



# NEW ZEALAND DEFENCE FORCE COVER SHEET

To accompany documents to the  
Minister of Defence

<b>Title:</b>	ROYAL NEW ZEALAND AIR FORCE BASE OHAKEA – PFAS CONTAMINATION ISSUE				
<b>NZDF File No.</b>	NZDF Tracking # 2017-249 (For OCDF Use Only)			Minister's Tracking#: (For Minister's office)	
<b>Importance of the Issue:</b>	<input type="checkbox"/>	High	<input checked="" type="checkbox"/>	Moderate	<input type="checkbox"/> Routine
<b>Urgency for Attention/Sign-Off:</b>	NOT URGENT			Request Ministerial response by: Not required.	
<b>Contacts:</b>	[ s. 9(2)(a) and 9(2)(g)(i) ]			[ s. 9(2)(k) ]	
<b>Purpose:</b>	To alert you to a complex investigation into a significant land contamination issue at Ohakea Air Base that has implications across the Defence Estate and the steps that are being considered to address it. The investigation will result in media interest.				
<b>Recommendations:</b>	<p>I recommend that you:</p> <ul style="list-style-type: none"> <li>a. <b>Note</b> that priority investigations of PFAS contamination of New Zealand Defence Force sites and adjacent lands and waters are underway;</li> <li>b. <b>Note</b> the necessary engagement with external stakeholders and resulting media attention will be carefully managed to ensure all parties have timely access to accurate information and appropriate remedial actions are identified; and</li> <li>c. <b>Consider</b> raising the issue with the Ministers of Transport, Internal Affairs and Health.</li> </ul>				
<b>MOD/NZDF Consultation</b>	Not required.				
<b>Minister's comments:</b>	<i>please take action recommended in C.</i>				
<b>Minister's Action:</b>	Signed / Noted / Agreed / Approved / Declined / Discussion required				
	Referred to:				
<b>Signature:</b>	 <b>Date:</b> 30/08/17				

**T.J. KEATING**  
Lieutenant General  
Chief of Defence Force

Date: 3 August 2017

NZDF/7809/JLSO/2/B40  
NTM 2017-249

3 August 2017

Minister of Defence

## **ROYAL NEW ZEALAND AIR FORCE BASE OHAKEA – PFAS CONTAMINATION ISSUE**

### **Purpose**

1. This briefing alerts you to a complex investigation into a significant land contamination issue at Ohakea Air Base that has implications across the Defence Estate and the steps that are being considered to address it. The investigation will result in media interest.

### **Background**

2. The acronym PFAS (used throughout this correspondence) denotes a group of chemical compounds known as per- and poly-fluoroalkyl substances. They are a class of manufactured chemicals that have been used since the 1950s in the production of a wide range of household and industrial products that resist heat, stains, grease and water.

3. PFAS have been used in fire fighting foams (known as Aqueous Film Forming Foam or AFFF) due to their effectiveness in extinguishing liquid fuel fires. They have been used by both civilian and military authorities worldwide since the 1970s and are present in older and, to a lesser degree, some current fire-fighting foams as well as many common industrial and domestic materials.

4. Since the early 2000s, PFAS compounds have been increasingly recognised as potentially harmful. PFAS are classified as an emerging contaminant. Human health effects from long term exposure to PFAS are unknown and internationally a precautionary approach to limit human exposure is being adopted.

5. The Defence Force became aware of PFAS as an emerging contaminant through overseas experience and professional networks. The Australian Defence Force has been facing similar issues in recent years and the New Zealand Defence Force has engaged with them to benefit from their experience.

6. In 2015 it was decided that testing in New Zealand was warranted and the results of routine investigations at Ohakea Air Base were received in early 2016. PFAS concentrations were (and remain) elevated in both surface and groundwater at multiple locations within the base. Site-wide investigations are underway at Ohakea and other potentially impacted New Zealand Defence Force locations. These investigations are complex and ongoing.



7. The Defence Force started reducing the use of fire-fighting foams that contain PFAS from 2016. Where possible training is carried out at purpose-built Fire and Emergency New Zealand facilities and the use of foams containing PFAS is limited to actual emergency situations. This reduction was in reaction to the emerging contaminant issue raised by PFAS but also because new products were coming onto the market.

#### **Current Ohakea Contamination Situation**

8. The current situation at Ohakea is as follows:

- a. PFAS concentrations in surface and groundwater, at various locations within the base and leaving the base, are above current acceptable levels and are under continuing investigation; and
- b. The main potable water supply well for Ohakea Air Base contains PFAS compounds. The concentrations of those compounds are below current guidelines. That water is safe to drink.

#### **Ongoing PFAS Investigations and Management Actions**

9. The next major step in the ongoing investigation is to test ground and surface water on private land adjacent to Ohakea. This step will inevitably result in media attention and public awareness of PFAS as an environmental and potential health issue not only for the Defence Force but also for other users of fire-fighting foam nationwide.

10. The Defence Force will engage with other relevant Government agencies before any action is taken that will bring the PFAS issue to public or media attention. Those agencies will include Fire and Emergency New Zealand, Auckland and Christchurch Airports and the Environmental Protection Agency as well as the local District and Regional Councils.

11. The following key actions are underway or programmed:

- a. Identify potentially affected landowners around Ohakea Air Base (expected to be less than 50) - *underway*;
- b. Engage with the Australian Defence Force, other government agencies, regulatory authorities and New Zealand commercial airports – *ongoing*; and
- c. Test ground and surface water on public and privately owned land in identified areas – *commence as soon as possible and within two months*.

12. PFAS site investigations on all other Defence Force sites have been prioritised in accordance with the potential for environmental and human health risks. As well as Ohakea Air Base, investigations are currently underway at Devonport Naval Base, and Woodbourne and Whenuapai Air Bases.

13. At Devonport, initial investigations at the Sea Safety Training Squadron (at Ngataranga Bay) have found that local groundwater is contaminated; however, after dilution, PFAS concentration is not anticipated to exceed the relevant guideline in the waters of Ngataranga Bay. Sediment in the mangrove fringe of Ngataranga Bay close to the Sea Safety Training Squadron is contaminated but not at levels that would pose a risk to human health.

### Next Steps

14. The PFAS issue is a legacy contamination issue to which there is no straightforward resolution:

- a. The extent to which non- New Zealand Defence Force land and waters are contaminated will be assessed by the ongoing investigations;
- b. The New Zealand Defence Force's response and subsequent steps will primarily be determined by the extent and degree of any off-site contamination and response from landowners and regulatory authorities; and
- c. If remedial action is required, the scope of that action might range from substitution of water supplies to bulk earthworks, to minimise ongoing discharge of PFAS.

### Media Issues

15. The issue of PFAS contamination is a national and international issue, awareness of which is growing. In Australia it is a contentious issue covered by the media. Testing and decontamination is proving expensive for the Australian Defence Force.

16. For the New Zealand Defence Force once sampling of private land around Ohakea starts then it is likely media will become interested. The Defence Force has developed a communications plan to manage media engagement and this will be shared with your staff.

17. Noting that this issue also traverses the portfolios of the Minister for Internal Affairs, Transport and Health you may wish to consider raising this issue with them.

### Recommendations

18. I recommend that you:

- a. **Note** that priority investigations of PFAS contamination of New Zealand Defence Force sites and adjacent lands and waters are underway;
- b. **Note** the necessary engagement with external stakeholders and resulting media attention will be carefully managed to ensure all parties have timely access to accurate information and appropriate remedial actions are identified; and

- c. **Consider** raising the issue with the Ministers of Transport, Internal Affairs and Health.



**T.J. KEATING**

Lieutenant General  
Chief of Defence Force

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