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**ENVIRONMENTAL SIGNIFICANCE OPINION - Deep Creek Stabilisation Project (ESO 202500028)**

In accordance with section 140 (4) of the *Planning Act 2023* (the Act), I provide the following environmental significance opinion:

**APPLICANT**

Umwelt (Australia) Pty Ltd, as represented by Mr Alexander Garrett, Senior Environmental Scientist.

**APPLICATION and DEVELOPMENT PROPOSAL**

The applicant has applied under section 140 (4) of the Act to the Conservator of Flora and Fauna for an environmental significance opinion to the effect that the development proposal set out in the submission is not likely to have a significant adverse environmental impact (the application).

The development proposal is to address scouring and erosion of Deep Creek by remediating 1.66ha downstream of the Deep Creek Dam to its confluence with the Molonglo River as described in the submission.

**LOCATION**

The works are located in Blocks 6 and 16, Section 39, Whitlam, in both Namarag special purpose reserve and the Molonglo River Reserve.

**MATTERS TO WHICH THIS OPINION APPLIES**

This opinion applies only to the development proposal as described in the application.

**OPINION**

Provided the works are undertaken in a manner consistent with the following conditions in addition to the mitigation measures contained in the supporting application for an ESO, they are unlikely to cause a significant adverse environmental impact.

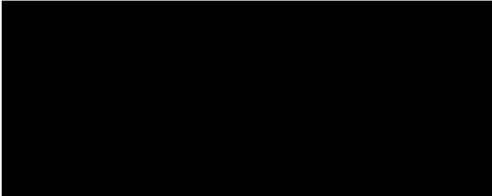
This opinion is granted subject to the following conditions made under s140 (4)(b) of the Act:

1. Conditions of approval including mitigation measures as stated in the application.
2. Access to the site must be granted to Conservation Officers if a random compliance inspection is requested by the Conservator of Flora and Fauna.

3. The Construction Environmental Management Plans (CEMP) for the geotechnical works and the main works must be endorsed by the Conservator of Flora and Fauna prior to construction works commencing, and are to incorporate the following:
  - General
    - All works undertaken within the nature reserve must be undertaken to the satisfaction of ACT Parks and Conservation Services (PCS).
    - The proposed works are located on Bushfire Prone Land and within a Strategic Firefighting Advantage Zone (SFAZ). All activities must comply with the *ACT Bushfire Management Standards 2023* for tracks and trails.
    - The project area overlaps with a 316ha treatment unit identified in the Bushfire Operations Plan (BOP FG054), where vegetation is currently managed through grazing. PCS Fire Management Unit [PCSFireManagementUnit@act.gov.au](mailto:PCSFireManagementUnit@act.gov.au) must be notified prior to commencement of works to coordinate grazing management activities.
    - To prevent vehicles, plant and equipment from damaging management tracks, soils, native vegetation and habitat areas, a Conservation Officer must be contacted before accessing the site when:
      - Total rainfall >15 mm in the 5 days preceding the works;
      - Daily rainfall >10mm is forecast within the 24 hours preceding the works;
      - Daily rainfall >10mm is forecast or occurs during a period of ongoing works; and/or
      - Bureau of Meteorology root zone soil moisture >65%.
  - Erosion and Sediment Control (ESC)
    - Provide a separate section on ESC measures in accordance with the *2022 ACT EPA Guidelines for Construction and Land Development*.
4. In addition to the above, the CEMP for the 'main works' is to include
  - Rehabilitation works
    - All rehabilitation works are to have a minimum of 24-month maintenance period.
    - All plantings must achieve a minimum 90% survival rate at the end of the maintenance period. Survival checks must be undertaken at a minimum 6-month intervals and replacement plantings must be undertaken immediately following the survival checks.

- >50% native ground cover is required at the end of the 24-month maintenance period for all native seeding areas.
  - A report must be provided to the Conservator at the completion of the maintenance period. The report must include the following:
    - Species and number of trees and shrubs planted (including maps)
    - Total area seeded and species and quantity of seed used (including maps)
    - % native ground cover
    - % tree and shrub survival
    - Occurrence of high risk weed species
    - Name of contractor used to undertake the works and monitoring
  - Weed control
    - Weed control must be undertaken during construction across the entire project area and access routes.
    - Post-construction weed control must be undertaken across the entire project area and access routes for a minimum of 24 months.
    - Weed control must be undertaken during appropriate control periods by a qualified and experienced weed contractor. The weed contractor is required to record/map where treatment has been undertaken on the ACT Government provided Treated Weeds Field Map APP. (All weed contractors on the ACT Government weed contractor panel are required to provide this information and already have access to this App.)
5. Both CEMPs are to be submitted as supporting information in future Development Applications.

Attached is a Statement of Reasons for the decision.



Bren Burkevics  
Conservator of Flora and Fauna

25 August 2025

## STATEMENT OF REASONS REASONS FOR THE DECISION

The proposed development is a proposal mentioned in Schedule 1 of the *Planning (General) Regulation 2023* – requiring environmental impact statement, being:

*Part 1.2, item 16 - proposal that is likely to have a significant adverse environmental impact on 1 or more of the following:*

- (a) a critically endangered species;*
- (b) an endangered species;*
- (c) a vulnerable species;*
- (d) a conservation dependent species;*
- (e) a regionally threatened species;*
- (f) a regionally conservation dependent species;*
- (g) a provisionally listed threatened species;*
- (h) a listed migratory species;*
- (i) a threatened ecological community;*
- (j) a protected native species;*
- (k) a Ramsar wetland;*
- (l) any other protected matter*

The following NC Act listed species are known to occur / have been recorded within the Molonglo River Reserve, including:

- Gang-gang Cockatoo (*Callocephalon fimbriatum*)
- Murrumbidgee Bossiaea (*Bossiaea grayi*)
- Hoary Sunray (*Leucochrysum albicans subsp. tricolor*)
- Button Wrinklewort (*Rutidosis leptorhynchoides*)
- Perunga grasshopper (*Perunga ochracea*)
- Pink-tailed Worm-lizard (*Aprasia parapulchella*)
- Brown Treecreeper (*Climacteris picumnus victoriae*)
- Varied Sittella (*Daphoenositta chrysoptera*)
- White-winged Triller (*Lalage tricolor*)
- Scarlet Robin (*Petroica boodang*)
- Superb Parrot (*Polytelis swainsonii*)
- Diamond Firetail (*Stagonopleura guttata*)
- Pale Pomaderris (*Pomaderris pallida*)
- Murray River Crayfish (*Euastacus armatus*)
- Macquarie Perch (*Macquaria australiasica*)
- Murray Cod (*Maccullochella peelii*)
- Trout Cod (*Maccullochella macquariensis*)

The landscape surrounding Deep Creek contains three moderate quality patches (0.08 ha) and eleven low quality Pink-tailed Worm-lizard (PTWL) habitat patches (0.31 ha).

*Part 1.2, item 18 - proposal for development in a reserve, unless the proposal is for minor public works to be carried out by or for the Territory in accordance with a minor public works code approved by the conservator of flora and fauna under the Nature Conservation Act 2014, section 318A;*

The proposed works are within Namarag special purpose reserve and the Molonglo River Reserve.

The proponent is seeking an environmental significance opinion to remove the requirement for an environmental impact statement on the grounds that the proposal is not likely to have a significant adverse environmental impact, and has applied to the Conservator of Flora and Fauna for an opinion to that effect.

### **Meaning of *significant* adverse environmental impact**

An adverse environmental impact is ***significant*** if—

- (a) the environmental function, system, value or entity that might be adversely impacted by a proposed development is significant; or
- (b) the cumulative or incremental effect of a proposed development might contribute to a substantial adverse impact on an environmental function, system, value or entity.

In deciding whether an adverse environmental impact is ***significant***, the following matters must be taken into account:

- (a) the kind, size, frequency, intensity, scope and length of time of the impact;
- (b) the sensitivity, resilience and rarity of the environmental function, system, value or entity likely to be affected.

In deciding whether a development proposal is likely to have a significant adverse environmental impact it does not matter whether the adverse environmental impact is likely to occur on the site of the development or elsewhere.

It has been determined that the proposal is unlikely to have a significant environmental impact, based on the documentation submitted, known values of the site, and provided the works and ongoing management are carried out in accordance with the conditions attached to this ESO.

### **Project description**

The development proposal is to address scouring and erosion of Deep Creek by remediating 1.66ha before its confluence with the Molonglo River. The Creek lies in an actively eroding channel with steep slopes ranging from 5%-15%, and is the main waterway for directing stormwater flows for the new suburbs of Whitlam and Denman Prospect in the Molonglo Valley district. The district is the newest district in the ACT and is still being developed.

Development in the Molonglo Valley will change the existing stormwater flows through Deep Creek, and there is a need to slow water flows and improve water quality before

entering the Molonglo River. A series of water quality improvement projects have already been implemented or committed to, including two water control ponds (one was completed in 2019 and the construction of the second, larger pond, referred to as Deep Creek Dam, is expected to commence in 2026/2027). The proposed works in this ESO will aim to slow the velocity of stormwater discharge downstream of the Deep Creek Dam, which would reduce the extent of erosion and sediment discharge into the Molonglo River and provide additional water quality improvement.

This project also aims to re-establish and maintain the stability of Deep Creek to avoid impacting critical infrastructure. The Molonglo Valley Interceptor Sewer crosses over Deep Creek roughly through the middle of the site, supported by an aqueduct bridge with piers on either side of the Creek. A high voltage overhead electrical line also crosses the Creek approximately 15m downstream of the sewer crossing. In addition, a proposed active travel bridge across the Molonglo River may be installed near this location in the future as part of a larger network of active travel pathways.

The proposed works to be undertaken within the Project Area include:

- Geotechnical investigations to determine ground conditions in the vicinity around Deep Creek, involving excavation of 2 boreholes to ~3m depth;
- The installation of three rock chutes to manage headcut incisions within the Deep Creek channel bed and stabilise the creek bed;
- Revegetation of a 370m riparian corridor along Deep Creek before its confluence with the Molonglo River; and
- Placement of rock and boulder niches to support threatened Pink-tailed Worm-lizard (PTWL) habitat.

The proposal site is zoned '*NUZ4: RIVER CORRIDOR*' with a '*Pc: Nature Reserve.*; *PUBLAN: Public Land*; *FUA: Future Urban Areas*' overlay under the Territory Plan. The site is within the Molonglo River Reserve and adjacent to Namarag Special Purpose Reserve, which are both managed by ACT Parks and Conservation Services (PCS). It is bordered by the suburb of Whitlam to the north and east, with the Molonglo River to the south and west.

The landscape surrounding Deep Creek contains three moderate quality patches (0.08 ha) and eleven low quality Pink-tailed Worm-lizard (PTWL) habitat patches (0.31 ha). Proposed works will impact on approximately 0.05ha of low quality PTWL habitat. There would also be some minor temporary impacts within the 20m buffer surrounding moderate quality patches to allow for construction access for revegetation works for the broader project.

Two juvenile River She-Oaks (*Casuarina cunninghamiana*) will be removed to allow placement of the rock chutes.

#### **Documentation Submitted**

- Explanatory note regarding supporting documentation for the application for an Environmental Significance Opinion;
- Cultural heritage assessment;

- Deep Creek Downstream Mitigation Project: Construction Environmental Management Plan for Geotechnical Investigation;
- Deep Creek Stabilisation Project: Detailed Design Report – For Development Application;
- Further information and designs provided under a Request for Information
- Letter of Authorisation
- Form 1M.

### **Natural conservation values present**

Deep Creek contributes to the overall ecological significance of the Molonglo River and the Molonglo River Reserve, which spans approximately 1,280 ha and provides important habitat to threatened species and ecological communities. The threatened Pink-tailed Worm-lizard (PTWL) is known to occur along the slopes of the Molonglo River corridor, and the reserve contains some of the best quality remaining habitats in Australia. The lizard inhabits ant burrows in soil beneath rocks and is largely confined to areas with surface rock scattered in the landscape.

The landscape surrounding Deep Creek contains three moderate quality patches (0.08 ha) and eleven low quality PTWL habitat patches (0.31 ha). Moderate quality patches have a dominance of native grass species including Red Grass (*Bothriochloa macra*), Small-flower Wallaby-grass (*Rytidosperma setaceum*), and Slender Speargrass (*Austrostipa scabra*) with exotic forbs such as St. John's Wort (*Hypericum perforatum*), Smooth Catsear (*Hypochaeris glabra*) and Vervain (*Verbena officinalis*) present. Low quality patches are dominated by exotic grass species including Phalaris (*Phalaris aquatica*), Bearded Oat (*Avena barbata*), and Pigeon Grass (*Setaria sp.*) as well as a high presence of exotic forbs including St. John's Wort, Great Mullein (*Verbascum thapsus subsp. thapsus*), Plantain (*Plantago sp.*), and exotic Blackberry (*Rubus fruticosus*).

Within the Project Area, the riparian zones of Deep Creek consist of native macrophyte in-stream vegetation (0.26 ha) primarily composed of Broad-leaved Cumbungi (*Typha orientalis*) and River Club-rush (*Schoenoplectus validus*). The western edge bordering the Molonglo River (0.20 ha) features *Casuarina cunninghamiana* Tableland Riparian Woodland (PCT ACT22) on alluvial river soils. Four River She-Oaks (*Casuarina cunninghamiana*) occur within the site, with two of them considered mature trees. Most of the site (1.16 ha) consists of Tablelands Dry Tussock Grassland - Exotic Dominated (PCT ACT01.4), with large areas of exotic vegetation on the western edge and a small patch of planted native vegetation containing Red-leaved Wattle (*Acacia rubida*).

Deep Creek is a third order ephemeral tributary of the Molonglo River and only flows under high rainfall conditions. Aquatic habitat within the creek is limited and unlikely to support any water dependent species, with occasional use from less water dependent species such as turtles and waterfowl when water is available. Several wombat burrows with varying levels of activity are present adjacent to the creek line.

## Potentially Significant Environmental Impacts

The main potential significant environmental impacts from this proposal are disturbance to PTWL habitat, and erosion and sedimentation risk to the Molonglo River and its aquatic species and habitat.

In the moderate quality potential PTWL habitat, works will avoid direct impacts through design. A 20m buffer will be applied where no revegetation with trees or shrubs are proposed to avoid overshadowing. Geotechnical investigation boring will be undertaken outside of PTWL habitat. PTWL habitat will be demarcated with star pickets and bunting prior to the commencement of works to ensure machinery does not enter the mapped habitat zones. Only hand tools will be used during the geotechnical investigations on the east side of Deep Creek to avoid tracking machinery across the creek and through PTWL habitat. There will be some minor temporary impacts within the buffer to allow for construction access for revegetation works for the broader project.

Approximately 0.05ha of low quality PTWL habitat will be impacted. The Project will minimise habitat disturbance and ensure protection by fencing the limit of works during construction. Prior to construction, pre-clearance surveys will be undertaken to identify and relocate PTWL individuals.

Overall, the project is unlikely to pose a significant impact on PTWL and is expected to improve long term habitat for the species through site rehabilitation. Suitable habitat rocks will be salvaged from the impacted areas and stockpiled for habitat creation following construction. Connectivity between patches will be enhanced through rock placement and the retention of native tussock-forming grasses. Patch conditions will be improved by managing weeds and herbage mass, and sedimentation will be reduced with erosion control measures.

Works have adequately addressed issues of potential sediment washdown from the site into the Molonglo River. Additional erosion and sediment controls will be implemented including additional silt fences and a clean water bypass system to divert water around the rock chute construction area and reduce mobilising sediment from the work zone. Overall, the Project is expected to provide a long term benefit to the environmental function of Deep Creek through the reduction in erosion.

Up to 0.26 ha of in-stream macrophytes and 0.03 ha of PCT ACT22 higher quality riparian woodland will be impacted. This direct impact is unavoidable due to the Project requiring works within Deep Creek to manage stormwater flows, and replanting works adjacent the creek. Native macrophytes span the entire length of Deep Creek, and this small area of removal is unlikely to adversely impact the environmental function of riparian vegetation. The site will be rehabilitated with new riparian species along the Creek and native temperate grassland species further away from the creek line. 56 new casuarinas will be planted throughout the creek corridor to replace the two removed juvenile casuarinas. Over time this will provide long-term bank stability and improve aquatic habitat.

Conditions have been included to ensure that erosion and sediment controls and rehabilitation are outlined in Construction Environmental Management Plans for further assessment at the Development Application stage.

This opinion is granted subject to the following conditions made under s140 (4)(b) of the Act:

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5. Both CEMPs are to be submitted as supporting information in future Development Applications.

It has been determined that if the works are undertaken in a manner consistent with the above conditions attached to the ESO in addition to the mitigation measures contained in the supporting application for an ESO, they are unlikely to cause a significant adverse environmental impact.