



HMAS Albatross 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 HMAS Albatross, 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, HMAS Albatross.

The HMAS Albatross 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
- If required, a Human Health and Ecological Risk Assessment

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

What has been done to date?

May 2016: Defence engaged independent consultant *Aurecon Group* to conduct the investigation at HMAS Albatross and *JBS&G* to independently verify all findings of the investigation.

May – September 2016: A Preliminary Site Investigation was undertaken involving a historical review of the use, storage, disposal and management of legacy firefighting foam to identify the key sources of contamination at HMAS Albatross. The findings were used to prepare a *Sampling and Analysis Quality Plan* for the detailed investigations.

September 2016 – November 2017: The Detailed Site Investigation commenced in September 2016 and involved sampling of soil, sediment, surface and ground water to collect information and better understand how PFAS moves through the environment. The DSI has now been completed.

November 2016 – November 2017: A Human Health and Ecological Risk Assessment was conducted to better understand the risks posed by PFAS to people and the aquatic and terrestrial environment.

November 2017: A Strategic Management Plan will be developed to manage potential risks to human health and the environment posed by the legacy PFAS contamination both on-base and off-base.





The Investigation Area

The Investigation Area defines the current extent of the investigation, focussed on potential human and ecology receptors.

The boundary of the Investigation Area was determined by analysis of groundwater flow direction, groundwater flow velocity, and likely source areas.



HMAS Albatross (outlined in yellow) and investigation area (dotted line)

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 that has established a PFAS webpage and community hotline:

- Phone 1800 941 1800
- 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 Investigation Hotline.

Useful Links

NSW Environment Protection Authority:
<http://www.epa.nsw.gov.au/MediaInformation/pfasinvestigation.htm>

Contact Information

HMAS Albatross Investigation Hotline

- Phone 1800 856 491
- Email HMAS.Albatross@arecongroup.com
- Website www.defence.gov.au/environment/pfas/albatross/
- Post HMAS Albatross Environmental Investigation Project, c/o Aurecon
PO Box 538 Neutral Bay NSW 2089

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

Contact Commonwealth Department of Health

- Phone 1800 941 180
- Email health.PFAS@health.gov.au
- Website www.health.gov.au/PFAS

