



RAAF Base Pearce 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 Pearce, for emergency firefighting situations and training. Perfluorohexane Sulfonate (PFHxS) is 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 impacts for PFAS at the time of use of legacy firefighting foam and as such this is a legacy issue for Defence.

Background to the Investigation

In April 2016, Defence commenced a detailed environmental investigation into PFAS, on and in the surrounding area of, RAAF Base Pearce.

The RAAF Base Pearce 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.

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
- Detailed Site Investigation and
- Human Health and Ecological Risk Assessment

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

What has been done to date?

April 2016: Defence engaged independent consultant *GHD Pty Ltd* to conduct the investigation at RAAF Base Pearce and *Senversa Pty Ltd* to independently verify all findings of the investigation.

May – September 2016: Defence undertook the Preliminary Site Investigation which included initial sampling and a review of the historic use of legacy firefighting foams at the base to identify PFAS sources, migration pathways and locations where people or the environment may have been exposed to PFAS. The findings of the Preliminary Site Investigation were used to prioritise work areas for the Detailed Site Investigation (DSI).

September 2016 - Present: Defence has commenced work on the second stage of the investigation, the Detailed Site Investigation (DSI). The DSI involved sampling of soil, sediment, surface and groundwater, biota (small fish) and edible produce (fruit, vegetables and eggs). The sampling results are being analysed and Defence expects the DSI Report will be finalised and presented to the community in early 2018. Based on the initial DSI results, Defence commenced a Human Health and Ecological Risk Assessment (HHERA) in late 2016 to better understand the risk of PFAS to people and the environment.





The Investigation Area

The Investigation Area was established in February 2017 and is based upon:

- Identified potential sources of PFAS
- PFAS migration pathways such as through groundwater and surface water
- Receptors such as residents surrounding the Base and down-gradient ecologically sensitive areas
- The results of sampling completed during the DSI.

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

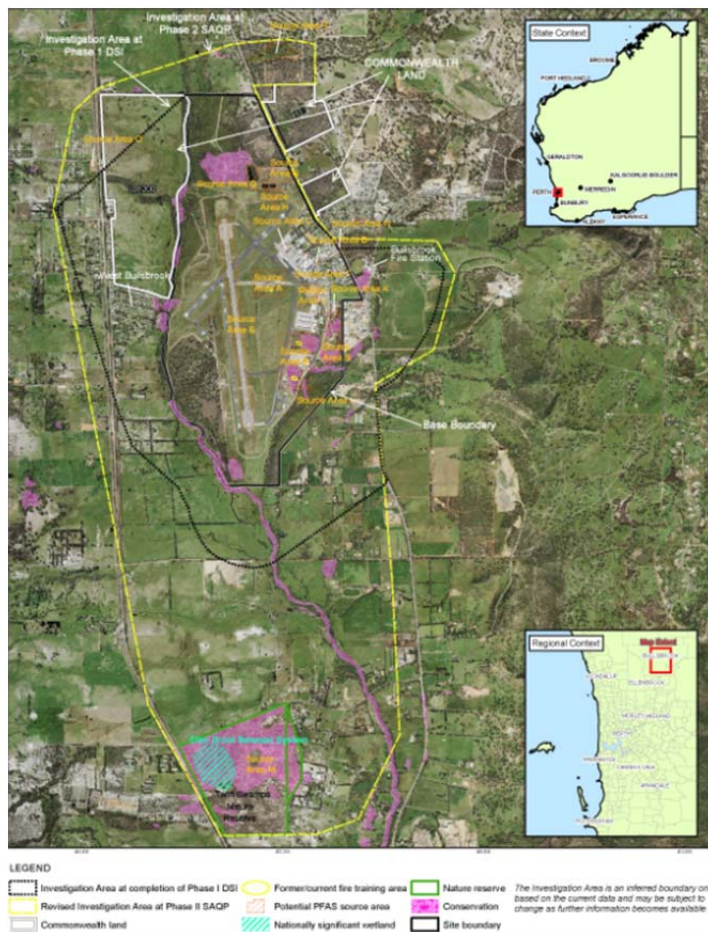


Figure 1 - RAAF Base Pearce Investigation Area

Alternative Water

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 Pearce Hotline.

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 at the Commonwealth Department of Health PFAS webpage and community hotline:

- Phone 1800 941 1800
- Website www.health.gov.au/PFAS

Contact Information

RAAF Base Pearce Investigation Hotline

- 1800 987 614
- defence.bullsbrook@ghd.com
- www.defence.gov.au/environment/PFAS/pearce
- Post: RAAF Base Pearce
Environmental Investigation c/o GHD
PO Box 3106
Perth, WA 6832

Media enquiries should be directed to Defence Media Operations on (02) 6127 1999 or media@defence.gov.au

