

STANDING COMMITTEE ON FOREIGN AFFAIRS, DEFENCE AND TRADE

Inquiry into contamination of Australian Defence Force facilities and other Commonwealth, State and Territory sites in Australia

RESPONSES TO QUESTIONS ON NOTICE – HANSARD RECORD

1. Request from Senator Dastyari to Mr Buffier for a copy of the briefing note to Minister Parker on the Williamstown contamination

A copy of the briefing note is provided at Attachment A.

2. Question from Senator Rhiannon to Mr Buffier as to whether:

(a) the water used to extinguish bushfires in the Williamstown locality was sourced from Lake Cochran

Defence officials advised on 22 December 2015 that firefighting aircraft sought clearance from air traffic control to draw water from Lake Cochran, and that clearance was denied.

(a) the locality in which the water was used was already contaminated

The bushfire in question was burning wholly within the investigation area where elevated levels of PFOS/PFOA have been detected.

(b) the locality into which the water may have spread was already contaminated.

The bushfire was burning to the east of the Base near Moors Drain, where elevated levels of PFOS/PFOA have already been detected.

RESPONSES TO WRITTEN QUESTIONS ON NOTICE – SENATOR RHIANNON

1. Why did the NSW EPA not make a submission to this inquiry?

All determinations on whether the NSW Government (or any of its agencies) will provide a written submission to a Federal Government inquiry are made by the NSW Department of Premier and Cabinet. On this occasion, the NSW Government determined that no written submission would be provided, however, the EPA and a number of other NSW agencies attend the hearings to provide evidence.

2. What communication did the NSW EPA have with Hunter Water or Department of Defence (Defence) about the Hunter Water 2009 test?

The EPA's records do not reveal any communications by the EPA with Hunter Water or the Department of Defence in relation to the Hunter Water 2009 test.

3. **What communications did the NSW EPA have with Defence between the 2013 notice of Stage 1 report and receipt of Stage 2 report in August 2015? Considering the long delay what efforts did you make to chase up this report?**

See Attachment B for a detailed chronology of NSW Government actions within this time interval as evidenced by information held by the EPA.

4. **What was the nature of communications with the federal Department of the Environment regarding giving notice to the affected community about the contamination? Could the NSW EPA clarify the information provided at the public hearing on 22 December 2015 that the NSW EPA escalated this matter to the Department of the Environment in November 2013?**

A copy of the letter to the Department of the Environment is provided at Attachment C. The sequence of events leading up to this letter are set out in the chronology provided at Attachment B.

CLARIFICATION TO ORAL EVIDENCE BY MR BARRY BUFFIER, PUBLIC HEARING, 22 DECEMBER 2015

2012 timeline from first notification by Defence to NSW Government of PFOS/PFOA contamination at Williamstown.

- 01/05/2012** Defence email to Hunter Water advising of monitoring report showing PFOS/PFOA contamination at groundwater and surface water monitoring locations on the base.
- 02/05/2012** Email to EPA (Manager Hunter Region) requesting confidential meeting to discuss recent results from its onsite water monitoring indicating elevated levels of PFOS at RAAF Base Williamstown, including stormwater leaving the Base.
- 10/05/2012**
- EPA meets with Defence - Defence provides verbal advice about potential contamination issues on the base, but no written advice disclosed on the basis that the reports did not have 'clearance for release'.
 - EPA requested:
 - a. Defence to provide data and reports to the EPA as soon as possible
 - b. Defence to urgently notify Hunter Water, Port Stephens Council, the media, the community and other stakeholders.
- 17/05/2012**
- EPA (Manager Hunter Region) contacts Hunter Water Corporation (HWC) to ensure they are aware of the situation.
 - EPA (Manager Hunter Region) recorded that 'HWC has received a briefing on the issue from RAAF staff and at this stage of the investigation HWC does not consider the water supply bores to be at risk of contamination.'
- 22/05/2012** Hunter Water tests for PFOS/PFOA in all Hunter Water bores in the Tomago sandbeds with nil detects
- 29/06/2012** EPA spoke to Defence environment manager and was advised Defence only had preliminary results for some samples and not all results were back yet. The EPA was advised separate consultants have been engaged by Defence to conduct the sampling and provide technical advice

GROUNDWATER CONTAMINATION – RAAF BASE WILLIAMTOWN

DOC13/25051; FIL08/1958

ISSUE

Contamination of groundwater at RAAF Base Williamtown with potential for off-site impacts.

BACKGROUND

In mid-2012, the Department of Defence (DoD) briefed the EPA on a potential groundwater contamination at the RAAF Base at Williamtown, near Newcastle. The potential contamination is the result of past practices at the Base.

DoD advised that preliminary results had shown elevated levels of the organic pollutants Perfluorooctane Sulfonyl (PFOS) and Perfluorooctanoic Acid (PFOA) in the stormwater on the Base and in the groundwater at various locations under the Base. PFOS and PFOA were the main ingredients used in fire-fighting foams.

Highest levels of the two contaminants were found in groundwater under the old and current fire-fighting training areas. No documentation was provided to the EPA at this meeting, but DoD advised that was about to start a study to identify the extent of the contamination.

Hunter Water Corporation extracts groundwater for domestic supply from bores adjacent to the boundary of the Base.

PFOS and PFOA are recognised as significant and emerging contaminants of concern internationally. They bio-accumulate, are potentially carcinogenic and have reproductive impacts on animals.

CURRENT POSITION

Having received no further advice from DoD since the mid 2012 briefing, the EPA wrote to the Department on 28 March 2013 seeking an update and results. On 24 May 2013, the EPA received from DoD the report titled "*RAAF Williamtown Stage 1 – Conceptual Site Model for AFFF Contamination*". The report is dated March 2013.

Key findings from the report are:

- The extent of impact on soils is not fully understood due to the lack of systematic sampling in the Stage 1 assessment.
- PFOS and PFOA were detected in groundwater across the Base. Highest concentrations are associated with the fire-fighting training areas, trade waste facilities, the sewage treatment plant, an internal stormwater detention pond and the former landfill.
- PFOS and PFOA were not detected in offsite groundwater, including Hunter Water Corporation water supply bores.
- PFOS and PFOA were detected in surface water both on the base and off-site.
- Data gaps are significant in the understanding of the risks posed by the PFOS and PFOA contamination.
- A Stage 2 assessment is needed to fully identify the extent of any issue.

The DoD cover letter noted it will commence the Stage 2 investigation early in the 2013/14 financial year and this study will be completed mid-2014. Stage 2 involves more off-site surface, drain sediment and groundwater monitoring. The Stage 2 assessment will also include biological monitoring, such as the potential for accumulation in oysters.

Given DoD is a federal agency, EPA has no statutory control. In a similar situation in Sydney where contamination has entered "NSW land" from a DoD site the EPA has been advised by the federal agency concerned that they have exemption from certain State laws. DoD has previously

advised EPA that environmental oversight of its operations is by the federal Department of Sustainability, Environment, Water, Populations and Communities (SEWPaC). The DoD cover letter noted it had not informed SEWPaC as the contamination has been determined not to cause a significant impact to the environment under the *Environment Protection and Biodiversity Conservation Act 1999*.

DoD has sent a copy of the report to the EPA, Hunter Water Corporation, Port Stephens Council, NSW Office of Water and NSW Department of Primary Industries. On 29 May 2013, the EPA wrote to DoD to suggest a copy of the report should also be sent to NSW Department of Health for its information.

At this point it is proposed that the EPA will continue to liaise with DoD as needed, noting that the EPA does not have a regulatory role within the Base due to Commonwealth jurisdiction. Hunter Water Corporation and NSW Health should take the lead with human health and safety issues. The EPA will continue to liaise with NSW agencies and Councils as needed.

RECOMMENDATION

It is recommended that the Minister notes this advice.

Peter Jamieson
29 May 2013

1. A/Regional Manager Hunter (Mitchell Bennett - endorsed 5/6/2013)
2. Director North (Gary Davey – endorsed 5/6/13)
3. Director Hazardous Incidents and Environmental Health
4. Chief Environmental Regulator
5. Chair and CEO
6. Minister

WILLIAMTOWN CONTAMINATION CHRONOLOGY – STAGE 1 REPORT TO STAGE 2 REPORT

This chronology records the governmental response to the Williamtown contamination since 2012 as evidenced by information held by or provided to the EPA. It should be read subject to the following:

- This chronology is detailed for EPA entries, and for Hunter Water, it is selective based on significant or milestone actions given multiple minor communications in that period between Hunter Water and Defence.
- This chronology has been prepared using best efforts to identify and record relevant material held by or provided to the EPA. It is not a comprehensive record of all relevant NSW government agencies.

Abbreviations

Defence	Department of Defence	PFOA	Perfluorooctanoic acid (PFOA)
EPA	NSW Environment Protection Authority	PFOS	Perfluorooctane sulfonate
Hunter Water	Hunter Water Corporation	Stage 1 Report	Conceptual Site Model for AFFF Contamination
STP	Williamtown RAAF Base and Newcastle Airport Sewage Treatment Plant	Stage 2 Report	Draft URS Report titled <i>Stage 2 Environmental Investigation AFFF PFAS, RAAF Base Williamtown, Williamtown NSW</i> dated 3 September 2015

	Date	ACTIONS		CONTEXT
		NSW Government	Department of Defence	
1	17/05/2013		<p>Letter of response from Defence to EPA letter of 28/03/2013:</p> <ul style="list-style-type: none"> • Attaches Stage 1 Report (Conceptual Site Model for AFFF Contamination), noting on and off-site drain and sediment impact and biota on-site but no off-site groundwater impact. • Advises Stage 1 report also sent to Port Stephens Council and other NSW Government agencies (but not to NSW Health.) • Stage 1 investigation identified the extent of PFOS was not well understood due to lack of systematic sampling. Data gaps identified as significant and hence the risks posed by PFOS & PFOA contamination as difficult to assess. • Stage 2 investigation proposed to commence early in the 2013/14 financial year and expected to be completed in mid-2014. Stage 2 to quantify extent of PFOS/PFOA contamination at RAAF Williamtown and land adjacent to the base. 	Reissue of letter from Defence to OEH on 20/05/2015 (summarized version of letter above dated 17/05/2015) – confusion regarding name change from OEH to EPA.
2	20/05/2013		Defence advises NSW Office of Water of 'onsite' contamination at RAAF Base Williamtown. Offsite groundwater samples taken by Department of	Offsite groundwater samples taken by Department of Defence as part of the Stage 1 investigation indicated that no detectable PFOS

	Date	ACTIONS		CONTEXT
		NSW Government	Department of Defence	
			Defence as part of the Stage 1 investigation indicated that no detectable PFOS levels had been found.	levels had been found. Contamination remains on-site, no further action required by Office of Water at this time.
3	22/05/2013		Hunter Water receives the 'RAAF Williamtown Stage 1 – Conceptual Site Model for AFFF Contamination' from Defence. The covering letter and report notes that detectable levels of PFOS/PFOA are widespread in groundwater at the base. Off-site groundwater testing reported no detectable PFOS/PFOA. On-site and off-site water tests detected PFOS/PFOA.	
4	29/05/2013	Action by: EPA EPA letter to Defence advising EPA currently assessing the report and suggesting that Defence also send a copy of the report to NSW Health.		EPA subsequently updates NSW Health (11/09/2013)
5	12/06/2013	Action by: EPA EPA briefing note to the Minister for the Environment Hon. Robyn Parker providing information about Williamtown RAAF base PFOS contamination issue.		
6	05/2013	Action by: Hunter Water Hunter Water operates a number of bores in the Tomago sandbeds for maintenance reasons for a 1 month period. PFOS/PFOA testing undertaken for all operating bores with nil detects		
7	16/09/2013	Action by: EPA EPA briefs Interagency Planning Strategic Liaison Group meeting (EPA/WorkCover/NSW Health) on Williamtown PFOS/PFOA contamination issue.		

	Date	ACTIONS		CONTEXT
		NSW Government	Department of Defence	
8	23/09/2013	<p>Action by: EPA EPA provides information to NSW Office of Water regarding the groundwater contamination issue.</p>		EPA notified Office of Water about the 'onsite' contamination issue identified by Department of Defence in May 2013. This advice noted that no groundwater contaminants has been detected off-site, no further action necessary at this time by Office of Water as contained on site.
9	25/09/2013	<p>Action by: EPA EPA letter to Defence regarding Stage 1 report:</p> <ul style="list-style-type: none"> • Concludes potentially unacceptable risk to human health and the environment from PFOS/PFOA levels at the site, but notes does not appear to be in off-site groundwater bores. • Concerns about surface water results above health guidelines raised and requests Defence convene a meeting with Government agencies to discuss findings as soon as practicable. • Stresses the importance of commencing the Stage 2 investigation works as soon as possible in the 2013-14 financial year as committed to by Defence in its letter of 17/05/2013. 		
10	18/11/2013	<p>Action by: EPA EPA letter to Commonwealth Department of Environment:</p> <ul style="list-style-type: none"> • Formal notification of the site contamination issue at Williamstown for the Department to consider any actions it deems necessary. • Concern expressed that Defence had not responded to EPA letter of 25/9/2013. • Noted EPA does not have a regulatory role due to Defence being a Commonwealth Government agency. 		

	Date	ACTIONS		CONTEXT
		NSW Government	Department of Defence	
11	05/12/2013		<p>Defence letter to OEH (EPA) advising that Stage 2 environmental investigations planned to commence in late 2013 had been delayed, with the project now planned to commence in early 2014.</p> <p>Defence letter to Office of Water advising of recent discovery of PFOS and PFOA during routine groundwater monitoring on-site at the RAAF base and the planned environmental studies.</p>	
12	15/04/2014	<p>Action by: EPA Email response to Defence consultant (URS) regarding biota sampling/testing protocols.</p>		Response to query sent to NSW Environment Line from URS (Victoria) as consultant to Defence in relation to Williamstown. Query concerned protocols for permits/access and testing regimes.
13	13/05/2014		Defence letter to EPA advising it had engaged environmental consultant to conduct Stage 2 investigation with intended scope of the investigation to be provided to EPA when planning is sufficiently advanced.	
14	08/2014	<p>Action by: Hunter Water Due to falling water storage levels Hunter Water undertake risk assessment of potential for contamination by PFOS/PFOA of water supplied from the Tomago sandbeds. Based on the risk assessment Hunter Water places an embargo on the operation of Bore stations 7 & 9 for water supply purposes.</p>		
15	04/09/2014	<p>Action by: EPA / Defence Meeting at EPA Sydney office to discuss results of investigations with consultants of Defence. Meeting to discuss further studies to evaluate off site impacts of PFOS and PFOA and Defence's proposed community consultation process.</p>		
16	12/09/2014	<p>Action by: Hunter Water Hunter Water write to NSW Health advising of measures taken to manage potential for PFOS/PFOA contamination in the operation of the Tomago Borefield</p>		
17	25/09/2014		<p>Defence letter to EPA advising:</p> <ul style="list-style-type: none"> Progress of Stage 2 investigation, including 	

	Date	ACTIONS		CONTEXT
		NSW Government	Department of Defence	
			<p>installing off-base monitoring wells in the vicinity of the RAAF base to obtain data on groundwater.</p> <ul style="list-style-type: none"> • Flyer about the monitoring activity had been distributed to residents in close proximity to the monitoring wells. • Copy of an information pack attached - to be used if the flyer results in enquiries – information pack contains a map showing off-site monitoring well locations and FAQs concerning PFOS/PFOA contamination and potential risks, as well as information on the Stage 2 investigation program. 	
18	26/09/2014		<p>Defence email to Office of Water advising it is to commence further investigation of contamination in groundwater and soils on and adjacent to RAAF Base Williamtown as flagged in December 2013. Defence indicate that it would also be advising nearby residents via a flyer at this time and any enquiries received by Office of Water should be directed back to Defence.</p>	<p>The investigation included offsite monitoring (PFOS/PFOA) wells, commencing the week of 27 October 2014. Attachments included in the email were a cover letter regarding the investigation and a copy of the RAAF Base Williamtown Stage 2 Flyer outlining the installation of monitoring wells (depth and location).</p>
19	21/10/2014		<p>Defence letter to EPA providing a progress update on off-site investigation work and confirming residents in close proximity to the planned activities were provided with an information flyer and there were no enquiries received from residents who received the information pack.</p>	
20	03/03/2015	<p>Action by: NSW Health NSW Health email (cc EPA) to Defence expressing concern about silence on extent of contamination by Defence and requesting a meeting with NSW agencies.</p>		
21	12/03/2015		<p>Defence email to NSW Health (cc EPA) advises <i>“the project has...been expanded to address data gaps found during the initial investigation. We are currently in the process of installing our last set of off-site monitoring wells this coming week and expect to have a final set of results in April.....At this stage, we anticipate providing relevant</i></p>	

	Date	ACTIONS		CONTEXT
		NSW Government	Department of Defence	
			<i>stakeholders with a draft report in late May, after which we would be happy to hold a meeting to discuss the outcomes of the work completed."</i>	
22	05/2015		Defence email correspondence to EPA – attached Defence Contamination Directive #8.	
23	07/15 – 09/15	Action by: Hunter Water Hunter Water operate the Tomago borefield for water supply purposes with the exception of stations 7 & 9. Testing of the operating bores returns nil detects for PFOS/PFOA.		
24	04/08/2015		Defence letter (attached to email) to EPA attaching link to draft Stage 2 report (2000+pp, dated 3/8/2015) and requesting meeting with NSW agencies to brief the agency on the findings which indicates off-site groundwater contamination.	<p>What the draft Stage 2 report should have done, but did not do, was provide information on the extent of the contamination and likely pathways to human exposure.</p> <p>For example, information on the extent of the groundwater contamination plume and the role of surface water pathways in spreading the contamination and likely spread offsite should have been include in the draft Stage 2 report. Currently the boundary of the impacted groundwater and surface waters are both changing as new information comes to light. Much of this information could have been generated some time ago in the response to monitoring investigations undertaken by consultants.</p>

Defence provides draft Stage 2 report



Your reference:
Our reference: DOC13/83529; EF13/8309
Contact: Michael Howat (02) 4908 6819
Electronic correspondence to: hunter.region@epa.nsw.gov.au

Mr Shane Gaddes
Assistant Secretary
Compliance and Enforcement Branch
Department of the Environment
GPO Box 787
CANBERRA ACT 2601

Dear Mr Gaddes

**NOTIFICATION OF SITE CONTAMINATION INVESTIGATIONS
WILLIAMTOWN RAAF BASE NSW**

This letter is to notify the Department of the Environment of a site contamination issue identified at the Royal Australian Air Force Base located at Williamtown NSW (Williamtown RAAF Base). This matter was identified by the Department of Defence (DoD) and is currently on-going with further site assessments proposed.

By way of background, in 2012 the DoD notified the NSW Environment Protection Authority (EPA) of potential contamination issues at the Williamtown RAAF Base. The contamination resulted from past practices at the premises. Preliminary site investigations analysing groundwater and surface water quality were conducted at the site.

The outcome of this analysis was the detection of various contaminants in a number of the groundwater and surface water sample sites. Based on these results, the most significant parameters of concern are perflourooctane sulfonate (PFOS) and perflourooctanoic acid (PFOA) concentrations detected in sample sites at the base as well as some surface water sample sites outside the base.

The site assessments and results were detailed in the reports:

- "Treatment Plant Overflow Area Investigation Report" prepared by Aecom Australia dated 7 September 2012; and
- "Treatment Plant Effluent Lagoon Investigation Report" prepared by Aecom Australia and dated 7 September 2012.

On 24 May 2013, the EPA received the report titled "RAAF Williamtown Stage 1 – Conceptual Site Model for AFFF Contamination" dated March 2013. This report identified a number of key findings in relation to the extent of contamination and specifically noted a Stage 2 assessment is required to fully identify the extent and significance of any issues. The covering letter proposed the commencement of Stage 2 investigations early in the 2013/2014 financial year.

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The EPA wrote to DoD on 26 September 2013 requesting an update on the Stage 2 works and proposing a meeting with all relevant agencies to outline and discuss the further investigation works. To date the EPA has received no response to this letter.

As you are no doubt aware, given that DoD is a Commonwealth Government agency the EPA does not have a regulatory role in this matter. This letter is to formally notify your agency of the current situation at the Williamstown RAAF Base for any further actions you may consider necessary.

The Department of the Environment may wish to be part of future discussions between agencies. If so, would you please ask the relevant officer to contact Mr Mark Hartwell, Acting Manager – EPA Hunter Region. Mr Hartwell may be contacted on

Yours sincerely

18 NOV 2013

GARY DAVEY
Director – North Branch
Environment Protection Authority