



Australian Government
Department of Defence
Estate and Infrastructure Group

Managing the Defence Portfolio of PFAS Contaminated sites in an evolving Regulatory Environment

PFAS Investigation & Management Program

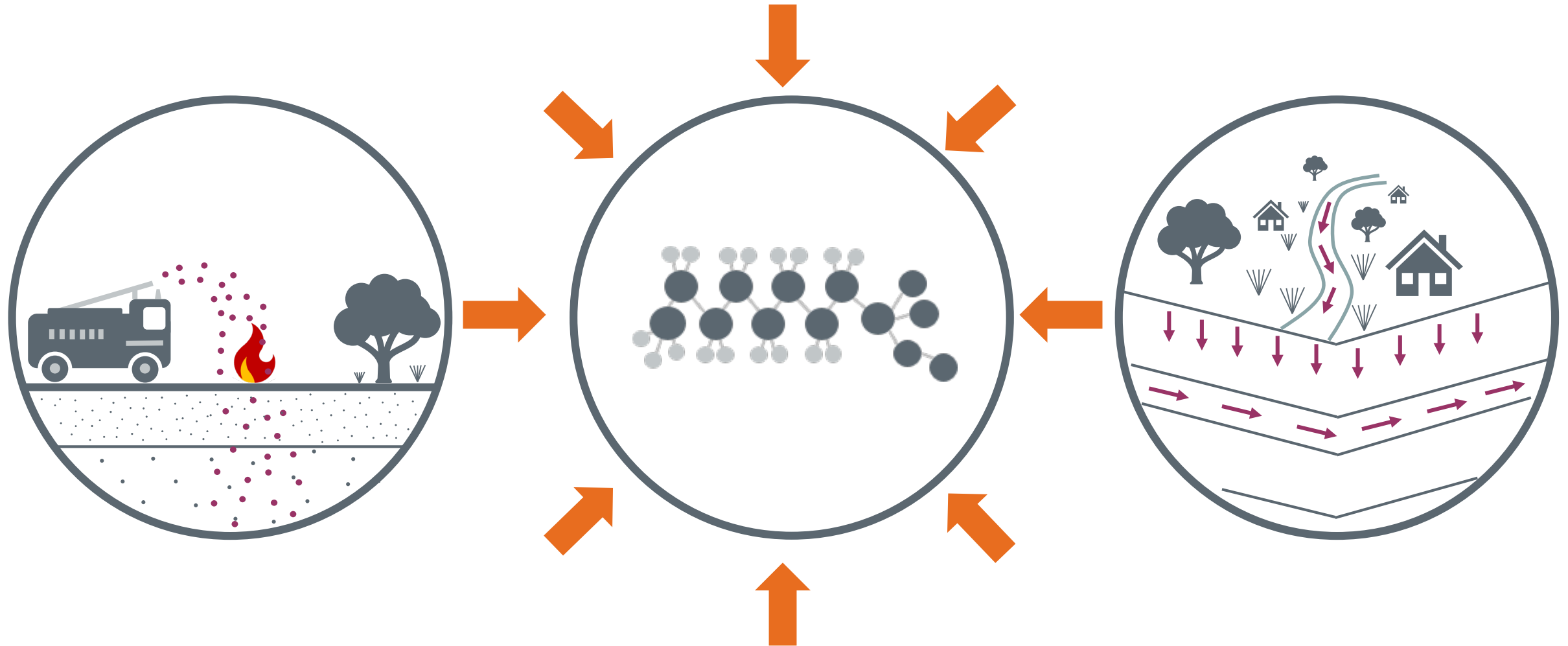
Presented by:

Chris Birrer,
First Assistant Secretary Infrastructure
Department of Defence

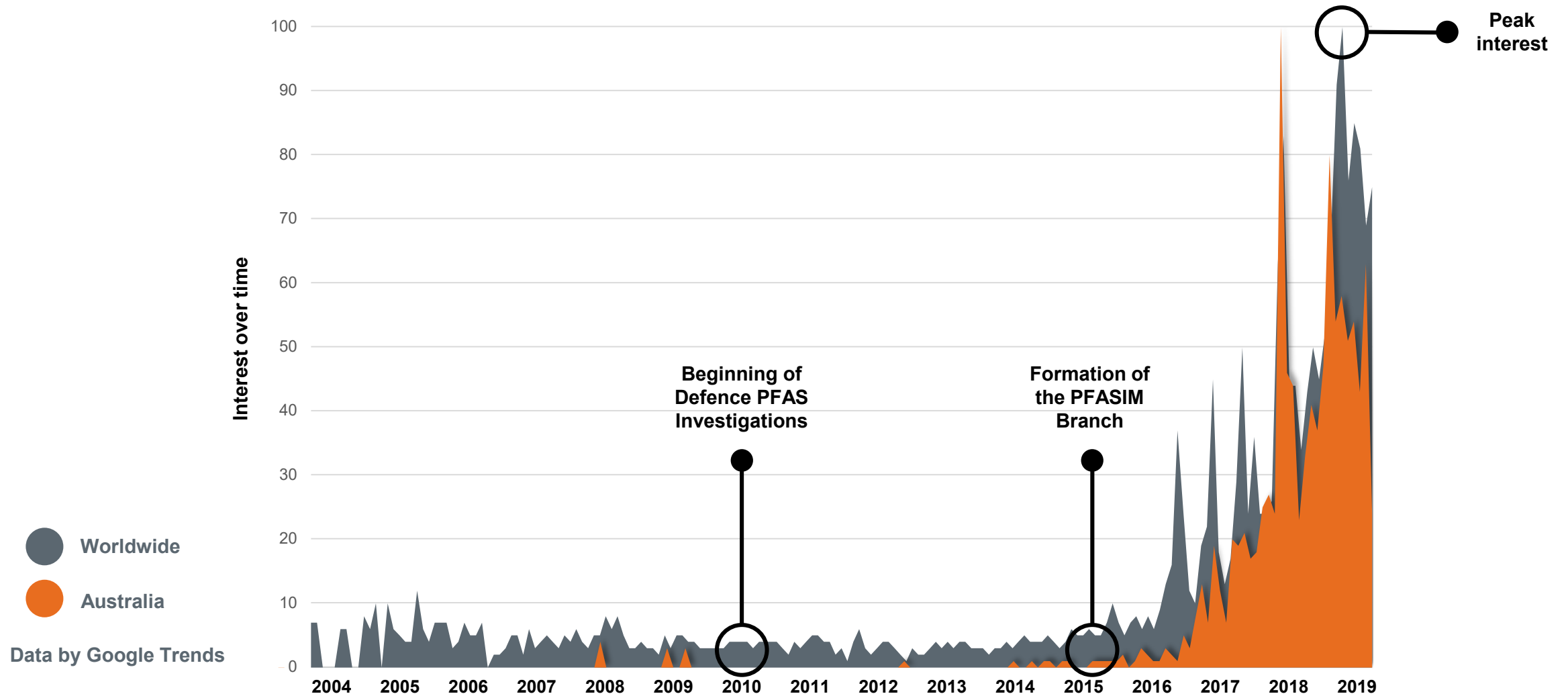
Battelle Bioremediation Conference

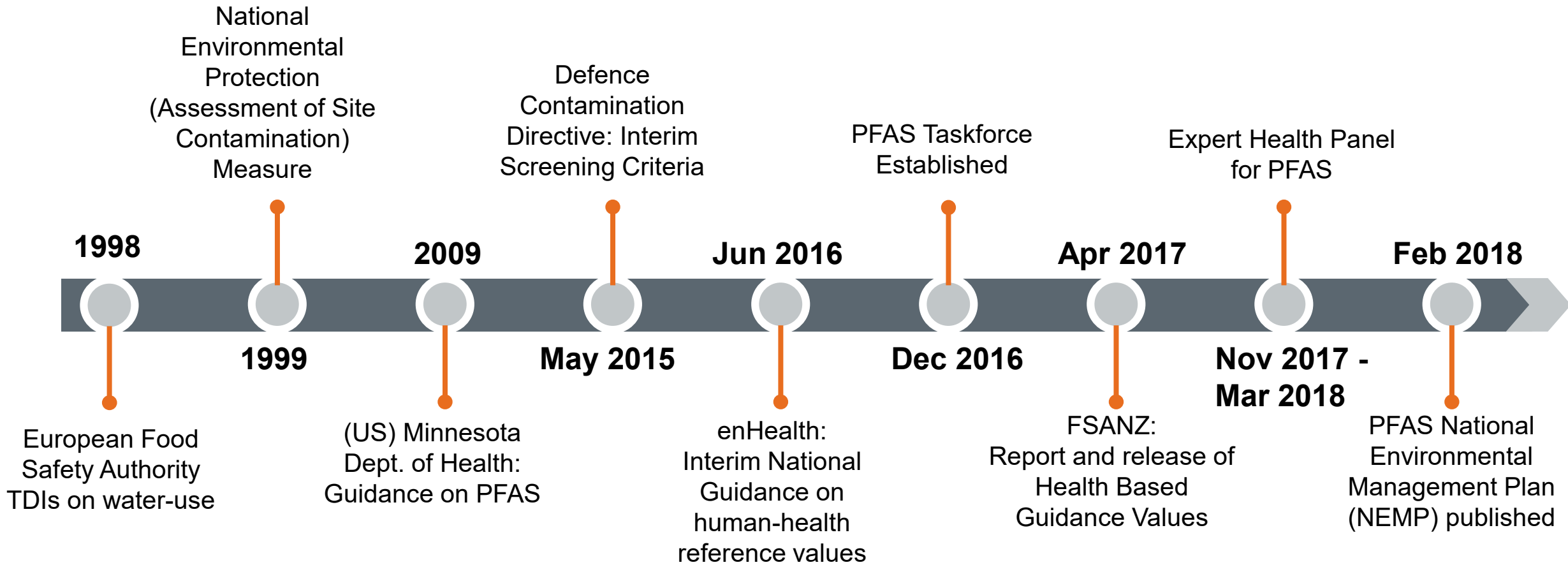


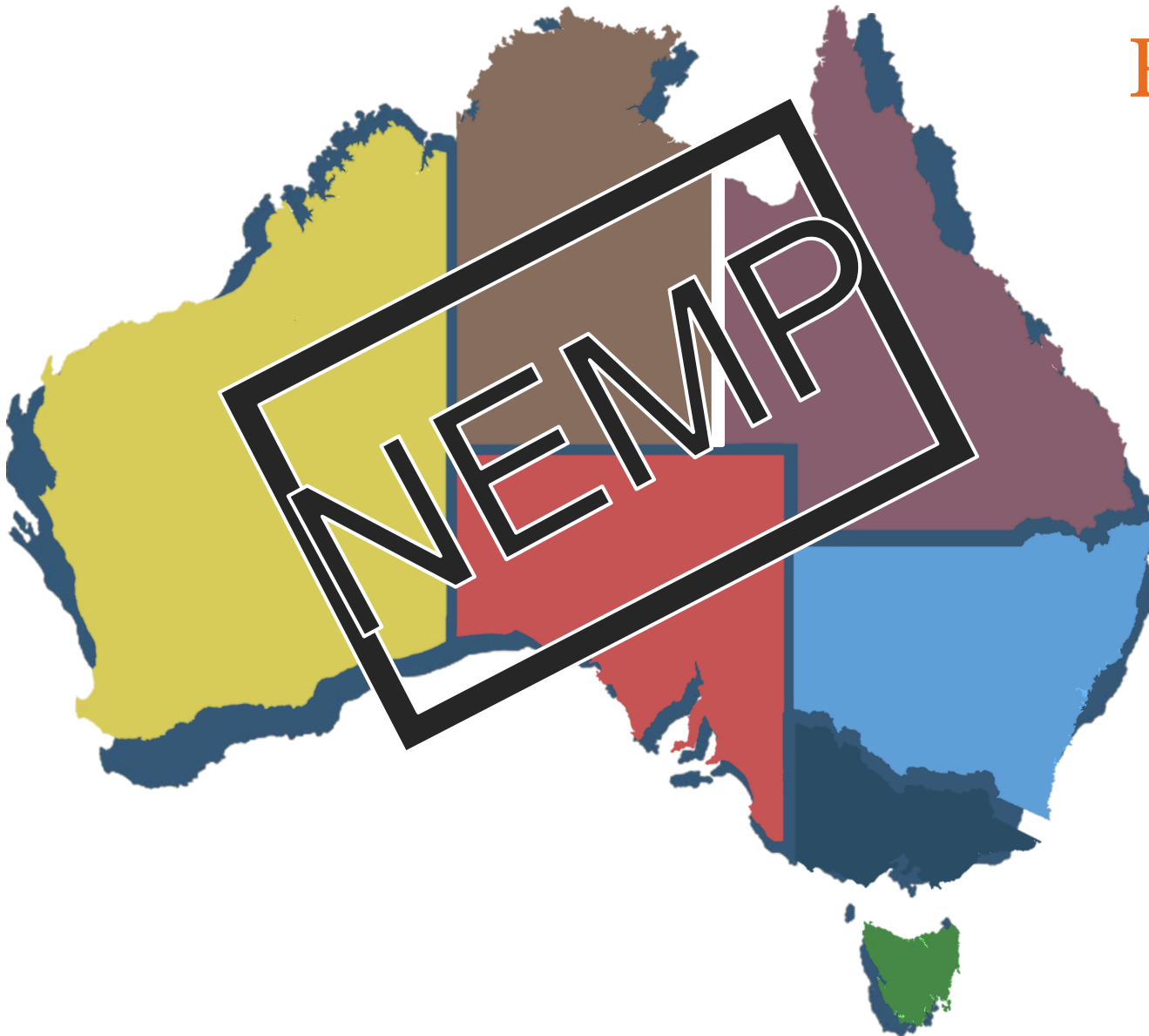
The Problem



General Interest in PFAS







Regulatory Environment

Federal State/Territory

- EPAS Taskforce
- State/Territory regulatory regulations
- National Environmental Management Plan

Science

Persistent and Bioaccumulative

Highly Mobile

Precautionary Principle

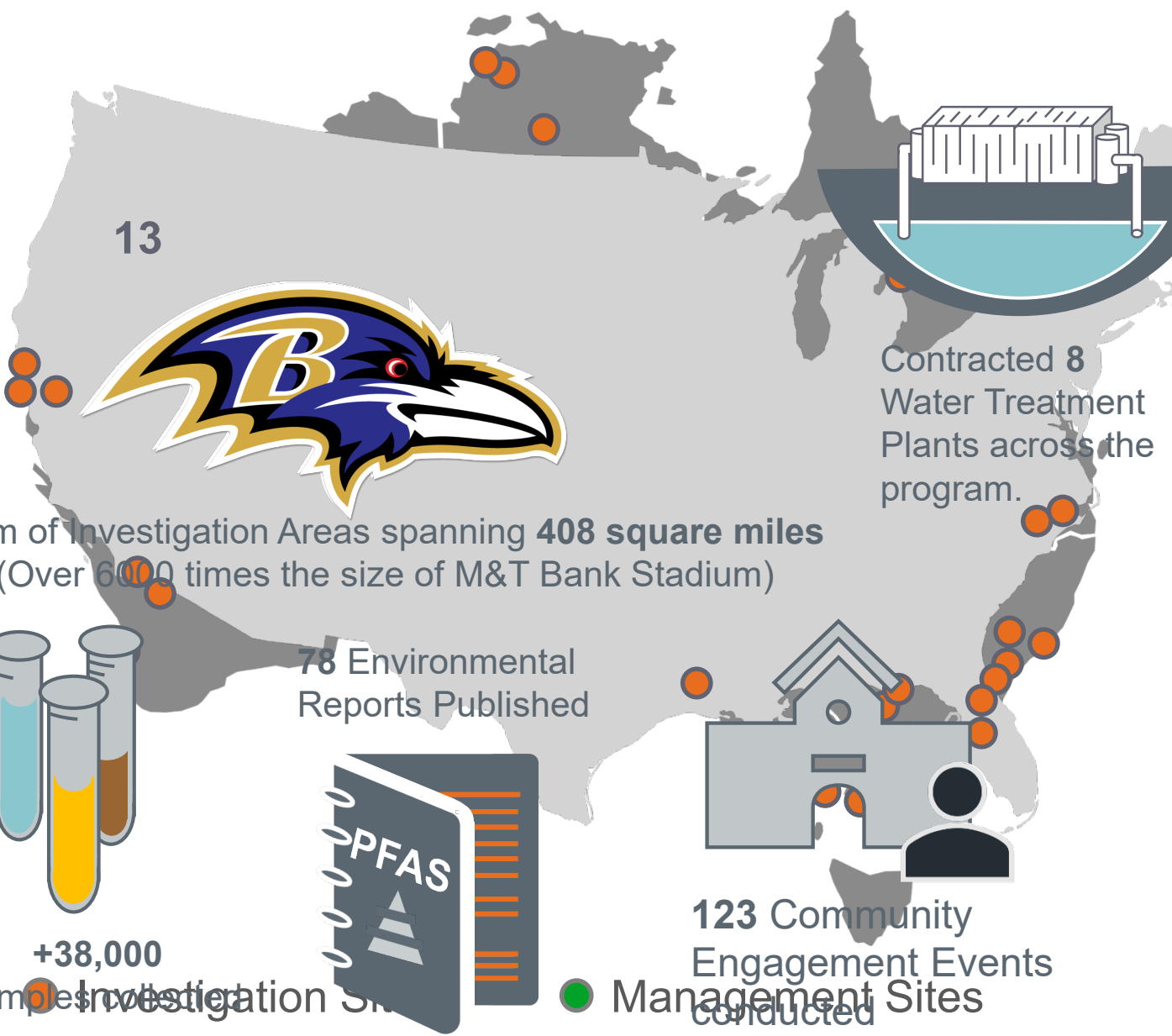


Public Policy

Responsible
Management of the
Environment

Perception

Accountability



The Australian Department of Defence has commenced environmental investigations at 14 locations around the country.



The purpose of the investigation is to identify the nature and extent of PFAS on and around Defence properties. 528 Million Gallons of water treated to below L.O.R. 33,500 US tons of PFAS impacted soil excavated.



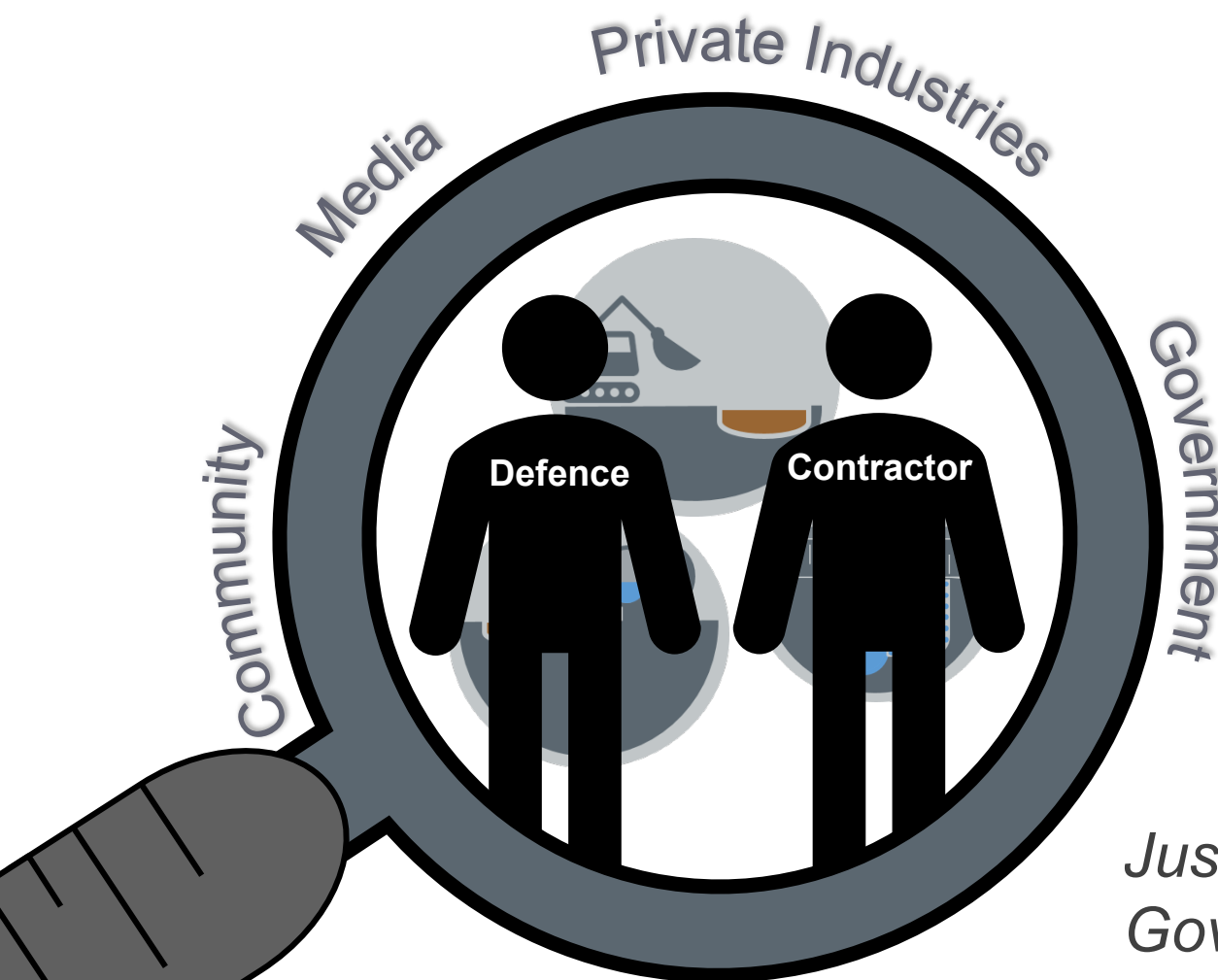
87 Rainwater Tanks installed (32,000 gal.)

394 Town Water Connections completed and planned

Preliminary Site Investigation	Detailed Site Investigation	Human Health and/or Ecological Risk Assessment	PFAS Management Area Plan
Oakey			
Williamtown			
Pearce			
East Sale			
Albatross			
Edinburgh			
Jervis Bay			
Townsville			
Darwin			
Tindal			
Amberley			
Stirling			
Richmond			
Wagga			
Cerberus			
Holsworthy			
Robertson			
Bandiana			
Harold E Holt			
Learmonth			
Lavarack			
Gingin			
Williams			
Kapooka			
Singleton			
Cairns			

Operating Environment

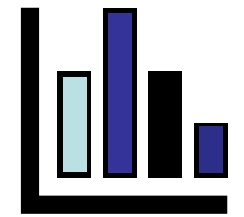




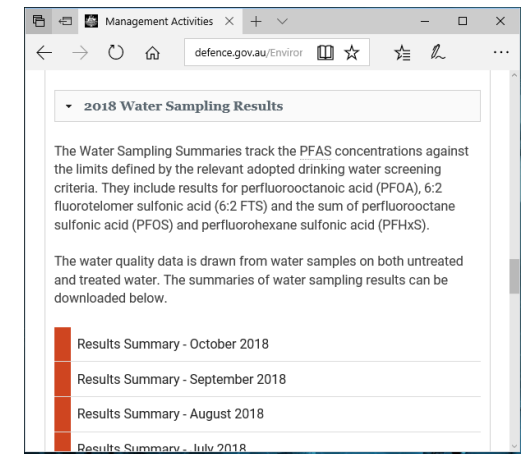
Community Updates



Financial cost vs environmental impact



Public Reporting



Justification to Government

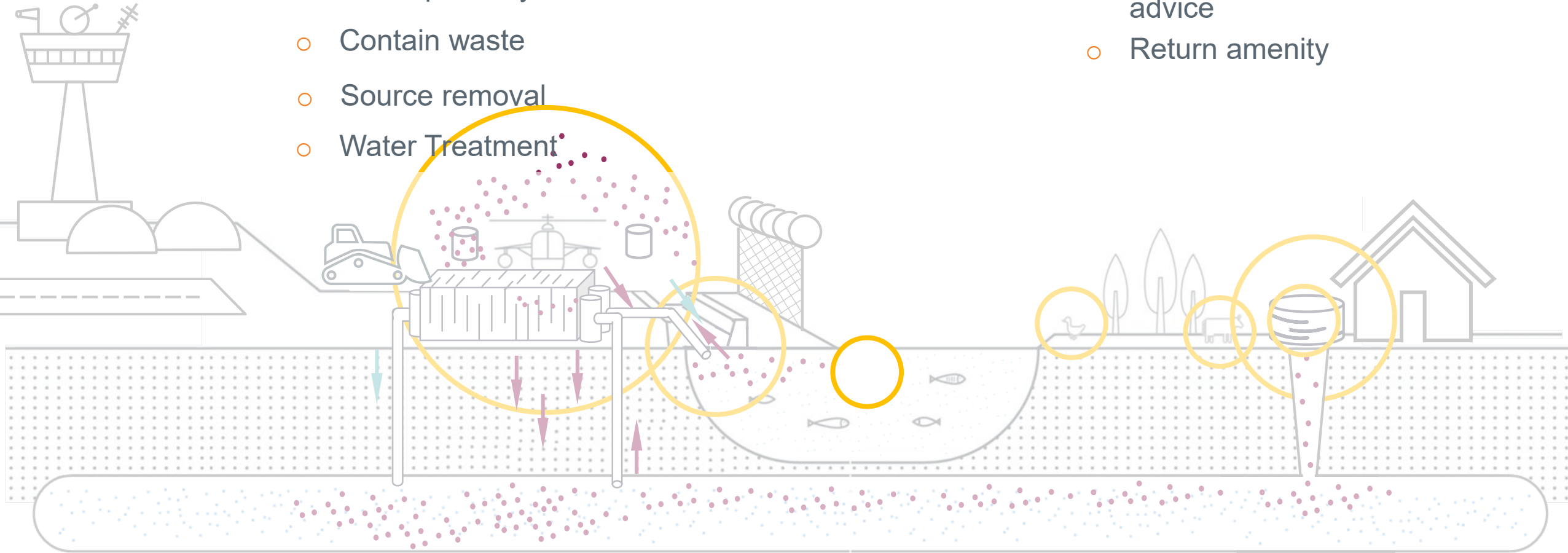


On-Base

- Break pathways
- Contain waste
- Source removal
- Water Treatment

Off-Base

- Precautionary advice
- Return amenity



Managing community expectations

Expectations

Immediate remediation

All PFAS removed

Remediation should be targeted off-base



Reality

Remediation will be a long process

Breaking pathways & mitigating risk

Remediation targets on-base source areas

Shock blood results meet wall of silence

Defence silent on off-base clean up

Chemical tests are alarming

ALP irate at toxin report

When the buck stops, just point the finger

Toxic foam debacle in national spotlight

Coalition against toxic taint

Contradictory maps muddying the waters

Fears of more tainted sites

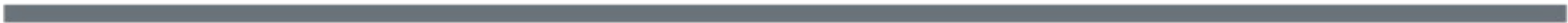
OUR COMMUNITY EXPECTS TRANSPARENCY.

Aussies endangered by **secretive** Defence

Experts demand clarity amid the confusion

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019





National Initiatives:



Workplace
Health & Safety



Legacy AFFF
Project



Water Treatment
(Groundwater)



Source Area
Excavation



Soil
Treatment



Ongoing
Monitoring

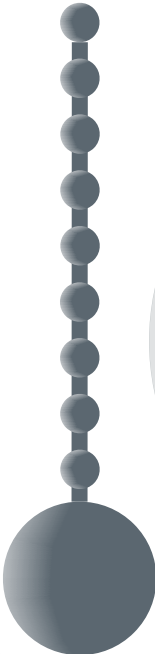
Site-by-site Actions



Management Objective



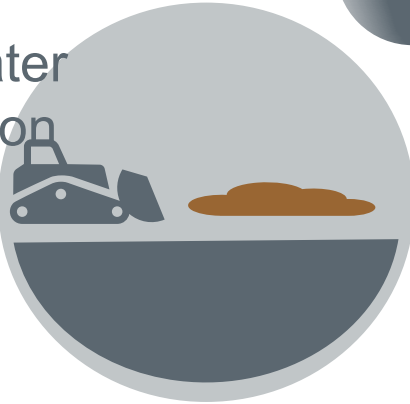
Response



Remediation



Exposure pathways
Primary Advice
Drinking Water
Area Identification
ing



Prevention of the
and Soil
ment
Migration r
Source re

PFAS Investigation & Management Program

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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.

Discussion

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www.defence.gov.au/Environment/PFAS/