



RAAF Base East Sale - 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 and
- 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 East Sale, 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 May 2016, Defence commenced a detailed environmental investigation into PFAS, on and in the surrounding area of, RAAF Base East Sale.

The RAAF Base East Sale 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
- Detailed Site Investigation and
- Human Health and Ecological Risk Assessment.

The investigation reports have been published on the RAAF Base East Sale PFAS Environmental Investigation web page and shared with relevant Federal and State Government Authorities.

The information associated with these three main stages all form the basis for a site specific management plan that will aim to address the risks identified in the investigation.

What has been done to date?

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

May 2016 – October 2016: A Preliminary Site Investigation (PSI) was conducted to provide a review of historical fire fighting foam use and storage at RAAF Base East Sale. The purpose of this review was to identify PFAS sources, migration pathways and receptors. The findings were used to develop a Sampling Analysis and Quality Plan (SAQP) that detailed the sampling and testing proposed on and near the base.

September 2016 – June 2017: The Detailed Site Investigation (DSI) involved on and off-base sampling in soil, surface water, drainage lines and groundwater to assess the nature and extent of PFAS on and near the base. Results from the DSI confirmed that a Human Health and Ecological Risk Assessment (HHERA) was required.

October 2016 - December 2017: Defence commenced the HHERA to better understand the risks posed by PFAS to people and the environment. The HHERA will be delivered in two stages with the first stage providing interim guidance on exposure risks completed in December 2017.

Ongoing: Defence is undertaking the second stage of the HHERA to address data and information gaps. Defence will also be developing a site-specific Strategic Management Plan to identify and prioritise management activities to address the human health and ecological risks identified during the investigation.





The Investigation Area

The findings of the PSI and DSI were used to establish the Investigation Area for the environmental investigation at the Base and its surrounds.

The boundary of the Investigation Area was determined by analysis of surface water discharge from the Base and groundwater flow direction from likely source areas.

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:

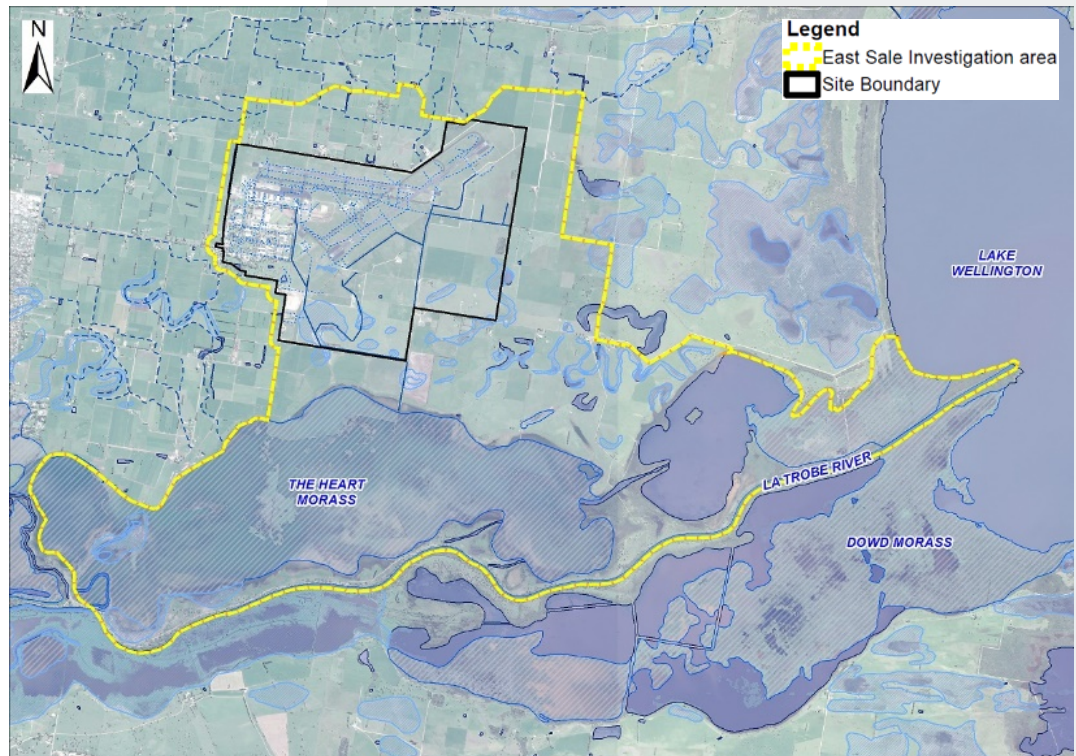
 **Phone** 1800 941 1800
 **Website** www.health.gov.au/PFAS

Keeping the Community Informed

Defence is committed to regularly updating the community as the investigation progresses.

As new information becomes available, updates will be provided through the project website, community information sessions, direct mail and fact sheets.

For further information contact the RAAF Base East Sale Investigation Hotline.



Contact Information



RAAF Base East Sale Investigation Hotline

 **Phone** 1800 365 414
 **Email** PFASDefenceCoordination@golder.com.au
 **Website** <http://www.defence.gov.au/environment/pfas/EastSale/>
 **Post** RAAF Base East Sale Environmental Investigation Project
PO Box 165 Collins Street West Post Shop Melbourne VIC 8007

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

Useful Links

Environment Protection Authority Victoria:

 **Phone** 1300 372 842
 **Website** <http://www.epa.vic.gov.au/your-environment/land-and-groundwater/pfas-in-victoria>

Food Standards Australia and New Zealand (FSANZ):

 **Website** <http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-pfas.htm>

