



RAAF Base Townsville PFAS Investigation Background

PFAS Investigation and Management Program

What is PFAS?

Per- and poly-fluoroalkyl substances (PFAS) are manufactured chemicals used in products that resist heat, oil, stains and water.

PFAS have been used in Australia and around the world in many common household products and specialty applications, including:

- Non-stick cookware
- Fabric, furniture and carpet stain protection applications
- Food packaging
- Some industrial processes.

As a result, most people living in developed nations have some PFAS in their body.

Legacy firefighting foam containing perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) as active ingredients was used at Defence bases, including at RAAF Base Townsville, for emergency firefighting situations and training. Perfluorohexane Sulfonate (PFHxS) was also commonly found in the legacy firefighting foam as an impurity in the manufacturing process. PFOS, PFOA and PFHxS belong to the PFAS group of chemicals.

In 2004 Defence commenced phasing out its use of legacy firefighting foam containing PFOS and PFOA as active ingredients and transitioned to a more environmentally safe product.

The release of PFAS into the environment has become a concern, because we've learned these chemicals can persist in humans, animals and the environment. There was little understanding of the impacts of PFAS at the time that legacy firefighting foams were used, as such this is a legacy issue for Defence.

Background to the Investigation

In March 2017, Defence commenced a detailed environmental investigation into PFAS, on and in the surrounding area of, RAAF Base Townsville.

The RAAF Base Townsville environmental investigation is a part of Defence's review of its sites around Australia that used legacy firefighting foam containing PFOS and PFOA as active ingredients.

The objective of the investigation is to identify the nature and extent of PFAS in the environment and any risks to human health or ecosystems.

Understanding these risks will assist in developing mitigation strategies to minimise exposure should this be required.

The investigation is a staged assessment program consistent with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (ASC NEPM). The three main stages of the investigations are:

- Preliminary Site Investigation (PSI)
- Detailed Site Investigation (DSI) and
- If required, a Human Health and Ecological Risk Assessment

Once completed, the investigation reports will be published on the Townsville PFAS Environmental Investigation web page and the findings will be presented to the local community.

What has been done to date?

March 2017: Defence engaged independent consultant *WSP Australia* to conduct the investigation at RAAF Base Townsville and *Coffey* to independently verify all findings of the investigation.

March – June 2017: The first stage of the environmental investigation, the Preliminary Site Investigation (PSI) was completed. This included extensive review of previous studies and environmental investigations to build a picture of historical use, storage, disposal and management of legacy fire fighting foams and identified potential impacts of PFAS. Targeted preliminary soil and surface water sampling was undertaken and the community and other key stakeholders were consulted.

June 2017 – Present: The Detailed Site Investigation (DSI) has commenced to further assess the nature and extent of PFAS on and near the Base. This will involve information collection, sampling and testing both on- and off-Base.





Current Activities

Soil and water sampling for the DSI is currently underway with this stage of the investigation expected to be complete in late 2017 or early 2018.

Based on the initial findings conducted for the DSI, a Human-Health Risk Assessment (HHRA) and an Ecological Risk Assessment (ERA) have started. These assessments will evaluate potential risks to the human population and ecology, and inform actions to mitigate risks. The HHRA and ERA reports are due to be released in early to mid 2018 and will be made available to the public.

The Investigation Area

The RAAF Base Townsville Investigation Area includes the RAAF Base and nearby locations.

At this early stage of the investigation, the boundary of the Investigation Area is indicative only and is based on assumptions regarding groundwater flow direction, groundwater flow velocity, and likely source areas.

The Investigation Area will be updated and amended as the investigation progresses and additional data becomes available.




The RAAF Base Townsville boundary (dark green) and investigation area (shaded)

Government Guidance

The Environmental Health Standing Committee (enHealth) of the Australian Health Protection Principal Committee (AHPPC) has released guidance statements relating to human health.

According to enHealth, there is currently no consistent evidence that exposure to PFAS causes adverse human health effects. However, because these substances persist in humans and the environment, enHealth recommends that human exposure is minimised as a precaution.

Further information can be found through the Commonwealth Department of Health PFAS webpage and community hotline:

 Phone 1800 941 180

 Website www.health.gov.au/PFAS


As a precaution, Defence is providing alternative drinking water to residents who fulfil certain criteria, within the investigation area surrounding the base. For further information contact the RAAF Base Townsville Investigation Hotline.

Keeping the community informed

Defence is committed to regularly updating the community. Updates are provided through the project website, direct mail and fact sheets as new information becomes available.

To register your interest in attending upcoming events please contact the PFAS Investigation Team (details below).

Investigation Team Contacts Details

 Phone 1800 842 122

 Email Townsville.Defence@wsp.com

 Website www.defence.gov.au/environment/pfas/Townsville/

 Post PFAS Project Team

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