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Estate and Infrastructure Group

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Senator Dean Smith
Chair
Parliamentary Standing Committee on Public Works
Parliament House
CANBERRA ACT 2600

Dear Senator Smith,

AIR 5431 PHASE 2 AND 3 DEFENCE AIR TRAFFIC MANAGEMENT AND CONTROL SYSTEM FACILITIES REQUIREMENTS AND AUSTRALIAN DEFENCE FORCE AIR TRAFFIC CONTROL COMPLEX INFRASTRUCTURE PROJECT

This letter provides additional information on the AIR 5431 Phase 2 and 3 Defence Air Traffic Management and Control System Facilities Requirements, and Australian Defence Force Air Traffic Control Complex Infrastructure Project (the Project), as requested by the Parliamentary Standing Committee on Public Works (the Committee) during the Public Hearing on 27 November 2015 .

The Committee requested additional information regarding:

- The status of the RAAF Base Amberley works Cultural Heritage Management Plan to enable geotechnical investigations of the proposed site to proceed and what assurances can be provided to the Committee that Defence will endeavour not to disturb any sites of Indigenous cultural heritage.

- When is Defence intending to roll-out the Civil Military Air Traffic Management System (CMATS)? Given the Project will not be completed until 2021, is it Defence's intention to run the existing and the new air traffic management system in tandem? If so, is this requirement reflected in facility design? Given Airservices will have already conducted extensive testing in their transition to CMATS, is there scope for collaboration in terms of lessons learned.

- Potential delays to the Project as a consequence of unknown technical requirements.

- PFOS and PFOA contamination surveys at all sites conducted as part of the Project and the results of these surveys.

- Whether Defence considers itself bound by the Protection of the Environment Operations Act in New South Wales (NSW).

RAAF Base Amberley Cultural Heritage Management Plan

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. This included a preliminary field survey of the site by Jagera Daran representatives prior to the commencement of any investigation works. Geotechnical investigations were also monitored by a representative from Jagera Daran. 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.

A Cultural Heritage Management Plan for the proposed works at RAAF Base Amberley is currently being developed by the Managing Contractor, which incorporates the recommended mitigation measures proposed by Jagera Daran. These mitigations include but are not limited to the monitoring of construction activities that involve soil disturbance by Jagera Daran representatives. The final Cultural Heritage Management Plan for the proposed works will be subject to agreement by Jagera Daran representatives and approval by Defence.

Defence can assure the Committee that subject to Parliamentary approval of the Project, all proposed works will be undertaken in accordance with the approved Cultural Heritage Management Plan.

Civil Military Air Traffic Management System

Defence's transition to CMATS is intended to commence before mid 2020, with full operational capability realised in 2023.

Defence intends to maintain the existing Air Traffic Management (ATM) 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 ATM equipment for that site will be decommissioned and removed prior to demolition of the old facilities (where required). For example, once the proposed RAAF Base Amberley tower and airfield system complex is constructed, CMATS will be installed into the new facilities. While the new system is validated and verified, and controllers are trained on the new system, Defence will continue to operate the old system from the existing facilities. This process will occur at each Defence site and the requirement for this has been reflected in facility designs.

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.

AIR5431 Phase 3 Technical Requirements

Defence acknowledges that negotiations with the AIR 5431 Phase 3 supplier are on-going and as a result there is risk attributed to unknown technical requirements. The Project has mitigated this risk by ensuring that the facilities have been designed with spare capacity to accommodate changes as a result of increasing AIR5 431 Phase 3 physical requirements. In addition to this, there is a portion of Defence Contingency allocated to this risk if re-work is required. Defence does not expect any delays as a result of this risk.

PFOS and PFOA Contamination Survey Results

PFOS and PFOA contamination surveys were conducted at all sites, with the exception of HMAS *Albatross,* RAAF Base East Sale and RAAF Base Gingin. A desktop contamination assessment was undertaken for the proposed works at HMAS *Albatross,* RAAF Base East Sale and RAAF Base Gingin. This study identified that current and historical activities at the proposed construction sites for these three sites were unlikely to result in PFOS and PFOA contamination (noting also that the proposed works at these three locations only involve refurbishment works and minimal earthworks). Despite this assessment, Defence will undertake further contamination surveys to confirm PFOS and PFOA levels prior to commencing any excavation activities at these sites.

The results of the contamination surveys undertaken for all other proposed construction sites are provided at Attachment A.

During the Public Hearing into this project, Defence provided a summary of PFOS and PFOA test results for RAAF Base Williamtown for both soil and ground water. These results were all provided in milligrams per litre (mg/L). The PFOS test results for all sites for ground water as detailed in Attachment A have been provided in micrograms per litre (ug/L) to align with the nomenclature used in Defence's adopted screening levels. For the Committee's information, one mg/L is equivalent to 1000 ug/L.

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. 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 0.2ug/L before the water is reinjected into the groundwater aquifer.

Protection of the Environment Operations Act in NSW

I have received legal advice 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. It requires an assessment on a case-by-case basis of each specific Act, and particular provisions within these Acts. As such, advice on such constitutional matters must be sought from the Australian Government Solicitors in accordance with the Attorney-General's Legal Services Directions.

It is however Defence policy to wherever possible comply with the spirit and intent of State environmental management legislation, where it does not conflict with obligations under applicable Commonwealth legislation.

I would also like to advise the Committee that on 17 December 2015, representatives from the NSW Environmental Protection Authority, 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 Corporation were provided a detailed technical briefing on and site inspection of the NACC Facilities Project at RAAF Base Williamtown. Copies of the NACC Facilities Construction Environmental Management Plan (titled by Lend Lease as the NACC Facilities Project Environment, Health and

Safety Management Plan) were also provided. The briefing and site tour were originally scheduled to occur on 11 December 2015, however key representatives from the NSW Government were not able to make that date.

From Defence's perspective, the briefing and site tour were well received. In particular, it was very pleasing to note the following comments from Mr Andrew Gilligan, the Regional Manager, NSW Environmental Protection Authority during an 18 December 2015 interview:

- 'Mr Gilligan says they are now working quite cooperatively with Defence, which is good...'

- 'Mr Gilligan says yesterday they were able to look at the key hotspots on site where fire fighting foam was formerly used and the team also looked at the ongoing significant upgrades to the site, particularly around the construction of the Joint Strike Fighter Aircraft, to examine how they are interacting with surface and ground water on the site to make sure they are not exacerbating the existing issue. Mr Gilligan says they were quite pleased to see fairly extensive measures in place on the construction side of things.'

- 'Mr Gilligan says it's going to be a challenging issue to deal with the legacy contamination and put measures in place to address. However, Gilligan says it's pleasing to see Defence are investigating a number of options, particularly around the surface water impact.'

Yours sincerely,

N.F. BEUTEL
Brigadier
Director General Capital Facilities and Infrastructure

December 2015

Attachment:

A. Results of PFOS and PFOA Contamination Surveys

Attachment A

Results of Preliminary Testing

PFOS in Soil

Table 1 PFOS Soil Screening Levels (Defence adopted screening criteria)

Category	Level
Human Health – Residential (Direct Contact Only)	6mg/kg
Human Health – Industrial (Direct Contact Only)	50mg/kg
Ecological (Terrestrial)	0.373mg/kg
Clean Fill	0.373mg/kg
Landfill Acceptance (contaminated soil and sediment)	90mg/kg 20µg/L Australian Standard Leaching Procedure

Table 2 Soil Samples PFOS

Site	Max Detected Level in Soil (mg/kg)
RAAF Base Amberley	No PFOS Detected
AAC Oakey	0.923
RAAF Base Townsville	0.0199
RAAF Base Richmond	Below limit of reporting of testing equipment (0.0005)
RAAF Base Williamtown	0.0406
RAAF Base Woomera	0.011
RAAF Base Edinburgh	0.387
RAAF Base Pearce	1.5
RAAF Base Darwin	0.0023
RAAF Base Tindal	0.0191

PFOA in Soil

Table 3 PFOA Soil Screening Levels (Defence adopted screening criteria)

Category	Level
Human Health – Residential (Direct Contact Only)	16mg/kg
Human Health – Industrial (Direct Contact Only)	240mg/kg
Ecological (Terrestrial)	3.73mg/kg
Clean Fill	3.73mg/kg
Landfill Acceptance (contaminated soil and sediment)	240mg/kg 40µg/L Australian Standard Leaching Procedure

Table 4 Soil Samples PFOA

Site	Max Detected Level in Soil (mg/kg)
RAAF Base Amberley	No PFOA Detected
AAC Oakey	0.0271
RAAF Base Townsville	0.0006
RAAF Base Richmond	Below limit of reporting of testing equipment (0.0005)
RAAF Base Williamtown	Below limit of reporting of testing equipment (0.0005)
RAAF Base Woomera	0.0047
RAAF Base Edinburgh	0.0061
RAAF Base Pearce	0.0045
RAAF Base Darwin	Below limit of reporting of testing equipment (0.0005)
RAAF Base Tindal	0.0007

Soil Results Summary

The contamination levels in the soil for all sites are **below** the human health screening level.

PFOS in Water

Note: 1 mg/L is equivalent to 1000 µg/L

Table 5 PFOS Water Screening Levels (Defence adopted screening criteria)

Category	Level
Human Health (Drinking Water) (Ground water)	0.2µg/L
Human Heath (Consumption of Fish) (Surface Water)	0.65ng/L
Ecological (Surface Water)	6.66µg/L
Recreational Use	2µg/L

Table 6 Water Samples PFOS

Site	Max Detected Level in Moisture in Soil Samples (µg/L)	Max Detected Level in Groundwater (µg/L)
RAAF Base Amberley	No PFOS Detected	Groundwater not encountered
AAC Oakey	0.04	Groundwater not encountered
RAAF Base Townsville	Below limit of reporting of testing equipment (0.02)	Groundwater sampling not undertaken due to building being constructed on fill
RAAF Base Richmond	No PFOS Detected	Groundwater not encountered
RAAF Base Williamtown	Not required due to presence of ground water	8.69
RAAF Base Woomera	No PFOS Detected	Groundwater not encountered
RAAF Base Edinburgh	No PFOS Detected	Groundwater not encountered
RAAF Base Pearce	Below limit of reporting of testing equipment (0.02)	Groundwater not encountered
RAAF Base Darwin	Below limit of reporting of testing equipment (0.02)	Groundwater not encountered
RAAF Base Tindal	0.04	Groundwater encountered at one borehole only and at a depth below the sampling depth.

PFOA in Water

Table 7 PFOA Water Screening Levels (Defence adopted screening criteria)

Category	Level
Human Health (Drinking Water) (Ground water)	0.4µg/L
Human Heath (Consumption of Fish) (Surface Water)	300ng/L
Ecological (Surface Water)	2900µg/L
Recreational Use	4µg/L

Table 8 Water Samples PFOA

Site	Max Detected Level in Moisture in Soil Samples (µg/L)	Max Detected Level in Groundwater (µg/L)
RAAF Base Amberley	No PFOA Detected	Groundwater not encountered
AAC Oakey	Below limit of reporting of testing equipment (0.02)	Groundwater not encountered
RAAF Base Townsville	Below limit of reporting of testing equipment (0.02)	Groundwater sampling not undertaken due to building being constructed on fill
RAAF Base Richmond	No PFOA Detected	Groundwater not encountered
RAAF Base Williamtown	Not required due to presence of ground water	0.08
RAAF Base Woomera	No PFOA Detected	Groundwater not encountered
RAAF Base Edinburgh	No PFOA Detected	Groundwater not encountered
RAAF Base Pearce	Below limit of reporting of testing equipment (0.02)	Groundwater not encountered
RAAF Base Darwin	Below limit of reporting of testing equipment (0.02)	Groundwater not encountered
RAAF Base Tindal	0.02	Groundwater encountered at one borehole only and at a depth below the sampling depth.

Water Results Summary

The contamination levels in the water for all sites are **below** the human health screening level with the exception of RAAF Base Williamtown. This will be mitigated by implementing necessary water treatment during excavation works for the construction works.

NOTES:

At HMAS Albatross, RAAF Based East Sale and RAAF Gingin, a desktop risk assessment had determined that there was a very low chance of encountering PFOS and PFOA and therefore testing was not undertaken at these sites as part of these investigations.