking water from a bore or water from the Katherine River may need to limit their consumption. If testing has not already been organised for your water source contact the community hotline on 1800 316 813 to discuss your eligibility.





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Areas outside of the Investigation Area

What are the results of testing outside of the Investigation Area?

Extensive testing has been conducted and PFAS has not been detected in groundwater at the following locations:

- Lansdowne area (Lansdowne Road, Niceforo Road)
- Gorge Road, north of Morris Road
- Cossack area (Florina Road, Tokmakoff Road, Shadforth Road and the northern section of Zimin Drive).

I live outside of the Investigation Area. What does this mean for me?

Residents outside the Investigation Area who rely on bore water for drinking should be unaffected by PFAS, as there is no identified means for PFAS to travel outside the Investigation Area.

Residents who rely on the Katherine River (downstream of the Stuart Highway bridge) for drinking water should contact the Defence hotline to arrange testing for PFAS.

Human Health Risk Assessment

Based on the initial findings of the Detailed Site Investigation, an Interim Human Health Risk Assessment (IHHRA) has been completed. The aim of the IHHRA was to understand and evaluate the potential risks of PFAS exposure. The Interim Human Health Risk Assessment is available on the RAAF Base Tindal investigation website www.defence.gov.au/environment/pfas/Tindal/

A comprehensive Human Health Risk Assessment will examine all identified PFAS exposure routes and inform future advice provided by government agencies and authorities on minimising risk from PFAS. The report is expected to be released mid-2018.

Contact Information

RAAF Base Tindal Community Hotline

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