Joint Standing Committee on Foreign Affairs, Defence and Trade

Parliamentary Inquiry – Elimination and remediation of PFAS related impacts in and around Defence bases

ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q1 - National PFAS Investigation and Management Program

Question reference number: 1

Senator/Member: The Committee
Type of question: Written
Date set by the committee for the return of answer: 9 December 2019

Question:

The PFAS Sub-committee (of last Parliament) was told that, after a late start, Defence was at the forefront of PFAS remediation work in Australia. The Department's 2017–18 Annual report refers to work done under its National PFAS Investigation and Management Program, with minor revisions only in the 2018–19 report.

a. On average, how long does the investigation process take and what timeframe applies to development and implementation of a Management Area Plans?

b. How many projects are in the Management Area Plan (MAP) phase, and are you able to tabulate the data showing improvements to water and soil by method and location?

Answer:

a. On average, how long does the investigation process take and what timeframe applies to development and implementation of a Management Area Plans?

Investigations average between 18 months and two years. The PFAS Management Area Plan is delivered at the end of the investigation process.

b. How many projects are in the Management Area Plan (MAP) phase, and are you able to tabulate the data showing improvements to water and soil by method and location?

The PFAS Area Management Plan (PMAP) prioritises the implementation of evidence-based and practicable solutions to effectively and efficiently prevent or minimise the migration of PFAS beyond the Defence property boundary through:

- materially reducing the mass of the PFAS contamination source; and/or
- blocking or diverting the migration pathway of the contamination from the source to a receptor.

The number of recommended remedial actions varies by base; however, there are generally two to five actions in each PMAP. These actions are defined by location for surface water, groundwater, soil and Sewage Treatment Plants, and therefore will be able to be monitored individually.

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ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q2 - Approaches to PFAS contamination

Question reference number: 2

Senator/Member: The Committee
Type of question: Written
Date set by the committee for the return of answer: 9 December 2019

Question:

Defence has engaged in industry and research partnerships to develop innovative approaches to PFAS contamination.
a. What are your processes for monitoring results? Are proposals and projects monitored or peer reviewed by Government or other external experts?
b. Is there currently a mechanism to share information and coordinate work between private, public and expert partners to achieve a best practice approach?
c. Could Defence identify a process or mechanism which might enable it to lead innovation in this area?

Answer:

a. What are your processes for monitoring results? Are proposals and projects monitored or peer reviewed by Government or other external experts?

The PFAS NEMP stipulates that where existing principles, guidelines, approaches or management options do not adequately foresee or address an identified environmental risk, responses are to be guided by available scientific approaches, the precautionary principle and the understanding that action may be required to reduce risks. The PFAS NEMP contains screening criteria values which inform the way Defence measures and manages PFAS contamination.

In most procurement activities undertaken by Defence's PFAS Investigation and Management Branch (PFASIM), evaluation criteria for PFAS remediation technologies will be specific to the proposal and the conditions at the particular site in question. Defence may obtain additional expert advice and oversight from an environmental consultant appointed by Defence for remediation and management of the Defence property. Where appropriate, Defence also has the ability to seek additional validation from other external experts, such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), or counterparts in the United States Department of Defense.

As part of PFAS Management Area Plans (PMAP) developed at the conclusion of the investigation phase of each site, Defence has also established an Ongoing Monitoring Program (OMP) for each site to monitor and track PFAS contamination over the coming years. The sampling undertaken under the OMP will help Defence and the community understand whether the actions being undertaken as part of the PMAP are effective, or identify where more might need to be done. The sampling will look at changes in PFAS concentration and geographical spread. The OMP will be reviewed as part of the annual PMAP review and, if required, changes to the monitoring frequency or locations of sampling may occur.

During the investigation phase, Defence appointed accredited site auditors (as variously described across Australian jurisdictions) as technical advisers to provide independent oversight at key points in the investigation process. Defence is currently working to include a similar level of involvement by independent personnel in the management/remediation phase for Defence sites.

b. Is there currently a mechanism to share information and coordinate work between private, public and expert partners to achieve a best practice approach?

Defence is committed to being open and transparent about its environmental investigations, management and remediation efforts at PFAS-affected Defence bases, and in communities. Defence publishes all key reports relating to PFAS environment investigations on its website. On 30 May 2019, Defence held a PFAS Industry Information day in Sydney to provide industry with advice on the scope and scale of Defence's PFAS remediation challenge, and how Defence will approach the market to seek solutions for these challenges. One hundred and seventy nine industry members, representing 119 companies attended the event. Defence advised industry participants of its PFAS Research and Technology Demonstration Priorities during this day.

Defence also notes that in early 2018, the PFAS Taskforce within the Department of the Environment and Energy developed a web-based central portal of PFAS information, for a wide range of interested audiences. Links to PFAS information pages on Commonwealth and State/Territory government agency websites, as well as links to relevant international sites and scientific research can be found at www.PFAS.gov.au. The purpose of the website is to ensure that up-to-date data, scientific literature, government reports, guidance materials and other PFAS-related information is easily accessible to affected local communities and businesses, local councils, state and territory governments, and other interested stakeholders.

Defence continues to work with relevant Commonwealth agencies on national research priorities, and has been actively involved in supporting the development of the Government's approach to PFAS research and development, including:

- the Australian Research Council Special Research Initiative on PFAS;
- the National Medical and Health Research Council's targeted call for research; and
- the epidemiological study conducted by the Australian National University.

Defence continues to support the Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC CARE).

Defence continues to monitor domestic and international research and development activities to ensure Defence remains up-to-date on potential PFAS management and remediation technologies.

c. Could Defence identify a process or mechanism which might enable it to lead innovation in this area?

Defence notes that industry approaches to remediation of PFAS contamination, and national and international guidance and policy, continue to evolve. Over the course of the past five years, as the Defence PFAS Investigation and Management Program has established and developed, this evolution has continued.

Defence has used the knowledge and experience gained in recent years, including information about the distribution, concentration and migration of PFAS and exposure pathways at each site, to develop and implement a response management strategy, including a range of containment, management and remediation solutions.

The strategy is consistent with the precautionary principle as set out in the *Environmental Protection and Biodiversity Conservation Act 1999*, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The precautionary principle has been key to Defence's approach to the management of PFAS risks. While there are significant levels of uncertainty around the behaviours of PFAS and its impacts, there is sufficient knowledge to apply the precautionary principle.

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ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q3 - PFAS Investigation and Management Program

Question reference number: 3

Senator/Member: The Committee
Type of question: Written
Date set by the committee for the return of answer: 9 December 2019

Question:

The Department of Defence contracts environmental service providers to conduct work under its National PFAS Investigation and Management Program.
a. The 2017-18 and 2018-19 annual reports provide almost identical detail on the remediation program, with no apparent itemised financial information. What is the budget allocated and used for work done under the National Program over the two separate reporting periods?
b. Please provide full information on the tendering process for investigations and remediation work (Question on Notice—information on treatment, tenders and the clearing of deeds of interest for investigation and remediation contracts).

Answer:

a. The 2017-18 and 2018-19 annual reports provide almost identical detail on the remediation program, with no apparent itemised financial information. What is the budget allocated and used for work done under the National Program over the two separate reporting periods?

In 2017/18, $104.7 million and 2018/19 $133.7 million was expended on the PFAS Investigation and Management program from within the existing Defence budget. This includes expenses associated with the conduct of site investigations, planning and delivery of remediation activities, the provision of alternative drinking water support to impacted community members and the management and administration of the national program.

Site investigation activities are undertaken by externally engaged consultants with environmental management and assessment expertise and are conducted in accordance with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPM) of the *National Environment Protection Council Act 1994* (Cwlth). This includes the taking and analysis of environmental samples, complex environmental modelling and risk assessments, community engagement, third-party reviews and/or auditing and the development of the PFAS Management Area Plans.

Remediation activities include the planning and delivery of remediation initiatives such as source area treatment and water treatment and are undertaken by a range of specialist service providers including those with environmental remediation expertise such as water treatment.

Alternative water support to impacted communities includes the provision of short-term packaged water and the implementation of long-term alternative water supplies such as the connection to town water schemes or the provision of rainwater tanks. Additional financial support has been provided to eligible impacted community members through the payment of water consumption costs such as water rates or tank refills where rainfall was less than expected or consumption greater than anticipated.

To manage and administer the concurrent delivery of 28 site investigations nationally and associated site remediation activities and contribute to the coordination and management of this program, Defence has supplemented its APS management team with contracted technical expert, project management, and contract administration resources.

In addition to the expenses described above, $35.0 million in FY17/18 and $3.8 million in FY18/19 was transferred from the Defence Budget to the other Commonwealth agencies to fund PFAS related activities. Over both years, the Department of Health received $13.7 million to implement the Voluntary Blood Testing Program, mental health counselling and the Epidemiological study being conducted by the Australian National University. The Australian Research Council has received $13 million to establish a PFAS Remediation Research Program including the awarding of grants and the National Health and Medical Research Council has received $12.1 million for research into the potential effects of PFAS exposure on human health.

b. Please provide full information on the tendering process for investigations and remediation work (Question on Notice—information on treatment, tenders and the clearing of deeds of interest for investigation and remediation contracts).

Defence PFAS Investigation and Management Branch (PFASIM) procurement activities are undertaken in accordance with the Commonwealth Procurement Rules (CPR's) and leverage the various methods of procurement available including open tenders including deeds of standing offer and limited tenders. Investigation activities including laboratory support and project management and contract administration resources have been procured through existing Deeds of Standing Offer available to Defence. Where limited tenders are used they are done so in accordance with the relevant guidelines contained in the CPR and are typically associated with contracts arising from unsolicited proposals which provide opportunities for industry to demonstrate emerging technology solutions.

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ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q4 - Williamtown PMAP

Question reference number: 4

Senator/Member: The Committee
Type of question: Written
Date set by the committee for the return of answer: 9 December 2019

Question:

In May 2019 Defence issued a revised PMAP for Williamtown (401pp). The document advised that Defence will review the PMAP annually (or earlier when required). There was also advice that a PMAP for Williamtown would be released in the third quarter of 2019.
a. Please clarify the status of the Williamtown PMAP, and the circumstances that promoted the plan upgrades.
b. A water treatment plant at Williamtown's Lake Cochran has been running as an 'interim measure' since 2017. What progress can you report on development of a long term solution?
c. Are there problems specific to the site or do they apply more broadly in other localities? Does Defence intend to employ the same contractors in development of alternative solutions?

Answer:

a. Please clarify the status of the Williamtown PMAP, and the circumstances that promoted the plan upgrades.

Defence publically issued the Williamtown PFAS Management Area Plan (PMAP) in July 2019, following consultation with the NSW EPA and other stakeholders. Defence has committed to review the PMAP annually (or earlier where required) to take into account changes in circumstances, including:

- Progress in risk management and the effectiveness of specific response actions;
- Data from the Ongoing Monitoring Plan;
- Changes of land use;
- Changes in legislation, strategy, policy and guidelines/standards;
- Outcomes of new research or development of management/remediation technologies; and
- Any other new information that has the potential to impact the outcomes of the PMAP.

Defence is commissioning a review of the current interim measures to determine what long term measures are required to reduce the migration of PFAS from the site.

b. A water treatment plant at Williamtown's Lake Cochran has been running as an 'interim measure' since 2017. What progress can you report on development of a long term solution?

Since the commissioning of the Lake Cochran water treatment plant, a significant amount of knowledge has been gained about this area of the Base. Lake Cochran historically received PFAS contamination from the former use of legacy firefighting foams on the Base. Low levels of PFAS continue to enter Lake Cochran from surface runoff coming from on-base PFAS source areas. The surface water collected in Lake Cochran flows into the groundwater below, and concentrations of PFAS relating to historical PFAS contamination continues to migrate from under the Lake in a southerly direction. The investigations have identified that PFAS impacted surface water from Lake Cochran only leaves the Base in very significant storm events as the Lake acts as a "buffer" to storm water flows.

A series of remedial measures are in planning or underway to address these concerns:

- Contaminated groundwater migrating south from under the Lake is now being collected and treated by a water treatment plant close to the former fire training area;
- Contaminated source areas on the Base are being remediated through various measures that have reduced the contributions to PFAS in surface waters after rain events; and
- Defence has recently approached the market via an open tender process for the application of passive reactive barriers at Lake Cochran to address residual surface water contamination by preventing PFAS impacted surface water entering and leaving the Lake.

It is envisaged that the combination of the remediation activities above will negate the need for continuation of the Lake Cochran water treatment plant, initially put in place as an interim response.

c. Are there problems specific to the site or do they apply more broadly in other localities? Does Defence intend to employ the same contractors in development of alternative solutions?

While most sites have some commonalities, such as the migration of PFAS off-site, each site has a range of site-specific characteristics which influence how the management of off-site migration must be framed. In the case of RAAF Base Williamtown, there are two characteristics that make remediation more difficult than at other sites:

- The Base is built on sand dunes, which facilitates the fast transport of PFAS from a source area to beyond the Base via the groundwater; and
- The groundwater is very shallow, intermixing with surface water features. Surface water and groundwater are capable of contaminating each other rather than being discrete layers.

These two factors introduce a significant level of complexity to remedial response planning within the area.

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ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q5 - New Air Combat Capability Facilities

Question reference number: 5

Senator/Member: The Committee
Type of question: Written
Date set by the committee for the return of answer: 9 December 2019

Question:

The Department of Defence is investing $1.6 billion in the New Air Combat Capability (NACC) Facilities Project at a number of RAAF base facilities. Can Defence state what priority it has on this work?
a. What preparations are being made for a risk management plan to limit soil disturbance and the water runoff in the development and operation of the upgraded bases?
b. Residents are reported to be concerned that Defence is investing in further development without concern (or compensation) for diminished quality of life. What assurances and support can the Department provide to residents going forward?
c. They may be compensation claims as a result of this work. How will you and Government offset this risk?

Answer:

a. What preparations are being made for a risk management plan to limit soil disturbance and the water runoff in the development and operation of the upgraded bases?

c. They may be compensation claims as a result of this work. How will you and Government offset this risk?

a. and c. Each project includes a construction Environmental Management Plan which must comply with the National Environment Protection Measure (Assessment of Site Contamination) 1997 and the PFAS National Environmental Management Plan. In addition an Environmental Clearance Certificate (Defence approval that imposes conditions and safeguards on an action to ensure environmental impacts are avoided, minimised or remedied) is required.

Risk management is included in the project plans. PFAS risks across a base are managed under the relevant PFAS Management Area Plan (PMAP).

b. Residents are reported to be concerned that Defence is investing in further development without concern (or compensation) for diminished quality of life. What assurances and support can the Department provide to residents going forward?

Investments on the Defence estate support Defence capability and are prioritised according to need.

Every Defence site under the Defence PFAS Investigation and Management Program has been investigated to understand the nature and extent of PFAS contamination. A PMAP has been, or will be, developed for each site upon completion of each investigation to recommend actions to manage and reduce the risks of PFAS exposure for affected communities. PMAPs outline how Defence will:

- manage identified exposure risks for the community and the environment;
- reduce PFAS migration from Defence sites/bases into surrounding areas;
- manage key on-base sources of PFAS contamination; and
- reduce the amount of PFAS in the environment.

State and Territory regulators are consulted in the development of each PMAP.

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ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q6 - Environmental concerns

Question reference number: 6

Senator/Member: The Committee
Type of question: Written
Date set by the committee for the return of answer: 9 December 2019

Question:

The National Health and Medical Research Council has also recently issued revised guidance on recreational water, indicating an exacerbated risk of PFAS in the environment with negative impacts on bird breeding and fish life.
a. The ANU Health study Focus Group Study Report (March 2019) found that loss of river water quality was very concerning to residents, and particularly affected Aboriginal communities. What in your view is the duty of care of government to PFAS affected communities as risk levels increase and more restrictions are imposed?
b. How will upgraded requirements for protections for natural ecosystems and wildlife be addressed by Defence? Will coordination between state and federal legislation be improved under these measures?

Answer:

a. The ANU Health study Focus Group Study Report (March 2019) found that loss of river water quality was very concerning to residents, and particularly affected Aboriginal communities. What in your view is the duty of care of government to PFAS affected communities as risk levels increase and more restrictions are imposed?

Defence acknowledges that communities in areas where PFAS contamination has been detected are very concerned about how this may affect them. Defence is committed to managing exposure risks to human health and the environment through implementing evidence-based solutions. Defence's first priority in responding to PFAS contamination has consistently been to ensure the wellbeing of affected communities, and to reduce their exposure to PFAS, by:

i. identifying and removing existing exposure pathways, primarily by providing alternative drinking water supplies;
ii. informing affected communities about other potential exposure pathways and how to reduce their exposure;

iii. preventing further contamination arising from the use of PFAS firefighting foams, by replacing them with alternatives, and installing systems to contain PFAS contaminated materials and prevent any further migration; and
iv. actions that minimise further PFAS migration, such as reducing the volume of PFAS at source areas, and treating contaminated water and soil.

b. How will upgraded requirements for protections for natural ecosystems and wildlife be addressed by Defence? Will coordination between state and federal legislation be improved under these measures?

Global knowledge and understanding about PFAS contamination is still evolving and the regulatory framework to respond to it is still being developed. Both these factors contribute an additional layer of complexity to PFAS management.

Where PFAS has migrated off-site, beyond the boundaries of Commonwealth land, Defence has a responsibility to ensure environmental regulators and any persons or organisations likely to be impacted are promptly advised of any contamination. Defence is committed to responsible environmental management and has established relationships with state and territory regulators in each jurisdiction where a Defence property is subject to a PFAS investigation. Defence complies with its legislative and regulatory obligations, regardless of where it operates, and seeks to conform to state and territory environmental management legislation, where it does not conflict with Commonwealth legislation.

Defence complies with the Intergovernmental Agreement on a Framework for Responding to PFAS Contamination (IGA). The IGA supports collaboration and cooperation between the Commonwealth and the states and territories to respond consistently and effectively to PFAS contamination. Additionally, Defence adheres to broader Commonwealth and national guidance, including the PFAS National Environmental Management Plan (PFAS NEMP). The PFAS NEMP stipulates that where existing principles, guidelines, approaches or management options do not adequately foresee or address an identified environmental risk, responses are to be guided by available scientific approaches, the precautionary principle and the understanding that action may be required to reduce risks. The PFAS NEMP contains screening criteria values which inform the way Defence measures and manages PFAS contamination.

Defence does not have an environmental health regulatory role, and relies on advice from federal, state or territory environmental and health authorities. Defence communicates this advice in all engagements it undertakes with community members, including publishing information in factsheets, newsletters and on its website.

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ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q7 - National Standard

Question reference number: 7

Senator/Member: The Committee
Type of question: Written
Date set by the committee for the return of answer: 9 December 2019

Question:

Last Parliament the previous PFAS Sub-committee was advised by Department of the Environment and Energy officials that a major hurdle for state and federal coordination was the slow progress of the implementation of National Standard or framework for the management of industrial chemicals and their impacts. Has Defence any comments or advice on this?

Answer:

No. This is a matter for the Department of the Environment and Energy to respond to.

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ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q8 - Community consultation

Question reference number: 8

Senator/Member: The Committee
Type of question: Written
Date set by the committee for the return of answer: 9 December 2019

Question:

Over 2018–19, Defence conducted 33 community consultations at affected sites.
a. What is the tenor of community feeling at these meetings and are responses monitored? What methods does Defence deploy to moderate tension and reduce stress? What advice is given about counselling sessions and other supports?
b. Are Defence officers involved in remediation processes and community engagement given relevant training and support?
c. Does Defence promulgate and report against the COAG's PFAS Information Sharing, Communication and Engagement Guidelines

Answer:

a. What is the tenor of community feeling at these meetings and are responses monitored? What methods does Defence deploy to moderate tension and reduce stress? What advice is given about counselling sessions and other supports?

Community sentiment varies by meeting. Emotions vary from appreciation to anxiety and anger. A summary of questions and community tenor are monitored and discussed after each event. Defence utilises experienced Human Services staff, on a needs basis, particularly at sensitive sites such as Williamtown and Oakey where there is a permanent Community Liaison Officer located. These officers provide support and counselling when required for community members.

b. Are Defence officers involved in remediation processes and community engagement given relevant training and support?

Defence officers and contractors involved in remediation processes and community engagement are all well informed on their respective areas of expertise. This ensures they are able to confidently liaise with stakeholders including members of the community. Defence staff have access to support services via the Employee Assistance Program.

c. Does Defence promulgate and report against the COAG's PFAS Information Sharing, Communication and Engagement Guidelines

No – however, Defence participated in the consultation process in the development of the communication framework outlined in the Guidelines. Community engagement activities undertaken by Defence align with the principles outlined in the Guidelines. There is no requirement for reporting.

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ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q9 - Defence engagement with ANU

Question reference number: 9

Senator/Member: The Committee
Type of question: Written
Date set by the committee for the return of answer: 9 December 2019

Question:

Last week representatives from the ANU PFAS Health Study told the Committee about its online survey to gain data for Phase 2 analysis.
a. Does Defence promote or assist the ANU's work in affected communities?
b. Is there a link to the PFAS survey on Defence's PFAS site, or information on health updates or advice?

Answer:

a. Does Defence promote or assist the ANU's work in affected communities?

Defence does not have an environmental health regulatory role, and relies on advice from commonwealth, state or territory environmental and health authorities. Defence communicates this advice in all engagements it undertakes with community members, including publishing information in factsheets, newsletters and on its website. Relevant health authorities are invited to attend community events hosted by Defence, including representatives from the Commonwealth Department of Health.

Defence has assisted the ANU's National Centre for Epidemiology and Population Health with making contact with residents within investigation areas in Williamtown, Oakey and Katherine.

b. Is there a link to the PFAS survey on Defence's PFAS site, or information on health updates or advice?

Defence's PFAS website provides information on Commonwealth Department of Health advice and guidance, with state and territory guidance specific to Defence establishments, and links to relevant websites. The Williamtown, Oakey and Tindal web pages each provide a brief overview of the epidemiological study, with a direct link to the relevant page on the Commonwealth Department of Health PFAS website, which links directly to the ANU's PFAS Health Study website.

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ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q10 - Compensation

Question reference number: 10

Senator/Member: The Committee
Type of question: Written
Date set by the committee for the return of answer: 9 December 2019

Question:

At Estimates in May 2019 Defence reported budgeting $53.8 million for legal fees to redress PFAS-related class action claims, but no funds for compensation
a. The first settlement on a class action claim was reached in March 2019 with an affected landowner in Oakey. Out of what authorisation/fund allocation would such payments be made?
b. A non-disclosure arrangement was made in the case of this matter. In the interests of transparency, what information can Defence provide about the distinctiveness of this claim, and its resolution?

Answer:

In March 2019, the Commonwealth of Australia (Defence) reached a settlement agreement in relation to a non-litigated claim for losses connected with PFAS-related issues. The parties have agreed not to publicly disclose the terms of settlement and the Commonwealth is bound to honour this agreement. The settlement funds for this claim were paid from the Legal Settlements Program within the Defence Legal Budget.

Media reports from May, September and October 2019 have alleged that the Department of Defence has a ‘fighting fund’ of $53.8 million to fight PFAS. The figure, which appears to have been derived from the Notes to the Financial Statements of the FY2017-18 Defence Annual Report (page 215), is a figure for six non-remote quantifiable contingent liabilities for Capability Acquisition and Sustainment Group (CASG). For accounting purposes, legal claims for PFAS contamination are treated as a remote unquantifiable contingent liability, as per page 215 of the 2017-18 Defence Annual report.

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ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q11 - Assurance

Question reference number: 11

Senator/Member: The Committee
Type of question: Written
Date set by the committee for the return of answer: 9 December 2019

Question:

The broader environmental impacts of PFAS in many other non-Defence locations are now being publicised.
a. What in your experience are the priorities for effective PFAS for containment and management in other environments?
b. Noting the recent mooting of a major class action on behalf of PFAS affected communities in Australia, what assurances can you give that Defence's remediation work will make people, their homes and the environment safer into the future?
c. What could Government do to help you convey and deliver on that assurance?

Answer:

a. What in your experience are the priorities for effective PFAS for containment and management in other environments?

In responding to PFAS contamination, Defence prioritises the following combination of measures:

- Providing clean drinking water to break exposure pathways, in accordance with the precautionary principle, and other measures to protect the community from exposure while management actions addressing source areas and/or migration pathways are underway;
- remediation measures that involve implementing practicable solutions to prevent or minimise the migration of PFAS beyond the Defence property boundary through:
    - reducing the volume of PFAS contamination at high concentration source areas; and or
    - blocking or diverting the migration pathway of the contamination from the source to people and other receptors.

Defence's strategy for responding to PFAS contamination is adaptive and recognises the evolving nature of scientific knowledge and technological advances in the field of PFAS management including remediation, and the need for flexibility.

b. Noting the recent mooting of a major class action on behalf of PFAS affected communities in Australia, what assurances can you give that Defence's remediation work will make people, their homes and the environment safer into the future?

c. What could Government do to help you convey and deliver on that assurance?

b and c. Through its response management strategy, Defence is meeting the general environmental obligations concerning PFAS response management, as set out in the PFAS National Environmental Management Plan. In particular:

- taking reasonable and practicable measures to prevent or minimise potential environmental harm from PFAS-related activities and contamination;
- undertaking appropriate monitoring to check the effectiveness of management measures and assess the extent/impacts of contamination;
- ensuring proper disposal of PFAS-contaminated waste; and
- ensuring environmental regulators and affected stakeholders are promptly advised of contamination.

Defence does not have an environmental health regulatory role, and relies on advice from federal, state or territory environmental and health authorities. Current guidance values are seen as sufficiently conservative and protective of public health by experts and health officials. Importantly, minimising exposure to PFAS remains the key message from health authorities. Defence encourages consistency in messaging to affected communities and the wider population about what is currently known about PFAS.

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ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q12 - Storage - Swanson

Question reference number: 12

Senator/Member: Meryl Swanson
Type of question: Spoken
Date set by the committee for the return of answer: 9 December 2019

Question:

Ms SWANSON: So what are you storing it in—some sort of stainless? It works its way through concrete.
Mr Grzeskowiak: Some form of metallic cylinders that look pretty strong.
Ms SWANSON: Good—concrete's no good; it just goes through concrete.
Mr Grzeskowiak: Concrete's porous, so it'll get into the outer side. The vessels that it's stored in are impervious, as far as I'm aware. Where the states and territories say, 'Yes, we've got a process here,' and if they've licensed it, we'll use it. It's still an emerging area.
Ms SWANSON: I know it's still emerging, Steve, but I just honestly feel for the benefit of this inquiry we need to have some robustness. If you want to take that on notice, but I would like some satisfaction that higher concentrate is being stored appropriately—I'd like some evidence of that please, if that's okay.
Mr Grzeskowiak: Yes, we can get some detail on that.

Answer:

Following water treatment or soil treatment activities, PFAS molecules are attached to the media used within the treatment process which may include either powdered/granulated activated carbon or resin. The waste product remaining from the water treatment plants are stored in a range of containers. Generally the larger size containers are High Density Polyethylene. The smaller containers are fibreglass or stainless steel vessels.

Joint Standing Committee on Foreign Affairs, Defence and Trade

Parliamentary Inquiry – Elimination and remediation of PFAS related impacts in and around Defence bases

ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q13 - Communication after investigations - McVeigh

Question reference number: 13

Senator/Member: John McVeigh
Type of question: Spoken
Date set by the committee for the return of answer: 9 December 2019

Question:

CHAIR: I'll just ask one last question. Could an Oakey landholder in what was originally in the so-called investigation area potentially still be in an investigation area despite the fact that everyone's confident that the area has been investigated and won't be investigated ever again? Obviously I'm talking about local perceptions and property values and so forth.
. . . .
Mr Grzeskowiak: where we've looked and not found anything, then the management area plan—I'd need to check, but the definition of the area it's focusing on probably doesn't include that area. Your question highlights a point for me about how we communicate to the community at large that—
CHAIR: In effect that area has been freed up.
Mr Grzeskowiak: that's been ticked off; its fine, and we think it's going to be fine for the long term, so our focus is elsewhere. It may be asking a bit much to expect people to read the management area plan, go back and re-reference the investigation area and do their own comparison. Maybe we need to get better at that.
CHAIR: I know the senator has got a question. In the interests of time, can I perhaps put that on notice and ask for your response on that. Can you confirm whether those areas are being freed up, so to speak—I'm sure you'll use the right language—and, secondly, how you should be communicating that to the local populations.
Mr Birrer: We can also explain about the ongoing monitoring plan where we continue to do regular sampling to make sure that we fully understand the nature and extent of contamination and keep our knowledge up to date and that we continue consultations and communication with the community around it as well.

Answer:

The investigation area defines the extent of the investigation focussed on the potential people, animals and environment that may be exposed to PFAS. The investigation area is often updated and amended as the investigation progresses and additional data becomes available. Once an investigation is complete, the investigation area is superseded by a management area. This defines the area where ongoing monitoring will be undertaken including the on-

base areas where remediation works have been recommended through the PFAS Management Area Plan (PMAP).

Defence is not a regulatory authority and therefore continues to work closely with relevant State and Territory regulatory authorities post-investigations to ensure communities are provided the most up-to-date information relating to PFAS.

An annual interpreted report for the ongoing monitoring will be provided to the relevant agencies to support potential updates to Management Areas including the size and any precautionary advice which may be in place. The reports will be published for each site on the Defence website with a corresponding factsheet and/or newsletter.

Defence will continue to engage with the communities about the management of PFAS contamination through the following methods:

- website updates;
- letters;
- emails;
- information line;
- factsheets; and/or
- newsletters.

Where required, Defence may also conduct a community event such as a shopfront or walk-in session to provide further information about the ongoing monitoring results and/or the management and remediation activities underway or in development.

Joint Standing Committee on Foreign Affairs, Defence and Trade

Parliamentary Inquiry – Elimination and remediation of PFAS related impacts in and around Defence bases

ANSWER TO QUESTION ON NOTICE

Department of Defence

Topic: PFAS Sub-committee - JSCFADT - PFAS Remediation - 2 December 2019 - Q14 - Number of sites investigated - Faruqi

Question reference number: 14

Senator/Member: Mehreen Faruqi
Type of question: Spoken
Date set by the committee for the return of answer: 9 December 2019

Question:

Mr Grzeskowiak: We did talk about it a little earlier. Early on we did a desktop review of all of our establishments. We focused on places where we knew firefighting had been done and we narrowed it down. Then we launched investigations in a series of waves, because we basically didn't have the capacity to do everything at once. We've added a few since then because we've discovered more things about some sites. We're pretty confident that we've got the sites that we need to look at, but if evidence became available to us that we should look at another defence site then we would look at it.
Senator FARUQI: How many did you look at overall before you came to the 28?
Mr Grzeskowiak: Essentially we looked across the breadth of the defence estate.
Senator FARUQI: Would you have classified them?
Mr Grzeskowiak: Yes, we did. We had them in three tiers. Tier 1 was we really need to do an investigation. Tier 3 was no need to look here.
Senator FARUQI: So how many overall did you look at?
Mr Grzeskowiak: I'd probably have to take on notice to get you the detail.
Senator FARUQI: If you wouldn't mind.
Mr Birrer: It was a risk based approach under the system we set up.
Senator FARUQI: Sure. That's fabulous. But if you could let us know—
Mr Grzeskowiak: Around 60 we think. I'll need to take it on notice—

Answer:

Defence's environmental investigation at the Army Aviation Centre Oakey commenced in late 2012 and the investigation at RAAF Base Williamtown in late 2015. In 2014-15 Defence conducted a review of historical firefighting activities across its estate. Further work was completed on the basis of this review and sites were categorised as follows:

- Category 1 - sites requiring a detailed environmental investigation. These properties are known to have used or likely used substantial quantities of PFAS on site. These

properties required a detailed investigation to determine the extent of PFAS on site, whether it migrated offsite, and the potential for exposure to people or ecological receptors;

- Category 2 - sites where further information was needed to address data gaps. Available information for these properties left uncertainty around the likelihood of substantial PFAS use on the property or for offsite migration. Additional information was required to confirm if a detailed environmental investigation was required; and
- Category 3 - sites assessed as low risk for substantial PFAS use, storage or disposal. These properties did not require further environmental investigations; they presented a low risk for substantial PFAS to be present either on or off the property. Routine monitoring would be undertaken and if monitoring results identified a need to do so, the property's categorisation would be re-evaluated.

Defence engaged a specialist environmental advisor in March 2016 to undertake an initial desktop assessment of Defence sites. The assessment considered 66 properties, excluding Williamtown and Oakey which had already been classified as Category 1 sites. The assessment resulted in:

- 16 sites classified as Category 1;
- 19 sites classified as Category 2; and
- 31 sites classified as Category 3.

Subsequent assessments were conducted, designed to address data gaps associated with Category 2 sites. As a result of this work, eight of the Category 2 sites were re-categorised as Category 1, and proceeded to a detailed environmental investigation.

More recently, a further two Category 2 sites have been added to Category 1, making a total of 28 Category 1 sites. All other sites are Category 3.