What are PFAS?
PFAS are man-made chemicals used in products that resist heat, oil, stains and water. The chemicals have been used in Australia and around the world in many common household products and specialty applications. Find out more about PFAS on our website. www.defence.gov.au/environment/pfas/

Human Health Risk Assessment Background
As part of the investigation, it was identified that part of the suburb of Leichhardt was constructed on land that was formerly part of a golf course. This area was likely to have been historically irrigated with water from the Bremer River. The Investigation Area was expanded in March 2019 to include the former golf course area. The boundary of the expanded Investigation Area is shown in Figure 1 over the page.

A Human Health Risk Assessment (HHRA) has been completed for the former golf course area. The aim of this assessment was to evaluate the potential risk of PFAS exposure for people in the area. The findings of the HHRA are outlined in this factsheet.

The former golf course area HHRA is an addendum to the broader HHRA which was published in August 2019.

HHRA Findings
The PFAS exposure risks are low and acceptable for all scenarios assessed in the former golf course area HHRA. Table 1 on the next page outlines the different exposure scenarios that were assessed.

The complete HHRA report is available at: www.defence.gov.au/environment/pfas/amberley/
Figure 1: RAAF Base Amberley Investigation Area, Human Health Risk Assessment areas and PFAS source areas.

Table 1: Summary of Risks by Exposure Scenario

<table>
<thead>
<tr>
<th>Exposure Scenario</th>
<th>Exposure-risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct contact (incidental ingestion, skin contact and dust inhalation) with soil in gardens</td>
<td>Low and acceptable</td>
</tr>
<tr>
<td>Consumption of homegrown herbs where PFAS is present in soil</td>
<td>Low and acceptable</td>
</tr>
<tr>
<td>Consumption of homegrown fruit and vegetables where PFAS is present in soil</td>
<td>Low and acceptable</td>
</tr>
<tr>
<td>Direct contact with soil and consumption of homegrown fruit, vegetables and herbs where PFAS is present in soil</td>
<td>Low and acceptable</td>
</tr>
<tr>
<td>Consumption of home-produced chicken eggs and home grown produce types different to those sampled</td>
<td>Low and acceptable*</td>
</tr>
</tbody>
</table>

* Note – not all home grown produce could be sampled. The risk assessment for homegrown produce types that could not be sampled is based on theoretical estimates.
Understanding the results

Food Standards Australia and New Zealand (FSANZ) have determined how much PFAS a person can be exposed to every day of their life without significant health risk. This is known as the tolerable daily intake.

The HHRA estimated how much PFAS people are exposed to each day from different scenarios, for example, drinking bore water or eating specific foods. These exposures are then compared to the tolerable daily intake to estimate risk.

Low and acceptable exposure risk
Where estimated exposure is lower than the tolerable daily intake, the exposure risk is considered to be “low and acceptable”.

Elevated exposure risk
Where estimated exposure is higher than the tolerable daily intake, the exposure risk is considered to be “elevated”. This does not necessarily mean that adverse health effects will occur, but action may be required to reduce exposure as a precaution. No elevated exposure risks were identified in this HHRA.

Government Health Advice
The Environmental Health Standing Committee (enHealth) has released guidance statements to help assess public health risks when PFAS have been released into the environment. In July 2019, the statements were updated to reflect the most current evidence relating to PFAS.

The Expert Health Panel for PFAS found that although the scientific evidence in humans is limited, reviews and scientific research to date have provided fairly consistent reports of an association with several health effects.

The health effects reported in these associations are generally small and within normal ranges for the whole population.

There is also limited to no evidence of human disease or other clinically significant harm resulting from PFAS exposure at this time.

As a precaution, enHealth recommends exposure to PFAS be minimised wherever possible whilst further research is undertaken on the potential health effects of PFAS exposure.

If you live or work in a PFAS contaminated area, your state or territory health department can provide you with local advice on how to minimise exposure to PFAS.

For more information, contact the Commonwealth Department of Health.

Phone: 1800 941 180
Web: www.health.gov.au/pfas

Keeping the community informed
Defence is committed to regularly updating the community throughout the investigation. Updates are provided through community information sessions, the project website, newsletters and factsheets as new information becomes available. Contact the investigation team if you’d like to receive regular updates.

Contact the RAAF Base Amberley Investigation Team
1800 817 751
amberley@ch2m.com

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