



Australian Government
Department of Defence
Estate and Infrastructure Group

Beyond Investigations: Managing PFAS Risks on a Continental Scale

Presenter:

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Australian Department of Defence



Setting the scene: PFAS and Defence in Australia



Quick Facts

23 Detailed Environmental Investigations covering 445 square miles.
Almost 5 times the size of Palm Springs

Over 14,000 samples

Town Water Connections: 194
(157 planned)

Rain Tanks: 41 (21 planned)

6.1 km (3.8 miles) drains remediated

Approx. 1 Billion Litres of water (264 million US gallons) treated

Influencing factors for PFAS Communication



INCOMPLETE KNOWLEDGE

- Scientific Uncertainty
- Precautionary Principle
- Remediation Options limited
- Emerging Regulatory Framework



MAGNIFIERS

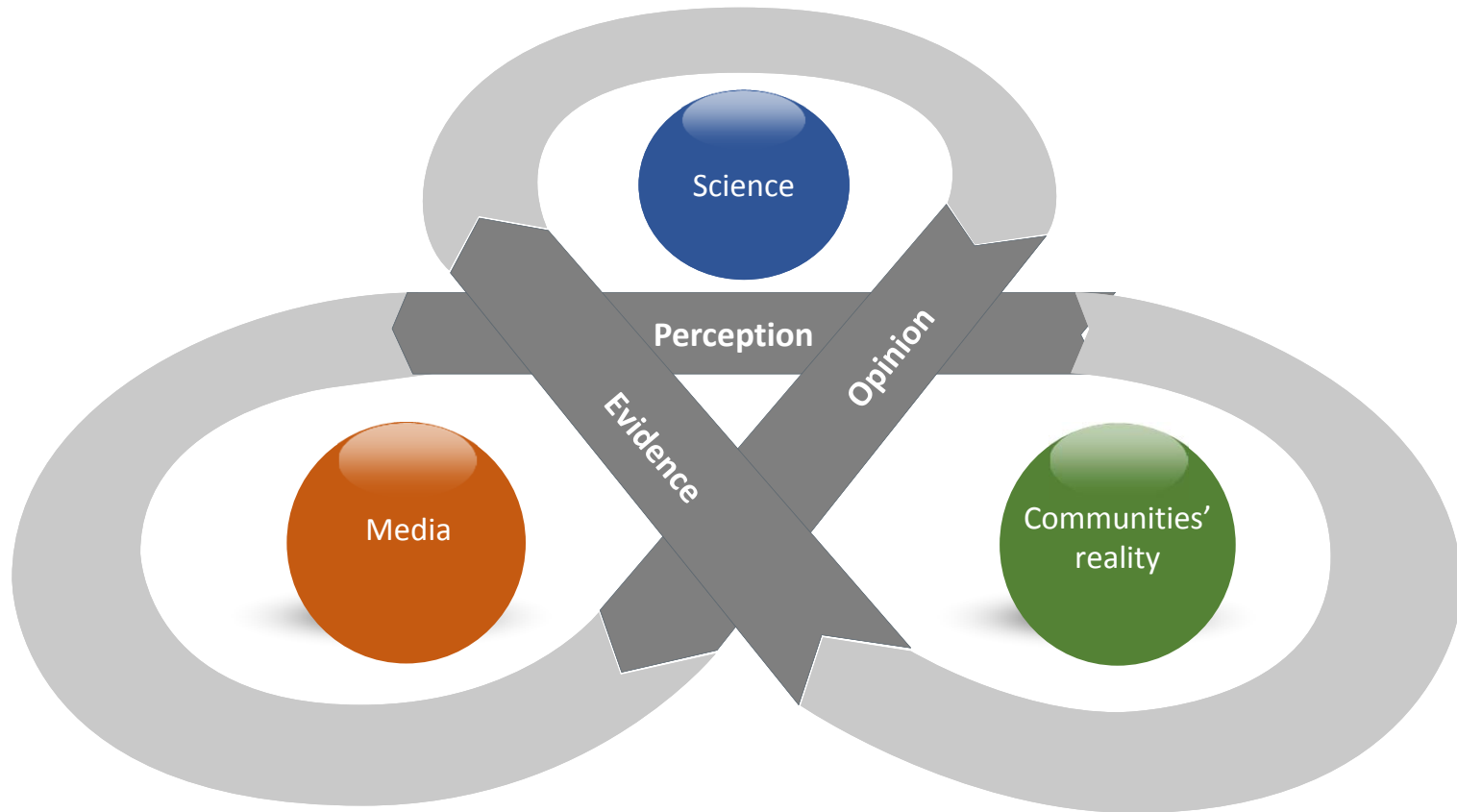
- Extent of contamination plumes
- Persistent and biomagnified
- Multiple and extensive sites
- Dispersed mainly through water flows



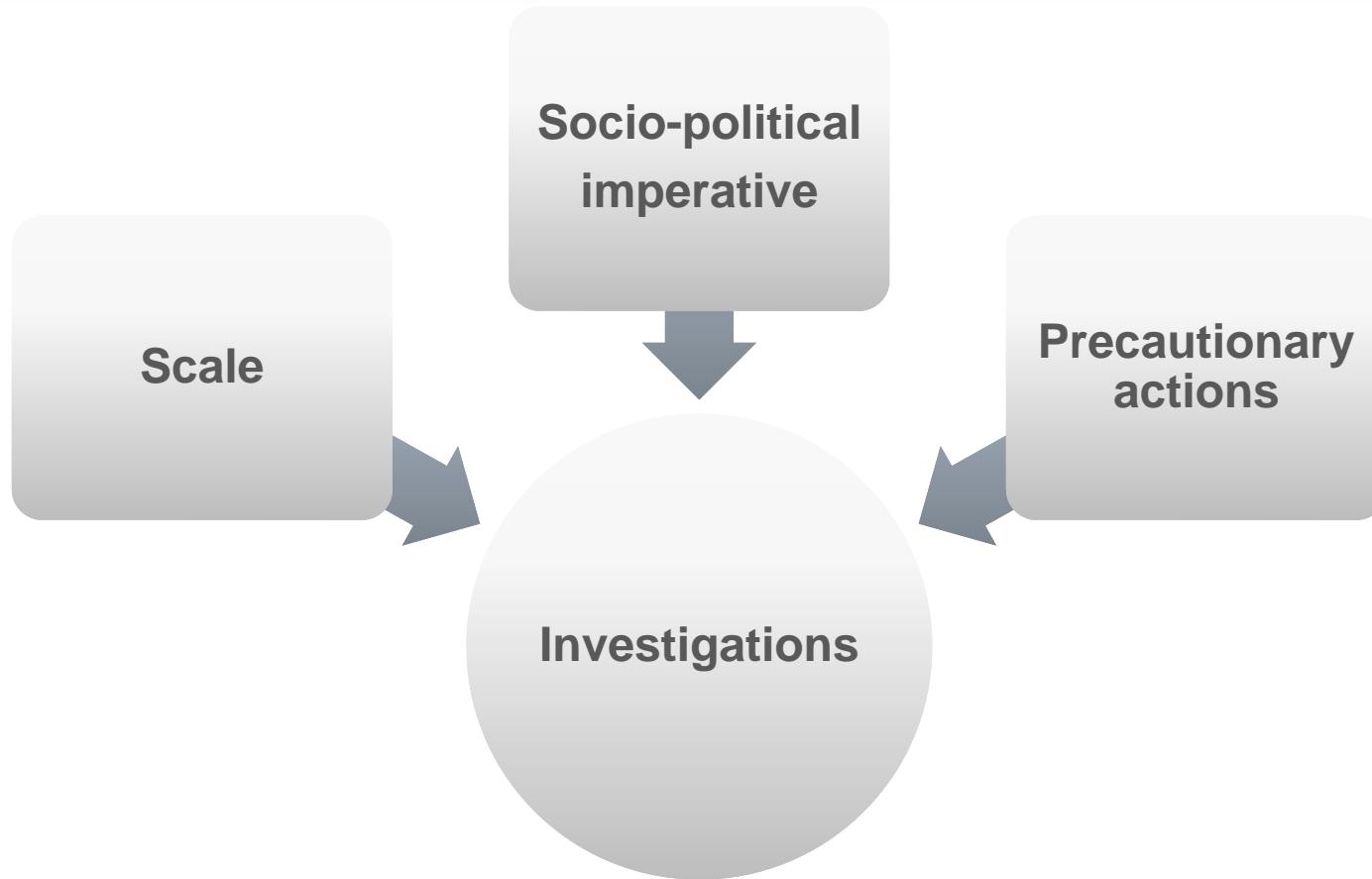
STAKEHOLDERS

- Number and range of stakeholders
- Role of print and social media
- Internet science
- Cynicism of institutions

Setting the scene: PFAS and Defence in Australia



Driving and delivering the new investigations agenda



Investigation Delivery

Source Focus



Pathway / Receptor Focus



Preliminary Site Investigation

1

Detailed Site Investigation

2

Human Health and Ecological Risk Assessment
(if required)

3

12 -18 months

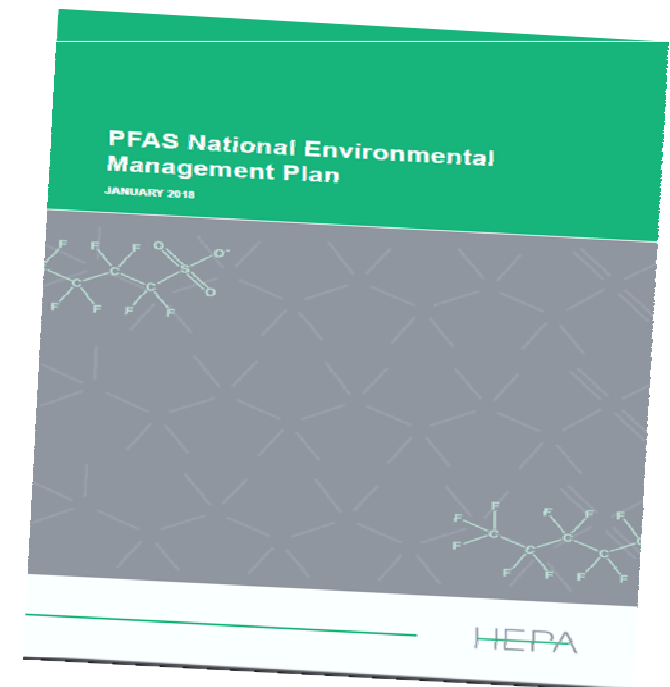
Prioritising management actions

Committed to fully managing PFAS contamination but prioritising:

- Practicable solutions to prevent or minimise the migration of PFAS beyond the Defence property boundary
- Protecting the community from exposure while PFAS management actions are underway



A flexible and responsive PFAS risk management system



A flexible and responsive PFAS risk management system

Communication Risk Management



PFAS Investigation & Management Program Home

Department of Defence Environmental Management PFAS Home

PFAS Investigation & Management Program

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- Investigation Process
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- Management Activities
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- Glossary
- Contacts

Notice: PFAS National Environmental Management Plan

Australia's Environment Ministers have endorsed the country's first PFAS National Environmental Management Plan (NEMP). The PFAS NEMP provides governments with a consistent, practical, risk-based framework for the environmental regulation of PFAS-contaminated materials and sites. The PFAS NEMP has been developed as an adaptive plan, able to respond to emerging research and knowledge.

Visit the [Environment Protection Authority Victoria website](#) to download the plan or read more.

PFAS Investigation & Management Program

Defence is undertaking a national program to review, investigate and implement a comprehensive approach to manage the impacts of per- and poly-fluoroalkyl substances (PFAS) on, and in the vicinity of, some of its bases around Australia.

From 2004, Defence commenced phasing out its use of legacy firefighting foam containing specific types of PFAS - perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) - as active ingredients. The legacy fire-fighting foam was used extensively worldwide, and within Australia, from about the 1970s by both civilian and military authorities due to its effectiveness in extinguishing liquid fuel fires. Defence now uses a more environmentally safe product. Furthermore, Defence has made changes to the way it uses firefighting foam to ensure that the risk of releasing the products into the environment is minimised.

Defence is taking a proactive approach to this matter and is working with Commonwealth, state and local authorities in the conduct of its investigations.

Defence is being open and transparent in making the verified test results available to the local community; and is sharing this information with relevant state/territory and local authorities, to assist with planning.

Defence continues to work towards the effective monitoring and management of PFAS contamination on and in the vicinity of affected sites across Australia.

Investigation and Management Sites

Detailed environmental investigations are undertaken by experienced environmental services providers and are conducted in accordance with the Australian National Environment Protection (Assessment of Site Contamination) Measure (NEMP). This is the national guidance framework for the assessment of site contamination in Australia.

Support information, Frequently Asked Questions and other relevant information can be located on each of the specific investigation sites listed below.

Queensland

- Army Aviation Centre
- Cairy
- RAAF Base Townsville
- RAAF Base Amberley
- Lavarack Barracks

New South Wales

- RAAF Base Williamtown
- HMAS Albatross
- RAAF Base Richmond
- RAAF Base Wagga
- Holsworthy Barracks

Victoria

- RAAF Base East Sale
- HMAS Cerberus
- Bandiana Military Area

Jervis Bay Territory



Looking forward

- Investigations phase to be largely complete by the end of 2018
- Development of PFAS Management Area Plans underway for some Defence properties
- New and evolving process
- New science and remediation technologies may change approaches

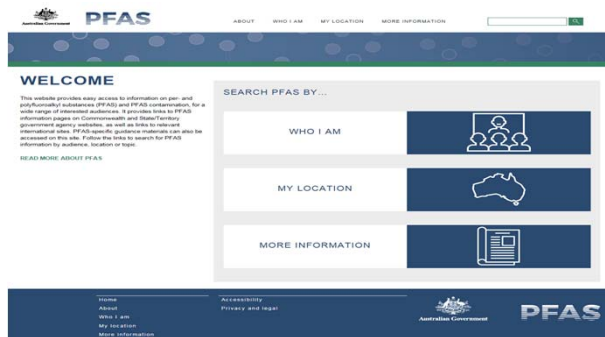
**Investigations
completing**

**PFAS
Management
Area Plans**

**Ongoing
management
and support**

Managing PFAS risks at a continental scale

Questions



PFAS.gov.au



defence.gov.au/environment/PFAS