Williamstown RAAF Base Contamination
Background

• Historical use of fire-fighting foams containing per- and poly-fluorinated alkyl substances (PFAS)
• Same chemicals have been used in Teflon pans, Scotchguard, food containers, metal plating
• PFAS now considered possibly harmful to humans and now rarely used in Australia
Per- and Poly-fluorinated alkyl substances (PFAS)

• Very stable, do not break down easily
• Bio-accumulate in humans and animals
• Widely distributed in population and ecosystems
• Limited international scientific data
Williamstown RAAF Base

- Used in AFFF from 1970’s until early 2000’s
- PFAS in water and soil leaking off-base
- Sandy soils and shallow groundwater
- Possible pathways to human exposure
Williamtown RAAF Base

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Timeline

• May 2012 – Defence first advises EPA of issue.
• May 2013 – Defence provides Stage 1 report – PFAS in surface water and sediment off site, but not groundwater.
• August 2015 – Defence provides Stage 2A report – PFAS offsite in surface and groundwater, biota – reveals possible pathways to human exposure.
• 3 September 2015 - EPA alerts community
Williamstown Investigation Area
NSW Government Response

- Regulatory challenge with Defence
- Precautionary advice on consumption
- Expert Panel & Community Reference Group
- Mental health & community support
- Reticulated water supply
Environmental Site Assessment
Health Risk Assessment

• Test all possible pathways for exposure
• Know more about the chemical and how it moves through the environment
• Develop guidelines for safe consumption
## Revised Precautionary Advice

<table>
<thead>
<tr>
<th>Dietary advice</th>
<th>Health/behavioural advice</th>
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<tbody>
<tr>
<td><strong>Water consumption</strong></td>
<td>✓ Skin contact with groundwater, surface water, soils, muds and sediments</td>
</tr>
<tr>
<td>✓ Town water</td>
<td>✓ Breathing in dust from soil</td>
</tr>
<tr>
<td>✗ Do not use groundwater, bore water or surface water for drinking or cooking</td>
<td>✓ Using rainwater from roofs for drinking, cooking and watering</td>
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<tr>
<td><strong>Home grown produce</strong></td>
<td>✗ Avoid swallowing groundwater or surface water when bathing, showering, swimming and paddling</td>
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<tr>
<td>✗ Do not eat eggs or drink milk produced in the advisory area</td>
<td>✗ Fishing closures remain in place</td>
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<tr>
<td>- Moderate consumption of fruit and vegetables, meat and poultry produced in the advisory area while further work and analysis is undertaken – particularly in areas of higher PFAS contamination</td>
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<tr>
<td><strong>Seafood and fish produce</strong></td>
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<tr>
<td>✓ Commercially harvested oysters</td>
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<tr>
<td>✗ Do not eat fish, prawns or wild oysters caught in the Investigation Area</td>
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Remediation

• No current technique for large scale PFC remediation
• Defence trialling range of options
• PFCs will continue to leave base, especially after rain
More Information

- EPA Environment Line 131 555
- Defence Hotline 1800 011 443
- Mental Health Support 1800 011 511
Questions ?