



About the Investigation

In November 2018, Defence completed a detailed environmental investigation, to better understand the nature and extent of per- and poly-fluoroalkyl substances (PFAS), resulting from historical use of firefighting foams on, and in the vicinity of, RAAF Base Pearce (the Base). The outcomes of the investigation were used to develop a PFAS Management Area Plan (PMAP). This factsheet provides a summary of the key findings from the PMAP and an update on the provision of alternative water.

PFAS Management Area Plan (PMAP)

The PMAP recommends actions to manage and reduce the risks of PFAS exposure near the Base and surrounding community.

The PMAP will guide Defence to:

- Manage the key sources of contamination such as the former fire stations;
- Reduce the amount of PFAS in the environment;
- Reduce PFAS migration from the Base; and
- Manage the exposure risks for the community such as consumption of groundwater from some bores.

Developing the PMAP involved a review of the sources of the PFAS contamination on, and in the vicinity of, the Base and the key ways it is moving in the environment. It also included a comparison and evaluation of a range of available PFAS management actions that could be implemented.

The PMAP will be reviewed annually, or more frequently if new information or technology arises which has the potential to affect the PMAP objectives or outcomes.

PMAP Focus

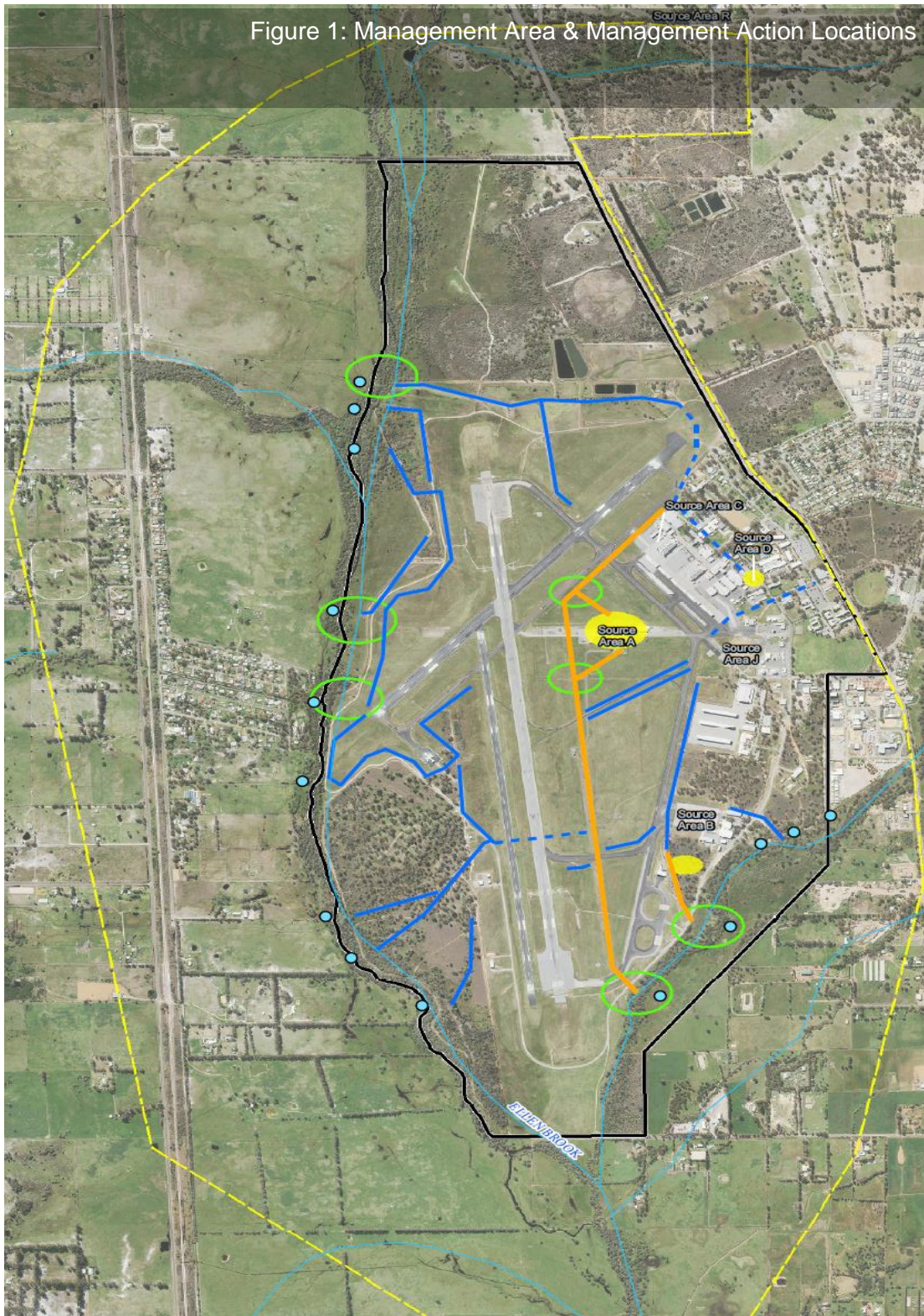
The PMAP focuses on the elevated exposure risks identified in the Human Health and Ecological Risk Assessments (HHERA) and examines the potential management options available to reduce these risks. The elevated exposure risks are:

- Drinking groundwater from bores with PFAS concentrations above drinking water guidelines;
- Incidental ingestion of shallow groundwater by sub-surface maintenance workers on-base;
- Incidental ingestion of surface water by personnel working in the on-base drainage channels;
- Base workers exposed to soil within the Grounds Maintenance Area located on base (Source Area D); and
- Sub-surface maintenance workers exposed to impacted soil within the Grounds Maintenance Area located on base (Source Area D).





Figure 1: Management Area & Management Action Locations



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|--|--------------------------|--|---------------------------|--|-----------------------------------|
| | Drainage discharge point | | Drainage improvement area | | Surface water management location |
| | River | | Inferred drainage pathway | | Source management area |
| | Site boundary | | Known drainage pathway | | Management area |





Recommendations

The management actions recommended in the PMAP are summarised as follows:

- Manage the three main sources of PFAS contamination on Base. This will involve removing contaminated soil from the former fire training areas and the Grounds Maintenance Area. This will reduce the ongoing release of PFAS to the local environment.
- Remove contaminated sediment and modify main drainage channels on the Base to minimise the amount of PFAS leaving the Base through surface water run-off, which is the main off-base migration pathway.
- Provide long term solutions to properties which use groundwater bores as their primary drinking water source and have PFAS concentrations above the limit of reporting
- Conduct further investigation at a number of source areas to better understand the extent of PFAS impact and whether or not these sources are contributing to off-base impacts.

Review of Supply of alternative drinking water

As a precautionary measure, while the PFAS investigation was being undertaken, Defence provided alternative drinking water to properties within the Investigation Area which fulfilled certain criteria.

The investigation has found that the majority of these properties do not have PFAS impacted bores and can return to using bore water, subject to Department of Health and Department of Water and Environmental Regulation guidance.

Defence will continue to provide alternative water to properties that have recorded a PFAS detect above the limit of reporting.

Defence will be sending a letter to residents with further information in the coming weeks.

Limit of Reporting

The limit of reporting (LOR) is the lowest concentration level that the laboratory is able to measure in a sample with a reasonable degree of certainty. Where the laboratory results show a result below limit of reporting, it means that if PFAS is present in the sample it is too low for the laboratory to measure with any degree of certainty.

Point of Entry Treatment (POET) Systems

Defence has considered potential long-term water supply options for properties with bores that have recorded PFAS detections including Point of Entry Treatment (POET) systems. POET systems are emerging as the preferred long-term water supply option.

POET systems involve the installation of water treatment equipment on the bore to reduce PFAS concentrations in the bore water. Packaged water will continue to be supplied to properties until long term solutions are proven and in place. Further information regarding the transition to a long term alternative water solution will be communicated to affected properties.





Ongoing Monitoring Plan (OMP)

The Ongoing Monitoring Plan (OMP) will provide an evidence base for the ongoing management of PFAS contamination, including reporting any changes in concentration and geographical spread. It will assist Defence to evaluate the progress and success of the management activities being undertaken or identify where more might need to be done.

The OMP will involve the sampling of groundwater, surface water and sediment at locations both on and off the Base, including selected residential properties, Base drains, Ellen Brook, Ki-it Monger Brook, Twin Swamps Nature Reserve and the West Bullsbrook drainage channel. The monitoring will occur every six months for an initial two year period, following which time the extent and frequency of monitoring will be reviewed.

Keeping the community informed

Defence is committed to regularly updating the community regarding the management of PFAS contamination through the project website, newsletters and factsheets as new information becomes available.





Next Steps

The PMAP has been finalised and can be viewed on the Defence website. Implementation of the actions outlined in the PMAP is expected to commence this year.

Monitoring of PFAS in sediment, surface water and groundwater, including at selected residential bores, within the Management Area has commenced as part of the OMP.

Contact Information

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