Riverina Redevelopment Program

Recommended management and mitigation measures

EST02036 Blamey Barracks Kapooka Redevelopment

Document issue:	50% SDR Issue	25 Jul 2023
Document no.:02		

Downer
Relationships creating success

CPB CONTRACTORS

Riverina Redevelopment Joint Venture

A. Recommended management and mitigation measures.

1 The following sections detail mitigation measures which are recommended to be employed for those elements where potential impacts were identified.

A.1 Defence CEMP guidance

2 A CEMP will be prepared by the construction contractor (on award of contract) and address the following Defence standards and processes, as well as those project specific management measures outlined in the technical reports discussed in the relevant sections of this referral. These have also been summarised in A2 – A6.

a Defence Environment and Heritage Manual

b Defence Environmental Plan

c Defence Environmental Policy

d Defence Landscape Manual

e Defence Estate Heritage Strategy

f Defence PFAS Construction and Maintenance Framework

g Defence Contamination Management Manual

- i Annex B – Investigations, Remediation and Management
- ii Annex C – Planning to Minimise and Manage Stockpiling
- iii Annex J – Infrastructure Demolition
- iv Annex K – Management of PFAS Contamination

h Defence Guidelines for consideration of sustainability in remediation of contaminated sites

i Defence Manual for Management & Remediation of petroleum hydrocarbons contaminated soils and sediments

j Defence Security & Estate Group Asbestos Management Plan (AMP)

k Defence Pollution Prevention Manual

l Defence Environmental Management Systems

m Defence Building Works Manual Edition 1 Amendment 4 (2020)

A.2 EPBC listed threatened species, ecological communities, impacts on plants, impacts on animals

3 In view of the impacts predicted to the EPBC listed TEC, the following mitigation measure is proposed during the remainder of the design phase:

a If further design changes occur to the spatial location of the project footprint occur during the DDR phase then the design is to continue to apply the mitigation hierarchy of avoid, minimise and mitigate.

4 Table 1 presents the proposed mitigation measures to be implemented during the construction phase of the project.

Table 1Ecological Mitigation Measures

Impact	Mitigation	Timing
Impacts to biodiversity values	• Clearing limits have been established which avoid and minimise impacts to the greatest extent practicable.	Prior to construction – complete
Impacts to retained vegetation due to inadvertent clearing	• All works, including ancillary facilities and laydown areas will be retained within the approved disturbance footprint. • Area of retained vegetation will be protected during construction. This will include fencing of exclusion areas and sign-posting these areas as no-go zones. • This will be maintained and checked daily through construction.	During construction – daily
Impacts to retained vegetation due to sediment and hydrology	• The drainage of the road will be constructed to ensure that increased hardstand does not result in increased surface water runoff and mobilised grits and oils flowing into adjacent areas of retained vegetation. • Appropriate sediment control measures will be implemented, including sediment, erosion and pollution control measures.	During construction – throughout
Degradation of retained vegetation due to weeds	• Potential for introduction of weeds will be reduced through implementation of soil and vehicle hygiene measures. • Monthly checks of construction areas will be undertaken to document any significant growth of priority weeds (Weeds of National Significance or weeds listed as Priority weeds for Riverina Local Land Services Region in the Riverina Regional Strategic Weed Management Plan (LLS, 2017)). • Weed management of all priority weeds will be undertaken within and at the edges of the construction area.	During construction – throughout
Impacts to fauna during clearing	• Pre-clearing surveys will be undertaken to document significant habitat features present within the clearing area, including hollows, nests or other features. • An Ecologist will be present during clearing. Clearing will include the following: – A staged approach to clearing, clearing non-significant habitat first, allowing animals to vacate the clearing area before significant habitat features are cleared. Staging should ideally be separated by 1-2 days.	During construction – clearing

Impact	Mitigation	Timing
	– All trees felled will be inspected by the Ecologist to relocate any fauna located during clearing to nearest retained vegetation. – Any animals injured during clearing works will be taken to a veterinarian.	
Impacts to threatened species	• Signage will be implemented on the access road to raise awareness of the potential for Koalas and Parrot species to occur. • Koala fencing will be constructed in the area to the north of the company lines to prevent Koalas from accessing works areas.	Commencement of construction
Noise and dust impacts to retained vegetation and fauna habitat	• Noise mitigation measures will be implemented to be protective of sensitive fauna species. • Dust mitigation measures will be implemented, including use of water carts to control dust and minimise dust impacts to retained vegetation.	During construction – throughout

A.3 Impacts on landscapes and soils

A.3.1 Impacts on a water resource

5 Include Erosion and Stormwater Management controls in the CEMP as per requirements in the Defence PPM Annex 1I and DCMM Annex C and Defence PFAS Construction and Maintenance Framework. The management controls will need to include:

a stockpile management in accordance with DCMM Annex C and Defence PFAS Construction and Maintenance Framework

b stormwater, erosion and sediment controls in accordance with PPM Annex 1I

c appropriate measures to conserve water from the Smart Infrastructure Handbook (2019).

A.4 Pollutants, chemicals and toxic substances

A.4.1 Contaminated land

6 Assessment of contamination risks at BBK was undertaken during 30% CDR through Stage 1A and Stage 1B site investigations and documented.

7 A preliminary classification of the soil material encountered during the limited Stage 1A investigations identified soil as General Solid Waste under NSW EPA (2014) guidelines. If off-site disposal is required, further sampling is required to meet state jurisdiction requirements for materials classification.

8 Further soil and soil leachate analysis conducted during the Stage 1B investigation identified PFAS at concentrations above the PFAS landfill Acceptance Criteria (Unlined landfills, clay/single composite lined and double composite lined landfills) in some samples. As such, areas of the New Multi-Function Centre development area (WE 2.1), where higher concentrations of PFAS are present in soil, may require treatment at a specialised facility, subject to further analysis and confirmation of PFAS concentrations in material requiring disposal. This material should be segregated from general solid waste.

9 It is understood that the preferred management approach for excess material will be re-use on Site subject to consultation with Defence and assessment of risk.

10 Data analysis and reporting of the Stage 1 A and Stage 1B investigations have been completed and have been provided in a PCA Report

11 Recommendations from the PCA include further investigation / sampling for the following:

a Infrastructure services routes (where intrusive activities will occur), new Ring Road and roads (WE1.10) and building footprint locations modified during SDR (Gym (WE6.1), Medical Centre (WE6.4) and LIA (WE4.1)). This will enable preliminary characterisation of soil and fil material at the locations sampled to support decision making on contaminated material management, and to evaluate whether these materials pose an unacceptable risk to workers human health and the environment and development of appropriate construction environmental management controls where risk is unacceptable

b Demolition areas (where intrusive subsurface activities will occur) and contamination risks could be present, where pre-demolition access is feasible

c Assessment of the extent of PFAS impacts in the Medical Training Facilities, Q Store and Warehousing, the Gym and Fitness Training Expansion and the New Multi-Function Centre

d Any scope item which may be introduced to or modified in the DDR phase design

e Potential siting options for beneficial reuse of construction spoil impacted by PFAS, should the materials balance indicate that a surplus of spoil will likely be generated and/or contaminated materials require relocation within or outside of the project work areas.

12 Surface disturbance generally may expose soil and although current data indicates groundwater interfacing won't occur, there is potential to encounter shallow groundwater contamination. The approach to managing this will be in accordance with the CEMP and WHS Plan. Unexpected finds protocols should apply in all areas where ground disturbance is required.

13 The delivery phase CEMP will address the following:

a Stockpile management in accordance with DCMM Annex C and Defence PFAS Construction and Maintenance Framework

b Materials tracking in accordance with the Defence PPM (specifically Annex 1E, 1F and 1H), DCMM (Annex C)

c Waste disposal in accordance with Defence PFAS Construction and Maintenance Framework and the Defence PPM

d Erosion and sediment controls in accordance with PPM Annex 1I

e Water management (including stormwater management and dewatering of groundwater from excavations) in accordance with the PPM and Defence PFAS Construction and Maintenance Framework

f Dust suppression with reference to the Defence PPM water re-use for dust suppression guidance.

14 The management of spoil and topsoil should be included in the CEMP to minimise potential impacts and coordinate waste disposal and beneficial reuse as per the DCMM Annex C, Defence PFAS Construction and Maintenance Framework and Defence PPM.

A.4.2 Contaminated groundwater

15 Groundwater should be managed in accordance with:

a the Defence Pollution Prevention Management Manual (2017)

b Smart Infrastructure Handbook (2019)

c PFAS Construction and Maintenance Framework (2021)

d The Defence Contamination Management Manual (2021)

e The National Environment Protection Measure - Assessment of Contaminated Sites (ASC NEPM, as amended 2013)

f an approved CEMP for the project that brings together results of the intrusive contamination assessment.

A.4.3 Hazardous Materials

16 The CEMP is to include all relevant measures from the dangerous goods and hazardous materials assessments as it relates to these hazards in soil and water and with regard to pollution prevention control measures. Above ground hazardous materials in building and asset structures will be managed predominantly in WHS SOPs, demolition management and waste management plans.

A.5 Impacts on people and communities

17 Prepare a Community Engagement Strategy (CES) as part of the CEMP which includes consultation with local sensitive receptors. This consultation should inform the stakeholders of the project, its timing and key activities, particularly those activities which could be most noise generating.

18 The CES is to include a contact point to allow nearby stakeholders to engage with Defence's contractor on site during construction.

19 Include in the CEMP:

a a construction Noise Management Plan

b a construction Dust Management Plan

c a construction Traffic Management Plan

d a construction Soil and Water Management Plan.

A.6 Impacts on heritage

20 The following recommendations are made for consideration of Defence:

a DEPAC and DEHPD will need to determine whether a referral to the Minister for the Environment under the EPBC Act is required

b Obtain relevant heritage approvals prior to construction to comply with the HMM and HMP Policy 47

c Full archival recording to comply with the HMM, HMP Policy 56 and 57 and Section 6.0

d Preparation of an oral history report that:

i collects audio and/or video testimonies of graduates and staff. The participants should be chosen from the various decades of use – from the 1960s through to the present. These would be recorded in the LIA, where possible, and prior to demolition

ii photographs associated with the occupation of the LIA (an overlap with the archival recording)

iii a report that summarises the main themes from the participants memories

iv considers making the report publicly available as an interpretive device

v is recorded in a format that can be archived with the National Library of Australia.

e Interpretation Plan, which is to include consideration of:

i integration of interpretive material regarding the 1960s Blamey Barracks era into the:

- Kapooka Heritage Trail, a pathway between the visitor carpark and the main parade ground, currently under development
- proposed recruit LIA precinct
- proposed multi-function centre
- main parade ground area
- existing visitors' car park, path and bus shelter

ii making content from the archival recording and oral history available online and onsite via QR code or similar

iii consider reuse of materials, particularly the red bricks in landscaping

iv measures to ensure the architectural style and materiality can be understood as an interpretive measure.

f The gun emplacements in the accommodation and administration sub-precinct and adjacent to the main parade ground are to be protected during construction. If the gun emplacements need to be moved, appropriate management measures are to be developed to protect and manage the move.

g The new buildings detailed design is to continue to comply with Policies 48 to 52 of the HMP to the extent possible, which is determined in this document to mean:

i large-scale buildings, arranged in a symmetrical 'disciplined' layout

ii rectilinear forms, preferably rectangular footprints, rather than winged

iii limited roof overhangs, placing the visual emphasis on the tall, smooth vertical faces of the buildings

iv buildings are visible in the round and set in grassed areas

v warm, rich tones akin to red brick

vi vertical architectural expressions of the window fenestration with no dominant horizontal expression, resulting in a solid, anchored building.

h In relation to the adaptive reuse of the Edmondson Soldier's Club under WE 2.6 and 6.3:

i replacement of original/early doors identified in Table 1 as having a heritage impact are to be further detailed in consultation with the heritage consultant

i the original early walls proposed for removal are to be interpreted in the building fabric through the retention of nubs in the wall and accompanied by onsite interpretation

ii the principles in Annex M – Adaptive Reuse of the HMM should be considered and integrated into the detailed design.

j In relation to the proposed demolition of parade shelters:

i consult with the individuals and/or families of the individuals that the parade shelters are named in honour of them

ii develop specific mitigation measures based on the feedback received during consultation, which may include naming of sections of the new seating area after the individuals.

k In relation to Indigenous heritage:

i to avoid inadvertent damage, BBKCMT1 is to be fenced during construction of the ring road

ii consideration is to be given to the necessity of fencing artefact scatters BBK2, BBK4 and BBK5 during construction of the new weapons range (WE 7.1). Fencing should be implemented if works are to be undertaken within 20 m of the locations

iii an Indigenous stakeholder is to be engaged to undertake active monitoring during initial ground disturbance activities in the areas shown as holding low and low to moderate archaeological potential sites.