

Issues and Conclusions

Need

- 3.1 According to Defences' submission to the Committee the need for this project arises predominantly from the need to replace and refurbish a number of facilities at RAAF Base Pearce that are ageing, substandard, and do not comply with current building standards.¹
- 3.2 In addition a number of new facilities will be provided that will assimilate new technologies, including aircraft types, so as to ensure that the base is able to support future operations.
- 3.3 During the course of the site inspection, the Committee assessed the standards of those facilities that are the subject of either refurbishment or demolition, and agreed that the description applied to them by Defence was reflected in the state of the facilities.
- 3.4 A case in point was the proposal to construct a new base fuel farm in order to replace the current non-compliant facility. Defence informed the Committee that the existing fuel farm had been built at a time when codes and building standards were not as stringent as they are today. While the

¹ Appendix C, Submission No. 1, paragraph 1.

department had no issue with the integrity of the current facility, the fuel tanks did not meet the current Australian standards that were formulated to eliminate the great majority of potential risks. Against this background, Defence was of the view that it was incumbent on the department to ensure the integrity of fuel storage facilities through the provision of a new fuel farm that would meet these standards.²

- 3.5 During the site inspection, Defence explained that the proposed new fuel farm would be relocated to a site located away from the flight path and the former fuel storage site remediated, including the removal of soil contamination and re-grassing.

Heritage Issues

- 3.6 Leading on from the matter of need, the Committee inquired as to the criteria employed by Defence in reaching a decision as to whether to retain a building or deciding to demolish it. Defence responded that decisions as to whether to retain or demolish a building were based on the department's heritage assessors who provide a report as to the heritage value of each of the buildings.

- 3.7 Defence explained during the course of the confidential hearing that:

The base cinema was built in the early thirties. The transit rooms were an accommodation building built in the early thirties and are evident in Air Force bases all over Australia, whereas the cinema or something like that might not be. Our experts and our consultants looked at the function and whether there are others existing ... elsewhere on the base or on other defence land. Then an assessment was made of whether these were of high, medium or low significance.

- 3.8 Defence also stated that following on from the Committee's recommendations associated with works proposed for Lavarack Redevelopment Stage 4, the department had written to the Department of Environment and Water Resources (DEWR) seeking guidance on the Defence management plan for RAAF Base Pearce.³ The outcome of this process was that DEWR had undertaken an assessment of buildings to be demolished against the Commonwealth Heritage List criteria but indicated

2 Appendix D, Official Transcript of Evidence, page 6

3 Parliamentary Standing Committee on Public Works, Fourth Report of 2007, *Lavarack Barracks Redevelopment Stage 4*, Townsville, Queensland, Recommendation 9, page 22.

that Defence would need to ensure that buildings scheduled for demolition be recorded and passed to DEWR for archiving.

Recommendation 1

The Committee recommends that in due course the Department of Defence provide details of heritage buildings demolished and referred for archiving to the Department of Environment and Water Resources.

The Tender Process

- 3.9 Defence has stated that the delivery of the works will be via a managing contractor with responsibility to control and coordinate concurrent design and construction of the various elements of the project, and maintain a schedule to this end.⁴ A project manager will also be appointed to act as the contract administrator to the managing contractor for the delivery phase of the project.⁵
- 3.10 The Committee inquired as to the processes Defence had followed with regard to the tendering processes for these two appointments.
- 3.11 In responding, Defence informed the Committee that Sinclair Knight Mertz was selected as the project manager/contract administrator and John Holland as the managing contractor for the development phase of the contract. For the procurement of the managing contractor, Defence employed a two-stage open tender process from which three nationally based companies were short-listed for the second stage of the tender process. According to Defence:
- All three companies submitted a tender for the work and John Holland was selected as the best value for money for the Commonwealth for the development of the project.⁶
- 3.12 In further elaboration, the department informed the Committee that an average of costs had been prepared, and all of the tenders came within the range of that average.⁷

4 Appendix C, paragraph 86.

5 *ibid.*, paragraph 87.

6 Appendix D, page 4.

7 *ibid.*, page 5.

- 3.13 The department also stated that independent of cost, the technical merit of tenders were assessed adding another tier to the selection of tenderers reinforcing the best value for money to the Commonwealth.⁸

The Noise Attenuated Engine Run-up Facility

- 3.14 In its Statement of Evidence, Defence states that it proposes to provide a new purpose built engine run up facility that meets OH&S regulations and noise pollution requirements. The engine run up procedures are required to be performed as part of aircraft maintenance checks and adjustments.⁹
- 3.15 At the Hearing, the Committee sought further details of this facility, particularly as to how the new proposed facility would improve the present situation.¹⁰
- 3.16 The department informed the Committee that RAAF Base Pearce has a requirement to conduct testing of aircraft engines after maintenance. Currently this testing is conducted on an open concrete slab located in proximity to the base boundary. According to Defence the engine testing process involves OH&S issues requiring maintenance staff to wear personal protection equipment (PPE) as protection against noise damage.¹¹
- 3.17 The proposed new facility includes a purpose built building that will considerably reduce noise pollution. In addition to PPE to minimise noise levels for maintenance personnel, a sound attenuator protection booth will be included as part of the development to further reduce exposure to noise levels. The new facility will reduce noise levels both on site as well as reducing noise emissions from the base to adjacent properties.¹²
- 3.18 The Committee asked the department whether it had an indication of the known percentage reduction or an approximation of a percentage reduction in sound emissions.
- 3.19 The Committee was informed that a noise modelling report was undertaken in December 2006, with a further field study undertaken in May 2007. The results of both the report and the field study demonstrated that noise levels were in excess of the Western Australian Environmental Protection Authority guidelines. These outcomes were used in the design

8 loc.cit.

9 Appendix C, paragraph 14.

10 Appendix D, page 3.

11 loc.cit.

12 *ibid.*, page 4.

of the new facility with the objective of achieving a reduction in noise emissions by 24 decibels to make it compliant with Western Australian regulations.¹³

Air Movements Terminal

3.20 The department proposes to upgrade the air movements terminal by providing new office facilities and staff amenities, and new passenger facilities. A proposed extension to the building will remove administrative and passenger functions from the existing cargo hanger, returning it to its intended function.¹⁴

3.21 The Committee sought additional information regarding passenger movements during peak load times. In responding Defence stated that the proposed works would allow for future operations that accompany new aircraft types and the potential increase in passenger numbers arriving and departing from the facility. According to Defence:

Flights coming in are not necessarily limited to single aircraft movements at one time. We have the capacity in that area to put at least three C130s in close proximity to each other ...So certainly the capacity would be in the area of several hundred people at any one time.¹⁵

3.22 The Committee inquired as to the nature of arrangements regarding an Australian Quarantine Inspection Service (AQIS) and Customs presence to process incoming personnel from overseas. The current arrangement as explained by Defence was to contact these agencies in advance of arrivals of personnel from overseas who then attend on an 'as required basis'.¹⁶

Water and Energy

3.23 Under the heading 'Energy Conservation Measures and Ecologically Sustainable Design' in its submission, Defence mentions at paragraph 64 (g) that it proposes to install waterless urinals and water efficient fixtures.

13 *ibid.*, page 7.

14 Appendix C, Submission No. 1, paragraph 47.

15 Appendix D, Official Transcript of Evidence, page 5.

16 *loc.cit.*

There is no other reference to water conservation and other issues of water sustainability on the base.

- 3.24 The Committee sought an expanded explanation from Defence as to (a) current issues affecting the delivery of water to RAAF Base Pearce, and (b) what consideration had been given to water storage for fire fighting and irrigation, noting that this was currently sourced from the potable water supply.¹⁷

Water Infrastructure Issues

- 3.25 In regards to the delivery of water to RAAF Base Pearce, Defence informed the Committee that water is delivered by way of an aquifer located approximately 3.5 kilometres from the base from where it is pumped to a main water storage tank on the estate. From there, it is gravity fed to potable water tanks located at various sites throughout the base.¹⁸

- 3.26 The department commented that it has significant concerns over the age of the current system, now some 70 years old. Defence indicated to the Committee that the water supply to the base was compromised due to a number of problems that include:

- no filtration system for potable water;
- the existing water main being made up of a mix of cement lined cast iron pipe from the thirties, asbestos pipe and PVC pipe;
- untreated water contamination of the potable water system; and
- chlorination levels not being maintained to a level that would meet the Australian Drinking Water guidelines, leading to the supply being shut-down in early 2007.¹⁹

- 3.27 In response to the problems currently being experienced, Defence advised the Committee that:

Due to the current water quality concerns, the base has stopped personnel drinking water from the base's potable water supply.²⁰

- 3.28 As a result of the closure of the system, Defence 'fast tracked negotiations' with the Western Australia Water Corporation to provide a potable water supply from their system to the Chittering Road tanks and a 50mm supply

17 *ibid.*, pages 7 and 9.

18 *ibid.*, page 7.

19 *ibid.*, page 8.

20 *loc.cit.*

line to Pearce to provide a separate potable water supply. This is currently under investigation by the Water Corporation to determine the scope of works required to return the base supply to potable water quality. However, according to Defence, it will not be possible to return the supply to a standard that complies with the Australian Drinking Water Guidelines until the current redevelopment proposal has been completed and all potable water mains on the base have been replaced.²¹

- 3.29 With specific reference to the matter of irrigation and fire fighting water, Defence explained that as part of the redevelopment, water delivery will be split between potable water and non-potable water that will be used for irrigation. In addition captured rainwater from roof structures will be used for toilet flushing in LIA.²²
- 3.30 The issue of water was also raised by Mr David Lombardo, Vice-President of the Bullsbrook and Chittering Chamber of Commerce. In evidence before the Committee, Mr Lombardo, noting the possibility of RAAF Base Pearce being connected to the Bullsbrook town water supply, requested that in negotiations with the Western Australia Water Corporation the Chamber and local government also be involved.²³
- 3.31 In responding the Committee made note that the issue of water and its implications for other critical infrastructure development was of concern along the Great Northern Highway corridor, and asked whether the Chamber had any suggestions as to how the current water shortage might be addressed.²⁴
- 3.32 In responding, the Chamber explained that the Pearce area was at the most northern end of the Water Corporation infrastructure and that it had limitations in meeting the demand of local communities. The capacity to deliver water in sufficient quantity would be further impacted by the growth of Bullsbrook and the demands of the RAAF. The Chamber informed the Committee of the Water Corporation's preliminary plans that would involve a mains extension that would possibly alleviate the current situation, but in the meantime the supply of water should take into account the future demand of the township of Bullsbrook as well as those of Pearce.²⁵

21 *loc.cit.*

22 *ibid.*, page 11.

23 *ibid.*, page 13.

24 *loc.cit.*

25 *ibid.*, page 14.

Water Harvesting

- 3.33 The Committee was also interested in following-up the extent to which Defence had invested in rainwater harvesting from roof structures and the extent to which collected rainwater could be used at the base messing facility and other water requirements.²⁶
- 3.34 Defence responded that rainwater tanks would be used in delivering water to the mess as well as to LIA accommodation. This would take the form of cold water connections and toilet flushing. Defence also mentioned that appliances, including dishwashers, washing machines and other devices, would be selected on the basis of low water consumption. In the case of shower heads these would be AAA compliant. In addition, the extent of the irrigation network will be significantly reduced resulting in potential savings in water usage.²⁷
- 3.35 According to Defence, in 2006 the amount of potable water used on base for all purposes – irrigation, washing, drying, potable and non potable use – was of the order of 107 mega litres, or about 1½ days use for Canberra.²⁸
- 3.36 However Defence could not provide an estimate of the potential water usage following the completion of the redevelopment works, although the department did suggest that it would decrease once the water infrastructure and irrigation systems had been redeveloped. Defence accepted that there is significant water wastage due to systems failures and the need for system flushing being required each time the water main fails.²⁹
- 3.37 The department informed the Committee that it had commissioned an Environmental Sustainable Development Report to assess what measures should be implemented to reduce water use so as to meet government policy. The Committee indicated that it would be useful if Defence could provide documentation on the total extent of initiatives proposed to improve water efficiency.³⁰

26 *ibid.*, page 10.

27 *ibid.*, page 11.

28 *loc.cit.*

29 *loc.cit.*

30 *loc.cit.*

Recommendation 2

The Committee recommends that Defence provide advice to satisfy the Committee that everything is being done to capture and use water on RAAF Base Pearce in view of community concerns related to water availability.

Energy

3.38 The Committee congratulated Defence in addressing energy conservation issues, noting the department's comment at paragraph 63 of its main submission that:

Defence reports annually to Parliament on its energy management performance and on its progress in meeting the energy efficiency targets established by Government as part of its commitment to improve Ecologically Sustainable Development.

3.39 In the context of the current project, Defence informed the Committee that the department had discussed water and energy efficiency measures with the Australian Greenhouse Office (AGO). It stated that all appliances and lighting would reflect the guidelines of the AGO applicable to energy and water use.³¹

Consultations

3.40 The department states in its Statement of Evidence that:

Discussions have been held or will be held with the Federal Member for Pearce, Local Members of the City of Swan and the Chittering Chamber of Commerce, the Western Australian Water Corporation, the Department of Environment and Water Resources, and the Department of Conservation and Land Management, Western Australia.³²

3.41 That noted, there was no evidence available from Defence on the scope of the consultations that had either occurred or were mooted. From evidence presented to the Committee by the Bullsbrook and Chittering Chamber of Commerce, the Committee is aware of local concerns, particularly regarding delivery of water through the Western Australian

31 *ibid.*, page 10.

32 Appendix C, paragraph 37.

Water Corporation infrastructure, and the pressures on the availability of water to the local community.

- 3.42 The Committee notes that there does not appear to be any consultations scheduled to take place with the local fire authority, particularly as regards any design works that might be required in the event of an incident requiring the participation of local brigades.
- 3.43 It would assist the Committee if the department would furnish it with advice as to the progress on the consultative process, with particular reference to any aspects that have a bearing on the final design works associated with the redevelopment of the base.

Recommendation 3

The Committee recommends that Defence continue to pursue consultations with appropriate local, State and Federal government agencies particularly on the delivery of water to the site, having regard to local community interests, and that it consult with the local fire authority on appropriate fire regulations that might need to be incorporated into the design of the works.

Project Costs

- 3.44 The department's Statement of Evidence puts the estimated out-turn cost for this project at \$142.2 million including:
- all planning, management and design fees;
 - construction costs;
 - furniture and fit-out; and
 - equipment and contingencies.
- 3.45 Construction is scheduled to commence in 2007 with a completion by 2011.³³

33 *ibid.*, paragraph 84.

Recommendation 4

The Committee recommends that RAAF Base Pearce Redevelopment Stage 1 proceeds at an estimated out-turn cost of \$142.2 million.

The Hon Judi Moylan, MP

Chair

9 August 2007

