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Referral made September 2015

- AIR 5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure

Parliamentary Standing Committee on Public Works

February 2016
Canberra

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Contents

Membership of the Committee	v
List of recommendations	vii
1 Introduction	1
Structure of the report	2
2 AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure	3
Conduct of the inquiry	4
Need for the works	4
Locations.....	5
Options considered	6
Scope of the works.....	6
Transition to CMATS.....	8
Cost of the works	9
Community consultation.....	9
Environmental considerations	10
Contamination issues at Williamtown.....	12
Committee comments	20
Appendix A – List of Submissions.....	25
Appendix B – List of Hearings and Witnesses.....	27



Membership of the Committee

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Senator Alex Gallacher

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Ms Joanne Ryan MP

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List of recommendations

2 AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure

Recommendation 1

The Committee recommends that the House of Representatives resolve, pursuant to Section 18(7) of the *Public Works Committee Act 1969*, that it is expedient to carry out the following proposed work: AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure.

Recommendation 2

The Committee requires the Department of Defence adhere to all suggestions made in evidence to the Committee by Hunter Water Corporation and the NSW Environment Protection Authority in association with works at RAAF Base Williamtown for the AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure project.

Recommendation 3

The Committee requires the Department of Defence work closely with Hunter Water Corporation and the NSW Environment Protection Authority in association with works at RAAF Base Williamtown for the AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure project. This should include:

- seeking input from both agencies when developing and finalising environmental plans
- providing relevant information, including results from testing, in a timely manner
- allowing adequate on-site access for monitoring and inspections

Recommendation 4

The Committee requires that the Department of Defence provide it with updates if significant findings in relation to contamination levels are detected at any sites associated with AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure. An update is to be provided detailing the status of contamination at RAAF Base Williamtown by June 2016.

Introduction

- 1.1 Under the *Public Works Committee Act 1969* (the Act), the Parliamentary Standing Committee on Public Works is required to inquire into and report on public works referred to it through either house of Parliament. Referrals are generally made by the Assistant Minister for Productivity.
- 1.2 All public works that have an estimated cost exceeding \$15 million must be referred to the Committee and cannot be commenced until the Committee has made its report to Parliament and the House of Representatives receives that report and resolves that it is expedient to carry out the work.¹
- 1.3 Under the Act, a public work is a work proposed to be undertaken by the Commonwealth, or on behalf of the Commonwealth concerning:
- the construction, alteration, repair, refurbishment or fitting-out of buildings and other structures;
 - the installation, alteration or repair of plant and equipment designed to be used in, or in relation to, the provision of services for buildings and other structures;
 - the undertaking, construction, alteration or repair of landscaping and earthworks (whether or not in relation to buildings and other structures);
 - the demolition, destruction, dismantling or removal of buildings, plant and equipment, earthworks, and other structures;
 - the clearing of land and the development of land for use as urban land or otherwise; and
 - any other matter declared by the regulations to be a work.²
- 1.4 The Act requires that the Committee consider and report on:
- the purpose of the work and its suitability for that purpose;
-

1 The *Public Works Committee Act 1969* (The Act), Part III, Section 18(8). Exemptions from this requirement are provided for work of an urgent nature, defence work contrary to the public interest, repetitive work, and work by prescribed authorities listed in the Regulations.

2 The Act, Section 5.

- the need for, or the advisability of, carrying out the work;
 - whether the money to be expended on the work is being spent in the most cost effective manner;
 - the amount of revenue the work will generate for the Commonwealth, if that is its purpose; and
 - the present and prospective public value of the work.³
- 1.5 The Committee pays attention to these and any other relevant factors when considering the proposed work.

Structure of the report

- 1.6 On 16 September 2015, the Parliamentary Secretary to the Minister for Finance, The Hon Michael McCormack MP, referred the following proposed project to the Committee for consideration and report:
- AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure project
- 1.7 In considering the works, the Committee analysed the evidence presented by the proponent agencies, submissions and evidence received at public and in-camera hearings.
- 1.8 In consideration of the need to report expeditiously as required by Section 17(1) of the Act, the Committee has only reported on significant issues of interest or concern.
- 1.9 The Committee appreciates, and fully considers, the input of the community to its inquiries. Those interested in the proposals considered in this report are encouraged to access the full inquiry proceedings available on the Committee's website.⁴
- 1.10 Chapter 2 of this report addresses the AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure project. The estimated cost of the project is \$409.9 million, excluding GST.
- 1.11 Submissions are listed at Appendix A, and hearings and witnesses are listed at Appendix B.

3 The Act, Section 17.

4 <www.aph.gov.au/pwc>.

AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure

- 2.1 The Department of Defence (Defence) seeks approval from the Committee to undertake infrastructure works at a number of air traffic management centres across Australia.
- 2.2 The air traffic management systems used by both Defence and Airservices Australia (Airservices) are approaching end of life. Consequently, they have partnered to develop a single civil-military air traffic management system.¹
- 2.3 A unified air traffic management system will allow Defence to conduct various operations, while enabling civil aviation industry activities to continue in a safe and flexible manner. It will also enable a new level of operational and cost efficiency by enhancing how Australian airspace is managed.²
- 2.4 Project AIR5431 will deliver the new Defence Air Traffic Management and Control System (ATMCS) in three phases. Phase 1 will provide a new deployable ATMCS and associated facilities. Phases 2 and 3 will provide a new fixed-base ATMCS. This is comprised of fixed air traffic control surveillance sensors (Phase 2) and air traffic command and control systems (Phase 3).³ Phase 3 is the Defence component of the *OneSky Australia Program*.⁴

1 Defence, submission 1, p. 5.

2 Defence, submission 1, p. 6.

3 Defence, submission 1, pp. 6-7.

4 Brigadier Noel Beutel, Defence, transcript of evidence, 27 November 2015, p. 7.

- 2.5 The main objective of the project is to supply training, support and maintenance facilities associated with AIR5431 Phase 2 and 3 systems, in order to allow air traffic control services to continue uninterrupted throughout the system rollout, transition and operation.⁵
- 2.6 The estimated cost of the project is \$409.9 million, excluding GST.
- 2.7 The project was referred to the Committee on 16 September 2015.

Conduct of the inquiry

- 2.8 Following referral, the inquiry was publicised on the Committee's website and via media release.
- 2.9 The Committee received one submission, four supplementary submissions and two confidential submissions regarding the project costs and risk register from Defence, one submission and one supplementary submission from Hunter Water Corporation (Hunter Water) and one submission and one supplementary submission from the NSW Environment Protection Authority (NSW EPA). A list of submissions can be found at Appendix A.
- 2.10 The Committee received a briefing from Defence and conducted public and in-camera hearings in Canberra on 27 November 2015. A transcript of the public hearing and the public submissions to the inquiry are available on the Committee's website.⁶

Need for the works

- 2.11 Defence air traffic control services are provided for the purpose of preventing collisions between aircraft, between aircraft and obstructions, between aircraft and vehicles on the ground manoeuvring area, and expediting and maintaining an orderly flow of air traffic within military controlled airspace. Royal Australian Air Force (RAAF) Joint Battlefield Airspace Control Officers provide air traffic services for all aircraft, civil and military, in the airspace surrounding RAAF air bases and designated military airfields.
- 2.12 The Australian Defence Force Air Traffic Control workforce provides air traffic control services for approximately 500,000 aircraft movements per year, including around 230,000 civilian aircraft movements through military-controlled airspace.⁷
- 2.13 The proposed works will deliver training, support and maintenance facilities associated with Phases 2 and 3. Additionally, this project will

5 Defence, submission 1, p. 20.

6 <www.aph.gov.au/pwc>.

7 Defence, submission 1, p. 8.

upgrade air traffic control towers and airfield systems complex facilities that were constructed in the 1960s, are no longer fit for purpose.⁸

2.14 The Committee is satisfied that the need for the work exists.

Locations

2.15 The works will be undertaken at 18 locations throughout Australia:

2.16 Queensland

1. Royal Australian Air Force (RAAF) Base Amberley
2. Army Aviation Centre (AAC) Oakey
3. Off-base sensor site Turkey Hill – approximately 9 km to the north of AAC Oakey
4. RAAF Base Townsville
5. Off-base sensor site Many Peaks – approximately 7 km to the north of RAAF Base Townsville

2.17 New South Wales

6. RAAF Base Richmond
7. HMAS *Albatross* (Nowra)
8. Off-base sensor site Nowra Hill – approximately 2 km to the east of HMAS *Albatross*
9. RAAF Base Williamtown

2.18 Victoria

10. RAAF Base East Sale
11. Off-base sensor site Deadmans Hill – radar site approximately 10.5 km to the south of RAAF Base East Sale

2.19 South Australia

12. RAAF Base Woomera
13. RAAF Base Edinburgh

2.20 Western Australia

14. RAAF Gingin
15. RAAF Base Pearce
16. Off-base sensor site Eclipse Hill – approximately 32 km to the north of RAAF Base Pearce

- 2.21 **Northern Territory**
17. RAAF Base Darwin
18. RAAF Base Tindal⁹

Options considered

- 2.22 The options to refurbish existing facilities or construct new facilities were considered against operational requirements and the condition of existing structures. The proposed works will include construction, modification and demolition components.¹⁰
- 2.23 In the case of RAAF Bases Darwin and Tindal, refurbishment and construction of new facilities were both viable options. A further option analysis concluded that new facilities were required for both sites, due to disruptions and safety risks associated with refurbishment works.¹¹
- 2.24 The Committee found that Defence has considered multiple options to deliver the project and has selected the most suitable option.

Scope of the works

- 2.25 The scope elements proposed for this project include construction of air traffic control towers, new sensor equipment buildings, airfield systems complex facilities and infrastructure. Redundant facilities and infrastructure will be demolished. In some cases, existing facilities will be modified rather than replaced.¹²
- 2.26 In addition to the facilities above, Operational Maintenance Trainers for both Phases will be housed within the new airfield systems complex at RAAF Base Amberley. The School of Air Traffic Control facility at RAAF Base East Sale will be modified to accommodate the new Phase 3 simulator equipment.¹³
- 2.27 The table below, provided by Defence in its submission, is a summary of the proposed scope elements at each site.

9 Defence, submission 1, pp. 22-3.

10 Defence, submission 1, pp. 12, 23.

11 Defence, submission 1, pp. 13-15.

12 Defence, submission 1, p. 23.

13 Defence, submission 1, p. 23.

Table 1 Scope elements by location

	New SEB	Refurb SEB	New Tower	Refurb Tower	New AFLDSYS	Refurb AFLDSYS	Fire Watch Tower	New OMIT	Mod SATC Simulator	Demolish TWR	Demolish AFLDSYS
Amberley	x		x		x			x		x	
Oakey	x (os)		x		x					x	x
Townsville		x (os)	x		x					x	x
Richmond			x		x					x	x
Nowra		x (os)		x		x					
Williamtown	x		x		x		x			x	x
East Sale	x (os)			x		x			x	x	
Woomera				x							
Edinburgh				x		x					
Gingin				x							
Pearce			x		x					x	x
Darwin	x (os)		x			x				x	
Tindal	x		x		x					x	
Total	7	2	8	5	7	4	1	1	1	9	5

Source Department of Defence, submission 1, p. 24.
 Key: OS = offsite; SEB = sensor equipment building; AFLDSYS = airfield system; OMT = operational maintenance trainer; SATC = school of air traffic control

- 2.28 At the public hearing, Defence advised of a change to the scope of the project at RAAF Base Williamtown to a partial demolition of the existing tower (original proposal was a full demolition), removing only the control cabin on the top of the tower and allowing the facility to continue to be used as a fire watchtower.¹⁴
- 2.29 Defence also advised of a change in design to an underground diesel tank at Williamtown. To reduce excavation works, Defence now proposes to install the 1 0,000 litre tank above ground at the Sensor Equipment Building. The proposed above ground tank would require minimal excavation and would include appropriate bunding to mitigate environmental risks from fuel spills.¹⁵ Defence considered this change in response to community concerns about Aqueous Film Forming Foam

14 Brigadier Noel Beutel, Defence, transcript of evidence, 27 November 2015, p. 7.

15 Defence, submission 1.5, p. 1.

(AFFF) contamination at RAAF Base Williamtown and in response to the NSW EPA's submission to the Committee that highlighted a risk in the installation of underground tanks, citing that this "would likely require dewatering and subsequent disposal of potentially contaminated ground water".¹⁶ A more detailed discussion on contamination at RAAF Base Williamtown is presented later in the chapter.

- 2.30 Subject to Parliamentary approval of the project, construction is expected commence in mid-2016 at RAAF Base Amberley. Works at other sites will progressively commence from late 2016, with all works to be completed by the end of 2021.¹⁷
- 2.31 The Committee finds that the proposed scope of works is suitable for the works to meet its purpose.

Transition to CMATS

- 2.32 The Committee queried Defence regarding the timeframes of roll-out of the Civil Military Air Traffic Management System (CMATS) and the transition from the existing to the new air traffic management system.
- 2.33 Defence advised that the transition to CMATS is intended to commence before mid-2020, with full operational capability realised in 2023.
- 2.34 Defence intends to maintain the existing air traffic management system while the new system is installed, tested and accepted into service at each site as part of a rolling program. As each site is accepted into service, the old Air Traffic Management equipment for that site will be decommissioned and removed prior to demolition of the old facilities (where required). Further, Defence stated:
- As part of the Joint OneSKY Program, Defence and Airservices are working closely together to plan the transition from their separate existing systems to the one harmonised CMATS. Lessons learned by one organisation during the transition will be shared with the other organisation.¹⁸
- 2.35 Defence acknowledged that negotiations with the AIR 5431 supplier are on-going and as a result there is a risk attributed to unknown technical requirements. Defence advised this risk is mitigated by ensuring that the facilities have been designed with spare capacity to accommodate changes as a result of increasing AIR5431 Phase 3 physical requirements. In addition, a portion of Defence Contingency has been allocated to this risk

16 NSW EPA, submission 3, p. 2.

17 Defence, submission 1, p. 46.

18 Defence, submission 1.6, p. 2.

if re-work is required, and Defence does not expect any delays as a result of this risk.¹⁹

Cost of the works

- 2.36 The estimated cost of the project is \$409.9 million, excluding GST.
- 2.37 Defence provided further detail on the project costs in the confidential submission and during the in-camera hearing.
- 2.38 The Committee considers that the cost estimates for the project have been adequately assessed by Defence and the Committee is satisfied that the proposed expenditure is cost effective. As the project will not be revenue generating, the Committee makes no comment in relation to this matter.

Community consultation

- 2.39 Defence's consultation strategy for the AIR5431 Phase 2 and 3 was undertaken with the following objectives:
- ensuring that the public was informed about the project using cost effective, wide ranging communication channels
 - ensuring the public had every opportunity to raise issues of concern or seek further information²⁰
- 2.40 The consultation activities included email correspondence with local groups and State and Federal members, individual briefings where requested, advertisements in the local newspapers, and a series of public consultation sessions. Defence advised that no significant issues were raised during Defence's community consultations that would impact on the proposed works. Defence was satisfied that it had taken all reasonable steps to inform the community about the project and to provide opportunities for the community to raise concerns.²¹
- 2.41 However, the Committee is aware that in September and October 2015 the community and Defence were engaged in robust and extensive public meetings regarding contamination issues at RAAF Base Williamtown.
- 2.42 The Committee questioned Defence about ongoing engagement with the community in relation to the development of the Construction Environment Management Plans at RAAF Base Williamtown. Brigadier Beutel from Defence stated that he saw "no issues in engaging with agencies, outside authorities or the community in relation to the

19 Defence, submission 1.6, p. 2.

20 Defence, submission 1.3, p. 1.

21 Defence, submission 1.3, pp. 1-2.

development of these plans once they are at a certain level where Defence is comfortable that we can have an information discussion.”²²

Environmental considerations

- 2.43 An environmental study undertaken in 2013 identified the following ten constraints and potential impacts:
1. Indigenous heritage considerations at RAAF Bases Darwin, Townsville, Amberley, Williamtown, Richmond and Pearce
 2. potential Indigenous cultural heritage at RAAF Bases Darwin, Townsville, Amberley, Williamtown and Pearce
 3. potential acid sulphate soil at RAAF Bases Townsville, Darwin and Williamtown
 4. potential contamination, including Aqueous Film Forming Foam contamination, at all sites
 5. potential endangered flora and/or fauna at all sites, in particular at RAAF Bases Darwin, Townsville and Amberley
 6. climate issues associated with heavy rain and cyclones at RAAF Bases Darwin, Townsville, Tindal and Amberley
 7. stormwater infrastructure capacity issues at RAAF Bases Darwin, Townsville, Amberley and Williamtown
 8. bushfire risk at RAAF Base Amberley
 9. noise and vibration impact on heritage buildings at RAAF Base Amberley
 10. cumulative environmental impact development of various projects at RAAF Bases Amberley and Williamtown²³
- 2.44 In response to the above findings, a further Environmental Impact Assessment (EIA) was undertaken and issued in December 2014. The EIA determined that only the project works at RAAF Base Amberley may have a significant impact on a Matter of National Environmental Significance. To determine the impact, an Ecological Assessment into a secondary koala habitat was undertaken which confirmed the proposed works would not have a significant impact.²⁴
- 2.45 Further targeted studies have been undertaken to address the key risk items: historic heritage, indigenous cultural heritage, and site

22 Brigadier Noel Beutel, Defence, transcript of evidence, 27 November 2015, p. 10.

23 Defence, submission 1, pp. 17-18.

24 Defence, submission 1, p. 18.

contamination. Defence advised that all of these identified risk items have been addressed within the developed project design.²⁵

Heritage control towers

- 2.46 Ten historic air traffic control towers have been identified. The heritage values were assessed as follows:
- Exceptional Integrity – Gingin (c.1960)
 - High Integrity – Williamtown (c.1960), Amberley (c.1960), Townsville (c.1960), Richmond (c.1960), Edinburgh (c.1960)
 - Medium Integrity – N/A
 - Low Integrity – Woomera (c.1958), Oakey (c.1975), Pearce (c.1960), East Sale (c.1960)²⁶
- 2.47 A Heritage Impact Assessment conducted in January 2015 recommended that at least one of the 1960s-era towers is retained and that a Heritage Management Plan be developed to protect and manage it. Consequently, the tower at RAAF Base Gingin is to be retained and refurbished.²⁷

Indigenous cultural heritage

- 2.48 The environmental study undertaken in 2013 identified some bases with Indigenous cultural heritage. Further examination found that the proposed sites for the new air traffic control facilities are located within precincts that have already been disturbed extensively. This is the case for RAAF bases Darwin, Townsville, Williamtown and Pearce but not for RAAF Base Amberley.²⁸
- 2.49 In a supplementary submission, Defence advised that geotechnical investigations at the RAAF Base Amberley site have been completed. These investigations were conducted in accordance with cultural heritage management measures agreed with representatives from Jagera Daran, the local Indigenous group. At the conclusion of the investigations, Jagera Daran representatives produced a report, which included recommended mitigation measures to be implemented during the proposed works at RAAF Base Amberley.
- 2.50 A Cultural Heritage Management Plan (CHMP) for the proposed works at RAAF Base Amberley is currently being developed by the Managing Contractor, which incorporates the recommended mitigation measures

25 Defence, submission 1, p. 18.

26 Defence, submission 1, p. 15.

27 Defence, submission 1, p. 15.

28 Defence, submission 1, p. 16.

proposed by Jagera Daran. Defence assured the Committee that, subject to Parliamentary approval of the project, all proposed works will be undertaken in accordance with the approved CHMP.²⁹

Contamination issues at Williamtown

- 2.51 Historically, firefighting foams containing Perfluorooctane Sulphate (PFOS) and Perfluorooctanoic Acid (PFOA) were extensively used worldwide and in Australia by civilian authorities and military firefighters during the period from the 1970s to around the mid-2000s. Defence no longer uses these foams. Between 2004 and 2011, Defence transitioned to a new product which does not contain any PFOS or PFOA, which are now referred to as legacy contaminants.
- 2.52 In 2011, Defence included screening for PFOS and PFOA in environmental activities where they were undertaking monitoring. In 2012 Defence detected these contaminants on base at RAAF Base Williamtown and noted that these contaminants could be migrating beyond the boundary of the base. Defence contacted the NSW EPA and Hunter Water Corporation in December 2012. A Stage 1 desktop Environmental Investigation Report, which identified the requirement for further investigations, was completed in 2013. In 2014 a Stage 2 Environmental Investigation commenced and in 2015 Defence received the technically verified draft report which confirmed contaminated water inside and outside of the boundary. In September 2015 Defence provided Hunter Water Corporation with the preliminary data and the draft report was subsequently provided to key NSW agency stakeholders.³⁰
- 2.53 The results of PFOS and PFOA contamination surveys undertaken at all proposed construction sites were provided by Defence in a supplementary submission. In summary, the results indicate all sites surveyed are below the Defence adopted screening levels for PFOS and PFOA in both soil and ground water, with the exception of RAAF Base Williamtown.³¹
- 2.54 The human health screening level for PFOS in groundwater is 0.2µg/L and for PFOA in groundwater is 0.4µg/L. Results from testing at Williamtown were up to 8.69µg/L PFOS detected in groundwater and up to 0.08µg/L PFOA detected in groundwater. Defence stated:

29 Defence, submission 1.6, p. 2.

30 Ms Alison Clifton, Defence, transcript of evidence, 27 November 2015, pp. 11-12. A history of AFFF at RAAF Base Williamtown can be found at the website: http://www.defence.gov.au/id/_Master/docs/Williamtown/RAAFWilliamtownStage2FactSheet14Sep15.pdf

31 Defence, submission 1.6, p. 3.

As such, excavation works for the proposed facilities at RAAF Base Williamtown will include water treatment activities consistent to those being undertaken as part of the New Air Combat Capability (NACC) Facilities Project currently underway at RAAF Base Williamtown. This process involves treating extracted groundwater to bring the levels of PFOS and PFOA to below 0.2µg/L before the water is reinjected into the groundwater aquifer.³²

2.55 The NSW Environment Protection Authority (EPA) raised a series of points relating to the management of PFOS and PFOA contaminated ground and surface waters both within and outside the RAAF base Williamtown. NSW EPA's submission also highlighted a risk in the installation of an underground tank which may have required disposal of potentially contaminated groundwater.³³ Defence responded that it would work with the NSW EPA to implement a similar approach to the management of contamination currently under construction as part of the New Air Combat Capability (NACC) facilities project. Defence stated:

This approach will include:

- The development of a Sampling and Analysis Plan (SAP) by environmental consultants taking into consideration site conditions, legislative and Defence requirements. Contamination testing in accordance with the SAP will be carried out before starting construction. The sampling will be performed in a grid pattern to map the zones of various levels of contaminant across the site to establish the degree and location of contamination.
- In line with current agreements with the NSW EPA on the NACC facilities project, Defence proposes that soil with low PFOS/PFOA concentrations will be removed from site as general solid waste. If soil contains higher concentrations of PFOS/PFOA than permitted by the NSW EPA, the soil will be stockpiled on site, ensuring that the material is appropriately contained so as to prevent leaching into the surrounding area.
- If dewatering is required in areas where groundwater contains PFOS/PFOA at levels that exceed the screening criteria adopted by Defence, Defence intends to treat the groundwater to within accepted screening criteria levels prior to re-injecting the water into the vicinity where it was extracted. Trial PFOS and PFOA filtration methods are currently underway as part of the NACC facilities project and it is currently intended these methods will

32 Defence, submission 1.6, pp. 6-7.

33 NSW EPA, submission 3, pp. 1-2.

be used on the Project. If no contamination is present, groundwater will be managed in accordance with the Contractors Stormwater and Erosion Management Plan requirements.³⁴

- 2.56 As discussed above, Defence changed the design of the 10,000 litre tank at Williamstown. Defence considered this change in response to community concerns about contamination at RAAF Base Williamstown and in response to the NSW EPA submission to the Committee. Defence now proposes to install the tank above ground to reduce the excavation works and mitigate environmental risks from fuel spills.³⁵
- 2.57 Within its submissions Hunter Water discussed the Tomago Sandbeds Catchment Area (TSCA) which contains a large unconfined aquifer used to supply high quality drinking water to the Lower Hunter region. RAAF Base Williamstown is located within the TSCA and Hunter Water requested a number of requirements be implemented by Defence for the Project, including:
- All construction activities undertaken at RAAF Base Williamstown should be performed in a manner which reflects the sensitivity of the Project area as a drinking water catchment. It is further requested that all staff working during both construction and operational phases of the development are made aware of the significance of the area. It is suggested that this could be undertaken as part of site induction and refresher courses for contractors and Defence personnel.
 - Stormwater runoff from potentially contaminated areas associated with the Project should be directed away from the groundwater draw zone.
 - Given the height of the water table in the area, excavation works may require dewatering. If so, disposal of the potentially contaminated groundwater should be undertaken so that it does not affect any of Hunter Water's drinking water sources.
 - All spills of petrochemicals, or other hazardous materials, in unbunded areas during construction or operation of the Project should be cleaned up immediately and reported to Hunter Water as soon as practicable.
 - Defence must ensure access to Hunter Water's infrastructure is not impeded throughout the construction and operation periods for the Project.³⁶
- 2.58 Defence assured the Committee that it would implement the requirements listed in the Hunter Water submission on the AIR5431 project.³⁷

34 Defence, submission 1.4, p. 2.

35 Defence, submission 1.5, p. 1.

36 Hunter Water, submission 2, pp. 1-2.

- 2.59 Both Hunter Water and NSW EPA stated in their submissions that “all other works in potentially contaminated areas of the Williamtown RAAF Base must be managed so as to not cause or exacerbate pollution from the Base to the surrounding environment and communities.”³⁸
- 2.60 Defence confirmed construction activities undertaken as part of the project would be performed in accordance with a Construction Environmental Management Plan (CEMP). The CEMP will include details on environmental controls that will be implemented throughout the project, including incident response procedures for environmental incidents. A site induction will also be provided to people working on the Project and will include details of the sensitivity of the site. Stormwater runoff from the proposed Tower and Airfield Systems Complex site at RAAF Base Williamtown has been designed so that stormwater runoff is directed to the nearest swale drain west of the site.³⁹
- 2.61 The Committee queried any strategies to prevent the spread of contaminants through the surface water. On the current project, there is a stormwater management plan during construction, however, water that is leaving the base as groundwater cannot be contained:
- But I return to the point that we cannot stop water running outside the base. It has to go; we cannot contain it somewhere at the moment. I say 'at the moment' because there needs to be formal investigation and analysis as to what could be possible. The works that we are doing and the measurements of everything that we are having to do are to ensure that we do not increase the flow rate. But the actual volume rate, looking at a monthly or a yearly aspect of it, will be what it basically is, based on the rain that comes through and what is cached and what is gone. But what is important to note is that the flow rate will not exceed the current flow rate of water that is discharging from the base.⁴⁰
- 2.62 The Senate Foreign Affairs, Defence and Trade References (FADTR) Committee is conducting a broad inquiry into PFOS and PFOA contamination, including: contamination identification; responses and coordination; measures taken to ensure the health, wellbeing and safety of people; remediation works and adequacy of measures taken to control contamination; financial impacts to businesses and individuals; and

37 Defence, submission 1.4, p. 1.

38 NSW EPA, submission 3, p. 2. Hunter Water, submission 2.1, p. 2.

39 Defence, submission 1.4, p. 1.

40 Brigadier Noel Beutel, Defence, transcript of evidence, 27 November 2015, p. 15.

adequacy of public disclosure.⁴¹ An assurance that the AIR 5431 Phase 2 and 3 project will not exacerbate contamination levels at Williamstown was made by Defence at a Senate FADTR Committee public hearing:

Defence has adopted measures to ensure that any current and proposed works conducted at that site do not further contribute to this issue. We have put in place measures to ensure that any site redevelopment does not further contaminate the area or the surrounding environment. We put in place stormwater management solutions, as well as assistance to provide with flood mitigation measures and practices around earthworks, all aimed at prevent further contamination.⁴²

- 2.63 The Senate FADTR Committee's first report, tabled on 4 February 2016, was directed to PFOS and PFOA contamination from RAAF Base Williamstown. The Senate FADTR Committee made a number of recommendations to Defence, and the Commonwealth Government more broadly, regarding access to water, provision of mental health and counselling services, initial compensation of the fishing community and coordination of the response of government agencies.⁴³

Consultation, engagement and access to Williamstown base

- 2.64 At the public hearing, Mr Darren Cleary from Hunter Water called for stronger commitments from Defence to provide CEMPs and evidence of how the on-site environmental issues are going to be managed before construction commences. Mr Cleary stated that there had been limited engagement with agencies on the construction works as part of the New Air Combat Capability (NACC) project:

Our current experience with the construction work that is occurring as part of the New Air Combat Capability project is that commitments on delivery of environmental management plans and liaison with agencies were made and those commitments have not been followed through. Construction works are occurring at the base. Major excavation works are occurring at the base. Hunter Water Corporation have not received any environmental management plans in relation to those works, although we have

41 The full terms of reference of the Senate FADTR Committee is on the website: http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Foreign_Affairs_Defence_and_Trade/ADF_facilities/Terms_of_Reference

42 Mr Steven Grzeskowiak, Defence, Senate FADTR Committee, transcript of evidence, 3 December 2015, p. 1.

43 Senate FADTR Committee, *Inquiry into firefighting foam contamination Part A – RAAF Base Williamstown*, February 2016, p. xiii.

requested them on numerous occasions. ...

We need to ensure that appropriate opportunities are provided by agencies to review and comment on those plans and that evidence is provided on how those comments have been taken into account.⁴⁴

- 2.65 Brigadier Beutel from Defence stated that when Defence progresses to the delivery phase of the project, site specific CEMPs will be developed and approved by Defence prior to any construction taking place. CEMPs will be made available to interested parties.⁴⁵
- 2.66 On 17 December 2015, representatives from the NSW EPA, the NSW Departments of Health and Primary Industries, the NSW Department of Premier and Cabinet Water Working Group (a sub panel of the Expert Panel established by the NSW Government) and Hunter Water were provided with a briefing on and site inspection of the NACC Facilities Project at RAAF Base Williamtown. Copies of the NACC Facilities CEMP were provided.⁴⁶
- 2.67 ABC News quoted Adam Gilligan, NSW EPA's Hunter Region manager:
'It's taken some time to organise with Defence and a number of people involved,' he said.
'We are just very pleased to have commenced a productive dialogue with defence officials and their consultants that will help us better understand the challenges of managing this issue moving forward.'⁴⁷
- 2.68 However, the NSW EPA noted that "there was limited provision of information regarding source areas, including the extent of lack of observable control efforts." In a letter dated 31 December 2015 the NSW EPA recommended that Defence review their strategy to prevent contaminated overflows from the source areas to prevent any potential for further offsite migration of contamination. Additionally, the EPA encouraged Defence to review their community engagement strategy regarding provision of information and construction activities that may impact the migration of contamination.⁴⁸

44 Mr Darren Cleary, Hunter Water, transcript of evidence, 27 November 2015, p. 1.

45 Brigadier Noel Beutel, Defence, transcript of evidence, 27 November 2015, p. 9.

46 Defence, submission 1.6, pp. 3-4.

47 ABC News, *EPA officials praise dialogue with Defence over contamination*, 18 December 2015, <http://www.abc.net.au/news/2015-12-18/epa-officals-praise-dialogue-with-defence-over-contamination/7039512>

48 NSW EPA, submission 3.1, p. 2.

Impact of contamination at Williamstown on local community

2.69 The NSW Government is taking a precautionary approach to assess the nature of any potential risk and to develop an appropriate response to the contaminants. As of 21 October 2015, the NSW Government continued to advise precautions for residents living inside the investigation area, including:

- not drinking or preparing food from private water bores, or water from dams, ponds, creeks or drains (town water is safe)
- do not eat eggs from backyard chickens or milk from cows and goats that have been drinking bore water or surface water in the area; and
- do not eat fish, prawns or wild oysters caught in the nearby area.⁴⁹

2.70 The NSW EPA is aware of a number of businesses affected, in particular people working in the fishing industry who are directly impacted by precautionary fisheries closures. NSW EPA advised that the Expert Panel extended precautionary fishing closures and consumption advice until 30 June 2016, pending the outcome of a full human health risk assessment.⁵⁰

2.71 Mr Darren Cleary from Hunter Water stated that due to the contamination risks, Hunter Water embargoed the use of three bores which are used for water supply to customers in the region. Therefore, residents on town water (Hunter Water customers) had not experienced problems with their water supply directly due to the contamination at Williamstown. However, Mr Cleary described the impact on the water supply within the Tomago Sandbeds:

The impact it has had is that it has reduced our ability to access water within the Tomago Sandbeds. It has reduced our ability to extract water from those sandbeds by approximately 10 per cent, and that reduces our ability to use that water source in the future.

...

The impact that it has is that it reduces the water we have available for water supply. In a practical sense, what that means is that if we cannot get access to that water then the next augmentation of our water sources will have to come forward. It will have to be constructed earlier, and that could bring that significant investment forward by a number of years – by up to

49 NSW EPA, <https://www.epa.nsw.gov.au/MediaInformation/williamtown.htm> (accessed 25 January 2016).

50 NSW EPA, submission 3.1, p. 2.

two years. Given the level of investment that is required, that is a cost of tens of millions of dollars.⁵¹

- 2.72 The Committee notes that the NSW Government has committed to connecting affected properties in the investigation area to town water. However, while this program is being undertaken, many residents continue to rely on bottled water being supplied by Defence.⁵²

Key legislation and jurisdictions

- 2.73 The Committee sought further advice on the key differences between the Commonwealth's *Environment Protection and Biodiversity Act 1999* (EPBC Act) and the NSW *Protection of the Environment Operations Act 1997* (POEO Act) in terms of Defence's obligations.

- 2.74 NSW EPA advised the EPBC Act regulates matters of national environmental significance as well as actions with significant environmental impact taken by Commonwealth agencies or on Commonwealth land. Under the EPBC Act there is a general environmental impact assessment duty if action is taken by the Commonwealth and likely to have a significant impact on the environment. The POEO Act regulates pollution matters in NSW generally, in particular, any actions or activities that cause or are likely to cause pollution in NSW. There are various powers given to the NSW EPA to carry out inspections and investigations and commence prosecutions.⁵³

- 2.75 Ms Alison Clifton, Defence stated:

We are subject to the Commonwealth EPBC – Environment Protection and Biodiversity Conservation Act – on base. In the case of contamination going off base, as we are involved with now at Williamtown, we are subject to New South Wales laws.⁵⁴

- 2.76 Defence further advised that the question of whether, and the extent to which the Commonwealth is bound by State legislation, is a constitutional law question and is complex. However, it is Defence policy to wherever possible to comply with the spirit and intent of State environmental management legislation, where it does not conflict with obligations under applicable Commonwealth legislation.⁵⁵

51 Mr Darren Cleary, Hunter Water, transcript of evidence, 27 November 2015, p. 2.

52 Senate FADTR Committee, *Inquiry into firefighting foam contamination Part A – RAAF Base Williamtown*, February 2016, p. 65.

53 NSW EPA, submission 3.1, p. 3.

54 Ms Alison Clifton, Defence, transcript of evidence, 27 November 2015, p. 8.

55 Defence, submission 1.6, p. 3

- 2.77 The Senate FADTR Committee stated that it may need to include further examination of the contamination at RAAF Base Williamtown in the second part of its inquiry, including further investigation of the application of environmental regulations when contamination spreads from land controlled by Defence to non-Commonwealth land.⁵⁶

Committee comments

- 2.78 The Committee is satisfied that the project has merit in terms of need, scope and cost.
- 2.79 The Committee notes comments from the NSW EPA that Defence is now working cooperatively with NSW agencies, however, it has taken some time for Defence to organise this productive consultation, including providing a detailed briefing and site inspection at Williamtown.
- 2.80 The Committee commends Defence for providing NSW agencies with copies of the New Air Combat Capability construction environment management plans and for the briefing and visit to Williamtown base. However, the Committee considers that going forward there needs to be a stronger commitment to more open and transparent processes of engagement put in place by Defence.
- 2.81 In noting that this project covers multiple jurisdictions, the Committee recommends that Defence work closely with Hunter Water and the NSW EPA to achieve optimal outcomes for all stakeholders. This should include providing relevant information and access to RAAF Base Williamtown in a timely manner and liaison when developing the project specific environmental plans.
- 2.82 Submissions from Hunter and NSW EPA, media articles, and a local member on the Committee have brought this issue to the forefront of the Committee's considerations. However, Defence's original submission included only one line indicating potential AFFF contamination at all sites and states that all risks have been addressed within the developed design of the project. The Committee believes Defence could have been more forthcoming regarding contamination issues at Williamtown.
- 2.83 The Committee is also concerned that PFOS and PFOA contaminants have not been identified previously as high risks at Williamtown, given contaminants were detected as leaving the base in 2012. The Committee, during this 44th Parliament, has conducted two previous inquiries which included scope elements at RAAF Base Williamtown: AIR 6000 Phase 2A/B NACC Facilities Project – public hearing held 10 September 2014,

56 Senate FADTR Committee, *Inquiry into firefighting foam contamination Part A – RAAF Base Williamtown*, February 2016, pp. 63, 70.

and RAAF Williamtown Redevelopment Stage Two Project – public hearing held 22 July 2015. There was no specific mention made by Defence of PFOA or PFOS as contaminants during either inquiry.⁵⁷

- 2.84 There is a lot of community anxiety around the PFOA and PFOS contaminants on and off RAAF Base at Williamtown and the impact they are having or can potentially have on the soil and water. There have been health, employment, and financial impacts on many residents who live around the Williamtown base area.
- 2.85 PFOS and PFOA are referred to as legacy contaminants and they were previously used at Defence and civil airfields around Australia. This issue has the potential to be broader than Williamtown, involving Defence bases and other airfields across Australia.
- 2.86 The Committee notes the Senate FADTR Committee’s inquiry is due to report by 30 April 2016 on PFOS and PFOA contamination on other Commonwealth, state and territory sites in Australia where firefighting foams containing PFOS and PFOA were used. The Senate FADTR Committee indicated this second part of its inquiry may also include further examination of the situation at RAAF Base Williamtown.
- 2.87 Defence has provided assurances and adopted measures to ensure that the current and proposed works conducted at Williamtown will not further contribute to the contamination issue. Defence also assured the Committee it would engage with NSW EPA and Hunter Water and implement the requirements listed in their submissions on this project.
- 2.88 The Committee recommends it is expedient to carry out works at Williamtown RAAF Base, however the works must be managed so as to not cause or exacerbate pollution from the Base to the surrounding environment and communities. The Committee requires Defence to provide it with an update detailing the status of contamination at RAAF Base Williamtown by June 2016.
- 2.89 Having regard to its role and responsibilities contained in the *Public Works Committee Act 1969*, the Committee is of the view that this project signifies value for money for the Commonwealth and constitutes a project which is fit for purpose, having regard to the established need.

57 Brigadier Noel Beutel, Defence, transcript of evidence, 27 November 2015, p. 11. See also Brigadier Noel Beutel, Defence, Senate FADTR Committee, transcript of evidence, 22 December 2015, p. 61.

Recommendation 1

- 2.90 The Committee recommends that the House of Representatives resolve, pursuant to Section 18(7) of the *Public Works Committee Act 1969*, that it is expedient to carry out the following proposed work: AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure.

Recommendation 2

- 2.91 The Committee requires the Department of Defence adhere to all suggestions made in evidence to the Committee by Hunter Water Corporation and the NSW Environment Protection Authority in association with works at RAAF Base Williamtown for the AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure project.

Recommendation 3

- 2.92 The Committee requires the Department of Defence work closely with Hunter Water Corporation and the NSW Environment Protection Authority in association with works at RAAF Base Williamtown for the AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure project. This should include:
- seeking input from both agencies when developing and finalising environmental plans
 - providing relevant information, including results from testing, in a timely manner
 - allowing adequate on-site access for monitoring and inspections

Recommendation 4

- 2.93 **The Committee requires that the Department of Defence provide it with updates if significant findings in relation to contamination levels are detected at any sites associated with AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure. An update is to be provided detailing the status of contamination at RAAF Base Williamtown by June 2016.**
- 2.94 Proponent agencies must notify the Committee of any changes to the project scope, time, cost, function or design. The Committee also requires that a post-implementation report be provided within three months of project completion. A report template can be found on the Committee's website.

Senator Dean Smith

Chair

11 February 2016



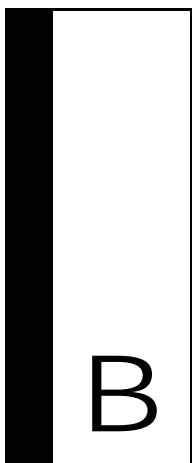
Appendix A – List of Submissions

AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure

1. Department of Defence
 - 1.1 Confidential
 - 1.2 Confidential
 - 1.3 Department of Defence
 - 1.4 Department of Defence
 - 1.5 Department of Defence
 - 1.6 Department of Defence

2. Hunter Water Corporation
 - 2.1 Hunter Water Corporation

3. NSW Environment Protection Authority
 - 3.1 NSW Environment Protection Authority



Appendix B – List of Hearings and Witnesses

AIR5431 Phases 2 and 3 Air Traffic Management and Control System Facilities and Australian Defence Force Air Traffic Control Complex Infrastructure

Friday, 27 November 2015 – Canberra

Public Hearing

For Hunter Water Corporation and NSW Environment Protection Authority

Mr Darren Cleary, Chief Operating Officer, Hunter Water Corporation

For Department of Defence

Brigadier Noel Beutel, Director General, Capital Facilities and Infrastructure,
Department of Defence

Wing Commander Ruth Elsley, Representing Officer Commanding Number 44
Wing, Royal Australian Air Force

Wing Commander Rais Khan, Project Director, Capital Facilities and
Infrastructure, Department of Defence

Mr Christopher Woodward, Project Manager and Contract Administrator,
Aurecon Australasia Pty Ltd

Mr Ian Smyllie, Contractor's Representative, Lend Lease Building

Ms Alison Clifton – Assistant Secretary, Environment and Engineering,
Department of Defence

In-Camera Hearing

Five witnesses

