

Chapter 5

Government response

5.1 This chapter will examine the response of Commonwealth and NSW Government agencies to the contamination at RAAF Base Williamtown. Key issues raised during the inquiry included:

- community notification;
- community engagement;
- coordination of the response;
- environment regulation issues;
- remediation and management of RAAF Base Williamtown; and
- compensation issues.

Community notification

5.2 Many of those affected by the contamination expressed frustration that they had not been notified earlier by government agencies as to the potential risks of contamination. Ms Washington told the committee it has been 'difficult for anyone to stomach the most fundamental question: if Defence, the EPA, Port Stephens Council and Hunter Water all knew about the contaminants exiting the base in 2012, why wasn't our community given the benefit of the same information?'. In particular, she noted, earlier notification would potentially have allowed people to have had 'less exposure to the contaminants'.¹

5.3 There was strong criticism of Defence's approach to community notification. In particular, Defence had prepared an internal report in May 2003 on its use of firefighting foam which included a key finding that based on 'past and current practices, there is a risk that PFOS/PFOA has contaminated Defence land as well as neighbouring properties, creeks, dams and reservoirs'.² The PFA stated:

In reviewing the timelines of the ADF response to the use of PFOS and PFOA and actions once the leak was determined, the PFA believes that the ADF demonstrated a lack of appreciation of the potential severity of the issue. Certainly the timeframes and the lack of immediate action demonstrate that the ADF do not comprehensively appreciate the role and responsibility it has within the community.³

1 *Committee Hansard*, 22 December 2015, p. 1. *Submission 32*, p. 2.

2 Sonia Colville and Nicole McCarron, *Environmental Issues Associated with Defence use of AFFF*, May 2003, p. 1.

3 *Submission 28*, p. 2.

5.4 The summarised timeline in Chapter 2 contains some of the detail regarding how information regarding the nature and extent of the contaminants on and around RAAF Base Williamtown emerged. In particular, the Stage 1 and Stage 2 environmental investigations undertaken by Defence were viewed as critical to the understanding of the extent of the contamination.

5.5 Mr Buffier from the NSW EPA told the committee that the Stage 1 report 'did not identify a clearly defined route by which contaminants were finding their way to humans, known as an exposure pathway' and therefore 'did not provide sufficient information at the time to notify the community'. However, he noted it was of sufficient concern for the NSW EPA to request that Defence conduct 'further investigations into the extent of off-site contamination and the potential exposure pathways'.⁴

5.6 Mr Buffier outlined how the NSW EPA took a risk management approach to the issue of when to inform the community regarding the issue. On the basis of the Stage 1 report, the NSW EPA considered it was 'not appropriate, with our paucity of knowledge at the time, to inform and alarm the community'. Further, it expected 'better information [from Defence] for the community relatively soon'.⁵

5.7 Defence provided the preliminary Stage 2 report to the NSW EPA and other stakeholders on 4 August 2015. Mr Buffier explained that on the basis of the draft Stage 2 report 'there was now a likely exposure pathway, and on a precautionary basis we took the view that we should take steps to close off those pathways'. Mr Buffier noted that PFOS was a chemical of concern:

The report told us that we now had it not only offsite in surface water and in sediments but also offsite in groundwater and, most significantly, in biota. That told us that we had a clear and credible pathway to human health exposure. So if you accept that the chemical might cause concerns once it is ingested by humans and there is an exposure pathway, then that was the significant change in information that warranted the swift response by us once that came to light.⁶

5.8 He noted:

[W]e worked closely as government agencies to respond to its findings, in particular closing its exposure pathways, including the establishment of the Williamtown investigation area, the closure of fisheries and oyster operations in Tilligerry Creek and Fullerton Cove, where there was a high likelihood of biological impact. On the day we made those decisions, 3 September, we issued a media release, and the next day, on 4 September, we did a letterbox drop to all the residents in the investigation area.⁷

4 *Committee Hansard*, 22 December 2015, p. 45.

5 *Committee Hansard*, 22 December 2015, p. 46.

6 *Committee Hansard*, 22 December 2015, p. 53.

7 *Committee Hansard*, 22 December 2015, p. 46.

5.9 The NSW EPA described a 'reluctance' on the part of Defence to issue a media release at that time. In these discussions there appear to have been conflicting views regarding the potential liability for any precautionary measures taken following an announcement.⁸ Mr Grzeskowiak from Defence commented that its 'preferred mechanism would have been for Defence to engage the community at the time we had the final verified report'. He stated:

My personal advice was that we would much rather have organised some form of meeting in this area and talked to people as a way of getting that message out. That was Defence's preferred approach. We thought that a media statement late in the evening would raise alarm, and that is clearly what has occurred.⁹

5.10 In its timeline of events leading to notification of the community, the Defence submission made an observation regarding the preliminary Stage 2 report:

Typically these reports are not relied upon for community advice or formal decision making due to potential for significant errors being detected during quality assurance/technical verification stages.¹⁰

5.11 In his interim report of the NSW EPA approach to RAAF Base Williamtown, Professor Mark Taylor found that, while the NSW EPA's actions from August 2015 period have been appropriate, it has been 'reactive':

The public could have been informed earlier in a comprehensive fashion had action been taken sooner by the EPA. Specifically, these actions should have focussed on the extent of contamination in the community where the EPA has carriage of responsibility.¹¹

5.12 However, Professor Taylor also highlighted that a lack of clarity in responsibilities for environmental regulation of Commonwealth Government land and agencies had hindered the capacity of the NSW EPA to influence the situation.

Community engagement

5.13 A number of problems with the engagement and communication of information to the community by government agencies were identified following the announcement of the fishing closures and precautionary measures in September 2015. For example, Ms Kate Washington MP noted that from the outset the media has been the main source of information for affected residents. She stated:

8 For example, Mr Adam Gilligan, NSW EPA, *Committee Hansard*, 22 December 2015, p. 53; Mr Michael Lysewycz, Defence, *Committee Hansard*, 22 December 2015, p. 67.

9 *Committee Hansard*, 22 December 2015, p. 67.

10 *Submission 87*, p. 16.

11 Professor Mark Taylor, 'Stage One of Review of NSW EPA's Management of Contaminated Sites', *Interim Report*, December 2015, p. 26.

Whilst I appreciate that conveying news of potential contamination in any manner would be difficult, many residents took umbrage with the manner in which they were informed. Moreover, not all affected residents engage with the media and so learning of the news via neighbours, was not optimal.¹²

5.14 The PFA and the CFCL condemned the lack of information, commitment and consultation demonstrated by Defence. They described:

Minimum communication to the community and stakeholder groups from [Defence] regarding their activities, any mitigation activities and intention to assist or compensate. Information has only been filtered through DPI or the Community Reference Group.

In the first 7 meetings of the Community Reference Group there was no consistency in [Defence] representatives - with 8 different people representing at the first 7 meetings.

Lack of any consistency in responses between different [Defence] representatives regarding compensation and activities.

A large amount of questions through the Community Reference Group are responded to by the ADF as requiring responses at a later date.¹³

5.15 The Port Stephens Council was also critical:

[T]here was and continues to be no clear coordinated communications strategy. This would have greatly assisted in ensuring key messages were consistent and confusion in the community was managed for such a high profile issue. Coupled with the apparent impromptu and piecemeal communications from various agencies was the fact that undated fact sheets were distributed to the community, while key agencies such as the EPA were reliant upon Council for the communication of matters on social media due to the lack of an EPA presence on Facebook.

Council also had concerns that the agencies with lead communication responsibility were also those furthest removed from the public, meaning they were somewhat out of touch with the needs of the local community. The first community meeting, which was held out of the area and at a venue that serves alcohol, is an example of this. The meeting was poorly facilitated and at times lacked the tact, diplomacy and compassion the audience required. It was also far too long, with presentations from various government agencies prioritised over community participation.¹⁴

5.16 Professor O'Kane, who chairs the Expert Panel, noted that NSW Government agencies were using multiple methods to engage with the affected community. In particular a community drop-in centre has been established at a local school 'where people can go and talk to representatives of various agencies like Health, or Water, or

12 *Submission 32*, p. 1.

13 *Submission 28*, pp 2-3.

14 *Submission 26*, p. 6.

DPI fishing' on a one-to-one basis. She described it as a 'powerful communication mechanism because there is no time limit' and '[p]eople can sit and talk as they need to'.¹⁵ Ms Washington also characterised the community drop-in sessions as successful 'providing a forum for residents to ask questions of experts and agencies one-on-one [and also] a much-needed forum for people to share their concerns and experiences with other residents'. However, she reported:

Gaining appropriate and consistent information from [Defence] has been challenging for residents, businesses and myself. This lack of information has created a space for rumour and misinformation to propagate and grow.

Reports of conflicting information being given to residents from [Defence] and the EPA are especially concerning as it fuels the mistrust.¹⁶

5.17 Ms Washington advocated 'a one-stop-shop approach whereby residents could contact one number with any concern'. She argued it 'should not have been the residents' responsibility to determine which agency, or level of government, could address their particular concern'.¹⁷

5.18 The NSW Farmers' Association recommended that 'Defence, as the polluter, chair the Community Reference Group and take greater responsibility for engaging with the community and the industries operating in the affected region'.¹⁸

5.19 Mr Grzeskowiak outlined that Defence first met with community members on 16 September 2015 and had been involved with the NSW Community Reference Group. He noted:

We have an individual on the ground, Air Vice Marshal Greg Evans. He has been there for some weeks now. His role is to be our main point of contact with the community. We have established a website, a hotline and an email line. We have done letterbox drops to people where we think we need to go and offer them the opportunity of having their bores or water tanks tested. We are trying to engage as much as we can.¹⁹

Coordination

5.20 The response to contamination at RAAF Base Williamtown from September involved a large number of government agencies and other stakeholders. Mr Buffier, from the NSW EPA, characterised it as a complex situation which 'involves multiple state and federal agencies, a number of new specialist working groups, including the Expert Panel, the Community Reference Group and the Elected Representatives

15 *Committee Hansard*, 3 December 2015, p. 14.

16 *Submission 32*, p. 3.

17 *Submission 32*, p. 3.

18 *Submission 35*, p. 8.

19 *Committee Hansard*, 3 December 2015, p. 4.

Group'.²⁰ Defence reported that it was 'working closely with key Federal stakeholders Departments of Health, Environment, Infrastructure and Regional Development, and Air Services Australia to ensure a consistent strategic management approach'. It was also 'working closely with state and local authorities and councils to ensure a consistent policy approach'.²¹

5.21 However, the Port Stephens Council considered the chain of command and hierarchy across government agencies was 'not clear':

With a large number of agencies involved...it appeared as though the community and agencies were confused as to who does what. For example, the Office of Chief Scientist issued media releases on similar content areas before the EPA, which was confusing for the community. It was apparent from a Council perspective that there were too many players, too many subcommittees and no clear and defined leadership and ultimate accountability. Further, no clear strategies or project plan exists that Council has seen spanning the entire scope of works across various agencies.²²

5.22 The Port Stephens Council stated:

The weekly technical phone meetings/hook ups, whilst admirable in the attempt to coordinate agencies, [proved] unsuccessful. The majority of the actions identified in this forum were continually deferred or carried over with little real progress made. These meetings just reinforced Council's view that the process was cumbersome - there appeared no accountability to follow through and deliver on actions.²³

5.23 It recommended a coordinated approach be considered similar to that used for the April 2015 storm and flood disaster recovery process. It argued that the 'appointment of a coordinated, staffed body which is seen to be independent of government allows for the necessary actions to be determined and allocated ensuring each agency knows exactly what is expected of it'.²⁴

Testing times and differing approaches

5.24 Tensions between Defence and NSW government agencies were apparent during the inquiry. Defence commented that its 'direct access to the NSW Government Williamtown Expert Panel has been limited as Defence is not a member'.²⁵ The Chair

20 *Committee Hansard*, 22 December 2015, p. 45.

21 Department of Defence, response to question on notice 95, Supplementary Budget Estimates, 21 October 2015, p. 3.

22 *Submission 26*, p. 5.

23 *Submission 26*, p. 6.

24 *Submission 26*, p. 6.

25 *Submission 87*, p. 7.

of the Expert Panel, Professor Mary O'Kane noted that Defence had initially been invited to be observers but that the 'general feeling of my colleagues was that it did not allow free discussion' and the invitation was retracted.²⁶

5.25 A key point of difference between Defence and NSW Government agencies appeared to be in regard to the program for sampling and testing of the contamination in and around RAAF Base Williamtown. Defence advised it was currently undertaking an environmental investigation in line with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPM):

Defence is taking approximately 900 samples of ground water, surface water, soil, sediment and biota in and around RAAF Base Williamtown. This activity is known as the Stage 2B Environmental Investigation and includes the development of a human health risk assessment, an ecological risk assessment, an assessment of remediation options and development of a remediation plan. This process is intended to be completed by August 2016, with interim reporting in June 2016.²⁷

5.26 Defence noted that the Expert Panel advised that 'additional sampling beyond the NEPM guidelines are required as part of the Stage 2B Environmental Investigation sampling plan'. Defence stated:

Based on current information, it is too early to determine whether the sampling methodology outlined in the NSW Government Williamtown Expert Panel's Scoping Document will be necessary. In accordance with the process outlined in the ASC NEPM, an assessment of the source-pathway-receptor linkages will be undertaken before the sampling program is finalised, so that it appropriately reflects the exposure potential associated with each pathway. The need to undertake the sampling recommended by the NSW Government Williamtown Expert Panel is being evaluated as the potential exposure pathways are determined.²⁸

5.27 Professor O'Kane highlighted that the focus of the Expert Panel was providing results to the affected communities 'as quickly as possible' and stated it was really concerned about timely engagement from [Defence]'. She commented:

[W]e need to understand the exposure pathways for the chemicals, and we have proposed a big list of sampling for food and liquids. It is not happening at the speed that we think is important, particularly because we have a fishing ban on and various other advisories. The other issue is we have requested more environmental samplings from our water working group, cleared by the Expert Panel. That is not moving at a speed that we would like, because that also informs what we do in the exposure pathways

26 *Committee Hansard*, 3 December 2015, p. 15.

27 *Submission 87*, p. 7.

28 *Submission 87*, p. 7.

works. There is a level of concern from the New South Wales government and its agencies on that issue.²⁹

5.28 Mr Clearly from Hunter Water noted that the speed of Defence environment investigations had been a frustration. He considered 'a lot more work can and should be done to understand where the contamination is and how it is moving through the groundwater and the surface water'. He suggested '[a]dditional monitoring bores need to be put on Defence land, additional sampling needs to be undertaken, and then more detailed technical investigations need to occur to characterise where the contaminants are and how they are moving'.³⁰ Mr Buffier from the NSW EPA argued:

The New South Wales EPA and expert panel have provided advice on the scope of a comprehensive human health risk assessment and it now needs to be finalised. Defence needs to meet the full costs of this sampling and analysis, although to date many of these tasks have been undertaken by New South Wales agencies to speed up the process.³¹

5.29 Part of the NSW Government's assistance package for the Williamstown area, announced on 23 December 2015, included an investment in a 'new Liquid Chromatography-Mass Spectrometer, to speed up testing of soil, water, biota and milk'.³²

Environmental regulation issues

5.30 The scale of the issues of environmental regulation on Defence sites was highlighted by Mr Colin Tinder, a former Defence environmental manager. He described a '200-year legacy of contaminated sites on and off the Defence estate':

The Defence estate is larger than that managed by most State National Parks Services and Defence land contained many places that were of national significance in terms of environmental and heritage conservation...Literally thousands of instances of legacy contamination [are] known to exist at Defence sites (many of which dated from WWII) – including contamination arising from ordnance use (conventional and chemical), landfills and burial pits, fuel leaks, chemicals (including cocktails of hydrocarbon solvents), metals – including mercury, and even radioactive materials.³³

5.31 The relationship between the Commonwealth, state and territory and local governments regarding environmental regulation has been described as a 'scrambled egg'. An analysis by Dr Chris McGrath from the University of Queensland in 2012

29 *Committee Hansard*, 3 December 2015, p. 11.

30 *Committee Hansard*, 22 December 2015, pp 5–6.+

31 *Committee Hansard*, 22 December 2015, p. 47.

32 NSW Government, 'NSW Government help for Williamstown residents', *Media release*, 23 December 2015, p. 1.

33 *Submission 34*, p. 2.

observed that 'the three tiers of government in Australia have become so entwined that it often becomes difficult to distinguish their roles in a logical, neat way'. He noted:

The first key thing to understand is that state governments were historically responsible for environmental management, and they still often resent the Commonwealth intruding into these matters. State, territory and local governments still handle the vast bulk of day-to-day decisions and administration of land and water management such as around 250,000 town planning approvals a year. In contrast, the main Commonwealth environmental law, the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), deals with only around 400 referrals each year.³⁴

5.32 In November 1997, the Council of Australian Governments agreed in principle to Heads of Agreement on Commonwealth and State roles and responsibilities for the Environment (Heads of Agreement). The Heads of Agreement do not appear to clearly delineate the responsibilities of Commonwealth agencies (such as Defence) in relation to compliance with state environment and planning laws. For example, relevant listed exceptions to compliance include matters relating to 'on-ground airport management' and 'national defence'. However, it also outlines that where exceptions are permitted, 'Commonwealth activities will, as far as possible, be undertaken in a way that seeks to achieve at least the equivalent requirements of State legislation'.³⁵

5.33 Defence stated that it operates under federal environmental legislation but that it also 'seeks to comply' with the intent of state or territory environmental legislation.³⁶ It noted:

Defence is required to meet the obligations of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) in the conduct of activity which has potential environmental impacts. The EPBC Act covers matters of national environmental significance and actions affecting Commonwealth land.

As a matter of operational practice Defence undertakes environmental testing and investigations consistent with State environmental obligations to monitor environmental impacts and develop appropriate mitigation measures, if required.³⁷

5.34 In relation to its response to the contamination at RAAF Base Williamtown, Defence stated:

34 Dr Chris McGrath, Australia's scrambled egg of government: who has the environmental power?' *The Conversation*, 5 December 2012.

35 *Heads of Agreement on Commonwealth and State roles and State roles and responsibilities for the Environment*, Attachment 3.

36 Department of Defence, response to question on notice 7, 3 December 2015, p. 1.

37 *Submission 87*, p. 2.

The *National Environment Protection Council Act, 1994* (Cth), allows for the making of National Environment Protection Measures...One of those National Environment Protection Measures is the National Environment Protection (Assessment of Site Contamination) Measure 1999 (the ASC NEPM). Australian States and Territories are responsible for implementation of the NEPM through relevant statutory controls in each jurisdiction. Defence is committed to acting in a manner consistent with relevant jurisdictional environmental legislation and regulations.

The ASC NEPM provides a means to support the protection of human health and the environment by establishing a nationally consistent approach to the assessment of site contamination. The ASC NEPM is intended to be used by all parties associated with site contamination including regulators, site assessors, environmental auditors, land owners, developers and industry.³⁸

5.35 The NSW EPA, through the *Contaminated Land Management Act 1997* and the *Protection of the Environment Operations Act 1997*, regulates contaminated land in NSW. However, Ms Buffier noted that the NSW EPA does not have regulatory powers over Defence and thus little power to influence Defence's response times to contamination issues. Further, there is no ready avenue for the EPA to undertake independent action, because it is financed on the basis that it has regulatory powers to compel polluters to undertake the necessary action.³⁹

5.36 Mr Buffier argued that there needs to be a regulatory regime to incentivise Defence to adhere to the same environmental standards applied to the rest of the community, and there needs to be an authority to regulate contamination issues.⁴⁰ He stated:

...Defence has been slow to accept responsibility for actions needed to deal with the contamination and provide necessary information. If this contamination was caused by industry or by another New South Wales government agency, such as Hunter Water, the response would have been different because the EPA has clear powers to regulate those sectors...Throughout all of this process we have sought a cooperative approach with Defence on environmental issues impacting state land, but the EPA has not been in a position to compel Defence to respond in a timely and effective manner. This has resulted in state agencies needing to step in to do some of that work. This issue has starkly highlighted a gap in both the regulation and accountability of government agencies such as Defence for pollution and contamination. Whereas the EPA can regulate state agencies and regularly holds them to account through penalty notices,

38 *Submission 87*, p. 6.

39 *Committee Hansard*, 22 December 2015, p. 45.

40 *Committee Hansard*, 22 December 2015, p. 47.

there is no equivalent body regulating Commonwealth bodies and holding them to account for their actions in relation to contaminated land.⁴¹

5.37 An absence of federal oversight of Defence's environment activities was also highlighted in the NSW EPA's briefing note to the responsible NSW Minister on 29 May 2013 which observed:

Given [Defence] is a federal agency, EPA has no statutory control. In a similar situation in Sydney where contamination has entered "NSW land" from a [Defence] site the EPA has been advised by the federal agency concerned that they have exemption from certain State laws. [Defence] has previously advised EPA that environmental oversight of its operations is by the federal Department of Sustainability, Environment, Water, Populations and Communities (SEWPaC). The [Defence] 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*.⁴²

5.38 Mr Buffier told the committee that, due to its concerns, the NSW EPA attempted to escalate the issue by notifying the Department of the Environment.⁴³ The Department of the Environment acknowledged that it received correspondence from the NSW EPA on 18 November 2013 notifying it of site contamination investigations being undertaken at Williamtown RAAF Base and 'for any further actions you may consider necessary'. The Department of the Environment did not respond to this letter and has not had any further correspondence with the NSW EPA on the matter.⁴⁴

5.39 A number of submissions to the inquiry considered that legislative reform was necessary to correct this absence of regulatory clarity. For example, the Port Stephens Council noted that there had been concern expressed 'about the relationship between regulator and polluter, which has been seen in some quarters as being too close, while the legislative capacity for the NSW Government to regulate the Commonwealth is seen to be insufficient'.⁴⁵ It stated:

It appears that Defence is a self-regulating entity without oversight from an independent environmental regulator. The lack of any connection between Commonwealth and state legislative provisions relating to significant pollution and contamination situations on Commonwealth land has contributed to the current inadequately managed situation. Council believes there are very real opportunities to improve the legislative link between the Commonwealth and the states to ensure environmental pollution and contamination incidents are appropriately managed.

41 *Committee Hansard*, 22 December 2015, p. 46.

42 NSW EPA, response to questions on notice, 22 December 2015, Attachment A.

43 *Committee Hansard*, 22 December 2015, p. 50.

44 Department of the Environment, response to questions on notice, 22 December 2015, p. 2.

45 *Submission 26*, p. 5.

Specifically;

Consideration should be given to the appointment of a Commonwealth environmental regulator and implementation of an environmental regulatory framework overseeing [Defence] activities on Commonwealth land;

Consideration should be given to a comprehensive review of Commonwealth and state legislation relating to mandatory notifications to environmental agencies across all states when pollution and contamination incidents result from Commonwealth activities;

Consideration should be given to a comprehensive review of legislative provisions to allow state-based environmental agencies (i.e. NSW EPA) to have a greater regulatory role in environmental and contamination incidents involving the Commonwealth. This review must consider a broader regulatory role for the state environmental agencies in the investigation and management of pollution and contamination situations where the pollution and contamination has caused significant impacts off Commonwealth land.⁴⁶

5.40 Mr Gorfine from the Williamstown and Surrounds Residents Action Group held similar views:

[W]e would hope at the end of this inquiry that, as an absolute minimum, proper legislative changes are enacted and put in place to ensure that New South Wales EPA or an equivalent body has the teeth to regulate and control pollution events over Commonwealth lands.

Going forth from that, there need to be in place proper checks and balances along the way if there is a pollution event on Commonwealth land. There need to be reporting requirements, and failure to report those contamination events must have consequences.⁴⁷

5.41 The need for better interaction between the Commonwealth and state and territory environmental regulators was also highlighted during the committee's inquiry. For example, the NSW Farmers' Association observed:

Unfortunately the NSW EPA has no jurisdiction over a Commonwealth entity like the Department of Defence. Although Defence did engage with the EPA early in its examination of the problems PFOS/PFOA might have caused at the base, it is unclear how this ongoing engagement was managed and what policy governed it. Further, it is unclear how frequently Defence engaged with the EPA throughout its examination of the facts-on-the-ground at Williamstown.⁴⁸

46 *Submission 26*, pp 7-8.

47 *Committee Hansard*, 22 December 2015, p. 35.

48 *Submission 35*, p. 7.

5.42 It recommended a protocol be established 'to govern interaction between federal departments, including Defence, and the EPA (or equivalent) to ensure that jurisdictions can have confidence that their constituent industries and communities are not threatened by the effects of polluting activities'.⁴⁹

Environmental standards

5.43 A key problem identified during the inquiry was that there are no national environmental standards in Australia for levels of the chemicals that have been used in firefighting foams. Defence emphasised that the National Health and Medical Research Council does not specify levels for these chemicals in the national Australian drinking water quality guidelines.⁵⁰ Mr Grzeskowiak from Defence told the committee:

There are no health standards in Australia for tolerance of this chemical in drinking water at whatever level and there are no state or territory equivalent standards either. There are not many places in the world where those sorts of standards are in place. There are a few standards emerging in the US and the UK that we are aware of, and we are using them. It is clear that globally this is still an emerging contaminant that is not fully understood.⁵¹

5.44 In January 2009, the US EPA's Office of Water established a provisional health advisory of 0.2 micrograms per liter ($\mu\text{g/L}$) for PFOS and 0.4 $\mu\text{g/L}$ for PFOA to assess the potential risk from short-term exposure of these chemicals through drinking water. However, other jurisdictions have adopted different standards.

5.45 On 19 May 2015, Defence published *Defence Contamination Direction #8 – Interim Screen Criteria*. The directive explains these criteria 'are based on industry collaboration and current understanding' with the intent 'to support the progression of relevant activities on the Defence estate in a nationally consistent manner'.⁵² In particular, it set out interim screening levels for the following:

- ground water (Human health – drinking water) - PFOS 0.2 $\mu\text{g/L}$; PFOA 0.4 $\mu\text{g/L}$; and
- surface water (Human health – consumption of fish) - PFOS 0.65 ng/L ; PFOA 300 ng/L .⁵³

5.46 In his interim report on the NSW EPA's management of contaminated sites, Professor Mark Taylor recommended the NSW EPA 'should set interim guidelines for PFOS/PFOA for a range of environmental samples including soil, sediment and

49 *Submission 35*, p. 7.

50 *Submission 87*, p. 4.

51 *Committee Hansard*, 3 December 2015, p. 7.

52 Defence, *Defence Contamination Direction #8 – Interim Screen Criteria*, 19 May 2015, p. 1.

53 Defence, *Defence Contamination Direction #8 – Interim Screen Criteria*, 19 May 2015, pp 3-5.

groundwater, as a matter of priority, pending finalisation of national guidelines'. He also recommended the NSW Government engage with Commonwealth and other agencies and experts to establish national guidelines for PFOS/PFOA.⁵⁴

Remediation and management of contaminated areas

5.47 Conflicting evidence was received regarding the remediation options for RAAF Base Williamtown and its continued environmental management. A number of submitters argued Defence should prioritise remediation so further contaminants would not leave RAAF Base Williamtown. This was considered a priority to prevent further movement of contaminants but also to provide certainty for residents and businesses that levels of contaminants would not increase in the future. For example, the NSW Farmers Association recommended that 'Defence immediately detail its plan for how it will achieve remediation so that surrounding communities and industries can be assured that they can go about their business with security'.⁵⁵

5.48 Addressing contamination in Lake Cochran, in particular, was seen as an urgent priority. For example, Mr Buffier from the NSW EPA stated:

Defence needs to take immediate action to address the migration of further contamination from the Williamtown base, with the goal that, by the end of June 2016, a successful containment strategy for Lake Cochran and other identified hotspots of contamination on the base is in place. It is quite feasible to replace Lake Cochran in another facility—a lined facility that would ensure there was no contamination coming from the area.⁵⁶

5.49 However, Defence stated that despite 'research worldwide, few effective or viable large scale remediation techniques have been identified'. Defence indicated that 'it is unable to put a timeline on remediation at this time...[but] will continue to investigate potential remediation options'.⁵⁷ In response to the repeated calls for measures to 'block stormwater egress off the base and...stop groundwater traversing across the base', Defence stated:

There is no feasible way to stop water leaving the base because measures to prevent this would effectively create a dam. This could create flooding and potentially affect civil and military operations on the airfield. However, there may be opportunities to prevent localised contamination spreading by the use of either physical barriers or chemical binding additives.

All of these potential solutions require further significant technical design feasibility studies as part of a range of potential options for containment and

54 Professor Mark Taylor, 'Stage One of Review of NSW EPA's Management of Contaminated Sites', *Interim Report*, December 2015, p. 27.

55 *Submission 35*, p. 3.

56 *Committee Hansard*, 22 December 2015, p. 47.

57 Department of Defence, response to question on notice 94, Supplementary Budget Estimates, 21 October 2015, p. 2.

remediation. Currently the effectiveness of these solutions could not be guaranteed and could potentially hasten the spread of contamination. Defence is currently investigating remediation options as a priority.⁵⁸

5.50 Mr Grzeskowiak stated Defence's engaged engineers and consultants have not suggested solutions to prevent contaminated water leaving the base. He told the committee that methods described at the hearing 'were unlikely to stop contaminated water leaving the base under all circumstances':

The simplistic view of building a dam or something that stops all run-off from the base would put Newcastle Airport out of action the next time there was a heavy rainstorm, simply because it would become flooded. So it is not a credible scenario.⁵⁹

5.51 Defence noted that it had 'recently completed a remediation program at Point Cook, while the program was not initiated to remediate PFOS/PFOA, amounts of these contaminants were detected during the remediation program'. It stated:

Remediation of just under a hectare was undertaken by many months of continuous burning of soil at very high temperatures. Large scale aquifer remediation is problematic. Defence continues to investigate options for large scale remediation of groundwater in situ.⁶⁰

5.52 The geology around RAAF Base Williamtown also appeared to be a major factor contributing to the difficulties of remediation. Professor Ravi Naidu from CRC CARE described the geology as 'quite unique':

There is a surface sandy layer that allows things to move through and then you have a clay layer within a depth of three or four metres, or maybe five. What we found was a lot of contaminants are locked at that depth...

[The clay] holds onto these contaminants. The water table goes to a depth of four metres and so every time you have precipitation, for instance, the water table rises and, as it rises, it gets in touch with these low contaminants which are released. When the water table goes down again, it carries with it those contaminants. Of course, water moves, and it moves it from the hot zone beyond the soil zone. You also notice PFCs moving rapidly in the three- to four-metre zone and, when they hit the clay layer, that is where they normally sit. Because they are quite recalcitrant, they do not degrade and therefore they will be there for a very long time unless you lock them up there or dig them out.⁶¹

5.53 However, Professor Naidu was of the view that scientific and technical expertise existed to deal with the contamination:

58 *Submission 87*, p. 10.

59 *Committee Hansard*, 22 December 2015, p. 68.

60 Department of Defence, response to question on notice 94, Supplementary Budget Estimates, 21 October 2015, p. 2.

61 *Committee Hansard*, 22 December 2015, p. 30.

I think the approach here would be passive coupled with active remediation. Passive is what should contain the plume, and active is when you start remediating the plume. That is the approach that needs to be taken. There is absolutely no doubt that once your contaminants get into the subsurface environment, you are looking at a very heterogeneous, complex system. And for a heterogeneous, complex system you never have a simple solution. It is not cheap; it costs money.⁶²

5.54 During community statements at the public hearing on 22 December 2015, Mr Des Maslen, who operates an environmental management company, also told the committee that a viable remediation program exists for the contamination from Lake Cochrane.⁶³

5.55 A large capital works project is currently underway at RAAF Base Williamtown for the development of facilities and infrastructure for the New Air Combat Capability Project. Several submissions argued these works should be halted until PFOS/PFOA contamination issues on the site are resolved. The Williamtown and Surrounds Resident's Action Group argued that due to the unique hydrology of the land there should be a moratorium 'placed on any significant developments or proposed developments within the red zone until such time as NSW Health, NSW EPA and expert hydrological advice advises otherwise'.⁶⁴ Similarly, Mr Lindsay Clout from the FCRAAG stated:

Defence have been engaged in major development works on the base, which include extensive earthworks on a known contaminated site and pumping groundwater that has been hindering excavation and foundation works. These works had been underway for some time, with no controls in place for the spread of the contamination until we, the community, protested. Now we are told Defence are preparing a management plan, which I can tell you has not seen the light of day, and magically two carbon filtration machines have been acquired to treat groundwater, but they tell us these machines cannot be used to stop the pollution leaking from Lake Cochran.⁶⁵

5.56 Defence noted that the facilities and infrastructure works currently being undertaken at RAAF Base Williamtown were subject to an environmental management plan which incorporated the treatment of ground water encountered during the conduct of the works.⁶⁶ Defence noted that it was using the activated carbon filtering process around the works for the New Air Combat Capability project. Mr Grzeskowiak stated:

62 *Committee Hansard*, 22 December 2015, p. 31.

63 *Committee Hansard*, 22 December 2015, p. 42.

64 *Submission 36*, p. 1.

65 *Committee Hansard*, 22 December 2015, p. 34.

66 Department of Defence, response to question on notice 94, Supplementary Budget Estimates, 21 October 2015, p. 2.

The environmental legislation we work under requires that we have to do dewatering if we are going to be digging. The water that is taken out of the aquifer is sampled. If it is above a certain level, it is put through an activated carbon filtering process to reduce the contaminant below that level and then it is put back into the ground after the works are finished, which is again in accordance with the environmental legislation that we work under.⁶⁷

5.57 Defence also stated that, on current projects at RAAF Base Williamtown, all disturbed soil is being tested for PFOS/PFOA and being stockpiled on site while remediation options are investigated. Any contaminated water which is being encountered during excavation is being treated to safe drinking water levels before being introduced back into the environment.⁶⁸

5.58 The Port Stephens Council stated:

At RAAF Base Williamtown, significant civil works are currently being undertaken as a part of the Joint Strike Fighter upgrade involving the movement of large volumes of soil and likely the interception of ground water. Council has not been provided any information explaining the civil works and the interaction of these works with the existing contamination situation. It is suggested that Defence consider providing information explaining the works and the link with the contamination.⁶⁹

Contamination on other Defence and civilian sites

5.59 PFOS and PFOA remain significant residual contaminants at many sites globally, for example, at many of the world's 49,000 airports (including 450 civilian and military airports in Australia). Foams containing these chemicals have also been deployed on fires at traffic, truck and railway accidents and even building fires. As at airports, the chemicals can escape into the surrounding urban or rural environment and contaminate water supplies.⁷⁰ Mr Grzeskowiak for Defence described the extensive previous use of firefighting foams containing PFOS/PFOA in Australia and overseas:

[T]hese firefighting foams—never mind the other products and materials that have used this chemical—would have been widely used by both military and civil airfield firefighters, plus the rural fire services, plus metropolitan fire services, plus probably at any industrial site that was processing hydrocarbons at a scale—refineries, large fuel storage depots, those sorts of things. So we know that the chemical has been used

67 *Committee Hansard*, 3 December 2015, p. 6.

68 Department of Defence, response to question on notice 94, Supplementary Budget Estimates, 21 October 2015, p. 2.

69 *Submission 26*, p. 10.

70 CRC CARE, 'Case Study – Fighting fire-fighting foam', 15 December 2014, available at: <http://www.crccare.com/case-study/fighting-fire-fighting-foam> (accessed 22 January 2016).

extensively worldwide for quite a long time, since certainly the early seventies, for firefighting and a range of other applications.

5.60 In its submission, Defence indicated it had undertaken a review of its estate to identify further areas for investigation:

AFFF containing PFOS/PFOA has been used extensively around the world for both military and civilian purposes to suppress class B liquid fuel fires. AFFF has been used at a wide range of airfields, fuel storage depots, vehicle yards, on Naval platforms etc.⁷¹

Following a Defence estate-wide desk top review of Aqueous Film Forming Foam (AFFF) use, 16 sites have been identified as a priority for further investigation (Category 1 Properties). These sites have been selected based on Defence's understanding of how AFFF was used at each site and any information known about water use and hydro-geology in the area. This is based on the information Defence has up to this point. We will continue to review as we better understand the nature of this emerging contaminant.

Defence will undertake community consultation as it conducts environmental investigations at other bases.⁷²

5.61 Mr Colin Tinder, a former Director of Environmental Impact Management at Defence, stated:

AFFF contamination would not only be a matter of risk that exists at RAAF Williamtown. With similar practices having been adopted around Australia it is likely, in fact probable, that AFFF will be found in the soil at most other sites where fire fighting training and equipment testing has been conducted. Sites like RAAF Base Townsville drain to the World Heritage Area of the Great Barrier Reef.

While AFFF contamination of the environment is a serious and troublesome issue and that has had serious effects on the livelihood and well being of Defence's neighbours at Williamtown, it is likely to be present at multiple more Defence sites. It can also reasonably be assumed that it will also occur off-site.⁷³

5.62 Ms Beatty from the PFA also highlighted potential national implications for the fishing industry of PFOS/PFOA contamination:

We are also concerned that this is not a unique situation and has the potential to impact on other commercial fishing industries throughout Australia. We strongly urge consideration of remediation activities in any areas in Australia identified as at risk.⁷⁴

71 Department of Defence, response to question on notice 93, Supplementary Budget Estimates, 21 October 2015, p. 2.

72 Department of Defence, response to question on notice 10, 3 December 2015, p. 1.

73 *Submission 34*, p. 6.

74 *Committee Hansard*, 22 December 2015, p. 14.

5.63 There were also indications other contaminants may be leaving Defence facilities. For example, Mr Gorfine from the Williamstown and Surrounds Residents Action Group noted that independent water testing which has been conducted has 'come back not only with PFOS and PFOA levels but with other hydrocarbons such as avgas [aviation gasoline] and other potential pollutants'.⁷⁵

Ratification of Stockholm Convention Annex

5.64 In response to a question on notice, the Department of the Environment noted that 'listing of PFOS on the Stockholm Convention in 2009 does not enter into force for Australia until the domestic treaty making process is complete and an instrument of ratification has been transmitted'.⁷⁶ The Department of the Environment indicated this process was proceeding:

The Department is continuing to develop a complete picture of all PFOS use in Australia, and refining options for implementation of the Stockholm Convention requirements. This has included consultation with impacted business, industry and state and territory governments, among others. The next step will be the release of a regulation impact statement on the regulatory implications of ratification under the Convention for consultation, including cost benefit and regulatory burden analyses which have been commissioned by the Department.⁷⁷

5.65 The National Toxics Network recommended urgent regulatory action to ensure Australians are protected from ongoing exposure to PFCs. It urged the Australian Government to 'immediately ratify and take action on the persistent organic pollutants in the Stockholm Convention including the listing of PFOS in 2010'.⁷⁸

Compensation issues

5.66 Defence indicated that the issue of compensation is 'a matter separate to financial assistance and will depend upon a determination as to liability and quantification of losses attributable to actions by the Commonwealth'. It stated:

[It] is too early to make any decisions as to compensation, as both the extent and effects of the contamination are not currently understood, and will not be understood for some time as environmental investigations continue. Legal issues relevant to compensation are informed by evidence and interpretation of evidence – both as to the sources of contamination, actions that give rise to an alleged loss, the actual loss claimed and possible contributory causal issues. There are a range of investigations and considerations that are in train – covering scientific, environmental,

75 *Committee Hansard*, 22 December 2015, p. 37.

76 Department of the Environment, response to question on notice, 22 December 2015, p.1 [emphasis in original].

77 Department of the Environment, response to question on notice, 22 December 2015, p.1.

78 *Submission 29*, Attachment 1, p. 3.

engineering and health matters. Defence is closely involved in these and will take them into account when considering claims for compensation.⁷⁹

5.67 This view was repeated at the public hearings. Mr Grzeskowiak told the committee it was 'too early for formal acceptance of liability' and 'there was no formal proposition for a compensation scheme'. However, he noted Defence was working with some people who are in the process of making claims against Defence, representing the Commonwealth, for reimbursement of some costs.⁸⁰ Mr Grzeskowiak acknowledged that Defence was 'aware of a community expectation that there might be compensation', but he could not 'comment on what the government might decide in due course'.⁸¹ He stated:

[T]he testing we are doing is to try to understand the nature of the contaminant and where it is; the research we are doing is to try to understand, from global research, what the likely health effects might be. They are being done in a professional and systematic way... We know the community is concerned, and yet the research we have done tells us that there are no proven health links between adverse health outcomes and exposure to these chemicals. We know that in the Australian community there is a background level of exposure that we would all have.⁸²

5.68 The Defence Legal Counsel, Mr Michael Lysewycz stated:

We read and sympathise with the statements by community members who are apprehensive about suffering loss. When it comes to compensation, there are different ways in which people may suffer loss. We will have to look at each one of those to establish potential liability and actual loss and see how that can be redressed. In other cases, we have been particularly responsive to claims as they come through. We do not shy away from the responsibility—the Commonwealth does not—but there are certain thresholds that have to be passed before we can actually pay money out of the public purse...

All I can say is that the law concerning liability and assessment of compensation and quantum is quite complex. We try to do that as quickly as possible once we have the evidence. Going back to the earlier point about admission of liability, I can tell you that I have not advised the department on liability because I do not have the evidence on which to base that assessment.⁸³

5.69 There was high level of frustration expressed during the inquiry regarding Defence's refusal to commit to compensate those affected by the contamination from RAAF Base Williamtown. For example, Mrs Beatty from the PFA described how the

79 *Submission 87*, p. 9.

80 *Committee Hansard*, 22 December 2015, p. 64.

81 *Committee Hansard*, 3 December 2015, p. 4.

82 *Committee Hansard*, 22 December 2015, p. 65.

83 *Committee Hansard*, 3 December 2015, p. 6.

handling 'or lack thereof' by Defence in 'discussions surrounding the "polluter pays" principle and compensation to those impacted has been highly stressful and unsatisfactory for our industry'.⁸⁴ Professor O'Kane observed that the NSW Government 'has a very strong principle of polluter pays'. If the contamination was the result of activities on RAAF Base Williamtown 'it would be Defence and therefore the Commonwealth' who would bear liability.⁸⁵ She stated:

We are very concerned that Defence is not responding to the sense of polluter pays. They are the polluter. We would like to see Defence being a model polluter in that we would hope that government would always be the best type of agency when something is happening and polluter-pays is a very important principle. So we are concerned that we are not getting the response that we would expect from an industry polluter, for example. We are very concerned about the timeliness from the point of view of being able to inform the community, both in Williamtown and more generally.⁸⁶

Compensation mechanisms

5.70 Appropriate avenues for compensation from Defence and the Commonwealth were also discussed in detail. For example, Mr Donahoo urged the committee to recommend the government take a proactive stance and 'agree to voluntary acquisition of affected properties and to establish a credible compensation scheme...based on the ex gratia payments scheme with independent arbitrators and one level of independent appeal'.⁸⁷

5.71 Similarly, Ms Washington stated:

Defence knows that there is contamination and knows there are impacts on the community. Those impacts are very real, because we have the restrictions already in place, so Defence is aware that people are incurring costs that they would not have otherwise incurred. It is not right for those residents to have to wait two or three years down the track to make a civil claim to recover those losses, because they are known to be occurring now. I think it is unconscionable for Defence to not make reparation for those losses as they are incurred as we go through this process, before the process ends.⁸⁸

5.72 She urged the Commonwealth 'to immediately create a contingency fund from which residents can make claims against and for a line item to be created in the next

84 *Committee Hansard*, 22 December 2015, p. 14.

85 *Committee Hansard*, 3 December 2015, p. 15.

86 *Committee Hansard*, 3 December 2015, p. 15.

87 *Committee Hansard*, 22 December 2015, p. 41.

88 *Committee Hansard*, 22 December 2015, p. 3.

federal budget in recognition of the longer term losses which are likely to result from the processes that are already in train, being a compensation fund.⁸⁹

5.73 For the fishing industry, an important consideration in relation to potential compensation was the question of whether the fishing closures would become permanent requiring a 'buy-out' of affected commercial fishermen. For example, Ms Walker from the WCFC stated:

If they do close the river completely and do a buyout, I believe it needs to take into account the emotional side of people. It needs to take into account the loss of income that has occurred and the projected loss of income. My husband expected to prawn and fish that river every day, just about, for the next 30 years, so I believe that at least a good period of projected income needs to be taken into account. I also think costs for retraining or relocating need to be taken into account. If a fisherman still wants to fish but they cannot fish the Hunter River and they might want to buy an outside trawler or go somewhere else, I think that needs to be taken into account as well, because they would all be costs that would be incurred. It is something that has happened that is not their fault.⁹⁰

5.74 The PFA also argued that fishers' business have been impacted and that under the 'polluter's pay' requirement, Defence is required to financially compensate those impacted:

In the short term, the commercial fishing businesses impacted by the closure will require compensation for business interruption costs. Business interruption costs should cover the costs associated with the proportion of a business's catch that is no longer from the areas subject to the Fishing Closure or not substituted by fishing/relocating in other areas...

Longer term, business interruption costs may include relocation costs and related expenditure. If successive testing indicates sustained levels of PFOS above Total Dietary Intake (TOI) levels for seafood such that longer term or permanent closure is required, the affected businesses should be offered a permanent buy out using factors determined by an Advisory Group consisting of the PFA, Commercial Fishermen's Cooperative, Sydney Fish Markets and the DPI Fisheries. This would also include the remediation of impacted areas back to preserve and protect fish stocks in the region⁹¹

Legal action

5.75 The potential for class action against Defence for compensation was frequently raised. Mr Grzeskowiak told the committee that Defence was working with some people who are in the process of making claims against Defence, representing

89 *Committee Hansard*, 22 December 2015, p. 2.

90 *Committee Hansard*, 22 December 2015, p. 24.

91 *Submission 28*, pp 4-5.

the Commonwealth, for reimbursement of some costs.⁹² However, legal proceedings were not perceived as an optimal solution for those affected. For example, Mr John Donahoo told the committee:

[A] class action may take years to run its course, hence subjecting affected residents to more distress. Furthermore, considerable extra costs may likely be incurred by the Commonwealth to pay for the legal costs of the plaintiff and the defendant, and claimants will forfeit about 30 per cent of any compensation awarded to cover fees owed to their litigating funding company.⁹³

5.76 Ms Washington argued that affected residents and businesses 'should not have to expend their time and energy pursuing a civil action to recover losses that they have suffered as a result of government agencies'.⁹⁴ Similarly the PFA described a class action as an 'unrealistic' solution. It noted:

Class action requires significant resources, time and stress – something that should not be recommended as a path forward. We should have functional bureaucratic in place that protect these people...not ostracises and force them to take a judiciary approach.⁹⁵

5.77 Mr Shannon from Shine Lawyers observed that due to the complexity of liability issues regarding contamination 'a properly handled and engineered savvy legal Defence team could run citizens around for decades' before any compensation was decided.⁹⁶ He argued for a pragmatic approach to compensation which did not require a reliance on 'scientific certainty' regarding the impacts of the contamination. He stated:

Science does not do things quickly. This community type problem will require a community type approach which will be cutting to the quick, coming with the most probable explanation and understanding and addressing it in that manner.⁹⁷

92 *Committee Hansard*, 22 December 2015, p. 64.

93 *Committee Hansard*, 22 December 2015, p. 41.

94 *Committee Hansard*, 22 December 2015, p. 2.

95 *Submission 28*, p. 4.

96 *Committee Hansard*, 3 December 2015, p. 20

97 *Committee Hansard*, 3 December 2015, p. 17.

