

HMAS *Stirling* Redevelopment, Stage 3A, Garden Island, Western Australia

- 2.1 The Department of Defence (Defence) seeks approval from the Committee to conduct redevelopment works at HMAS *Stirling* on Garden Island, Western Australia.
- 2.2 HMAS *Stirling* is the Royal Australian Navy's primary operational support base on Australia's west coast. This support includes command, administration, training, live-in-accommodation, ship replenishment, repair, maintenance and logistics. It currently accommodates a working population of approximately 3600, comprising both Defence and civilian personnel.¹
- 2.3 The primary objective of the project is to upgrade and refurbish existing key infrastructure and facilities at HMAS *Stirling*.²
- 2.4 The estimated cost of the project is \$366.8 million, excluding GST.
- 2.5 The project was referred to the Committee on 19 August 2015.

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 two supplementary submissions from Defence. A list of submissions can be found at Appendix A.
- 2.8 The Committee received a briefing and inspection from Defence on Garden Island and conducted public and in-camera hearings in Rockingham, Western Australia on 8 October 2015. A transcript of the

1 Defence, submission 1, p. 4.

2 Defence, submission 1, p. 12.

public hearing and the public submissions to the inquiry are available on the Committee's website.³

Need for the works

- 2.9 Much of the infrastructure and facilities at HMAS *Stirling* are approaching 40 years of age. This, coupled with exposure to a coastal environment, has rendered several areas in need of upgrade and repair.⁴
- 2.10 During the site inspection the Committee was shown examples of the ageing infrastructure on the base. It was clear that the harsh environment and age of the facilities has contributed to the deterioration of infrastructure.
- 2.11 At the public hearing, Defence stated:
- As the base has grown over the years, the base infrastructure has been progressively extended, but it has not received significant upgrade since its initial installation. This infrastructure has now reached or, in certain cases, is nearing the end of its remaining useful life, and will not continue to effectively support naval operations from Western Australia without immediate and substantial redevelopment.⁵
- 2.12 As part of the redevelopment works, Defence proposes repairing the existing road network, replacing the combined potable and fire-fighting water supplies and upgrading the electrical power supply and distribution system, base sewerage and waste water systems and the current data and communications infrastructure.⁶
- 2.13 The project will contribute significantly to Defence preparedness and Navy capability by ensuring facilities at HMAS *Stirling* remain fit for purpose and operational.⁷
- 2.14 At the public hearing, the Committee sought examples of how activities at HMAS *Stirling* had changed over time. Representatives for Defence noted that providing support for foreign navies had expanded. In the case of the United States, this has increased from supporting one submarine every one to two years to four in the period since November 2014.⁸
- 2.15 The Committee is satisfied that the need for the work exists.

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

4 Defence, submission 1, p. 5.

5 Brigadier Noel Beutel, Defence, transcript of evidence, 8 October 2015, p. 1.

6 Defence, submission 1, pp. 8-9.

7 Defence, submission 1, p. 32.

8 Captain Angela Bond, Defence, transcript of evidence, , 8 October 2015, p. 4.

Options considered

- 2.16 Defence has identified 25 scope elements and considered options for each. For most elements, altering existing facilities and infrastructure is the most feasible and cost-effective option. Where re-use is not cost-effective, Defence proposes to construct new facilities.⁹
- 2.17 The Committee found that Defence has considered multiple options to deliver the project and has selected the most suitable option.

Scope of the works

- 2.18 The following are the 25 scope elements identified by Defence:
- 2.19 *Scope Element 1 – Central Emergency Power System*
A new emergency power station will be constructed to support the existing station. Construction will include a high-speed diesel generator, three rotary frequency converters, switchboards, transformers, acoustics, security, fire detection and fuel supply systems.¹⁰
- 2.20 *Scope Element 2 – Incoming Power Supply and Modifications to the Powerhouse*
The existing high voltage power supply to the base will be upgraded to increase capacity. The existing power station will also be upgraded. This will involve replacing generators, rotary frequency converters and associated equipment.¹¹
- 2.21 *Scope Element 3 – Base 11kV Power Distribution and Building Services*
The proposed upgrade of the existing base power distribution network will include providing new power ring feeders, conversions to increase capacity and efficiency and clearing surrounding vegetation to comply with safety codes. A new monitoring and control system will also be installed.¹²
- 2.22 *Scope Element 4 – Maritime Structures Remediation*
The following key maritime structures will be remediated:
- Armament Wharf;
 - Diamantina Pier;
 - High Level Bridge;
 - Moresby Harbour;
 - Oxley Wharf; and
 - Parkes Wharf.

9 Defence, submission 1, p. 9.

10 Defence, submission 1, p. 13.

11 Defence, submission 1, p. 14.

12 Defence, submission 1, pp. 14-15.

Works will include concrete repair, new lighting, protective coatings to guard rails and repairs to steel structures, fender systems, service tunnels and the causeway.¹³

2.23 *Scope Element 5 – Sewerage System*

Upgrading the existing freshwater sewerage system will include a new sewerage treatment plant, new electrical transformer and switchboard and new storage tanks. The sewer mains network will also be upgraded.¹⁴

2.24 *Scope Element 6 – Sullage (Waste Water) System*

Upgrading the existing freshwater sullage system will include repairing the existing sullage tank, installing treatment equipment, drying beds and pumps, and modifications to existing sullage lagoons to provide an anaerobic pond and a maturation pond.¹⁵

2.25 *Scope Element 7 – Potable Water and Fire System*

This will include replacing the existing combined potable and fire-fighting water supply system with a new combined system. This will include new pipework, water metres, pressure-reducing valves and a pump station.¹⁶

2.26 *Scope Element 8 – Air Conditioning, Chiller and Boiler Systems*

This will include replacing existing pipework, installing new air conditioning units and systems, new centrifugal chillers and pumps, new cooling towers, and new internal pipework for heated and chilled water.¹⁷

2.27 *Scope Element 9 – Flammable/Hazardous Goods and Waste Storage Areas*

A new flammable and hazardous waste store is proposed for construction on the site of the existing facility. Additionally, a paint storage container will be provided close to the base sand blast and painting facility.¹⁸

2.28 *Scope Element 10 – Communication and Supervisory System*

The base communications and supervisory system will be upgraded to address shortcomings in configuration, capacity and security. Optical fibre cabling will be installed to increase the capacity of the network. The integration of the building management system with this network will significantly improve the central monitoring and control of all key building, fire and energy management systems.¹⁹

2.29 *Scope Element 11 – Mains Water Supply*

The existing mains water supply pipeline will be repaired using an

13 Defence, submission 1, pp. 15-16.

14 Defence, submission 1, pp. 16-17.

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

16 Defence, submission 1, p. 18.

17 Defence, submission 1, pp. 18-19.

18 Defence, submission 1, p. 19.

19 Defence, submission 1, pp. 19-20.

approved corrosion protection repair system. Additionally, valves will be replaced or upgraded and a new cathodic protection system will be installed to control metal corrosion.²⁰

2.30 *Scope Element 12 – Recycled Water Reticulation*

A recycled water system is proposed and will include a new pump and pipeline and a new pump station.²¹

2.31 *Scope Element 13 – Base Entrance Enhancements and Training Ship ANZAC Refurbishment*

The proposed reconfiguration of the base entrance will include:

- a new single-storey pass office, induction centre and entry control point to replace the existing pass office and security booth;
- new security boom gates;
- a new crash barrier on the island side of the causeway in both lanes;
- a vehicle quarantine area and a wash down area; and
- a multipurpose car park.

The new building will include administrative office space, a pass control office, training room and amenities. It will be equipped with appropriate security, fire and communications systems and the existing electrical supply and area lighting will be upgraded.

The existing training ship's buildings and structures will be upgraded or replaced, to comply with workplace health and safety standards. This will include upgrading electrical supply and lighting, repairing asphalt surfaces, extending the boat launching ramp and constructing a rigging shed.²²

2.32 *Scope Element 14 – Road Reconstruction, Repairs and Resurfacing*

The works proposed will vary from reconstructing roads to minor repairs to the existing pavements. Works will also include improvements to the associated drainage systems and ancillary roadway structures. Upgrades will affect Wickham, Baudin and Vancouver Roads.²³

2.33 *Scope Element 15 – Submarine Training and Systems Centre Remedial Works*

This will include upgrading and extending the existing public address system throughout the entire facility, upgrading the existing emergency warning intercommunications system, including the installation of a

20 Defence, submission 1, p. 20.

21 Defence, submission 1, p. 20.

22 Defence, submission 1, p. 21.

23 Defence, submission 1, p. 22.

booster to increase the volume of the system and installing a security system to meet Defence standards.²⁴

2.34 *Scope Element 16 – Health Centre Refurbishment*

The proposed refit will include upgrading physiotherapy, psychology, dental services, health records management and pharmaceutical storage areas and increasing the number of consulting rooms. There will also be general upgrade works to amenities and office space.²⁵

2.35 *Scope Element 17 – Buildings Internal and External Upgrades*

The proposed scope of work for this element addresses the poor internal and external condition of 36 key facilities.

Internal upgrades will generally include:

- repairs and maintenance of the floor, wall and ceiling finishes, replacing ceiling tiles;
- replacing carpet or floor finishes, repairs to internal and external doors, and general;
- carpentry repairs to fixtures and fittings;
- repainting;
- replacing window seals; and
- minor repairs and/or replacement of the mechanical, electrical and fire services.

External upgrades will generally include:

- repairs and maintenance of building fabric, including miscellaneous corroded metal;
- work, fretted mortar, remediating deteriorated brickwork;
- repainting;
- repairing fencing and other ancillary structures;
- general carpentry work; and
- refurbishing roller doors.²⁶

2.36 *Scope Element 18 – Roof Tiles and Roof Plumbing*

This will include high-pressure cleaning of roof tiles, repairs to and replacement of gutters, where required, and other general roofing repairs.²⁷

24 Defence, submission 1, p. 22.

25 Defence, submission 1, p. 22.

26 Defence, submission 1, p. 22.

27 Defence, submission 1, p. 23.

2.37 *Scope Element 19 – Closed Circuit Television (CCTV) Coverage (and Intruder Alarm)*

A new centralised CCTV monitoring and control system will be installed. This will integrate all of the existing CCTV systems, allowing monitoring and management from a central control point. A back up control and monitoring point will be installed at the proposed base entrance facility.

Additional CCTV coverage will also be provided to critical areas, such as the base entrance, the explosive ordnance storage area and key security points around the base.

Parts and panels for all existing intruder alarms more than 10 years old will be replaced with new units.²⁸

2.38 *Scope Element 20 – Work at Height Access Systems*

Fixed safe access systems are proposed for 36 key facilities. A number of these facilities will also require minor structural upgrading to enable the roof access systems to be installed.²⁹

2.39 *Scope Element 21 – Mess Facilities Upgrades*

This will include installing new security grilles to all bar areas, providing air conditioning, upgrading amenities, electrical services and lighting and minor improvements to the northern outdoor veranda area.

Pending available funds, additional works would include providing access ramps, a covered pedestrian link and a fit-out to an adjacent building.³⁰

2.40 *Scope Element 22 – Car Parking Rationalisation*

This will include a major extension to the existing car park and works to surrounding footpaths.³¹

2.41 *Scope Element 23 – Chaplain Centre Extension*

This will provide:

- an expanded chapel space to suit a capacity of up to 120 persons;
- a separate smaller dedicated multi-faith prayer room;
- a staff kitchenette;
- a formalised reception area;
- a multi-purpose conference/staff/training/meeting room;
- disabled/wheelchair access to the Chaplain Centre, Chapel and toilets;

28 Defence, submission 1, p. 24.

29 Defence, submission 1, p. 24.

30 Defence, submission 1, p. 24.

31 Defence, submission 1, p. 25.

- toilet and disabled toilet facilities for the maximum occupancy of 120 persons;
- additional office space; and
- an upgrade of the mechanical, electrical, hydraulics and fire services to meet the relevant standards.³²

2.42 *Scope Element 24 – Mechanical Lockout Capability*

This will involve developing a policy for a standard system of mechanical lockout for all plant and equipment at HMAS *Stirling*. The aim is to meet contemporary workplace health and safety legislation. The policy will identify selected plant, switch rooms and equipment to be secured when maintenance work is being conducted and will include procedures for each specific lockout situation and appropriate training for maintenance staff.³³

2.43 *Scope Element 25 – Physical Training Facilities Upgrades*

Three facilities have been identified for upgrade: gymnasium building, weights room and swimming pool change rooms. Works include reconfiguration of internal fit-out, installing ventilation and air conditioning systems, amenities and safety equipment.³⁴

Potential impacts on scope

- 2.44 At the public hearing, the Committee queried if foreign navies' berthing requirements impacted the scope of the works. Defence indicated that although some consideration had been given to foreign navy vessels, this had not been a major factor in determining the scope of the works required.³⁵
- 2.45 Subject to Parliamentary approval of the project, the design stage of the project is expected to be completed by the end of 2016. Construction work is expected begin in mid 2017 and be completed in early 2020.³⁶
- 2.46 The Committee finds that the proposed scope of works is suitable for the works to meet its purpose.

Community consultation

- 2.47 In accordance with its community consultation and communications strategy, Defence undertook the following consultative activities:

32 Defence, submission 1, p. 25.

33 Defence, submission 1, pp. 25-26.

34 Defence, submission 1, p. 26.

35 Captain Angela Bond, Defence, transcript of evidence, 8 October 2015, p. 5.

36 Defence, submission 1, p. 32.

- detailed email correspondence with local groups and State and Federal members, with individual briefings conducted where requested;
 - notices in the local newspapers providing information on opportunities for the public to comment on issues relating to the project; and
 - a public consultation session held on 8 September 2015.³⁷
- 2.48 At the public consultation session, Defence responded to a number of issues, including questions about a possible increase to local traffic. Defence advised community participants that while there would be a small increase to traffic on Point Peron Road, mitigation strategies are in place to reduce congestion. Strategies will include staggering personnel start and finish times and stock-piling materials and equipment at HMAS *Stirling* to reduce the number of vehicles onsite.³⁸
- 2.49 Traffic concerns were also raised in relation to an unrelated redevelopment project at the nearby Mangles Bay Marina. Defence advised that it was in discussions with the project managers, LandCorp and Cedar Woods, to find solutions to the impact of the proposed closure of Point Peron Road.³⁹
- 2.50 At the public hearing, the Committee sought assurances that the two projects would not adversely impact on each other or the local residents. Defence responded:
- On the Defence side, we aim to streamline the flow of traffic which will help with the traffic backup that we currently experience when we have a number of our ships and submarines alongside. We have been working well with LandCorp and now Cedar Woods in relation to the traffic management plan that was undertaken by Cedar Woods last year. We are now engaged in that process and we are undertaking an independent review of the traffic management plan to have a look at the issues and what might need to be done to meet our needs, along with the redevelopment of the roads. The proposal under the Mangles Bay Marina precinct is that Point Peron Road will no longer exist and that project will require a realignment of Memorial Drive. We want to ensure that that realignment and the redevelopment of that road meets our needs and that we do not impact as an entity on the public in that area and that we are catered for in the process. We are currently engaged in that process. We are also well supported by Rockingham City Council that is very aware

37 Defence, submission 1.2, pp. 1-7.

38 Defence, submission 1.2, p. 8.

39 Defence, submission 1.2, p. 9.

that Defence is a big part of their community here. But, of course, they want the development so they are trying to make sure that all entities reach a positive conclusion.⁴⁰

- 2.51 Further, the project's Design Manager, commented on HMAS *Stirling's* entry in relation to traffic flow:

At the moment the design as it stands is separate and independent of what happens to Point Peron [Road]; however, if for some reason Memorial Drive gets pushed through and it is dual carriageway we will obviously have to interface to a dual carriageway and not a single carriageway as the design is at the moment. So we do need to manage that interface point. The other point I would like to make is that during the design process for that intersection we did consult with the City of Rockingham. They reviewed the design and they have no adverse comments. They are happy with the design as it stands currently.⁴¹

- 2.52 Finally, Defence told the Committee that they conduct regular meetings with state governments to consult on matters of mutual interest. The particular issue of HMAS *Stirling* and Mangles Bay Marina Redevelopment Projects was raised with the Western Australian Premier, Mr Colin Barnett MLA and this facilitated further liaison with LandCorp and Cedar Woods.⁴²

Cost of the works

- 2.53 The estimated cost of the project is \$366.8 million, excluding GST.
- 2.54 In their submission, Defence noted that the project aims to support capabilities at HMAS *Stirling* until at least 2030.⁴³
- 2.55 At the public hearing, the Committee queried the cost of the works in relation to value for money and longevity of the works. In response, Defence told the Committee:

The 2030 is a minimum requirement. Within the confidential cost-estimate submission, provided by Defence to the committee, there is detail on each of the different...components of that; it is design life that we are focusing on. If you look at the maritime structures and what we are proposing there, the design life – and I can confirm this when we get into the in camera hearing – is a 40-year

40 Captain Angela Bond, Defence, transcript of evidence, 8 October 2015, pp. 6-7.

41 Mr Rob Roberts, Doric Constructions, transcript of evidence, 8 October 2015, p. 7.

42 Brigadier Noel Beutel, Defence, transcript of evidence, 8 October 2015, p. 6.

43 Defence, submission 1, p. 12.

design life. The 2030 aspect of it is a minimum requirement, but the actual design life we are proposing will take us well past that.⁴⁴

- 2.56 Additionally, Defence told the Committee that funding is available through three large contracts that have recently been implemented by Defence to ensure that new works are well maintained.⁴⁵
- 2.57 Defence provided further detail on the project costs in the confidential submission and during the in-camera hearing.
- 2.58 The Committee considers that the cost estimates for the project have been adequately assessed by Defence and the Committee is satisfied that the proposed expenditure is cost effective. As the project will not be revenue generating, the Committee makes no comment in relation to this matter.

Committee comments

- 2.59 The Committee did not identify any issues of concern with Defence's proposal and is satisfied that the project has merit in terms of need, scope and cost.
- 2.60 Proponent agencies must notify the Committee of any changes to the project scope, time, cost, function or design. The Committee also requires that a post-implementation report be provided within three months of project completion. A report template can be found on the Committee's website.
- 2.61 The Committee requires Defence to provide a mid-term status report, on completion of the project's design stage.
- 2.62 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

- 2.63 The Committee requires the Department of Defence to provide a mid-term status report, on completion of the project's design stage.**

44 Brigadier Noel Beutel, Defence, transcript of evidence, 8 October 2015, p. 3.

45 Brigadier Noel Beutel, Defence, transcript of evidence, 8 October 2015, pp. 7-8.

Recommendation 2

- 2.64 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: **HMAS *Stirling* Redevelopment, Stage 3A, Garden Island, Western Australia.**