

Construction Environmental Management Plan

WHITLAM STAGE 3

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ACRONYMS AND ABBREVIATIONS

ACT	Australian Capital Territory
ACTPLA	ACT Planning and Land Authority (now known as EPSDD)
AEC	Areas of Environmental Concern
CEMP	Construction Environmental Management Plan
DA	Development Application
EIS	Environmental Impact Statement
EPSDD	Environment, Planning and Sustainable development Directorate
ESCP	Erosion and Sediment Control Plan
ESCS	Erosion and Sediment Control Structures
EPA	Environment Protection Authority
EPBC	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FUA	future urban area
Ha	Hectares
LDA	Land Development Agency
mm	Millimetres
MNES	Matters of National Environmental Significance
MVIS	Molonglo Valley Interceptor Sewer
NC Act	<i>Nature Conservation Act 2014</i>
NES Plan	Molonglo Valley Plan for the Protection of Matters of National Environmental Significance
NTG	Native Temperate Grassland
PD Act	<i>Planning and Development Act 2007</i>
PTWL	Pink-tailed Worm-Lizard
SLA	Suburban Land Authority
TAMS	Territory and Municipal Services
<i>TP Act</i>	<i>Tree Protection Act 2005</i>
UDP	Unanticipated Discovery Plan
UFP	Unexpected Finds Protocol
UXO	Unexploded ordnance

1 GENERAL INFORMATION

1.1 INTRODUCTION

This Construction Environmental Management Plan (CEMP) has been prepared for the estate construction works for Stage 3 the suburb of Whitlam, located within the Molonglo Valley.

Molonglo Valley consists of three land release stages, Molonglo 1, 2 and 3.

The land release stage relevant to this CEMP for Whitlam Stage 3 is Molonglo 3. Molonglo 3 is approximately 800 hectare (ha) of land to the north of the Molonglo River, abutting William Hovell Drive, bounded on the east by the arboretum and to the west by Kama Nature Reserve.

The Whitlam Estate is part of the Molonglo 3 Urban Development and Infrastructure project. Molonglo 3 aims to house approximately 27,000 people living in 11,000 dwellings by 2042, with Whitlam Estates planned approximate 2,000 dwellings housing up to 5,000 people and containing a principal commercial centre for the valley. Additional services and facilities, such as schools, commercial buildings, recreation facilities and other community facilities will be constructed in Whitlam estate and the wider ultimate Molonglo 3 development to support residents, and supplement facilities already constructed or planned in earlier stages of the Molonglo Valley urban development.

Whitlam Estate is divided into four stages and this document is pertinent to Stage 3, being 387 blocks (nominally 667 maximum potential dwellings) of the approximate 2,000 total blocks planned for Whitlam. A Staging Masterplan for Whitlam Estate showing the four stages of urban development has been included in Appendix A.

This CEMP for Whitlam Stage 3 has been prepared in line with the *Final Construction Environmental Management Plan, Molonglo Valley 3 Area B* (SESL CEMP), prepared by SESL Australia for the Suburban Land Agency, in November 2018 (SESL, 2018). The SESL CEMP is the overarching CEMP for the Whitlam Estate and primarily focusses on the proposed works associated with the management of anthropogenic and domestic waste within MV3 Area B, and construction work associated with the site development for Future Urban land release for MV3 Area B (SESL, 2018). This CEMP for Whitlam Stage 3 references SESL CEMP (SESL, 2018) where relevant, specific to the Whitlam Stage 3 Staging plan prepared by Calibre, provided at Appendix B.

This CEMP for Whitlam Stage 3 must be read in conjunction with the SESL CEMP (SESL, 2018). All contractors must be provided a copy of this CEMP and the SESL CEMP.

1.2 DESCRIPTION OF WORKS

This Construction Environmental Management Plan (CEMP) is for the civil engineering and landscape works construction of Whitlam Stage 3 infrastructure including:

- Land clearing and earthworks.
- Construction of stormwater management infrastructure.
- Construction of utility services.
- Construction of roads and transport infrastructure (including for pedestrian and cycle transport).
- Landscape works including playground, planting and some minor hard works

1.3 PURPOSE OF THE CEMP

This Whitlam Stage 3 CEMP applies specifically to the management of environmental factors, outlined in Section 3 during the proposed construction works. This CEMP accords with the Environment Protection Authority's (EPA) *Environmental Guidelines for Preparation of an Environmental Management Plan* (EPA, 2013), and in addition, meets the requirements of the Development Application (DA) and *Molonglo Valley Plan for the Protection of Matters of National Environmental Significance Plan* (NES Plan) (ACTPLA, 2011) requirements. A summary of the S211 exemption requirements, DA Conditions of Approval, EPA guidelines and NES Plan is provided in Appendix D and E.

The purpose of this CEMP is to address environmental issues and risks associated civil engineering and landscape construction of Whitlam Stage 3. The CEMP must combine the objectives of the NES Plan (ACTPLA 2011) and the Final Construction Environmental Management Plan for Molonglo Valley 3 Area B (SESL 2018).

This Whitlam Stage 3 CEMP has identified the following environmental and contaminated land issues:

- Use of heavy machinery and construction vehicles
- Soil disturbance requiring erosion and sediment control measures
- Weed and disease control measures.
- Impacts on fauna particularly Pink-tailed Worm Lizard
- Vegetation removal of ground cover and non-native trees
- Destruction of habitat for the Pink-tailed Worm Lizard (low quality)
- Discovery of cultural heritage artefacts etc
- Areas with potential unexploded ordnances (UXOs) and exploded ordnance waste
- Demolition of existing structures
- Removal of hazardous waste and materials including anthropogenic and domestic waste

In accordance with ACTPLA (2011) and SESL (2018), this CEMP aims to address these issues by:

- Safeguards for heavy vehicles
- Erosion and sediment control measures
- Weed control and hygiene methods
- Management of Pink-tailed Worm Lizard habitat
- Protocol for unexpected finds for managing UXOs and AECs
- Fencing of environmentally significant areas to prevent construction vehicles entering these areas or stockpiling debris or equipment in this area
- Protocols for unanticipated discover finds
- Waste management and minimisation
- Monitoring and reporting

1.4 LEGAL FRAMEWORK

1.4.1 Commonwealth Legislation

Environment Protection and Biodiversity Conservation Act 1999

The *EPBC Act 1999* provides the Australian Government with a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places. As well as dealing with projects on a case-by-case basis, under section 146 of the *EPBC Act*, the Minister may agree to assess the impacts of actions under a policy or plan, known as a strategic assessment. In 2008 the ACT and Australian Governments entered into an agreement to undertake a strategic assessment for the

Molonglo Valley under the *EPBC Act*. Preliminary environmental investigations in the Molonglo Valley identified several MNES. These included Pink-tailed Worm-lizard (PTWL), White Box-Yellow Box-Blakely's Red Gum grassy woodland and derived native grassland, Natural temperate grasslands of the Southern Tablelands of NSW and the ACT, the Superb Parrot and Swift Parrot.

Matters of MNES present within Whitlam Stage 3 (refer to map at Appendix C, and as mapped on ACTmapi) are:

- Pink-tailed Worm-lizard *Aprasia parapulchella* (PTWL)
- Natural temperate grasslands of the Southern Tablelands of NSW and the ACT (NTG)

The strategic assessment area for Molonglo Valley was advantageous in that it considered MNES in the planning process and integrated environmental protection with high level planning. The strategic assessment of Molonglo Valley was endorsed as the Molonglo Valley Plan for the Protection of Matters of National Environmental Significance (ACTPLA, 2011), hereafter referred to as the NES Plan.

The NES Plan identifies and describes the required management, mitigation and offsetting requirements to adequately protect MNES located within the Molonglo Valley the location of this project. The NES Plan:

- Reflects the development activities proposed for the Molonglo Valley as set out in the Molonglo and North Weston Structure Plan.
- Establishes the ACT Government's commitments to protect matters of national environmental significance (MNES) within the strategic assessment area.
- Identified the need for development activities to support the population of Molonglo, to occur within the Molonglo River Corridor.
- Requires that CEMPs be prepared by qualified environmental professionals with a focus on protecting adjacent areas for all construction activities, to ensure that unnecessary impacts from construction are avoided.

1.4.2 ACT Legislation

Planning and Development Act 2007 (PD Act)

The object of the PD Act is to provide a planning and land use system that contributes to the orderly and sustainable development of the ACT. An exemption for the requirement to complete an Environmental Impact Statement (EIS) was granted under s211 of the PD Act before the development application was made.

S211 EXEMPTION

The exemption under section 211 of the PD Act, from requiring a completed EIS, was granted by the Minister for the Molonglo 3 Urban Development (ACT Government, 2017). A table showing compliance with the S211 exemption conditions is provided in Appendix D.

The subsequent Development Application (DA) conditions for Whitlam Stage 3 are provided in Appendix E.

Nature Conservation Act 2014 (NC Act)

The object of the NC Act is to protect, conserve and enhance the biodiversity of the ACT. The NC Act protects native plants and animals and provides management authority for conservation lands. It provides the legal underpinning of nature conservation policy, management and action across the ACT. The NC Act requires that potential impacts be assessed when there is the likelihood that a proposed action has the potential to impact (directly or indirectly) upon NC Act listed biota. The NC Act also provides definitions for

native vegetation native species, ecological communities and biodiversity. Refer to section 3 of this CEMP for NC Act considerations.

Tree Protection Act 2005 (TP Act)

The objects of the TP Act are to protect individual trees and urban forest values through incorporation of the value of trees and their protection requirements into the design, planning of development and construction and through the promotion of the role of trees in the urban environment. A Tree Management Plan, refer to Appendix F, under the *Tree Protection Act 2005* is required for approval where it is proposed to undertake groundwork within the tree protection zone of a protected tree or likely to cause damage to, or remove, any trees defined as protected trees by that Act.

Pest Plants and Animals Act 2005

The purpose of this Act is to protect the Territory's land and aquatic resources from threats from pest plants and animals, and to promote a strategic approach to pest management. This legislation is relevant to the proposed works given the presence of pest plants on the site and will be managed through the implementation of this CEMP.

Water Resources Act 2007

A Waterway Works Licence under this Act is required where works occur within a waterway, to take water, or for the recharge of water. The Whitlam stage 3 works do not explicitly include actual works in or on the waterway, but the scope of works area does involve pipe and overland drainage that does discharge into the waterway. A copy of the Waterway Works Licence is included in Appendix G.

Heritage Act 2004

The *Heritage Act 2004* provides a system for the recognition, registration and conservation of natural and cultural heritage places and objects. This legislation is relevant to construction of the Whitlam Stage 3 as there are heritage places and artefacts in close proximity, refer to Section 3.2. An Unanticipated Discovery Plan (UDP) is provided in Appendix H.

Environment Protection Act 1997

The broad objects of this Act are to protect and enhance the quality of the environment, prevent environmental degradation and adverse risks to human and ecosystem health. It is expected that all personnel directly involved with the proposed works including the operators of excavators and other machinery will comply with their general environmental duty under the *Environment Protection Act 1997*¹ when on site. The civil contractor currently holds an Environmental Protection Agreement with the ACT EPA. The purpose of this agreement is to ensure that the land development sites achieve a consistently high level of environmental management.

In accordance with the endorsement of this CEMP, the EPA will be notified immediately after becoming aware of any breach or potential breach of the CEMP by phoning Canberra Connect on 132281.

The Unexpected Finds Protocol (Based on WSP, 2017; SESL 2018) is included at Appendix I.

¹ "A person must take the steps that are practicable and reasonable to prevent or minimise environmental harm or environmental nuisance caused, or likely to be caused, by an activity conducted by that person."

Waste Management and Resource Recovery Act 2016

The *Waste Management and Resource Recovery Act 2016* regulates the disposal of waste within the ACT. The objectives of the Act are to establish a waste management hierarchy of avoid, reuse, recycle, reprocess and dispose. Where possible, the project will aim to minimise the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste, details can be found in Section 3.6.

2 KEY CHARACTERISTICS OF THE PROJECT

2.1 PROJECT DESCRIPTION

The following table outlines key aspects of the Whitlam Stage 3 project.

Element	Description
Commencement of Works	Immediately after CEMP approved.
Life of Project	2 years
Location of Site	Molonglo Valley Block 12, 13 and 46
Area of Disturbance	Whitlam Estate will be 280ha, with stage 3 being approximately 70 ha
Current Land Use	Agricultural
Proposed Development	Suburb with dwellings, services, school and facilities.
Construction operating hours	7.00 am to 5.00 pm Monday-Friday 7.00 am to 3.00pm Saturday
Water Supply	Via Icon Water's local infrastructure from the previous Whitlam stage 1 works
Fuel Storage	Storage of fuel and refuelling of machinery will be greater than 50m away from waterway. Fuel tanker visits the site daily to refuel plant and machinery. Small fuel containers shall be kept in a fuel cabinet inside a designated container at site compound. Other than above and fuel in machinery no fuel stored onsite.
Major components of project:	<ol style="list-style-type: none"> 1. Site establishment. 2. Construction of utilities. 3. Earthworks. 4. Construction of roads and transport infrastructure 5. Post construction
Waste management	Large quantities of waste are not expected to be generated for construction of this project. Waste materials will be taken to landfill.
Environmental incident	Any environmental incident including but not limited to injury or death of wildlife, pollution or spill into the river will be reported immediately to Canberra Connect on 13 22 81.

2.2 CONSTRUCTION ACTIVITIES

The summary below provides the anticipated sequence of the construction activities as stated in the SESL 2018 CEMP.

Site establishment:

- Implement UXO clearance survey if required and establish site safety measures including undertaking necessary remedial actions
- Installation of environmental control including no go zones for PTWL habitat (if it is to be

retained)

- Installation of erosion and sediment controls.
- Establishment of temporary site compound and stockpile sites.
- Confirm vegetation clearing scope and extent
- Site fencing - ensure construction fencing is installed on the boundary of Stage Three and the Molonglo River Offset area.
- Formalise access tracks off Coppins Crossing Road with gravel and other stipulated measures (shake-down grid etc.)
- Removal of existing housing, sheds and any other building within the development area.

Earthworks:

- Vegetation clearing.
- Stripping of topsoil.
- Cut and fill – including strategy for surplus material.
- Construction of temporary sediment ponds.

Construction of utilities:

- Trenching for new infrastructure utilities including sewer and stormwater mains, water supply and shared trench utilities (Electricity, gas and communications via NBN pit & pipe for future fibre optic network).

Construction of Roads and transport facilities:

- Connection to stage 2 road network.
- Construction of new roadworks including:
 - Subgrade preparation.
 - Laying of pavement.
 - Kerbs and driveways
 - Footpaths.
 - Line marking.
 - Installation of signs.
- Landscaping including playground, soft and hard works.

Post construction

- Site clean-up, stabilisation and rehabilitation of disturbed areas.
- Removal of traffic and environmental controls.

2.3 KEY PERSONNEL

Table 2-1: Key site personnel for the project (to be completed by the appointed contractor).

Position	Name	Phone Number
Project Manager/Systems Manager		
Site Engineer		
Supervisor		
Foreman		
Safety Manager		
Plant Manager		

2.4 SITE INDUCTION

All site personnel would undergo induction training prior to the commencement of work at the site. The induction training will be delivered by the Site Engineer or Site Supervisor and would address the requirements of this CEMP and relevant plans/protocols. Records of training and induction will be maintained in a register.

3 ENVIRONMENTAL FACTORS

3.1 BIODIVERSITY VALUES

The biodiversity values for the Molonglo Valley include the following threatened fauna and ecological communities:

- Natural temperate grasslands
- Box Gum Woodland
- Swift parrot
- Superb parrot
- Pink-Tailed Worm Lizard

3.1.1 *Natural temperate grasslands*

Natural temperate grasslands are listed as an endangered ecological community under the NC Act and natural temperate grassland of the South Eastern Highlands are listed as a critically endangered ecological community under the EPBC Act.

No Natural Temperate Grasslands were identified in the Molonglo stage 3 (Biosis, 2016) (Umwelt, 2018) but there is a patch found in Kama Reserve. As such, no specific mitigation measures related to the removal of NTG within the Whitlam Stage 3 are proposed as part of this CEMP.

3.1.2 *Box Gum Woodland*

Yellow box/red gum grassy woodland is listed as an endangered ecological community under the NC Act and under the EPBC Act, white box – yellow box – Blakely's red gum grassy woodland and derived native grassland is listed as critically endangered ecological community.

No Box Gum Woodland was identified within Whitlam Stage 3, but the Woodlands are found in Kama Reserve, Patch GG and William Hovell Drive road reserve. These patches of Box Gum Woodland are set aside as offset sites.

No budget clearance is required for Box Gum Woodland, therefore no reporting to EPSDD is needed.

No mitigation measures are required for the Box Gum Woodland as part of the NES plan (ACTPLA, 2011) but mitigation measures are included for vegetation removal.

3.1.3 *Superb Parrot and Swift Parrot foraging habitat*

Box Gum Woodlands in Molonglo Valley are foraging areas for the Superb Parrot *Polytelis swainsonii* and the Swift Parrot *Lathamus discolor*. The Superb Parrot has been recorded breeding in Kama Reserve and other areas in the Molonglo Valley (Eco Logical Australia 2013). The superb parrot requires hollow bearing trees for breeding and prefers Blakely's Red Gum *Eucalyptus blakelyi*. No hollow-bearing trees were identified within the Whitlam Stage 3 works area (Biosis, 2016). The swift parrot only forages in this area over the summer period and returns to Tasmania to breed.

Foraging areas for both parrots include Patch GG, Kama Reserve, Kama Reserve Interface area and the Box Gum Woodland on the William Hovell Drive road reserve. It is anticipated both species may fly over during

construction of Whitlam Stage 3 and there will be construction activity and noise on site, but this impact is considered minimal as both species have the capacity to move on to another location.

3.1.4 Pink-tailed Worm Lizard

The NES Plan identifies four patches of low-quality habitat within the Molonglo 3 area (ACTPLA, 2011). Previous surveys completed by Wong and Osborne (2010) determined habitat for Pink-tailed Worm Lizard in grazing paddocks isolated from the Molonglo River Corridor is unlikely to support a population. This principle approach was accepted and outlined in the supporting documentation for the s211 Report (Umwelt 2018). It is important to note that Biosis (2016) conducted vegetation quality assessments and identified a patch of moderate quality native vegetation within Stage 3 area and this has been mapped as moderate habitat for Pink-tailed Worm Lizard; but Umwelt (2018) adopted the fauna survey work from Wong and Osborne (2010). Therefore, this CEMP has been prepared based up on the Pink-tailed Worm Lizard habitat in Whitlam Stage 3 development area being considered low quality habitat.

Potential impacts upon PTWL habitat as a result of the suburban development include (SESL 2018):

- Removal of native vegetation.
- Weed introduction and/or proliferation.
- Extensive soil disturbance.
- Removal of suitable habitat rocks.
- Death of individuals, should they occur.
- General noise and vibration.

No budget clearance is required for PTWL as the habitat is considered low quality, therefore no reporting to EPSDD is needed.

Specific measures to protect PTWL's during works have been identified in Table 3-1, including the requirement for pre-clearance surveys.

3.2 OFFSET AREAS

The Molonglo River Corridor Offset area is located to the South Whitlam Stage 3. The offset area extends into Deep Creek tributary to the north. Two small areas of the offset area intersect with the development area. One area is a linear strip on the southern boundary of the development area. Umwelt (2018) determined the offset area would be realigned to the southern boundary of the existing gravel road. The second area is located to the northwest of Stage 3 development boundary and Deep Creek/Molonglo River confluence. Umwelt (2018) identified inconsistencies with a number of areas in the Molonglo Valley development and these issues would be addressed at the Estate Development Plan. The development boundary for Stage 3 and the offset areas have been included in Appendix C.

3.3 HERITAGE ARTEFACTS AND ITEMS

Stone artefacts identified within Whitlam Stage 3 development area would be salvaged before construction (Umwelt, 2017). During the proposed works there is a risk for unanticipated discovery of isolated or dispersed cultural heritage artefacts. These finds could include stone scatters, grinding grooves or historical items. An Unanticipated Discovery Protocol is provided at Appendix H and will be implemented should artefacts be identified during the proposed works. The ACT Heritage Council will be consulted if any suspected cultural material is uncovered during the suburban development.

3.4 CONTAMINATED SITES (UXO'S)

Numerous contamination investigations have been undertaken for the Molonglo 3 area. No remediation areas were identified within Whitlam Stage 3 (Appendix A, figure 2, SESL 2018). The S211 Exemption revised report v6 (Umwelt, 2018) identifies the approximate ordinance impact area, potential for unexploded ordinance (UXO) and potential for ordinance residue/explored ordinance waste (EOW). The *Remedial Action Plan (RAP), Molonglo Valley Stage 3 (Area B)* (WSP, 2017) describes the remediation actions and contains the management plans for UXO's relevant to Whitlam Stage 3. The SESL CEMP Unexpected Finds Protocol (UFP) (SESL, 2018) has been prepared with consideration of the RAP. The Unexpected Finds Protocol (based on WSP, 2017; from SESL 2018) is provided at Appendix I.

Soil mounds are present on the site (Douglas Partners, 2019). The EPSDD would as part of finalising the contamination studies and Site Audit for that area, be moving the stockpiles sideways and be surveying underneath that area for any UXO.

The contractor would be responsible for confirming the required remediation actions and conditions of the Site Audit Statement and Site Audit report (Zoic, 2019) have been completed prior to any construction works commencing within Whitlam Stage 3.

3.5 OTHER ENVIRONMENTAL FACTORS

Other potential impacts on the environment from the proposed works, as indicated by the SESL 2018 CEMP, would include:

- Erosion of soil and sediment transfer.
- Sedimentation of waterways/bodies including Deep Creek and Molonglo River resulting in reduced water quality and degradation of aquatic habitat.
- Generation of dust through excavation, trenching, vehicle movements and wind erosion of exposed areas.
- Emissions from plant, vehicles and equipment.
- Generation of waste.

3.6 MANAGEMENT/MITIGATION MEASURES

Table 3-1 Table of management/mitigation measures

Activity	Interaction 'cause'	Change to environment 'effect'	Management measures
<p>Any works in identified PTWL habitat areas</p>	<p>Transit of vehicles, machinery and general habitat disturbance.</p>	<p>Disturbance to PTWL habitat. Potential death of PTWL individuals.</p>	<p>The requirement for exclusion (no-go) zones to be confirmed by an ecologist to mark and exclude PTWL habitat:</p> <ul style="list-style-type: none"> • The limits of construction works areas which are to be located inside identified PTWL habitat are to be clearly marked on construction work plans prior to the commencement of works in these areas. • The limits of construction works areas within PTWL habitat are to be clearly marked out on the ground using exclusion fencing and 'no-go' signage where appropriate. • No vehicles and machinery are to operate within areas of PTWL habitat which have been demarcated. • No site laydown areas, vehicle parking, turning areas, temporary equipment or stockpiles will be located within PTWL habitat areas which have been demarcated. <p>Pre-clearance surveys:</p> <ul style="list-style-type: none"> • All areas of identified PTWL habitat which are within the construction footprint will be surveyed by a suitably qualified ecologist prior to construction activities taking place. • Timing of these surveys should be as close to the clearing as practicable to ensure any lizards present can be relocated prior to construction activities commencing. • When conducting the pre-clearance surveys, all suitable habitat rocks within the disturbance area will be rolled over to check for individual lizards. • Any individual PTWL found during preclearance surveys will be relocated by the ecologist to a nearby safe and suitable patch of habitat outside the construction area, in accordance with Animal Care and Ethics Approval and project-specific Scientific Licence held by the ecologist.

Activity	Interaction 'cause'	Change to environment 'effect'	Management measures
			<p>PTWL habitat relocation:</p> <ul style="list-style-type: none"> • Prior to construction activities commencing within PTWL habitat, and following the pre-clearance surveys undertaken by the ecologist, all surface rocks within the construction areas which are deemed by the ecologist to represent suitable habitat rocks will be relocated to a location or locations outside the construction area for preservation. Generally, suitable habitat rocks include those that are plate-like in shape with a 15-60cm basal diameter. Relocation of surface rocks will be undertaken by the ecologist and by construction personnel under supervision of the ecologist as required. • Suitable PTWL habitat rocks which are stockpiled will be utilised during rehabilitation of disturbed sites upon completion of construction works. • The stockpile site will be located within the general vicinity of the work to avoid long cartage distances and multiple handling. <p>During construction:</p> <ul style="list-style-type: none"> • Should any PTWL be observed during construction, works will cease, and the ecologist will be notified. The ecologist will be required to attend the site to relocate the lizard to a safe and suitable nearby patch of habitat, in accordance with the Scientific Licence held by the ecologist. • Should any PTWL be injured during construction works, the animal would be handled in accordance with scientific licence conditions. • All vehicles to operate within PTWL habitat will be free from vegetative materials and propagules. • Should any trenches be left open overnight, these trenches will be inspected each morning to check for trapped PTWL. If any PTWL are observed within the trench, the ecologist will be contacted immediately to relocate the individual as per the conditions of the Scientific Licence held by the ecologist. • All trenches will be inspected for the presence of PTWL immediately prior backfilling. If any PTWL are observed within the trench, the ecologist will be

Activity	Interaction 'cause'	Change to environment 'effect'	Management measures
			<p>contacted immediately to relocate the individual as per the conditions of the Scientific Licence held by the ecologist.</p> <p>The relevant Agency/ACT Conservator needs to confirm if a rehabilitation plan is required for low quality PTWL habitat removal for Whitlam Stage 3. If required and upon completion of construction - PTWL habitat rehabilitation would include:</p> <ul style="list-style-type: none"> • Upon completion of the construction works, the extent and location of disturbance within the encountered PTWL habitat will be measured and recorded. The total area of disturbance will be indicated (in hectares) on a map, or by GPS locations. Findings from this will be documented and reported to the Contractor's Representative in the form of a letter. This information must be supplied to the ACT Government as per the conditions of the Scientific Licence held by the ecologist. • Upon completion of construction works, disturbed areas within identified PTWL habitat will be rehabilitated in accordance with the PTWL Rehabilitation Plan (Appendix J).
Vegetation clearing	Removal of trees	Destruction or disturbance of environmental values Injury, entrapment or death of fauna	<ul style="list-style-type: none"> • Where vegetation clearing is required, limit it to the minimum extent practicable required for the construction of the project. • The limits of clearing will be clearly marked on construction work plans and on the ground prior to clearing. Vegetation to be retained will be protected through exclusion fencing (e.g. safety mesh) and 'no-go' signage where appropriate. • Only trees specified in the Tree Management Plan (Appendix F) shall be removed. All other trees are to be retained. • Felled trees are to be stockpiled on site for re use in the landscape such as roost trees. • Should any injured animals be found within the construction area, ACT Wildlife would be contacted to collect the injured animal.
	Transit of vehicles	Destruction or disturbance of environmental values	<ul style="list-style-type: none"> • All access will be via stabilised site entrance and access tracks. • Vehicles will utilise existing tracks and trails as much as possible. • Vehicles will stay out of 'no go areas.'

Activity	Interaction 'cause'	Change to environment 'effect'	Management measures
<p>Access and use of heavy machinery and vehicles onsite</p>	<p>Spilling fuel, oil or lubricants</p>	<p>Poisoning fauna, contaminating habitat / vegetation</p>	<ul style="list-style-type: none"> • All site personnel will utilise an existing crossing or trail to cross or navigate around any drainage lines. • Vehicles should not drive within drip lines of mature native trees. • Specific training on prevention and management of spills will be provided. • Spill kit to be kept on site and utilised quickly to contain spills. • All vehicles and equipment will carry a spill kit. • Refuelling must be undertaken in designated bunded areas and not be conducted within 50m of a waterway. • Vehicles and equipment used on site will be required to have an up-to-date service history and not have any existing fuel, oil or lubricant leaks. • Topsoil which has become contaminated to be disposed of as per hazardous waste requirements (separated from general waste and disposed of at appropriate licensed facility). • No fuel and oil containers will be stored on-site, and servicing and any necessary refuelling will be undertaken away from sensitive areas. • EPA to be contacted if spill occurs.
	<p>Introduction of weeds and diseases on vehicles and equipment</p>	<p>Establishment of weeds and introduction of disease to environment including PTWL habitat</p>	<ul style="list-style-type: none"> • Prior to the commencement of works, existing weed infestations are to be treated using appropriate methods. • All vehicles must be clean and free of visible plant propagules prior to entering and exiting the site. A vehicle brush down/washdown area will be provided. Records will be maintained demonstrating compliance. • Weedy vegetation will be treated onsite in preference to carting material away for disposal, to minimise risk of spreading infestations. Mulching is preferred over burning. • Vehicle and machinery movements will be confined to disturbed areas and existing tracks where possible. Vehicles and machinery will be cleaned (tyres brushed or washed down) prior to accessing and/or leaving areas where weeds have been identified.

Activity	Interaction 'cause'	Change to environment 'effect'	Management measures
	Noise and vibration generated by use of heavy machinery	Disturbance to fauna, habitat and vegetation	<ul style="list-style-type: none"> • Machinery and equipment will be maintained to manufacturer's standards. • Vehicle and equipment usage will be restricted to the minimum operating speed (10kph) when entering and moving through sensitive areas of the site.
Earthworks	Excavations Trenches	Destruction or disturbance of environmental values Injury, entrapment or death of fauna Erosion Pollution of water Dust generation	<ul style="list-style-type: none"> • Works will not commence on site until the archaeological salvage program has been completed to the satisfaction of the Territory's statutory requirements. • If any potential Aboriginal heritage items are encountered, works which would potentially impact the find would stop immediately. The Unanticipated Discovery Plan (Appendix H) would be implemented. Works will not commence until appropriate clearance has been received. • If any potential European heritage items or places are encountered, works which would potentially impact the find would stop immediately. The Construction Manager and/or Environment Manager would be notified immediately. An archaeologist would be engaged to carry out an assessment of the heritage find. If the item was found to be of heritage significance, the ACT Heritage Unit and Heritage Council would be notified to review and endorse the find. • If any suspected skeletal remains are encountered, works which would potentially impact the find would stop immediately. The Unanticipated Discovery Plan (Appendix H) would be implemented. Works will not commence until clearance has been received. • Should any trenches be left open overnight, these trenches will be inspected each morning to check for trapped fauna. If any fauna is observed within the trench, the ecologist will be contacted immediately to relocate the individual. • All trenches will be inspected for the presence of fauna immediately prior to backfilling. If any fauna are observed within the trench, the ecologist will be contacted immediately to relocate the individual. • Erosion and Sediment Control Plan (ESCP) to be approved by the EPA for the Project. • The approved ESCP (attached at Appendix K) will be updated as required. The client will be provided with copies of plans as they are revised.

Activity	Interaction 'cause'	Change to environment 'effect'	Management measures
			<ul style="list-style-type: none"> Erosion and Sediment Control Structures (ESCS) will be implemented prior to construction in accordance with the approved ESCP and be maintained until development completion. Deep Creek shall be protected from sediment laden run-off. ESCS will be inspected as part of the weekly site inspection and after significant rainfall event (i.e. after 5mm in 24hour period) to ensure they are functional. Site inspections to be undertaken until site is stabilised to a degree that any such rainfall event will not adversely affect the environment. Should any unexpected contamination be found, work will stop and the UFP will be implemented immediately (Appendix I). Water cart will be used to reduce dust generation. Should any injured animals be found within the construction area, ACT Wildlife would be contacted to collect the injured animal.
<p>Stockpiling and storage of materials</p>	<p>Stockpiling of materials in woodland or PTWL habitat</p>	<p>Smothering of vegetation, habitat or fauna Sedimentation of drainage lines</p>	<ul style="list-style-type: none"> No material will be stockpiled in areas of PTWL habitat. Stockpiles to be in areas as depicted in the approved ESCP. Stockpiles will be in accordance with the EPA Guidelines. Stockpiles are to be covered to minimise water infiltration where practical. No soil is to be removed from the site or reused elsewhere on the site without prior approval of the EPA. Topsoils and subsoils to be stockpiled separately to avoid mixing in a manner that would facilitate the return of soils to location of original source. All soil materials imported for use at the site shall be assessed prior to acceptance to confirm that they are suitable for use at the site. Imported soil materials to the site can comprise VENM, ACT EPA approved beneficial reuse material, or other approved material. Material excavated from AEC 7 must be stockpiled separated from other excavated spoil, with adequate Materials intended for beneficial reuse must be excavated and stockpiled separately to materials intended for off-site disposal. A tracking log must be kept for stockpile / materials, tracking shall include the following:

Activity	Interaction 'cause'	Change to environment 'effect'	Management measures
			<ul style="list-style-type: none"> ○ The location of initial excavation and source of stockpile material. ○ Dimensions of the stockpile. ○ If stockpile has been assessed, include assessment dates and findings (contamination status). ○ Movement log – specifically previous stockpile locations. • Chemicals will be stored in banded or contained areas in accordance with relevant Australian Standards and MSDS for the chemical. • For liquids a minimum bund will be 110% of the largest single stored volume in the bund. • MSDS will be kept on site for all chemical based products stored or used on site and that Work Method Statement will be developed for high risk activities, including those that relate to use of chemical based products and working at heights.
Waste generation	Solid wastes entering environment	Smothering causing disturbance or destruction of habitat / vegetation	<ul style="list-style-type: none"> • Waste intended for offsite disposal must undergo a waste classification assessment. • Materials to be recycled will be disposed at an appropriate recycling centre. • Materials that cannot be recycled are to be disposed of at an appropriate approved licenced disposal centre. • Soil materials to be reused (permanent placement elsewhere on-site) must undergo a beneficial reuse assessment in accordance with ACT Guidelines and provided to the ACT EPA for approval. • Soil materials to be reused offsite must have approval from the receiving site and ACT EPA. • Tracking records must be kept for stockpiles and spoil disposed offsite. • Ensure skip bins or bins utilised on site have lids to prevent escape of rubbish to adjacent areas. • Concrete waste generated on site to be stored on builders' film until dry and then recycled. • The onsite ablution block will be pumped by a sewerage tanker regularly and removed from site.

Activity	Interaction 'cause'	Change to environment 'effect'	Management measures
			<ul style="list-style-type: none"> All green waste is to be mulched and used onsite as mulch or recycled to a local landscape supplier.
Rehabilitation and Revegetation	Planting vegetation	Smothering causing disturbance or destruction of habitat / vegetation	<ul style="list-style-type: none"> Prior to revegetation works excavated or disturbed areas to be rehabilitated so that material is reinstated in original sequence i.e., topsoil at surface and subsoil below. All areas of disturbance must be revegetated immediately following construction. Revegetation to be undertaken using a cover crop of sterile Rye Grass to ensure that rapid stabilisation occurs. A suite of suitable local native species will be used in conjunction with the Rye Grass cover crop. Locally collected species mix will be acceptable.
Activities not listed in this table	Other	Other	<ul style="list-style-type: none"> All other activities not listed within this table would be managed in accordance with relevant management procedures listed the SESL CEMP.

4 MONITORING AND REPORTING

Environmental inspections will be on going and occur at regular intervals during the construction phase of the project (also refer to the SESL CEMP for related monitoring and reporting). The monitoring is formally recorded (at a minimum) weekly and after a rain event. The proposed minimum inspection schedule, including responsible personnel, reporting requirements and frequency, is detailed in Table 4-1 below.

Table 4-1 Environmental Monitoring Program.

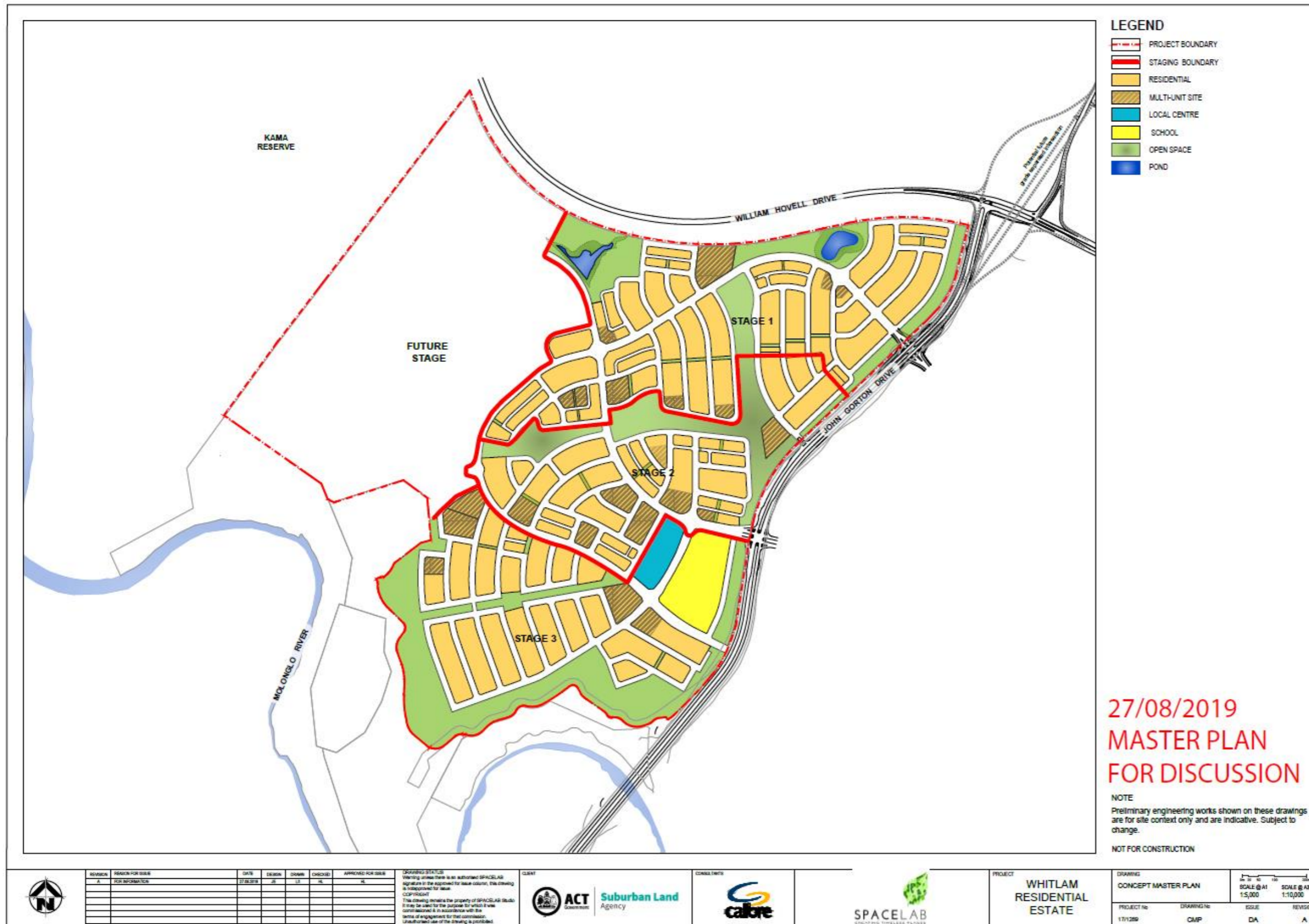
Inspection	Objectives	Responsibility	Output	Timing
Site inspection	<ul style="list-style-type: none"> •Review status of all controls •General environmental performance 	Site Supervisor / Site Environmental Officer	Weekly Environmental Checklist	Weekly (or more frequently following rainfall events resulting in runoff)
Site Audit	<ul style="list-style-type: none"> •Review CEMP implementation •Review environmental non-conformance. 	Project Manager	Audit report	Monthly
Site Inspection	<ul style="list-style-type: none"> •Compliance with this CEMP. •Identifying environmental harm. •Improving environmental performance. 	Independent Environmental Consultant	Inspection report	As required

In accordance with the endorsement of this CEMP, the EPA will be notified immediately after becoming aware of any breach or potential breach of the CEMP by phoning Canberra Connect on 13 22 81. Should injured wildlife be discovered, the Project Manager will report the matter by contacting Canberra Connect on 13 22 81.

5 REFERENCES

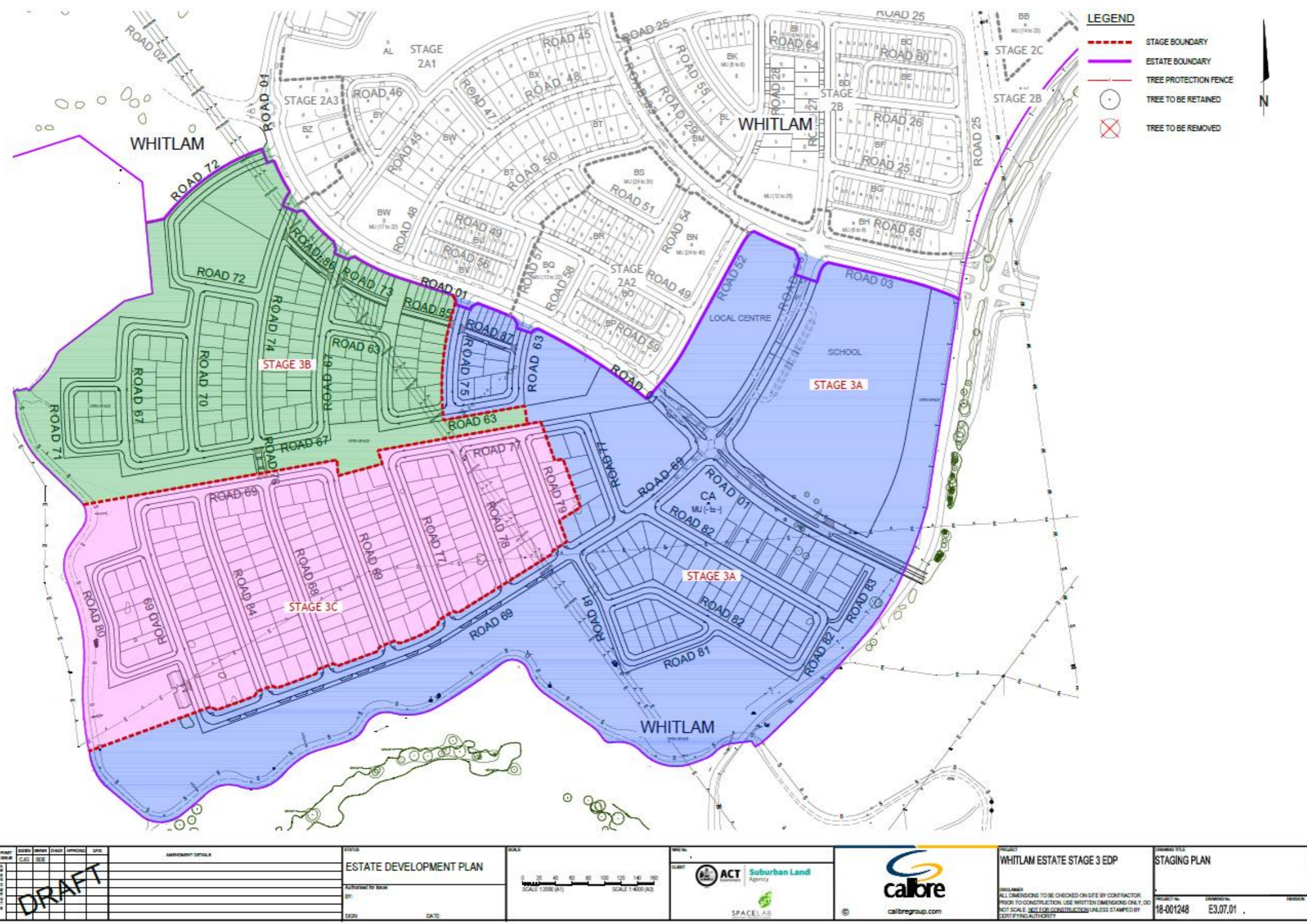
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- Douglas Partners (2019) *Report on Geotechnical Investigation*
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- Osborne, W. and Wong, D. (2010) *Extent of Potential Pink-Tailed Worm-Lizard (Aprasia parapulchella) Habitat in the Stage 2 Investigation Area – East Molonglo downstream of Coppins Crossing*, prepared for the ACT Planning and Land Authority.
- SESL (2018) *Molonglo Valley Stage 3 (Area B)- Construction Environmental Management Plan (CEMP)*. Report prepared for ACT Suburban Land Agency.
- TAMS (2013) *Molonglo Adaptive Management Strategy*, Territory and Municipal Services, ACT Government.
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- Umwelt (2018) *Molonglo Stage 3: S211 Application Supporting Documentation*. Public Comment Response Update.
- WSP (2016) *Molonglo Valley Stage 3 (Area B) Stage 2 Detailed Site Investigation*. Report prepared for ACT Land Development Agency.
- Zoic (2017) *Site Audit Statement and Site Audit Report, Molonglo Valley Stage 3 Future Urban Area: Area B*, Zoic Environmental Pty Ltd (29 June 2017)

APPENDIX A WHITLAM STAGES 1-3 AND FUTURE STAGE- RESIDENTIAL ESTATE LOCATION PLAN



Whitlam Residential Estate Concept Master Plan- Location Plan (Calibre, 2019)

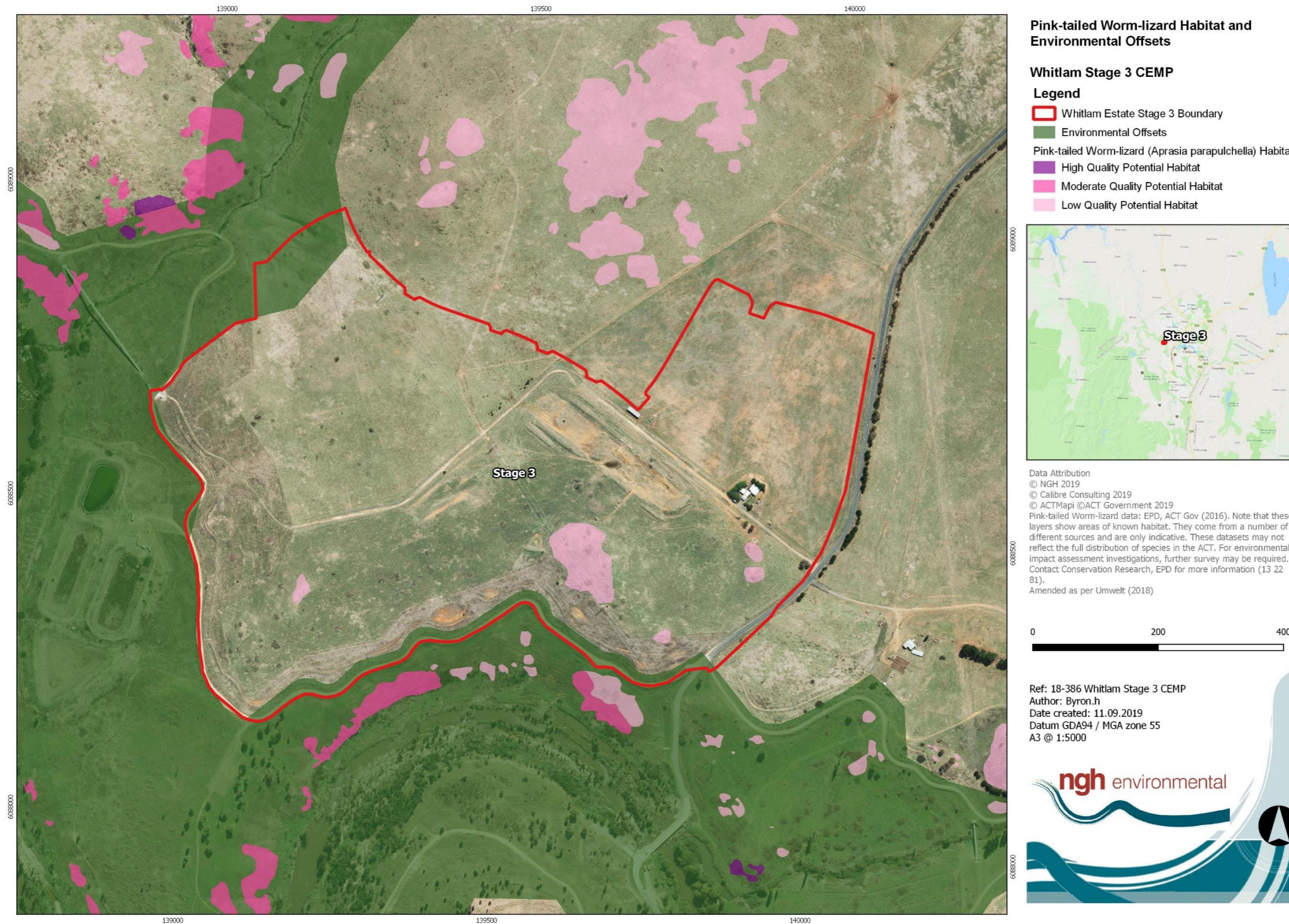
APPENDIX B WHITLAM STAGE 3



PROJECT NO: 18-001248 SHEET NO: 03 DATE: 03/07/2019	AMENDMENT DETAILS NO. DATE DESCRIPTION 1 03/07/2019 ISSUED FOR TENDER	SCALE SCALE 1:2000 (A1) SCALE 1:4000 (A3)	CLIENT ACT Suburban Land Agency SPACELAB	PROJECT WHITLAM ESTATE STAGE 3 EDP	DRAWING TITLE STAGING PLAN
	ESTATE DEVELOPMENT PLAN AUTHORIZED FOR ISSUE BY: [Signature] DATE: 03/07/2019	CALBRE GROUP CALBRE GROUP	PROJECT NO: 18-001248 SHEET NO: 03 DATE: 03/07/2019		

Whitlam Stage 3 - Staging Plan (Calibre, 2019)

APPENDIX C BIODIVERSITY CONSTRAINTS, STAGE 3



Whitlam Stage 3 – Biodiversity Constraints Map (Potential PTWL habitat and offset areas). Note the larger patch of Pink-tailed Worm Lizard habitat is considered low quality (Umwelt 2018)

APPENDIX D APPROVAL REQUIREMENTS

Document	Requirement	Addressed in this EMP
Molonglo Stage 3 – Application for EIS exemption consideration report (s211)		
1 NES Plan	All works must be in accordance with the NES Plan.	Refer to NES Plan requirements.
2 NES clearance budgets	Any clearance of BGW or high or moderate quality habitat PTWL habitat must be quantified and reported to EPSDD to ensure consistency with the Molonglo NES Plan clearance budgets.	No reporting is required. Refer to section 3 above.
3 Flora and fauna	To minimise impacts on flora and fauna, the proposal must: <ul style="list-style-type: none"> • Avoid clearing hollow-bearing trees; • Where hollow-bearing trees cannot be retained, removal must be done outside of the key breeding season for woodland birds; and • Avoid works in all known nesting tree areas for the Superb Parrot. 	Not applicable. There are no Superb Parrot Nesting trees or HBT's within the Stage 3 works area. Refer to section 3.
4 All works	All works must be consistent with the mitigation measures in Table 5.2 of the Molonglo Stage 3 S211 Application Supporting document –Final (Umwelt, March 2018)	Not applicable – relate to design and approvals.
5 Kama Nature Reserve Buffer	The treatment and boundary of the Kama Nature Reserve buffer within the FUA must be consistent with the recommendations in the Kama Interface Management Strategy (Capital Ecology, 2016).	Not Applicable – Stage 3 is not near Kama Nature Reserve
6 Planning and design	To minimise impacts from urban development on the environmental and heritage values of the Molonglo Valley the following matters must be incorporated in the Planning and Design Framework and addressed in the design of any EDP: <ul style="list-style-type: none"> • Design of urban area to minimise impacts to retained values (e.g. Through the placement and management of urban open space; and appropriate buffers) and character of the region; • Provide designated pathways and access points to the Molonglo river corridor; • Provide a connection of approximately 60m wide for a fauna corridor from the National Arboretum west to the river and up to Mount Stromlo; • The location of the electricity easement must avoid residential areas and minimise ecological impacts; and include the buffer between the Kama Nature Reserve and Urban Development in accordance with the Kama Interface Management Strategy Report (Capital Ecology, 2016). 	Not applicable
7 Molonglo Adaptive Management Strategy	All works must be undertaken in a manner consistent with the Molonglo Adaptive Management Strategy.	Consistent with the Operational objectives. With reference to the NES plan and

Document	Requirement	Addressed in this EMP
		Management objectives for Weeds, Soil and Water.
8 Revegetation	All areas of disturbance must be revegetated immediately following construction. Native grass mix should be used for reseeding where possible.	Refer to Table 3-1
9 Heritage	The Molonglo Stage 3 Additional Areas Cultural Heritage Assessment (Biosis 2014), amended in accordance with ACT Heritage Council dated 10 November 2014, must be submitted to the Council for review and endorsement. The Statement of Heritage Effects – Unexpected Aboriginal Find Molonglo Stage 3 Future Residential Development (Biosis 2016) must be submitted to the Council for review and endorsement. Subject to ACT Heritage Council approval of the above, all heritage assessment and management requirements for the Molonglo 3 development must be implemented prior to the commencement of works.	Refer to assessment and management requirements below and Table 3-1
10 CEMP	A CEMP must be developed and implemented addressing the commitments made by the proponent in the EIS exemption application. The CEMP should include, but not be limited to: <ul style="list-style-type: none"> • Weed management strategy to prevent weed infestation; • Erosion and sediment control measures to be implemented during and after construction; • Unanticipated discovery protocols for the management of impacts on unexpected heritage object finds; • Provisions for tree removal and log storage; and, • WSUD measures, e.g. discharge to existing basin via pipe network, plus discharge via new pipe outlet 	This document Weed management strategy addressed in Table 3-1 Erosion and sediment control measures addressed in Table 3-1 Unanticipated discovery protocols addressed in Appendix G.
11 Water quality	The development application must include details on how stormwater will be managed and/or treated prior to entering the Molonglo River, in accordance with the relevant guidelines. The water treatment system must be maintained during operation and water entering Molonglo River must be released in accordance with EPA guidelines to ensure water quality is maintained.	Development Application - Contractor to ensure work is consistent with the approved documentation that forms the Contract requirements Not applicable
12 Electricity	Submit electromagnetic radiation (EMR) study as part of any future DA for electrical transmission line works.	Not applicable – to be completed by the Territory.
13 Land contamination	The site must be assessed, remediated and the findings of the assessment and remedial works independently audited by an EPA approved Auditor to determine the suitability of the site for its proposed and permitted uses.	Not applicable – to be completed by the Territory.

Document	Requirement	Addressed in this EMP
	The Auditor's findings into site suitability from a contamination perspective must be reviewed and endorsed by the EPA prior to occupancy of the site.	
14 Bushfire mitigation	All works must be consistent with the Bushfire Risk Strategy – Molonglo Stage 3, Denman Prospect and the Molonglo River Corridor (Australian Bushfire Protection Planners, 2016).	Not applicable
15 Bushfire thinning strategies	Thinning strategies for fuel management, including the intervals for burning, must be determined in consultation with Conservation Research (EPSDD).	Not applicable
16 Bushfire SFAZs	APZ will occur within the urban areas; OAPZ to be established outside conservation areas. Asset protection zones would be implemented in accordance with the 'Planning for Bushfire Risk Mitigation General Code' The existing Strategic Fire Advantage Zone edges are to be maintained and managed as per Fuel Management Standards of ACT Bushfire Management Standards.	Not applicable
17 DA documentation	As part of any subsequent development applications relying on this EIS Exemption, a document must be provided detailing how the recommended mitigation measures and conditions in this report have/will be met.	This table.
NES PLAN (ACTPLA 2011)		
Action 31	Develop, implement and independently monitor Construction Environmental Management Plans (CEMPs) to ensure that unforeseen direct or indirect impacts from construction activities within the development area and the river corridor are avoided.	This document
	Safeguards for controlling heavy machinery movement to avoid adjacent habitat areas.	Table 3-1
	Erosion prevention and mitigation measures. For example, the use of mesh sediment fences to prevent construction materials from entering adjacent habitat areas.	Table 3-1
	Weed and disease control measures.	Table 3-1
	Measures to relocate animals that are found within construction areas.	Table 3-1
	Appropriate monitoring and reporting.	Table 3-1 and Section 4
	Where impacts to Pink-tailed Worm Lizard occur as part of the development, the CEMPs will also include a habitat rehabilitation component.	Table 3-1 and Appendix J
	For areas that will be impacted directly, habitat features (e.g. rocks and topsoil) will be stockpiled for use in rehabilitation.	Table 3-1
	Rehabilitation activities will be focused on areas that will improve the connectivity and size of existing high and moderate quality habitat within the river corridor.	Not applicable
	Efforts to promote the movement of the species throughout the river corridor, including under the bridges (e.g. through placement of suitable rocks under the bridges).	Not applicable

Document	Requirement	Addressed in this EMP
	Weed control and fencing of habitat areas to promote their resilience.	Table 3-1 and Appendix J
	Appropriate monitoring and reporting of outcomes.	Section 4
EPA Environmental Guidelines for Preparation of an Environmental Management Plan (2013)		
3.1.1	The EMP should provide a comprehensive description of the proposed/existing activity including its location.	Section 2
	Justification and/or objectives for the proposed/existing activity.	Section 1
	The legal framework, including existing zoning and environmental approvals, decision making authorities and involved agencies.	Section 1.4
	Consideration of alternative options.	Not applicable
3.1.2	Include a description of the components of the proposed/existing activity, including the nature and extent of proposed and current works.	Section 2
3.1.3	Provide adequately dimensioned plans clearly showing the location and elements of the proposed/existing activity that are significant from the point of view of environmental protection. Locate and show dimensions (for progressive stages of development, if relevant) of plant, amenities buildings, access ways, stockpile areas, dredge areas, waste product disposal and treatment areas, all dams and water storage areas, storage areas including fuel storage and waste oil and landscaped areas.	Appendix A and B
	A map showing the proposed/existing activity in the local context - an overlay of the proposed/existing activity on a base map of the main environmental constraints and surrounding land uses.	Appendix A
	A map showing the proposed/existing activity in the regional context.	Appendix A
	Timing and staging of project.	Section 2
Agency Comments		
Impact DA Conditions – Whitlam Stage 3 Agency Comments		

APPENDIX E DA CONDITIONS

APPENDIX F TREE MANAGEMENT PLAN

To be included (if required)

APPENDIX G WATERWAY WORKS LICENCE

To be included (if required)

APPENDIX H UNANTICIPATED DISCOVERY PLAN

Extract of *Whitlam Residential Estate, Molonglo Valley Rural Release Stage 3B: Excavation Report and Statement of Heritage Effect – CHMA 2018*

Whitlam Residential Estate, Molonglo Valley Rural Release Stage 3B:
Excavation Report and Statement of Heritage Effect

CHMA 2018

10.0 Unanticipated Discovery Plan

The following text describes the proposed method for dealing with unanticipated discoveries of Aboriginal archaeological materials on this project. The plan provides guidance to project personnel so that they may meet their obligations with respect to heritage in accordance with the Heritage Act 2004.

Unanticipated discoveries include all Aboriginal places and objects. This includes (but may not be limited to) moderate to high-density artefact scatters, scarred trees, stone procurement (quarry) sites, ochre deposits, hearths, scarred trees and skeletal remains (burials).

Please Note: There are two different processes presented for the mitigation of these unanticipated discoveries. The first process applies for the discovery of cultural heritage sites or features, which include all of the site types, mentioned above, with the exception of skeletal remains, burials. The second process applies exclusively to the discovery of skeletal remains (burials).

Discovery of Cultural Heritage Items

Step 1

If any project personnel, contractors or subcontractors believe that they have discovered or uncovered Aboriginal cultural heritage materials, the individual should notify machinery operators that are working in the general vicinity of the area that earth disturbance works should stop immediately. Remember health and safety requirements when approaching machinery operators.

Step 2

A buffer protection zone of 20m x 20m should be established around the suspected cultural heritage site or items. No unauthorised entry or earth disturbance will be allowed within this 'archaeological zone' until such time as the suspected cultural heritage items have been assessed, and appropriate mitigation measures have been carried out.

Step 3

An archaeologist, in consultation with the RAOs should carry out an assessment of the cultural heritage find.

Step 4

Based on the findings of the assessment, appropriate management recommendations should be developed for the cultural heritage find. These recommendations should be submitted to ACT Heritage and the ACT Heritage Council for review and endorsement.

Step 5

Once endorsement has been obtained, the prescribed management recommendations should be carried out by the appropriate personnel.

Step 6

On the completion of the prescribed works, the relevant authorities (ACT Heritage and ACT Heritage Council) should advise the Site Supervisor (or other Project Personnel) that construction works may recommence in the 'archaeological zone'. If there are further constraints to construction works in the 'archaeological zone', then the Site Supervisor should be informed of these. It is the responsibility of the Site Supervisor to inform construction crews of these constraints.

NB. Any additional Aboriginal places or objects encountered must be reported to the ACT Heritage Council within five working days, in accordance with Section 51 of the Heritage Act 2004.

Discovery of Skeletal Material

Step 1

Under no circumstances should the suspected skeletal remains be touched or disturbed. If these are human remains, then this area potentially is a crime scene. Tampering with a crime scene is a criminal offence.

Step 2

Any person discovering suspected skeletal remains should notify machinery operators that are working in the general vicinity of the area that earth disturbing works should stop immediately. Remember health and safety requirements when approaching machinery operators.

Step 3

A buffer protection zone of 50m x 50m should be established around the suspected skeletal remains. No unauthorised entry or earth disturbance will be allowed with this buffer zone until such time as the suspected skeletal remains have been assessed.

Step 4

The relevant authorities (police) will be contacted and informed of the discovery. If the skeletal remains are suspected to be of Aboriginal origin, the authorities may decide to seek the advice of an archaeologist or appropriate expert in relation to the discovery.

Step 5

Should the skeletal remains be declared an Indigenous burial site, the following procedures will be implemented:

- An archaeologist, in consultation with the RAOs should carry out an assessment of the skeletal remains.
- Based on the findings of the assessment, appropriate management recommendations should be developed for the cultural heritage find. These recommendations should be submitted (in the form of a Conservation and Management Plan) to the ACT Heritage Council for review and endorsement.
- Once endorsement has been obtained, the prescribed management recommendations should be carried out by the appropriate personnel.

On the completion of the prescribed works, the relevant authorities (ACT Heritage Council) should advise the Site Supervisor (or other Project Personnel) that construction works may recommence in the 'archaeological zone'. If there are further constraints to construction works in the 'archaeological zone', then the Site Supervisor should be informed of these. It is the responsibility of the Site Supervisor to inform construction crews of these constraints.

APPENDIX I UNEXPECTED FINDS PROTOCOL

Extract of CEMP Molonglo Valley 3 (Area B) Stage 1 – Site environment Control and management Procedures, CEMP B08, Unexpected Finds – SESL Australia, May 2018.

Unexpected Finds Protocol	
Responsibility	Principal Contractor / Site Supervisor / Environmental Consultant / UXO trained specialist
Activity / Site Work	All site activities
Location	Site
Objective	<ul style="list-style-type: none"> Ensure procedures are available when encountering unexpected finds, prior to commencing excavation works.
Standards / Regulation	<ul style="list-style-type: none"> ACT EPA (2016) <i>Information Sheet 4 - Requirements for the Reuse and Disposal of Contaminated Soil</i> <i>Dangerous Substances (Asbestos Safety Reform) Amendment Bill 2014 (ACT)</i> <i>Work Health and Safety (Asbestos) Amendment Regulation 2014 (ACT)</i> <i>Environment Protection Act 1997 (ACT)</i> <i>Environment Protection Regulation 2005 (ACT)</i> <i>Work Health and Safety Regulation 2011 (ACT)</i> SafeWork Australia (2016) <i>Code of Practice: How to Safely Remove Asbestos</i> SafeWork Australia (2016) <i>Code of Practice how to Manage and Control Asbestos in the Workplace</i> NEPC, 2013 <i>National Environment Protection (Assessment of Site Contamination) 1999 Amendment Measure 2013</i>
<p>Unexpected finds may include:</p> <ul style="list-style-type: none"> Unexpected odour. Discolouration or unusual colouring or staining of materials. Materials not fitting previous description or previously identified materials on-site, this may include fill or waste above or below ground. Asbestos or potential asbestos-containing materials. Other hazardous materials (i.e. oil, chemicals, or underground storage tanks). Seepage. Unexploded ordnance (UXO) or exploded ordnance waste (EOW). 	
<p>Control and Management Procedures</p> <ul style="list-style-type: none"> When unexpected finds are encountered, works will cease immediately, including areas within the vicinity. The contractors' authorised person will be informed immediately of the event. Assess the potential risk to human health and risk to the environment, and assess if evacuation or emergency services needs to be contacted. A suitably experienced environmental consultant should undertake a visual assessment of any unexpected finds and determine any further actions required e.g. sampling and/or validation of material, potential for remediation and/or management. If UXOs or EOWs were identified, contact UXO trained person to assess the unexpected finds, and provide advice for the next course of action (further assessment, remediation works etc.) 	

- Delineate the area using fencing or appropriate barriers and signage to limit access to the area.
- The unexpected finds material shall be separated from other materials and stockpiled for assessment.
- A form recording the unexpected find/s should be completed and the register updated and signed off as appropriate.
- Report unexpected finds to appropriate authority (i.e. SLA, ACT EPA).
- Works will not recommence until the extent of the contamination has been assessed and, if necessary, an RAP has been prepared and implemented. For UXOs/EOWs, no works are to recommence without clearance provided by UXO specialist.
- Sampling of the materials will be undertaken in accordance with the relevant guidelines or professional judgement where justification is applied.
- Samples will be analysed for a range of analytes as required and assessed to determine the appropriate waste classification of the material in accordance with the *Environment ACT, 2000, ACT's Environmental Standards: Assessment & Classification of Liquid and Non-liquid Wastes*.
- Depending on the classification, materials already excavated and stockpiled will be transported to an appropriate waste facility that is licensed to accept waste of the relevant classification or beneficially reused if appropriate.
- Depending on the classification, vehicles transporting the waste may need to be licensed in accordance with ACT EPA and WorkSafe ACT requirements. Prior to works commencing appropriate instruction shall be obtained from ACT EPA.
- If asbestos materials are encountered, licensed asbestos removalist must be engaged to coordinate the works, apply appropriate environmental controls in accordance to relevant regulation to manage the asbestos waste. This may include air monitoring, used of close vehicle cabs for all machine/plant handling asbestos materials, used of lined cover vehicles, temporary stockpiling of asbestos waste, notification and identification of specific transport routes, disposal at licensed facility, and clearance undertaken by licensed asbestos assessor.
- A waste tracking system recording the volume of material, waste classification status, removal documentation and truck and receiving landfill facility details must be recorded to ensure all waste is accounted for and disposed of appropriately in accordance with ACT EPA requirements (see Section 4.3.1 of CEMP).

Performance Indicators

- No complaints from local workers, neighbours, site visitors.
- No fines or notices issued by regulator during the project.
- Compliance with DA conditions.
- Compliance with waste regulations.
- Waste classification documentations and clearance reports.
- Waste tracking data (registers, tip docket, waste transport certificates).

APPENDIX J PTWL REHABILITATION PLAN

Note: EPSDD/ACT Conservator to confirm if rehabilitation plan is required noting that only low quality habitat is proposed for removal with the construction of Whitlam Stage 3.

APPENDIX K EROSION AND SEDIMENT CONTROL PLAN

Contractor to provide.

APPENDIX L SCIENTIFIC LICENCE

Ecologist to obtain.