PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

# Report 4/2018

*Referrals made August and September 2018*

Parliamentary Standing Committee on Public Works

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# Committee Membership

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| **Chair** | The Hon Scott Buchholz MP *(until 28 August 2018)* |
| | The Hon Dr John McVeigh MP *(from 13 September 2018)* |
| **Deputy Chair** | Mr Tony Zappia MP |
| **Members** | Senator Alex Gallacher |
| | Mr Ian Goodenough MP |
| | Mr Julian Hill MP *(until 10 September 2018)* |
| | Ms Justine Keay MP *(from 10 September 2018)* |
| | Ms Joanne Ryan MP |
| | Senator Amanda Stoker |
| | Mr Andrew Wallace MP |
| | Senator John Williams |

# Committee Secretariat

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| **Committee Secretary** | Pauline Cullen |
| **Inquiry Secretary** | James Bunce |
| **Office Manager** | Tanya Pratt |

# List of Recommendations

## Recommendation 1

2.35 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 works: CSIRO Myall Vale Cotton Breeding Research Facilities project.

## Recommendation 2

3.35 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 works: LAND 200 Tranche 2 Battlefield Communications Systems Facilities project.

## Recommendation 3

4.30 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: Naval Guided Weapons Maintenance Facilities project.

## Recommendation 4

5.30 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: Land 4502 Phase 1 Additional CH-47F Chinook Facilities project.

## Recommendation 5

6.29 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: Defence High Performance Computing Centre project.

# 1. 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 made pursuant to Section 18 of the Act, and by practice are made by the Minister for Finance or their delegate in the House of Representatives.

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;

[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.

- 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 the Committee to consider and report on:

- the purpose of the work and its suitability for that purpose;
- 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 The Assistant Minister for Finance, the Honourable David Coleman MP, referred the following proposed projects to the Committee:

- CSIRO Myall Vale New Cotton Breeding Research Facilities Project on 16 August 2018;
- Land 200 Tranche 2 Battlefield Communications Systems Facilities Project on 16 August 2018;
- Naval Guided Weapons Maintenance Facilities Project on 16 August 2018; and
- Land 4502 Phase 1 Additional CH-47F Chinook Facilities Project on 23 August 2018.

1.7 On Thursday, 13 September 2018 the Special Minister of State, the Honourable Alex Hawke MP, referred the Defence High Performance Computing Centre Project to the Committee.

1.8 In considering the works, the Committee analysed the evidence presented by the proponent agency, submissions and evidence received at public and in-camera hearings.

[2] The Act, Section 5.

[3] The Act, Section 17.

1.9 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.

1.10 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.

1.11 Chapter 2 addresses the proposed CSIRO Myall Vale New Cotton Breeding Research Facilities project. The estimated cost of the project is $17.9 million, excluding GST.

1.12 Chapter 3 addresses the proposed Land 200 Tranche 2 Battlefield Communications Systems Facilities project. The estimated cost of the project is $24.3 million, excluding GST.

1.13 Chapter 4 addresses the proposed Naval Guided Weapons Maintenance Facilities project. The estimated cost of the project is $95.5 million, excluding GST.

1.14 Chapter 5 addresses the proposed Land 4502 Phase 1 Additional CH-47F Chinook Facilities project. The estimated cost of the project is $49.9 million, excluding GST.

1.15 Chapter 6 addresses the proposed Defence High Performance Computing Centre project. The estimated cost of the project is $68.8 million, excluding GST.

1.16 Submissions are listed at Appendix A, and hearings and witnesses are listed at Appendix B.

# 2. CSIRO Myall Vale New Cotton Breeding Research Facilities

2.1 The Commonwealth Scientific and Industrial Research Organisation (CSIRO) seeks approval from the Committee to proceed with the proposed Myall Vale New Cotton Breeding Facilities project, near Narrabri in New South Wales.

2.2 According to CSIRO, the Myall Vale site is located at the Australian Cotton Research Institute, which is owned by the New South Wales State Government. CSIRO scientists at Myall Vale are responsible for undertaking world leading research in the areas of cotton breeding and crop management.[1]

2.3 The estimated cost of the project is $17.9 million (excluding GST).

2.4 The project was referred to the Committee on 16 August 2018.

2.5 Subject to Parliamentary approval, it is anticipated that construction will commence in the middle of 2019 and be completed in January 2021.

## Conduct of the inquiry

2.6 Following referral, the inquiry was publicised on the Committee's website and via media release.

2.7 The Committee received one submission and one confidential submission. A list of submissions can be found at Appendix A.

[1] CSIRO, *Submission 1*, p. 1.

2.8 On 29 October 2018, the Committee received a site inspection by presentation. On the same day, the Committee also conducted a public and in camera hearing. A transcript of the public hearing is available on the Committee's website.

# Need for the works

2.9 In its submission, CSIRO states that the existing facilities at Myall Vale were constructed in the 1970s, and are no longer fit for purpose. CSIRO stated that:

> The existing facilities are too small, have no room for expansion, create inefficient workflows, restrict scientific research on the site, have high maintenance costs and are increasingly posing work health and safety risks to staff.[2]

## Cotton processing facility

2.10 According to CSIRO:

> CSIRO staff need access to a dedicated cotton processing facility to support cotton breeding and processing activities including: preparation of planting seed, ginning of seed cotton, acid delinting of seed, seed storage, seed treatments, fibre quality testing instruments, and to accommodate technical staff that support these operations.[3]

2.11 In its submission, CSIRO noted that the cotton processing facility was constructed in 1974 to house two permanent technical officers 'as well as seed storage, fibre testing laboratory, acid delinting facility, cool room and work area'.[4]

2.12 CSIRO told the Committee that:

> The cotton breeding technical team has now grown to 21, so there is considerable crowding in the work area and for office space with limited computer access for data handling and processing. There are now two cool rooms, one dedicated to regulated Genetically Modified seed to comply with Office and Gene Technology Regulator requirements. These areas are now

[2] CSIRO, *Submission 1*, p. 1.

[3] CSIRO, *Submission 1*, p. 5.

[4] CSIRO, *Submission 1*, p. 5.

> completely inadequate for the work given the expansion of the breeding and effort.[5]

2.13 Additionally, more space is required in this facility to house seed counting and packing equipment in support of a new initiative to improve seedling vigour.[6]

2.14 CSIRO elaborated on the deficiencies in the existing cotton breeding facility at Myall Vale:

> In the current cotton breeding facility the building foundations are crumbling, walls are cracking, the roof leaks and the floor strength is inadequate for a seed storage shelving and stacking system required to address work health and safety risks.[7]

2.15 In addition to the issues with the condition of the buildings, CSIRO told the Committee that the space and layout of the existing facilities is impeding the scientific works undertaken there. According to CSIRO:

> The complex mix of traits and germplasm [in cotton] requires the highest standard of science delivery which needs appropriate facilities. The current facilities compromise our ability to deliver on the commitments CSIRO has made to our commercial partners.[8]

## Laboratory facilities

2.16 The General Research Laboratory is one of three laboratories currently located at the Myall Vale site. CSIRO told the Committee that:

> Current and future CSIRO research depend upon access to general purpose laboratory facilities, which includes the ability to undertake wet chemistry and handling of electronic equipment used in the field. Specific research planned to be undertaken in this laboratory include research investigating the need for improvements of plant physiology to improve heat tolerance, water use efficiency, and resilience to climate change.[9]

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[5] CSIRO, *Submission 1*, p. 5.

[6] CSIRO, *Submission 1*, p. 5.

[7] CSIRO, *Submission 1*, p. 4.

[8] CSIRO, *Submission 1*, p. 6.

[9] CSIRO, *Submission 1*, p. 7.

2.17 According to CSIRO:

> Currently elements of this work are being conducted in a former laboratory, which was decommissioned and never replaced, and an existing wet chemistry laboratory that was created out of office space in the main office administration building. The current laboratory has dilapidated cupboards, cramped sample storage areas, insufficient bench space, a poorly sited fume hood creating poor workflow. The laboratory door opens the wrong way and is not fire rated, creating work health and safety risks. Further, there is no general laboratory area for visiting scientists or research students to use, which is limiting investment in CSIRO research at the site.[10]

2.18 The second laboratory facility at the Myall Vale site is the Plant and Soil Research Laboratory. In its submission, CSIRO outlined the role played by this facility:

> This research is crucial for investigating the efficient use of nitrogen fertiliser and other key cotton nutrients, as well as understanding the role of soil in improving carbon storage and reducing greenhouse gas emissions. There is significant ongoing research to improve water use efficiency of limited water resources from groundwater and the Murray Darling river system. Considerable measurements of soil and plant material are taken to determine the growth and physiology of crops and to assess new management practices and plant varieties in their ability to improve efficiency outcomes. Outcomes from this research will provide new recommendations to industries to sustain economic, social and environmental outcomes.[11]

2.19 CSIRO outlined the deficiencies with the existing Plant and Soil Research Laboratory facilities:

> Current plant and soil research facilities are dispersed throughout a number of site sheds on site, which are not fit for purpose and create workflow inefficiencies and work health and safety risks. A significant amount of soil grinding currently occurs outside in the heat in summer due to a lack of dedicated processing space indoors. Space limitations of the existing sheds are also limiting possibilities for investment in new equipment to improve processing efficiencies and safety outcomes.[12]

[10] CSIRO, *Submission 1*, p. 7.

[11] CSIRO, *Submission 1*, p. 7.

[12] CSIRO, *Submission 1*, p. 7.

2.20 The final laboratory facility at Myall Vale that CSIRO proposes to upgrade is the Insect Resistance Research Laboratory. According to CSIRO:

> This research is focused on monitoring for naturally occurring 'resistant moths' with resistance to the proteins contained within CSIRO cotton plant varieties that help control pests. The moth monitoring program provides important insights that help the cotton industry to actively undertake management strategies to avoid the chances of resistant moths developing. This activity is crucial to the sustainability of the Australian cotton industry and to CSIRO's investment in cotton varieties.[13]

2.21 In its submission, CSIRO elaborated on the issues with the current insect research facilities:

> The existing insect resistance research laboratory facilities are dispersed across the site and are not fit for purpose. Current bench space is insufficient to accommodate the work and the facilities have undergone ad-hoc modifications to inadequately patch up problems. The current moth rearing rooms are attached to the end of a NSW DPI laboratory and are at capacity. The layout of the moth rearing rooms are poorly suited for future expansion. The current moth food preparation areas are located within available space in the main office administration building, which creates workflow inefficiencies and work health and safety risks. The current facilities are too small and are incapable of expansion to allow for CSIRO to accept further research funding to expand activities in this area.[14]

2.22 CSIRO told the Committee that the construction of new facilities will result in the following improvements for its insect research facilities:

> The construction of a new laboratory facility will resolve workflow inefficiencies and work health and safety risks identified in the current facilities and allow CSIRO research staff to be co-located in a central research facility adjacent to the main office and administration building. The location of the new laboratory facility is also in accordance with NSW DPI preference to separate office administration and scientific research activities, which is in line with modern work health and safety principles. The co-location of staff from across the site in a central new laboratory facility will also encourage collaboration between research teams and improve site amenity.[15]

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[13] CSIRO, *Submission 1*, pp. 7-8.

[14] CSIRO, *Submission 1*, p. 8.

[15] CSIRO, *Submission 1*, p. 8.

2.23 According to CSIRO, the plant and equipment workshop has also been assessed as deficient:

> The current plant and equipment workshop is neither wide, nor tall enough to fit new machinery and equipment (such as cotton pickers which have continued to increase in size). The current plant and equipment workshop arrangement does not have a big enough capacity to meet current and future demand and the layout of the current facilities creates workflow and safety risks. The location of the existing workshop also increases heavy vehicle traffic through the middle of the site which creates work health and safety risks for staff.[16]

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

# Scope of the works

2.25 In order to address the identified need, CSIRO proposed the construction of three new facilities:

- A cotton processing facility – to be constructed on the western side of the precinct.
- A laboratory facility – to be constructed adjacent, but separate, to the main office and administration building.
- A plant and equipment workshop – to be located to the north of the site.[17]

2.26 According to CSIRO, the cotton processing facility will operate 'as a standalone gable end industrial-type building for processing cotton'. It will be composed of 'a number of spaces and functional activities' based on the following three sectors:

- The western sector of the building is a high bay space for up to four high pallet storage and gin accommodation including the following:
  - Enclosed delivery and hardstand for semi-trailers and other vehicles – both road and field vehicles.
  - Pallet racking store – four pallets high.
  - Gin shed – high bay space to accommodate gins and dust extraction equipment.
  - Temperature controlled drying room for moisture removal of handpicked field cotton prior to processing through the gins.

[16] CSIRO, *Submission 1*, p. 8.

[17] CSIRO, *Submission 1*, p. 10.

  - Bale press zone.
  - Seed treating and grading room to accommodate process of grading to separate seed for processing and waste seed rejection.
  - Acid delinting facility.
  - Temperature and humidity controlled rooms for seed storage.
  - Associated stores and receipt/dispatch areas.
- The breezeway sector is a north/south link-way between workrooms and gin shed capable for pallet truck (potentially forklift) access to the north loading and unloading area. This area addresses the need for segregation between the two different functional zones of the cotton processing facility and offers a safer workplace environment by segregating high bay space and its drier processes from cleaner and low bay work. It is a delivery point for smaller items receipt or dispatch.
- The workrooms sector is a low-rise facility including the following:
  - High Volume Instrument lint testing for testing of lint in a controlled environment.
  - Workrooms for seed processing, including cold rooms and freezer rooms.
  - Cotton processing facility operations – a multi-purpose space for operational briefing and after hours shift work meals and hot-desks to support in-process administrative tasks and after hours secure work area.[18]

2.27 CSIRO also outlined the scope of the proposed new laboratory facility at Myall Vale:

The new laboratory facility operates as a standalone skillion roof laboratory comprising the following three defined sectors:

- The general purpose and resistance laboratories including Physical Containment Level 1 and Level 2 capable open plan laboratories and support spaces.
- Proposed new central field support unit including clean workplace to calibrate electronic equipment, storage for controlled small-scale field equipment and cleaning and servicing of small scale field equipment.
- The new Plant and Soil Facility laboratory for receiving and preparation of soil and plant samples, dehydration equipment, soil and plant grinding and associated cold rooms and stores.[19]

[18] CSIRO, *Submission 1*, pp. 20-21.

[19] CSIRO, *Submission 1*, p. 21.

2.28 In its submission, CSIRO stated that the plant and equipment workshop will 'include higher undercover work bays' than the current facilities, to 'fit new farming machinery.[20] Additionally, CSIRO noted that locating the new plant and equipment workshop to the north of the precinct will 'remove risks surrounding heavy vehicle traffic movements through high traffic pedestrian areas in the centre of the site'.[21]

2.29 The Committee finds that the proposed scope of works is suitable for the works to meet its purpose.

# Cost of the works

2.30 The total cost for this project is estimated at $17.9 million, excluding GST. This includes the cost of construction, management and design fees, furniture, fittings and equipment, contingencies and an escalation allowance.

2.31 CSIRO provided further detail on project costings in its confidential submission and during an in-camera hearing.

2.32 The Committee is satisfied that the costings for the project provided to it have been adequately assessed by the proponent entity.

# Committee comment

2.33 The Committee did not identify any issues of concern with the proposal and is satisfied that the project has merit in terms of need, scope and cost.

2.34 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.

## Recommendation 1

**2.35 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 works: CSIRO Myall Vale Cotton Breeding Research Facilities project.**

[20] CSIRO, *Submission 1*, p. 11.

[21] CSIRO, *Submission 1*, p. 9.

2.36 Proponent entities 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.

# 3. LAND 200 Tranche 2 Battlefield Communications Systems Facilities

3.1 The Department of Defence (Defence) seeks approval from the Committee to proceed with the proposed LAND 200 Tranche 2 Battlefield Communications Systems Facilities project, at multiple locations across Australia.

3.2 According to Defence, the wider LAND 200 project is 'a multi-tranche program that will modernise the command and control of the Joint Land Force':

> The capability will provide modern information technology to link sensors, weapon systems, commanders and their personnel in a networked environment. This will allow personnel to access and exchange command, control, situational awareness, and targeting information regardless of the operational scenario.[1]

3.3 The works proposed for LAND 200 Tranche 2 will be undertaken at the following sites:

- Robertson Barracks, Darwin, Northern Territory;
- Lavarack Barracks, Townsville, Queensland;
- Albury Wodonga Military Area, Bandiana, Victoria;
- Simpson Barracks, Watsonia, Victoria;
- Puckapunyal Military Area, Puckapunyal, Victoria;
- Singleton Military Area, Singleton, New South Wales; and

[1] Department of Defence, *Submission 1*, p. 5.

- RAAF Base Edinburgh, South Australia.[2]

3.4 The estimated cost of the project is $24.3 million (excluding GST).

3.5 The project was referred to the Committee on Thursday 23 August 2018.

# Conduct of the inquiry

3.6 Following referral, the inquiry was publicised on the Committee's website and via media release.

3.7 The Committee received two submissions and two confidential submissions. A list of submissions can be found at Appendix A.

3.8 On 9 November 2018, the Committee received a site inspection by presentation. On the same day, the Committee also conducted a public and in camera hearing. A transcript of the public hearing is available on the Committee's website.[3]

# Need for the works

3.9 At the public hearing, Defence told the Committee that:

> The Land 200 battlefield command system is a multi-tranche program that is modernising how command and control is conducted in the Joint Land Force. Land 200 is moving the land environment from an analogue voice and paper based force to a modern fighting force enabled by digital systems that generate speed of action through faster and more agile decision-making.[4]

3.10 Defence elaborated on the multiple tranches of this program:

> Tranche 1 of the capability delivered the first package to the battle groups within one of Army's brigades. This started the change from its old analogue systems to its new digital ones. Tranche 2 builds on the tranche 1 capability, and introduces the initial stages of a land combat system that will allow the Army's armoured fighting vehicles to share target information across a digital network.[5]

3.11 According to Defence, the proposed works are required to 'deliver new and refurbished facilities to support the training requirements for the equipment

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[2] Department of Defence, *Submission 1*, p. 4.

[3] <www.aph.gov.au/pwc>

[4] Brigadier Matt Galton, Department of Defence, *Transcript of evidence*, 9 November 2018, p. 1.

[5] Brigadier Matt Galton, Department of Defence, *Transcript of evidence*, 9 November 2018, p. 1.

being introduced' under this new capability.[6] In order to achieve this, Defence stated that 'upgrades to extant buildings are required, as well as a number of new buildings'.[7]

3.12 The Committee is satisfied that the need for the works exist.

# Scope of the works

3.13 Defence stated that, in considering this project, it considered both the adaptive re-use of existing facilities and the construction of new facilities to deliver the required training facilities for LAND 200. As a result of this process, Defence identified that a mix of refurbished and new facilities would be necessary to meet the identified need.[8]

3.14 Defence split the project into seven project elements.

## Project Element 1 – Robertson Barracks, Darwin

3.15 In its submission, Defence stated that:

> The facilities requirements for 1st Brigade at Robertson Barracks will be largely met by refurbishing Building 830. These refurbishment works will provide separate offices and open plan for Commonwealth and contracted staff, a storage/printer room and a meeting room, two classrooms, a kitchen area and communication services. The Quartermaster store and ablutions will be refurbished in the nearby Buildings 828 and 829 respectively. The vehicle training will be conducted in an existing compound with bollards installed in the vehicle shelter (Building 826).[9]

3.16 Defence also noted that the workshop, external training area and car parking requirements will be addressed by existing facilities at Robertson Barracks.[10]

## Project Element 2 – Lavarack Barracks, Townsville

3.17 In meeting the facilities need at Lavarack Barracks, Defence stated that it intends to re-use and extend existing facilities:

> The facilities requirements for 3rd Brigade at Lavarack Barracks will be partially met by refurbishing Building G2725. These refurbishment works will

[6] Department of Defence, *Submission 1*, p. 5.

[7] Brigadier Matt Galton, Department of Defence, *Transcript of evidence*, 9 November 2018, p. 1.

[8] Department of Defence, *Submission 1*, pp. 7-8.

[9] Department of Defence, *Submission 1*, p. 8.

[10] Department of Defence, *Submission 1*, p. 9.

> provide separate offices and open plan for Commonwealth and contracted staff, a meeting room, ablutions, kitchen area and communications services. An extension to Building G2725 will contain two new classrooms, the Quartermaster store, battery storage and workshop. The external training, vehicle training and carpark areas will be conducted in vacant areas adjacent to the nearby Building G0410.[11]

## Project Element 3 – Albury Wodonga Military Area

3.18 Defence told the Committee that the proposed works here will involve the refurbishment of two existing training facilities at Gaza Ridge Barracks.[12]

3.19 For the Army School of Electrical and Mechanical Engineering, Defence proposed to refurbish Building 421 at Gaza Ridge Barracks:

> These refurbishment works will provide one classroom, a training workshop, battery storage, administrative areas, Quartermaster store, ablutions, kitchen area and associated communications. Bollards will be provided in the vehicle training area which will re-use an existing hard standing area adjacent to Building 421.[13]

3.20 At the Army School of Ordnance, Defence proposed refurbishing Building 588, to provide 'one office, four classrooms and battery storage'. The need for administrative functions, Quartermaster storage, workshop, ablutions, kitchen areas and communications will be addressed by existing facilities. An existing area nearby to Building 588 will provide an external training area, vehicle training area and car parking.[14]

## Project Element 4 – Simpson Barracks, Watsonia

3.21 At Simpson Barracks, Defence proposed the refurbishment of an existing training facility:

> The facilities requirements for the Defence Force School of Signals at Simpson Barracks will be partially met by refurbishing Buildings 290 and 342. These refurbishment works will provide two classrooms and battery storage in Buildings 290 and 342 respectively and a Quartermaster Store and workshop in Building 342. A vehicle training area will be established in an existing car

[11] Department of Defence, *Submission 1*, p. 9.

[12] Department of Defence, *Submission 1*, p. 9.

[13] Department of Defence, *Submission 1*, p. 9.

[14] Department of Defence, *Submission 1*, p. 10.

park adjacent to Building 290. Bollards will be provided in the vehicle training area.[15]

3.22 The need for administrative areas, ablutions, kitchen area and communications will be met by existing facilities. The external training area and car parking will utilise existing space near Buildings 290 and 342.[16]

## Project Element 5 – Puckapunyal Military Area

3.23 The proposed works at Puckapunyal Military area will be undertaken at four locations:

- The facilities requirements for the School of Armour at the Puckapunyal Military Area will be partially met by refurbishing Building 21. These refurbishment works will provide two classrooms, an Exercise Control room, battery storage and ablutions.
- The facilities requirements for the School of Artillery at the Puckapunyal Military Area will be partially met by refurbishing Building 1692. These refurbishment works will provide two classrooms and battery storage.
- The facilities requirements for the Army School of Transport at the Puckapunyal Military Area will be partially met by refurbishing Building 845. These refurbishment works will provide two classrooms.
- The facilities requirements for the Central Training Area at the Puckapunyal Military Area will be partially met by refurbishing Building 855. These refurbishment works will provide two classrooms, Quartermaster store, battery storage, workshop and kitchen areas.[17]

3.24 The need for administration areas, some Quartermaster stores, workshops, ablutions, kitchen areas, and communications will be met by existing facilities at all four locations. External training areas, vehicle training areas, and car parking will also be met by existing spaces.[18]

## Project Element 6 – Singleton Military Area

3.25 Defence proposed to construct a new training facility at Lone Pine Barracks at the School of Infantry within the Singleton Military Area. This building

[15] Department of Defence, *Submission 1*, p. 10.

[16] Department of Defence, *Submission 1*, p. 10.

[17] Department of Defence, *Submission 1*, pp. 10-11.

[18] Department of Defence, *Submission 1*, p. 11.

will include 'two new classrooms, an external training area, a vehicle training area and car parking.[19]

### Project Element 7 – RAAF Base Edinburgh

3.26 At RAAF Edinburgh, Defence told the Committee that it proposes to refurbish Building H1260 to meet the identified need.[20]

3.27 According to Defence:

> The Building H1260 refurbishment works will provide one classroom, a Quartermaster store and battery store. Existing areas within Building H1260 already satisfy the requirements for the workshop, ablutions, kitchen area and communication requirements. Further administrative areas are not required at RAAF Base Edinburgh as instructors will fly in to conduct courses.[21]

3.28 Defence stated that a vehicle training area and car parking will be constructed to the north-west of Building H1260 to enable vehicle training.[22]

3.29 The Committee finds that the proposed scope of works is suitable for the works to meet its purpose.

## Cost of the works

3.30 The total cost for this project is estimated at $24.3 million, excluding GST. This includes the cost of construction, management and design fees, furniture, fittings and equipment, contingencies and an escalation allowance.

3.31 The Committee received a confidential supplementary submission detailing the project costs and held an in-camera hearing with Defence on the project costs.

3.32 The Committee is satisfied that the costings for the project provided to it have been adequately assessed by the proponent entity.

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[19] Department of Defence, *Submission 1*, p. 12.

[20] Department of Defence, *Submission 1*, p. 12.

[21] Department of Defence, *Submission 1*, p. 12.

[22] Department of Defence, *Submission 1*, p. 12.

# Committee comment

3.33 The Committee did not identify any issues of concern with the proposal and is satisfied that the project has merit in terms of need, scope and cost.

3.34 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.

## Recommendation 2

**3.35 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 works: LAND 200 Tranche 2 Battlefield Communications Systems Facilities project.**

3.36 Proponent entities 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.

# 4. Naval Guided Weapons Maintenance Facilities

4.1 The Department of Defence (Defence) seeks approval from the Committee to proceed with the Naval Guided Weapons Maintenance Facilities project.

4.2 The proposed works will deliver new purpose-built integrated weapons facility (IWF) at Defence Establishment Orchard Hills to increase maintenance capability and alleviate constraints and deficiencies within the Naval Guided Weapons Sustainment System.

4.3 The Naval Guided Weapons Sustainment System has exceeded its design capacity for the maintenance of guided weapons and the facilities do not have the functionality to support the changed maintenance requirements.

4.4 The estimated cost of the project is $95.5 million (excluding GST). This includes management and design fees, construction costs, information and communication technology, furniture, fittings, equipment, contingencies and a provision for escalation.

4.5 The project was referred to the Committee on 16 August 2018.

4.6 Subject to Parliamentary approval, construction is expected to commence in early 2019 and be completed by mid-2020.

## Conduct of the inquiry

4.7 Following referral, the inquiry was publicised on the Committee's website and via media release.

4.8 The Committee received two submissions and two confidential submissions.

4.9 On 9 November 2018, the Committee received a site inspection by presentation, and conducted public and in-camera hearings. A transcript of the public hearing is available on the Committee's website.

# Need for the works

4.10 In their submission, Defence noted that guided weapons inventory has evolved significantly since the commissioning of the Surface Weapons Complex. They forecast that evolution in this inventory will continue, due to modernisation of the individual missile variants in use. With the introduction of new, more capable platforms such as the Air Warfare Destroyers, the Future Frigates and the replacement Submarines, guided weapons throughput is forecast to increase.[1]

4.11 Following the 2009 Defence White Paper, a New Policy Proposal initiative was approved to remediate the single points of failure in the Naval Guided Weapons Sustainment System, and to provide for growth in Defence's guided weapons inventory. The 2016 Defence White Paper reinforced the necessity for guided weapons maintenance, stating that Defence must maintain a technological edge while simplifying maintenance of equipment.[2]

4.12 Defence commissioned a scoping study to analyse and define the requirements of the New Policy Proposal. In summary, the recommendations of the scoping study were:

- Defence Establishment Orchard Hills represents a single point of failure within the Naval Guided Weapons Sustainment System, with no 'whole of facility' or technical redundancy;
- the (existing) Surface Weapons Complex is in a state of disrepair;
- sections of the Surface Weapons Complex are not being used efficiently due to inadequate design, a lack of processing space and poor environmental control; and
- new test facilities should be constructed to provide efficiencies by increasing overall work-space, provide redundancy, and allow for increased throughput of guided weapons.[3]

4.13 The combined effect of these factors has resulted in the need to improve and expand guided weapons infrastructure.

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[1] Department of Defence, *Submission 1,* p. 2.

[2] Department of Defence, *Submission 1,* p. 2.

[3] Department of Defence, *Submission 1,* p. 2.

# Scope of the works

4.14 The proposed works include construction of an Integrated Weapons Facility, which will be fit-for-purpose and provide value-for-money. The project also proposes to deliver associated civil works, infrastructure, supporting services, and landscaping. The proposed facilities are to be located on a 'green-field' site within Defence Establishment Orchard Hills.

4.15 The proposed Integrated Weapons Facilities will consist of four components of the project:

- **Administration Area.** Provide modern and fit-for-purpose working accommodation for SWC personnel. The Area will be sized to house the working population of the IWF in a fully climate controlled environment. The Administration Area will comprise of the following:
  - working accommodation, comprising a mix of standard offices, open plan work-stations, and meeting rooms;
  - a communications room, to accommodate Defence Information and Communications Technology networks; and
  - ablutions, a kitchenette and lockers for staff amenity.
- **Weapon Assembly Rooms**. Two Weapon Assembly Rooms (WARs) are proposed. A WAR is a specialist workshop for the safe handling, inspection and maintenance of guided weapons. Each WAR will be climate controlled and comprise:
  - a workshop, for the safe handling of guided weapons;
  - a covered area for the all-weather receipt and dispatch of guided weapons, including associated equipment and stores; and
  - plant and storage areas.
- **Testing Areas**. Two test areas are proposed, one for each WAR. These test areas will provide for the testing of individual guided weapons, and each area will comprise the following:
  - Test Cells (A reinforced concrete room with an external earth covering); and
  - Test Control Rooms (A reinforced concrete room, separated from the test cells where staff will control and monitor guided weapons testing activities).
- **Civil Works and Supporting Services**. Vehicle and pedestrian pavements will be provided to access the new facilities. Pavement types are designed for known and approved traffic activities; roads and hardstands rated for

large rigid vehicles and material handling equipment, and flexible pavements to areas of light vehicular traffic.[4]

# Cost of the works

4.16 The estimated cost of the project is $95.5 million (excluding GST).

4.17 Defence provided further detail on project costings in its confidential submission and during an in-camera hearing.

4.18 The Committee is satisfied that the costings for the project provided to it have been adequately assessed by the proponent entity.

# Local impact

4.19 In their submission, Defence stated that the impact on the local community was assessed as positive, particularly for the supply of local services, resources and material during construction.

4.20 Defence added that the proposed works are likely to generate employment opportunities in the local area during the construction phase, as construction will require a diverse range of skilled consultants, contractors and construction workers. This will have flow-on benefits to small and medium businesses in the local community.[5]

4.21 Additionally, they noted that the potential negatives that may impact on the community are assessed to be during construction, including long lead-times for engaging local trades and procuring construction material supplies.[6]

4.22 Defence undertook a series of stakeholder engagement sessions to ensure the local community is aware of the potential impacts of the proposed works. These engagement sessions comprised of:

- community stakeholder briefings;
- industry briefings; and
- media releases.

[4] Department of Defence, *Submission 1,* pp. 4-5.

[5] Department of Defence, *Submission 1,* p. 16.

[6] Department of Defence, *Submission 1,* p. 16.

4.23 Defence indicated that they also consulted with stakeholders following the announcement of the Western Sydney airport.[7]

### Local Traffic

4.24 Defence noted that during construction, there will be an increase in the number of large vehicles entering the Orchard Hills Establishment with construction materials. To respond to this they will implement construction management controls to mitigate the effects of this increased traffic on local road networks. These measures may include the use of dedicated access gates, to minimise delays to traffic using local roads. Large volume deliveries, such as concrete, will be planned to occur outside of peak hours to avoid traffic congestion.[8]

4.25 Defence's submission estimated that during the construction peak in early 2019, 150 workers will be on-site, with a commensurate flow into the local community and road network. This impact was assessed as minimal, based on the working population of the Defence Establishment Orchard Hills and its associated traffic load.[9]

## Committee comment

4.26 The Defence Establishment Orchard Hills is in western Sydney region, and although originally in a sparsely populated area is increasingly surrounded by subdivisions with both medium and high densities. The Western Sydney Airport will also be established nearby at Badgerys Creek.

4.27 In their submission Defence noted that the explosive ordnance requires an exclusion or buffer zone and explained to the Committee that this zone, which cannot be developed, is maintained by Defence.[10] They further noted that part of the exclusion zone contains some the Cumberland Plain Woodland endangered habitat which Defence has entered into an MOU with the Department of Infrastructure, Regional Development and Cities around biodiversity offset planning.[11]

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[7] Brigadier Galton, Department of Defence, *Transcript of evidence,* 9 November 2018, p. 2.

[8] Department of Defence, *Submission 1,* p. 17.

[9] Department of Defence, *Submission 1,* p. 17.

[10] Brigadier Galton, Department of Defence, *Transcript of evidence*, 9 November 2018, p. 3.

[11] Lieutenant Colonel Sims, Department of Defence, *Transcript of evidence*, 9 November 2018, p. 3.

4.28 The Committee was interested in the future of the Defence Establishment Orchard Hills and its exclusion zone given the increasing development on its margins and sought reassurance that Defence has considered future occupational density in the region outside the exclusion zone.

4.29 Having regard to its role and responsibilities contained in the *Public Works Committee Act 196*, 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.

## Recommendation 3

**4.30 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: Naval Guided Weapons Maintenance Facilities project.**

4.31 Proponent agencies must notify the Committee of any changes to the project scope, time, cost, function or design. The Committee also requires a post-implementation report be provided within three months of a project completion. A report template can be found on the Committee's website.

# 5. LAND 4502 Phase 1 Additional CH-47F Chinook Facilities

5.1 The Department of Defence (Defence) seeks approval from the Committee to proceed with the Land 4502 Phase 1 Additional CH-47F Chinook facilities. The proposed works will provide shelters and supporting infrastructure for three additional CH-47F Chinook helicopters and associated staff growth for 5th Aviation Regiment at RAAF Base Townsville, Queensland.

5.2 In 2016, Defence received approval to acquire three new CH-47F Chinooks to support 5th Aviation Regiment training and operations. These CH-47F Chinooks are now in service and based at RAAF Base Townsville and are operated by the 5th Aviation Regiment.

5.3 Defence notes that the CH-47F Chinooks form an important part of the Australian Defence Forces' (ADF) airlift continuum being able to provide the largest troop and equipment airlift of any helicopter in the ADF, and enable capability and personnel to be quickly airlifted in and out of operational areas.[1] RAAF Base Townsville does not currently have sufficient facilities to support the additional CH-47F Chinooks.

5.4 The estimated cost of the project is $49.9 million (excluding GST).

5.5 The project was referred to the Committee on 23 August 2018.

5.6 Subject to Parliamentary approval, design activities are expected to be completed by late 2018. Construction activities are expected to commence in early 2019 and be completed in late 2020.

[1] Brigadier Galton, Department of Defence, *Transcript of evidence*, 9 November 2018, p. 1.

# Conduct of the inquiry

5.7 Following referral, the inquiry was publicised on the Committee's website and via media release.

5.8 The Committee received two submissions and two confidential submissions.

5.9 On 9 November 2018, the Committee conducted a site inspection at RAAF Base Townsville. On the same day, the Committee also conducted a public and in camera hearing. A transcript of the public hearing is available on the Committee's website.

# Need for the works

5.10 In its submission, Defence stated that following the acquisition of the three new CH-47F Chinooks, the 5th Aviation Regiment does not currently have facilities to support these additional Chinook helicopters.[2]

5.11 Defence also noted that without the appropriate facilities the CH-47F Chinooks are exposed to the corrosive Townsville environment, there is no space for the additional personnel required and logistical support elements are not consolidated.[3]

5.12 Defence explained that Townsville is a salt laden environment and being able to get the aircraft out of such an environment quickly was important:

> If you can get an aircraft out of a salt-laden environment within about an hour and reduce the humidity below a critical point, corrosion was found by the Defence Science and Technology Group to stop.[4]

5.13 Defence noted that these factors could contribute to a reduced operational life of the capability and inefficiencies in the support elements of the CH-47F capability.[5]

# Scope of the works

5.14 The proposed project will provide facilities for three functions which directly support the new capability:

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[2] Department of Defence, *Submission 1,* p. 1.

[3] Department of Defence, *Submission 1,* p. 1.

[4] Colonel Jones, Department of Defence, *Transcript of evidence,* 9 November 2018, p. 2.

[5] Department of Defence, *Submission 1,* p. 1.

- command and control;
- aircraft storage; and
- security.

5.15 This will involve construction of new and refurbished facilities to meet the storage, security and working accommodation and infrastructure needs following the acquisition of the additional CH-47F Chinooks.

5.16 The scope of works is divided into five functional areas:

1 Two CH-47F Shelters. The project proposes to provide two additional CH-47F shelters that will be sited to make maximum use of existing apron and proximity to maintenance hangars; an existing shelter will house one CH-47F. The shelters are also sited and sized to provide future growth opportunities as well as use of land that would be otherwise unsuitable due to noise and airfield obstacle clearance surfaces.

2 Consolidation of CH-47F supply support functions. The project proposes to provide a Supply Support facility that has the same dimensions and structure as an aircraft shelter. This structure will still meet the requirements for Supply Support, but will provide future flexibility and value for money through a structure that could convert to an aircraft shelter in the future if required.

3 Working accommodation for additional personnel. The project proposes to make maximum use of existing buildings to meet the working accommodation requirement associated with the increase of 44 personnel. This will see minor works primarily in the Unit's Chinook Maintenance Facility (Building 804-which was delivered in 2017) as well as use of the Unit's C Squadron Headquarters (Building 802-which was refurbished in 2016) to meet this requirement.

4 Car parking for additional personnel. The project proposes to address the Unit's car parking requirements through provision of 57 car parking spaces. This comprises 44 spaces for additional personnel, and 13 compensatory spaces for car parks displaced through the infrastructure works. It is proposed that the majority of the additional car parking spaces be provided through an extension to the north of the existing main Unit Carpark, with the remaining provided at the Unit central carpark.

5 Aircraft parking for three CH-47F. The project proposes to deliver additional tarmac parking for the three additional CH-47F. The additional CH-47F tarmac parking is proposed to be delivered adjacent to the existing Chinook tarmac parking.[6]

[6] Department of Defence, *Submission 1,* pp. 2-3.

## Cost of the works

5.17 The estimated cost of the project is $49.9 million (excluding GST). This includes management and design fees, construction costs, information and communications technology, furniture, fittings, equipment, contingencies, and a provision for escalation.[7]

5.18 In its submission, Defence noted that there is expected to be an increase in operating costs as a result of the proposed works. This is due to the new facilities requiring computers, estate upkeep, utilities costs and allowance for future repair and maintenance of furniture and finishes.[8]

5.19 Defence provided further detail on project costings in its confidential submission and during an in-camera hearing.

5.20 The Committee is satisfied that the costings for the project provided to it have been adequately assessed by the proponent entity.

## Local employment

5.21 The Committee sought clarification from Defence about the involvement of small to medium enterprises in projects such as this.

5.22 Defence noted that in their contracts they include a local industry capability plan, where prime contractors bidding for work need to submit a plan that details how they intend to engage with local industry and ensure that local small to medium enterprises are given a chance to bid on a project.[9]

5.23 In its submission, Defence states:

> The proposal will generate short-term employment opportunities predominately in the building, construction and unskilled labour markets in the Townsville area. It is expected that approximately 50 personnel will be directly employed for the duration of the construction activities, which will also generate some off-site job opportunities through the manufacture and distribution of materials over the construction period.[10]

[7] Department of Defence, *Submission 1,* p. 12.

[8] Department of Defence, *Submission 1,* p. 12.

[9] Brigadier Galton, Department of Defence, *Transcript of evidence,* 9 November 2018, p. 3.

[10] Department of Defence, *Submission 1,* p. 10.

5.24 Defence further noted that they anticipate that local sub-contractors would be employed on a large proportion of the construction works.[11]

# Per- and poly-fluoroalkyl substances (PFAS)

5.25 In responding to a question about PFAS, Defence noted that they routinely test for PFAS, particularly on Air Force bases where it is highly likely that the foams that contain PFAS have been used.[12]

5.26 For RAAF Townsville, the levels of PFAS in the soil were very low which will enable the soil to be stockpiled on the base or re-used in a future construction project.

5.27 Defence clarified that the levels of PFAS detected in the soils were concentrations ranging from 0.0002 milligrams per kilo to 0.0738 milligrams per kilo and these concentrations are well below the human health screening criteria.[13]

# Committee comment

5.28 The Committee did not identify any issues of concern with the proposal and is satisfied that the project has merit in terms of need, scope and cost.

5.29 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.

## Recommendation 4

**5.30 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: Land 4502 Phase 1 Additional CH-47F Chinook Facilities project.**

5.31 Proponent agencies must notify the Committee of any changes to the project scope, time, cost, function or design. The Committee also requires that a

[11] Department of Defence, *Submission 1*, p. 10.

[12] Brigadier Galton, Department of Defence, *Transcript of evidence*, 9 November 2018, p. 5.

[13] Mr Gregory Sexton, Conrad Gargett, *Transcript of evidence*, 9 November 2018, p. 5.

post-implementation report be provided within three months of project completion. A report template can be found on the Committee's website.

# 6. Defence High Performance Computing Centre

6.1 The Department of Defence (Defence) seeks approval from the Committee to proceed with the proposed Defence High Performance Computing Centre (DHPCC) in Edinburgh, South Australia.

6.2 The proposed works will provide the Defence Science and Technology Group (DST) and the Australian Defence Organisation with secure capability for high fidelity modelling and simulation it currently does not possess.

6.3 DST is the Australian Government's lead agency responsible for applying science and technology to safeguard Australia and delivers support to the Australian Defence Force on operations, sustainment and improvement to current capability, and development of new and emerging capability.[1]

6.4 An analysis by DST of the high performance computing capability found that DST required:

> … a secure computer centre with sufficient physical capacity to house future specialised high performance computing infrastructure and access to DST's classified research networks.[2]

6.5 The estimated cost of the project is $68.8 million (excluding GST).

6.6 The project was referred to the Committee on 13 September 2018.

[1] Department of Defence, *Submission 1*, p. 1.

[2] Department of Defence, *Submission 1*, p. 2.

6.7 Subject to Parliamentary approval of the Project, design activities are expected to be completed by late 2018, with construction expected to commence from early 2019 for completion in mid-2020.

# Conduct of the inquiry

6.8 Following referral, the inquiry was publicised on the Committee's website and via media release.

6.9 The Committee received two submissions and one confidential submission. A list of submissions can be found at Appendix A.

6.10 On 29 October 2018, the Committee received a site inspection by presentation. On the same day, the Committee also conducted a public and in-camera hearing. A transcript of the public hearing is available on the Committee's website.

# Need for the works

6.11 In its submission, Defence outlined the significant role that DST Group plays in Australia's defence and national security:

> DST Group contributes to Australia's defence and national security through its capacity to reduce and mitigate strategic and operational risks, and to create and maintain a capability edge.[3]

6.12 According to its submission, in 2006 Defence identified a need for a secure, centralised supercomputer capability in order for DST to conduct advanced research, development, modelling and experimentation. This will support DST's contribution to Australia's defence and national security by enhancing its capacity to reduce and mitigate strategic and operational risks and to create and maintain a capability edge.

6.13 While the project received Departmental approval in 2010, it was subsequently suspended until November 2015 due to funding constraints. It recommenced following the 2016 Defence White Paper and the Defence Integrated Investment Plan. This recommencement led to an analysis of high performance computing capability needs, which recognised that DST required a secure computer centre with sufficient physical capacity to house

[3] Department of Defence, *Submission 1*, p. 1.

future specialised high performance computing infrastructure and access to DST's classified research networks.[4]

6.14 As a result, this proposal was integrated into DST's plans to replace its existing secure computer centre facilities at Edinburgh with new facilities.

6.15 DST Group Edinburgh manages its own secure computer network with a role to provide expert, impartial and innovative application of science and technology for the defence of Australia and its national interests.[5]

6.16 The DHPCC is intended to deliver a new fit for purpose facility at the DST establishment in the Edinburgh Defence Precinct which will consist of a secure high performance computing centre, capable of a capacity expansion, a visualisation capability and training facilities.[6]

6.17 DST Group Edinburgh is the largest Defence science and technology site in Australia, providing research facilities for approximately 1200 personnel with a total workforce of approximately 2000.[7]

## Scope of the works

6.18 The DHPCC project will consist of a facility that has two interdependent parts:

- A high-reliability secure data-centre to house the supercomputer; and
- Co-located visualisation facilities which encompass secure visualisation and auditorium facilities as well as training rooms and laboratory facilities.[8]

6.19 The project will include:

a. A new high security/high integrity high performance computing data centre capability;

b. Secure visualisation and auditorium facilities;

c. Dedicated DST secure meeting, training and laboratory facilities; and

[4] Department of Defence, *Submission 1*, p. 1.

[5] Department of Defence, *Submission 1*, p. 1.

[6] Department of Defence, *Submission 1*, p. 1.

[7] Department of Defence, *Submission 1*, p. 1.

[8] Brigadier Galton, Department of Defence, *Transcript of Evidence*, 29 October 2018, p. 1.

d. Increased new car parking capacity required to support the facilities.[9]

6.20 The high performance computing data centre capability will have 2.5MW of computing capacity (load managed within site capacity limitations) with the spaces and building services infrastructure to enable capacity to be expanded to 5.0MW once it is available.[10]

6.21 In the submission, Defence notes that the mechanical services systems in the building have been designed to enable the 2.5 MW system to be readily expandable to 5.0 MW.[11]

# Cost of the works

6.22 The total estimated cost of this project is $68.8 million, excluding GST. This includes management and design fees, construction costs, information and communication technology (provided by Chief Information Officer Group, but excludes the high performance computing and associated components to be provided by the Information Communication Technology Project), furniture, fittings, equipment, contingency and a provision for risk and escalation.[12]

6.23 Defence provided further detail on project costings in its confidential submission and during an in-camera hearing.

6.24 The Committee is satisfied that the costings for the project provided to it have been adequately assessed by the proponent entity.

# Local impacts

6.25 The Committee sought details from Defence on the decision to locate the DHPCC at DST Edinburgh.

6.26 Defence confirmed that they had considered DST's existing research sites at Fishermans Bend in Melbourne and DST Edinburgh. They noted that the Fishermans Bend site had size constraints but also that the DHPCC should be co-located where the larger datasets were. Defence further noted for

[9] Department of Defence, *Submission 1*, p. 5.

[10] Department of Defence, *Submission 1*, p. 5.

[11] Department of Defence, *Submission 1*, p. 9.

[12] Department of Defence, *Submission 1*, pp. 18-19.

reasons of people, interaction, capability and the need to store, digest and manage large volumes of data,[13] DST Edinburgh was the more suitable site.

# Committee comment

6.27 The Committee did not identify any issues of concern with the proposal and is satisfied that the project has merit in terms of need, scope and cost.

6.28 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.

## Recommendation 5

**6.29 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: Defence High Performance Computing Centre project.**

6.30 Proponent entities 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.

**Hon Dr John McVeigh MP**
**Chair**
**December 2018**

[13] Mr Lambert, Department of Defence, *Transcript of Evidence,* 29 October 2018, p. 2.

# A. List of Submissions

## CSIRO Myall Vale New Cotton Breeding Research Facilities Project

**1** CSIRO

- 1.1 Confidential

## Land 200 Tranche 2 Battlefield Communications Systems Facilities Project

**1** Department of Defence

- 1.1 Supplementary Submission
- 1.2 Confidential
- 1.3 Confidential

## Naval Guided Weapons Maintenance Facilities Project

**1** Department of Defence

- 1.1 Supplementary Submission
- 1.2 Confidential
- 1.3 Confidential

# Land 4502 Phase 1 Additional CH-47F Chinook Facilities Project

**1** Department of Defence

- 1.1 Supplementary Submission
- 1.2 Confidential
- 1.3 Confidential

# Defence High Performance Computing Centre

**1** Department of Defence

- 1.1 Supplementary Submission
- 1.2 Confidential

# B. List of Witnesses and Public Hearings

## CSIRO Myall Vale New Cotton Breeding Research Facilities Project

### Monday, 29 October 2018 – Canberra, ACT

*Commonwealth Scientific and Industrial Research Organisation*

Mr Dave Agnew, Director, Business and Infrastructure Services

Dr Mark Peoples, Research Director, Agriculture and Food

Dr Warwick Stiller, Site Leader, Myall Vale

*L2D*

Mr Colin Sakinofsky, Director

*WT Partnership*

Mr James Osenton, National Director

## Land 200 Tranche 2 Battlefield Communications Systems Facilities Project

### Friday, 9 November 2018 – Townsville, Qld

*Department of Defence*

Brigadier Matt Galton, Director General, Capital Facilities and Infrastructure

Colonel Joanne Whittaker, Director, Land Command, Control and Communications Program

Lieutenant Colonel Simon Everett, Project Director, Capital Facilities and Infrastructure

*Aurecon Australasia Pty Ltd*

Mr Lachlan Waite, Project Manager,

*GHD Pty Ltd*

Mr Mark Moussally, Design Manager

*Rider Levett Bucknall*

Mr Wayne Taylor, Executive Quantity Surveyor

# Naval Guided Weapons Maintenance Facilities Project

## Friday, 9 November 2018 – Townsville, Qld

*Department of Defence*

Brigadier Matt Galton, Director General, Capital Facilities and Infrastructure

Commodore Philip Spedding, Director General Navy Program Support and Infrastructure

Commodore Simon Ottaviano, Director General Explosive Materiel

Lieutenant Colonel Peter Sims, Project Director, National Projects – Logistics

*AECOM Australia Pty Ltd*

Mr Benjamin Graffen, Principal Engineer

*Aurecon*

Mr Greg Chronopoulos, Senior Project Manager

# Land 4502 Phase 1 Additional CH-47F Chinook Facilities Project

### Friday, 9 November 2018 – Townsville, Qld

*Department of Defence*

Brigadier Matt Galton, Director General, Capital Facilities and Infrastructure

Colonel Andrew Jones, Director, Battlefield Aviation Program

*Aurecon*

Mr David Patterson, Project Manager

*Conrad Gargett*

Mr Gregory Sexton, Principal, North Queensland Manager

*Wilde and Woollard (QLD) Pty Ltd*

Mr Paul Tate, Director

## Defence High Performance Computing Centre

### Monday, 29 October 2018 – Canberra, ACT

*Department of Defence*

Brigadier Matt Galton, Director General, Capital Facilities and Infrastructure

Major Teresa Pexton, Project Director Central West, Capital Facilities and Infrastructure

Mr Peter Lambert, Chief Research Services, Defence Science and Technology Group

*GHD Woodhead*

Mr Craig Brown, Director

*Jacobs Group Australia Pty Ltd*

Mr Matthew Thompson, Senior Project Manager

*Rider Levett Bucknall*

Mr Andrew Knowles, Director