



Australian Government  
Department of Defence  
Estate and Infrastructure Group

# PFAS Investigation and Management



## Community Information Session

RAAF Base Wagga

Environmental Investigation


Wednesday 7 December 2016





## Acknowledgment of Country

We would like to respectfully acknowledge the Wiradjuri People, the traditional custodians of the land on which this meeting takes place, and also pay respect to Elders both past and present of the Wiradjuri Region and extend that respect to aboriginal people respect.



# Agenda

- Welcome
- About PFAS and the Defence PFAS Investigation and Management Program
  - Background
  - About PFAS
  - Health information
- About the Preliminary Sampling Program (PSP) - Key Findings for RAAF Base Wagga
- Questions and Answers



# About PFAS and the Defence PFAS Investigation and Management Program



## About the Base

- The base has a history of using legacy Aqueous Film Forming Foam (AFFF) for use in emergency fire fighting situations and for fire fighter training.



# About PFAS?

- Per- and poly-fluoroalkyl substances, or 'PFAS', are a class of manufactured chemicals that have been used since the 1950s to make products that resist heat, stains, grease and water
- Until recently, this group of chemicals was known as perfluorinated chemicals, or 'PFCs'
- PFAS are of concern around the world because they persist in the environment



# PFAS and AFFF

- Aqueous Film Forming Foam (AFFF) is a type of fire fighting foam used to extinguish liquid fuel fires
- AFFF has been used extensively worldwide, and within Australia, since the 1970s by both civilian and military authorities. Legacy formulations contained some PFAS of concern as active ingredients, including:
  - PFOS (perfluorooctane sulfonate)
  - PFOA (perfluorooctanoic acid)

# AFFF use in Defence

From **1970s**

Defence commenced use of AFFF containing PFOS/PFOA

In **2003**

Defence was aware that PFOS/PFOA was an emerging persistent organic pollutant – Defence released a specification for the supply and testing of AFFF concentrates

From **2004**

Defence introduced a new foam and commenced phasing out use of the old foams for both training and emergencies

**Currently**

For emergencies, Defence uses a foam that does not contain PFOS and PFOA as active ingredients

Defence uses a training foam which does not contain PFOS and PFOA

Foam is captured and disposed of in accordance with current regulations



# Health

- Defence cannot provide health advice. This is the role of Australian Government, State/Territory and local health authorities and practitioners.
- The Environmental Health Standing Committee (enHealth) has issued Guidance Statements on PFAS. Defence relies on the enHealth Guidance Statements.
- enHealth advises that there is currently no consistent evidence that exposure to PFOS and PFOA causes adverse human health effects.
- However, because these chemicals persist in humans and the environment, enHealth recommends that human exposure to these chemicals is minimised as a precaution.
- Accordingly, Defence has adopted a precautionary approach and is providing alternative sources of drinking water to eligible residents.
- Dept of Health also has information on PFAS available on their website.

# Drinking Water

- Defence has adopted a precautionary approach and is providing alternative sources of drinking water to eligible residents who:
  - are located in close proximity to the base; and
  - do not have a town water connection; and
  - rely on the use of a bore for drinking water; and/or
  - source drinking water from a rainwater tank that contains, or has in the past contained, bore water.
- Defence may also provide drinking water to residents in other exceptional circumstances.
- Residents wishing to apply for an alternative drinking water supply can contact the national hotline by phone or email. Provision of water will be assessed on a case-by-case basis and reviewed as required.

# About the Defence Program

- Defence National PFAS Investigation and Management Program was established in late 2015
- Defence is conducting detailed environmental investigations at:
  - RAAF Base Edinburgh
  - HMAS Albatross
  - RAAF Base Pearce
  - RAAF Base East Sale
  - RAAF Williamtown
  - Army Aviation Centre Oakey
- Defence is planning investigations at a number of additional sites
- Defence is working closely with Commonwealth and State Governments and other relevant agencies

# Preliminary Sampling Program

- Sampling undertaken from 12 bases across the Defence estate from April to July 2016
  - including RAAF Base Wagga
- The PSP report was delivered to Defence in September 2016
- PSP Report released publicly 08 November 2016



About this Preliminary Sampling Program  
(PSP) Report - Key Findings for  
RAAF Base Wagga



# PSP Report Key Findings for RAAF Base Wagga

- Preliminary sampling was conducted at RAAF Base Wagga in June 2016
- A total of 5 samples were collected from off-base locations at RAAF Base Wagga – 3 groundwater and 2 surface water samples.
- No on-base samples were collected.
- PFAS was detected in 1 of the 3 groundwater samples and both of the surface water samples. Specific results are contained in the preliminary sampling program report.

# PSP Report Key Findings for RAAF Base Wagga

- Outcome and Next Steps: A detailed environmental investigation will be undertaken to determine the nature and extent of PFAS on, and in the vicinity of, the base.
- The timing for the commencement of this investigation is being considered in consultation with relevant government and local authorities.
- It is expected the detailed investigation will take approximately 12 months from commencement.
- The national Defence PFAS website will be updated as new information becomes available.

# About Environmental Investigations

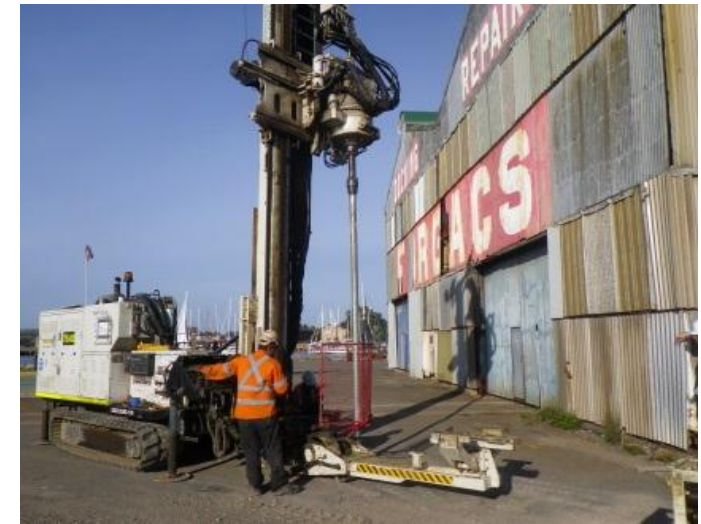
- This environmental investigation is undertaken in accordance with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPM)
  - Preliminary Site Investigation (PSI)
  - Detailed Site Investigation (DSI)
  - Human Health and Ecological Risk Assessment (HHERA) – if required
- Defence engages a specialist environmental consultant to undertake the investigation. A separate consultant is engaged to conduct a peer-review/ auditing function
- Defence uses interim screening criteria for Defence environmental investigations which are described in Defence Contamination Directive 8 which is kept updated with relevant Commonwealth and state guidelines



# Environmental Investigation Works

- Preliminary Site Investigation (PSI)
  - Site history assessment
  - Start development of Conceptual Site Model
  - Preliminary sampling and screening of risk level
- Detailed Site Investigation (DSI)
  - Surface water, soil and sediment investigation
  - Groundwater investigation
- Human Health and Ecological Risk Assessment (HHERA) – if required
  - Throughout the investigation, results will be compared to International screening criteria to assess the need for the HHERA
  - Complete the HHERA, to evaluate risks to the human health and ecology, and inform future action to mitigate risks

# What will the works look like?



# Stakeholder and Community Engagement

- Regular stakeholder interactions to provide timely and accurate advice to guide decision-making
  - Public enquiry lines operate throughout project
  - Fact sheets, relevant information and results of sampling will be published on the project website
  - Individual correspondence on private property results
  - Community information sessions at key milestones
  - Will be done with appropriate privacy considerations
- Water use survey to be conducted, to understand groundwater and rainwater tank use in the area



# Need more information?



- **Defence wants to keep you informed.**
  - National Hotline Number: 1800 365 414
  - Email: [PFASDefenceCoordination@golder.com.au](mailto:PFASDefenceCoordination@golder.com.au)
- General information about the national Defence PFAS program, fact sheets relevant to the base and the PSP Report can be found at:  
[www.defence.gov.au/ID/PFOSPFOA/](http://www.defence.gov.au/ID/PFOSPFOA/)

## In Summary

- The Preliminary Sampling Program has been completed and the full report is available at Defence PFAS Investigation and Management website
- RAAF Base Wagga will be the subject of a NEPM compliant environmental investigation. More information as it becomes available will be posted on Defence PFAS Investigation and Management website.
- The Environmental Health Standing Committee (enHealth) advises that there is currently no consistent evidence that exposure to PFOS and PFOA causes adverse human health effects
- As a precautionary measure Defence will provide alternative drinking water supplies to eligible residents
- Defence wants to keep you informed and will continue to consult with all relevant Federal, State and local government agencies

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# Questions?





Thank you for your attendance

