Vegetation Clearing Desktop Report

MR014233 – Mandurah Summer Ready

May/2025

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Vegetation Clearing Desktop Report / Clearing Assessment Report
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Document Control

Document version history

Version	Date	Amendment
1	12/05/2025	Initial version
2	13/05/2025	Reviewed
3	03/07/2025	Edited for website publishing

1. Project Information

Project Area		
Project name: MR014233 – Mandurah Summer Ready		**Contract/Work Order No: 08088807**
Main purpose of clearing	**Permanent/Temporary**	**Clearing area (ha)**
New ring main site	Permanent ☒	**0.0034 ha (envelope)**
	Temporary ☐	
Proposed start date: 15/05/2025		**Expected completion date: 20/11/2025**
Method of clearing: Vegetation will be removed mechanically & manually.		**Machinery to be used:** Excavator, service vehicles.
Project details: – Clearing of a small area of vegetation (0.0034ha) for installation of a new Ring Main Unit (RMU) and cable as part of MR014233, Mandurah Summer Ready. This location has been selected as it provides a location that requires minimal vegetation clearing. The works are necessary upgrades to reinforce the power network to accommodate summer high demand.		
Guardian Permit ID reference number: **PER-0001563**		**Permit/Exemption number:** CPS1918/11

2. Map/photos

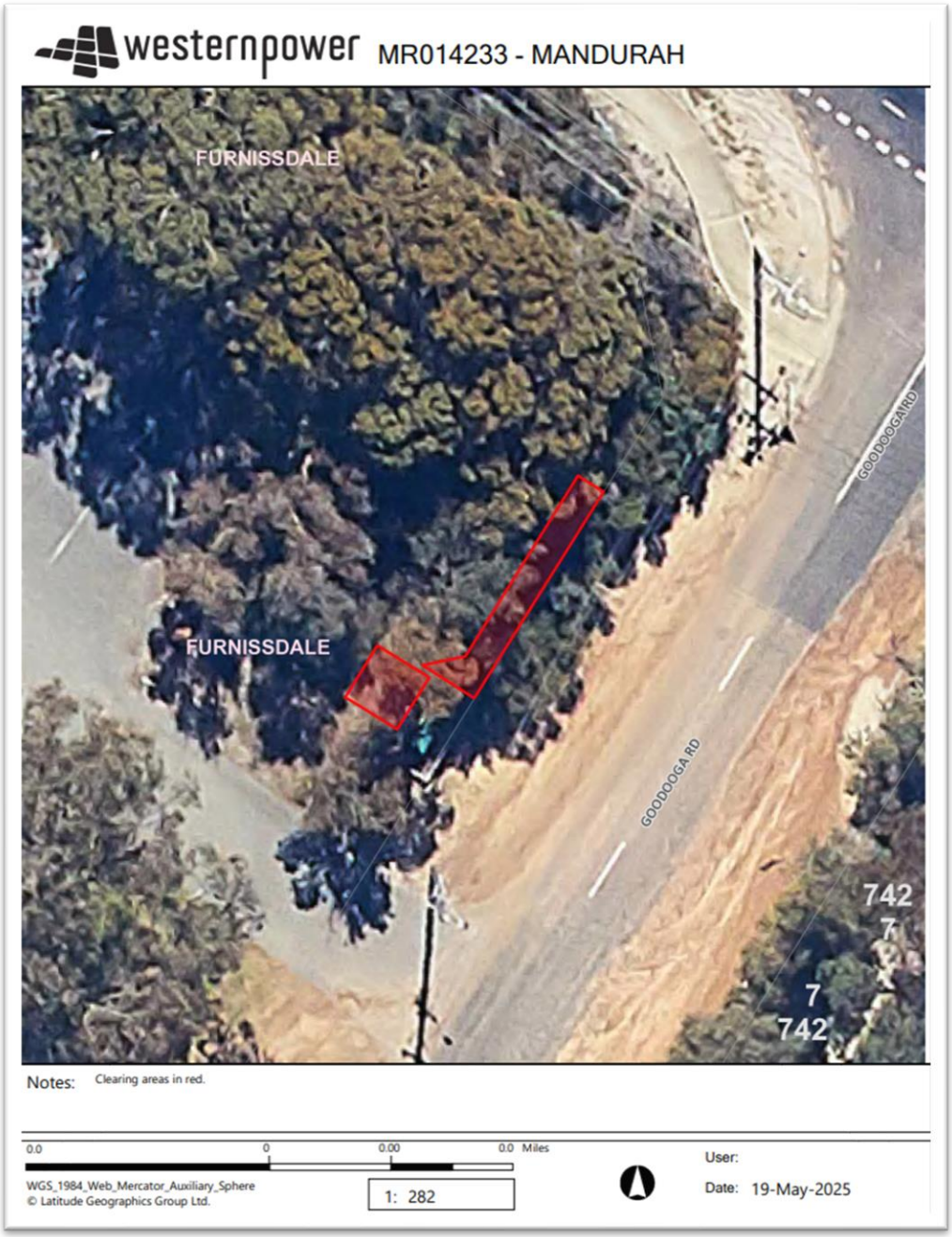

Image 1: Map of clearing envelope (0.0034 ha) for RMU installation on Goodooga Road, Furnissdale.

Image 2: Clearing area #1 (marked in orange) to facilitate new RMU.

Image 3: Photo of new RMU location and vegetation clearing area.

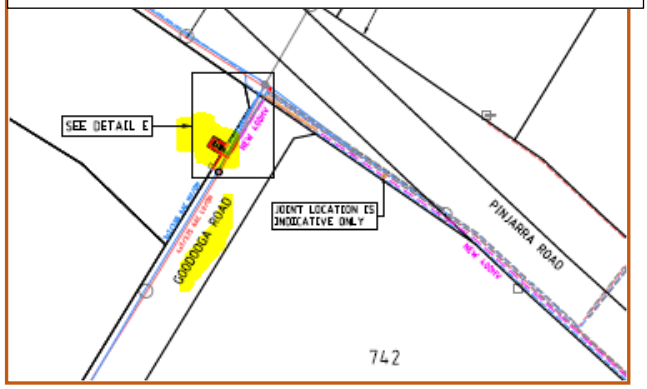

Image 4: Proposed RMU location on plan.

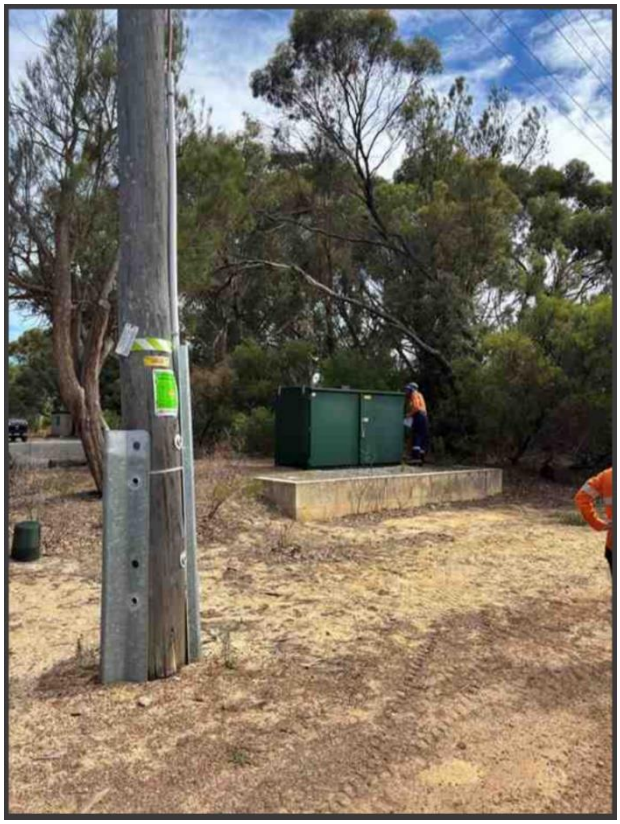

Image 5: Street view of project site including existing RMU.

Image 6: Street view of project site including existing RMU and Acacia species proposed to be cleared.

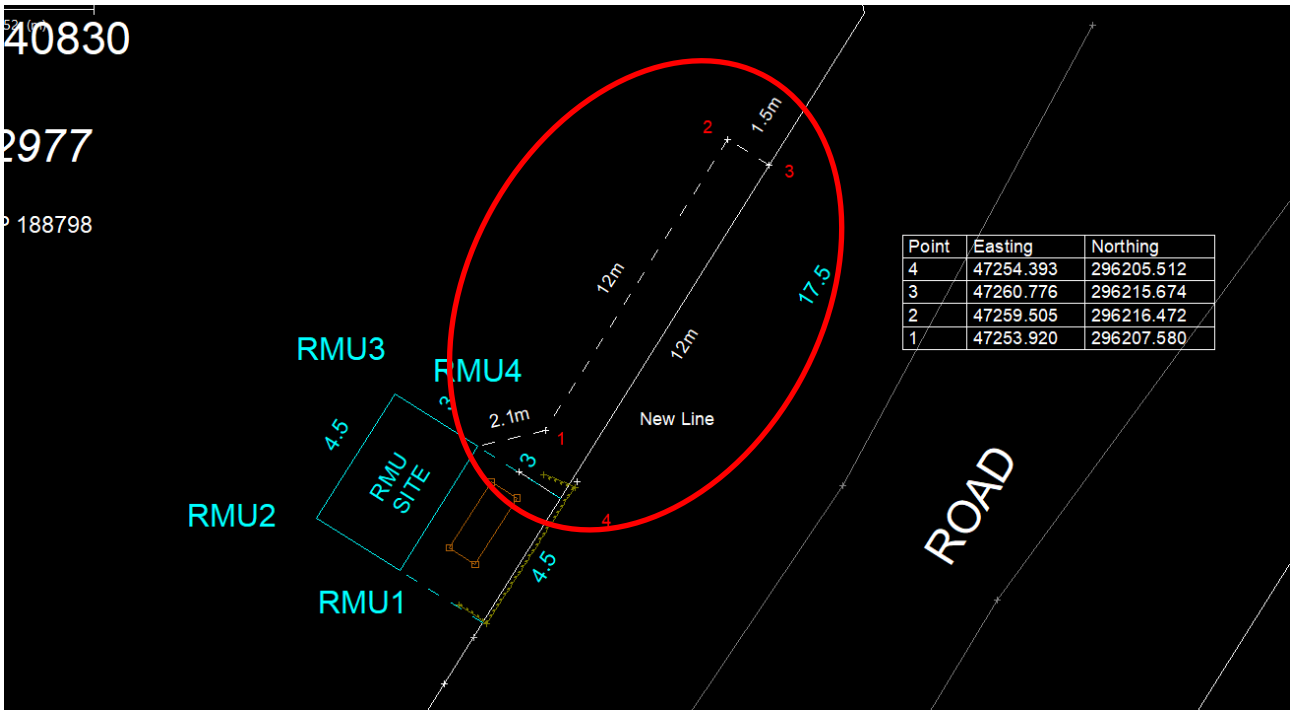

Image 7: Additional 12.5m x 1.5m clearing area (red circle) to facilitate cable connection to RMU.

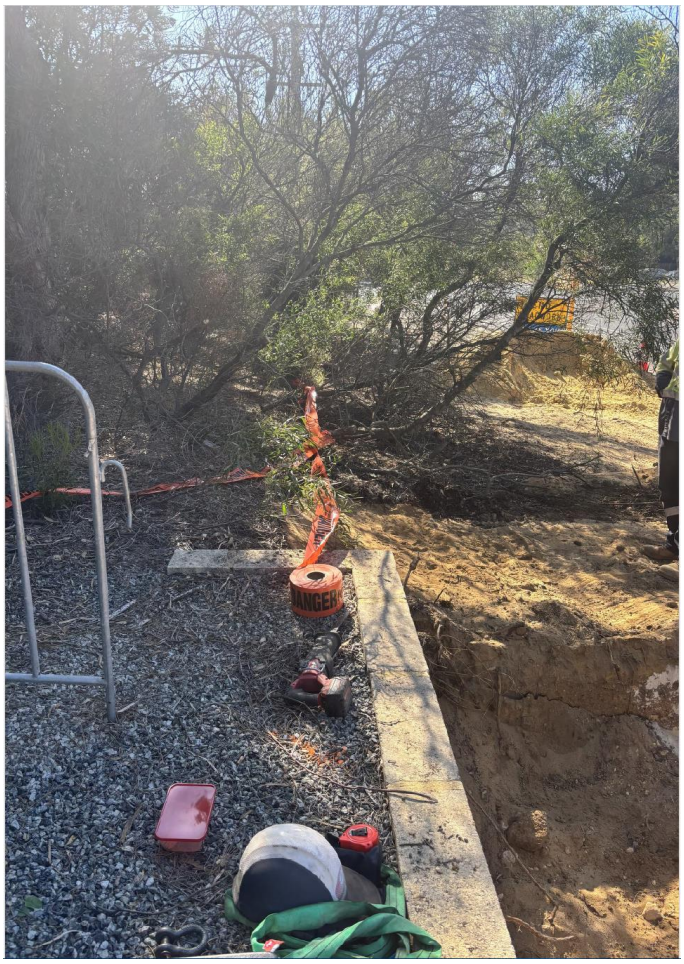

Image 8: Additional 12.5m x 1.5m clearing area to facilitate cable connection to RMU.

Image 9 & 10: Additional 12.5m x 1.5m clearing area to facilitate cable connection to RMU.

Image 11 & 12: Additional 12.5m x 1.5m clearing area to facilitate cable connection to RMU.

3. Avoid, minimise and reduce extent and impact of clearing

Alternatives to clearing considered during the development of this project are outlined in Table 1:

Alternative to Clearing	Applicable	Discussion
Directional drilling of underground cables instead of open trenching	*No*	Trenching will be required to access the cable to connect the RMU, but only minimal vegetation clearing will be required as the clearing area is adjacent to a cleared road reserve.
existing tracks are utilised where possible	*Yes*	RMU to be installed next to existing assets where the RMU access is partially cleared.

utilising previously cleared areas where possible	*Yes*	RMU to be installed on land that was previously cleared and comprises of degraded vegetation adjacent to a disturbed road reserve.
consideration of alternative engineering and design options	*Yes*	The RMU location was considered the optimal solution as it is situated adjacent to a cleared road reserve and is adjacent to a current asset, therefore minimising the extend of clearing.
Other	*No*	

Table 1: Alternatives to clearing.

4. Site context

4.1 Land Tenure (Cadastral Information)

Property:

1. Reserve (West Murray Volunteer Fire Station, Providence Reformed Baptist Church, Murray Community Centre.

Conservation Estates:

1. Barragup Swamp Conservation Reserve

Local Government:

1. Shire of Murray

Other:

1. N/A

4.2 Vegetation description

The clearing area was found to consist of a native vegetation community known as Melaleuca Forest (MrKgSs) in a degraded condition. AECOM described this community as consisting of *Melaleuca rhaphiophylla* and *Melaleuca viminea* low open to closed forest over *Kunzea glabrescens* tall open shrubland over *Schoenus subfascicularis*, **Cynodon dactylon* and **Oxalis pes-caprae* mixed sedge, grass and forbland (Western Power – Pinjarra Road Flora, Vegetation and Fauna Assessment 2024). AECOM assessed this area to be a wetland dominated by Melaleuca species. This wetland habitat mapped in the survey area is located at the edge of the wetland system, adjacent to urban areas and roadside environments. This positioning means it provides minimal core habitat for conservation-significant fauna, such as migratory birds. The proximity to human activity and infrastructure reduces its suitability as a primary conservation area for these species. The two significant vegetation communities mapped within the survey area were not found to be present within the clearing area (Western Power – Pinjarra Road Flora, Vegetation and Fauna Assessment 2024).

The project area is within a mapped vegetation association (1000 – Woodland/Low woodland/low forest or woodland however SPIDA indicates that the clearing area has been excluded from this vegetation association. The clearing area is adjacent to but not within a mapped Native vegetation clearing Regs ESA, and the vegetation is in a degraded (EPA, 2016) condition adjacent to a disturbed/cleared road reserve. The clearing predominantly involves the removal of

several Acacia species (Image 2 & 6). The vegetation to be cleared is isolated, fragmented and in a degraded condition (Western Power – Pinjarra Road Flora, Vegetation and Fauna Assessment 2024).

The vegetation description and condition are based on site photos, site inspection, biological survey and aerial imagery.

4.3 Summary of results of surveys

AECOM Australia Pty Ltd (AECOM) was engaged by Western Power to undertake a reconnaissance flora, vegetation, fauna and targeted Black Cockatoo assessment for a linear survey area along Pinjarra Road. The 23.97 ha survey area corridor includes 2.97 ha of native vegetation and 20.99 ha of cleared (road, pipeline and paddocks) land.

A detailed desktop assessment was undertaken which identified numerous endemic significant flora species, vegetation communities and fauna species typical of the heavily fragmented Swan Coastal Plain. The likelihood of many of these was 'low' or 'negligible' in lieu of the degradation of native vegetation.

A summary of results is presented below:

- The survey area intersects with vegetation association 968 and 1000, the latter of which has only 6.62 % remaining on the Swan Coastal Plain.
- The survey area lies adjacent to Black Lake or Road Lake Nature Reserve (the Reserve) and intersects with an Environmentally Sensitive Area that represents this reserve.
- Three native vegetation communities were defined and mapped including a Corymbia Open Woodland, Melaleuca Forest, and Trees. The Melaleuca Forest represents riparian/wetland vegetation.
- All areas of native vegetation were affected by partial clearing and considerable weed invasion. Condition was largely Completely Degraded (2.19 ha, 73% of native vegetation).
- Two significant vegetation communities were mapped:
    - The Banksia Woodlands of the Swan Coastal Plain Threatened Ecological Community was mapped at one location representing 0.20 ha. This TEC is listed as Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and Priority 3 by Department of Biodiversity Conservation and Attractions (DBCA).
    - The Forests and Woodlands of Deep Seasonal Wetlands TEC was mapped within the survey area. This TEC is listed as Critically Endangered under the *Biodiversity Conservation Act 2016* (BC Act). The mapping of this TEC relies on the precautionary principle, lacking the ability to accurately confirm the presence based on roadside vegetation only.
- No significant flora were recorded, flora diversity was low and largely dominated by native trees over a weedy understorey. Three Declared Pest species were recorded; **Asparagus asparagoides, *Gomphocarpus fruticosus* and **? Moraea flaccida*.
- Foraging, potential breeding and potential roosting habitat was mapped for all three of WA's Black Cockatoo species listed under the EPBC Act.
- The survey area contained potential suitable fauna habitat for:

- Baudin's Cockatoo (*Zanda baudinii*) Endangered EPBC & BC Act
- Carnaby's Cockatoo (*Zanda latirostris*) Endangered EPBC & BC Act
- Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) Vulnerable EPBC & BC Act
- Quenda (*Isoodon fusciventer*) DBCA Priority 4
- Swan Coastal Plain shield-backed trapdoor spider (*Idiosoma sigillatum)* DBCA Priority 3.

The ecological assessments were successfully undertaken in July 2024. An out of season survey was considered appropriate for the size of the survey area and degraded vegetation condition. The survey

timing was not considered to inhibit the ability to assess significant environmental values, in particular the TECs/PECs and fauna habitat.

The actual clearing area was found to be Melaleuca Forest (MrKgSs) in a degraded condition. AECOM assessed this area to be a wetland dominated by Melaleuca species. This wetland habitat mapped in the survey area is located at the edge of the wetland system, adjacent to urban areas and roadside environments. This positioning means it provides minimal core habitat for conservation-significant fauna, such as migratory birds. The proximity to human activity and infrastructure reduces its suitability as a primary conservation area for these species. The two significant vegetation communities mapped within the survey area were not found to be present within the clearing area.

A copy of the survey executive summary and conclusion can be found in Appendix A.

5. Spatial assessment (SPIDA View)

Western Power's online risk GIS database was analysed, and the following layers are indicated as having the potential for clearing impacts within a local area search radius of *1m*.

DBCA managed tenure	☐	Bush Forever	☐	CAWS Act Area	☐	Native Vegetation Clearing Regs ESAs	☐
Conservation listed fauna	☐	Conservation listed flora	☐	Western Power ESA sites	☐	Native vegetation remaining	☐
Threatened ecological communities	☒	Acid Sulfate Soils	☒	PDWSA	☐	Ramsar or Important Wetlands	☐
Geomorphic or other mapped wetlands	☐	Disease Risk Areas	☐	Erosion risk	☐	Offset areas	☐
Watercourses	☐	Land Degradation	☐		☐		
Other ☐ Details:							

6. Assessment of vegetation clearing impacts

The proposed clearing has been assessed against each of the clearing principles in accordance with the Department of Water and Environmental Regulation guideline "*A guide to the assessment of applications to clear native vegetation under Part V Division 2 of the Environment Protection Act 1986"* (DER, 2014).

Clearing permit principles fast track assessment OR Exemption assessment	
Clearing principles (principles a-j)	**Not likely to be at variance**

The clearing involves the removal of 0.0034 ha of native vegetation. This involves a small area of Acacia shrubs/trees adjacent to Goodooga Road in Furnissdale. The area is in degraded (EPA, 2016) condition with a weed infested understory, (Image 2) and doesn't comprise of a high level of biological diversity.

No significant flora was recorded within the survey area, and none were recorded within the clearing area. Given the absence of significant flora within the survey and clearing area, and that only common species will be removed (Acacia) and the degraded nature of the clearing area it is unlikely that any priority or threatened flora will be present in the area or impacted by the proposed works.

The vegetation to be removed does not represent any significant habitat for species as the vegetation is isolated and degraded in nature. The wetland habitat mapped in the survey area (where the clearing is taking place) is located at the edge of the wetland system, adjacent to urban areas and roadside environments. This positioning means it provides minimal core habitat for conservation-significant fauna, such as migratory birds. The proximity to human activity and infrastructure reduces its suitability as a primary conservation area for these species. It is unlikely that the project clearing will impact fauna habitat in the area, particularly as there is vegetation remaining in the immediate area and the clearing required for these works are minimal. Within the survey area, 41 potential nesting trees with a diameter at breast height (DBH) greater than 500mm were identified, however none of these trees were situated within or in immediate proximity to the clearing area. The Black Cockatoo foraging habitat within the entire survey area was classified as having negligible to moderate foraging quality according to the BCE (2020) scoring method. Therefore, this project clearing is not considered significant habitat for any fauna species.

The nearest known records of threatened/priority ecological communities (TEC/PEC) are the "Banksia woodlands of the Swan Coastal Plain" which is a P3 at the state level and Endangered at the commonwealth level and the "Subtropical and Temperate Coastal Saltmarsh" which is a P3 at the state level and Vulnerable at the Commonwealth level. AECOM mapped two significant vegetation communities within the survey area:

- The Banksia Woodlands of the Swan Coastal Plain TEC was mapped at one location representing 0.20 ha. This TEC is listed as Endangered under the EPBC Act and Priority 3 by DBCA.
- The Forests and Woodlands of Deep Seasonal Wetlands TEC was mapped within the survey area This TEC is listed as Critically Endangered under the BC Act. The mapping of this TEC relies on the precautionary principle, lacking the ability to accurately confirm the presence based on roadside vegetation only.

The AECOM survey confirmed that the vegetation in the clearing area is not representative of these communities. Due to the degraded nature of the clearing area and lack of representative vegetation this project clearing is unlikely to represent any TEC/PECs. Therefore, this project clearing is not likely to impact any TEC/PECs.

The project area is within a mapped vegetation association (1000 – Woodland/Low woodland/low forest or woodland however SPIDA indicates that the clearing area has been excluded from this vegetation association. The clearing area is adjacent to but not within a mapped Native vegetation clearing Regs ESA, and the vegetation is in a degraded (EPA, 2016) condition adjacent to a disturbed/cleared road reserve. The clearing predominantly involves the removal of a small number of Acacia species (Image 2, 6). The vegetation to be cleared is isolated, fragmented and in a degraded condition. The removal will not impact any linkages, increase fragmentation or reduce ecological functioning in the area.

The nearest conservation area is Barragup Swamp Conservation Reserve located over 50m West of the clearing area. Given that the clearing is occurring outside of the sumpland, and that the vegetation that is proposed to be cleared is not reflective of riparian vegetation, and the isolated nature of the vegetation, separated by built areas and roads, it is unlikely that any waterbodies or conservation areas will be impacted by this project clearing.

As the clearing involves the removal of 0.0034 ha of vegetation in a built/developed area, it is unlikely that the clearing will increase the chance of flooding or increase the risk of land degradation. No surface water or groundwater will be taken for this project and the quality of the water in the area is unlikely to be impacted given the minor nature of the works.

7. Planning instrument or other relevant matters

The land in question is subject to a local planning scheme (Shire of Murray LPS No.4), is classed as a Peel Region Scheme Reserve (PRS) for the purpose of Regional Open Space and is included within the Peel – Harvey coastal plain catchment area 1. No further approvals or licenses are required. There are no Environmental Protection Policies over the area and the land is not subject to an agreement under the Soil and Land Conservation Act.

8. Clearing Permit Details

Western Power manages impacts of clearing through the implementation of an internal Vegetation Clearing Permit. The Western Power Vegetation Clearing Permit outlining the relevant clearing conditions is available in ID98-750882832-32322

9. Post assessment requirements

Post assessment	Outcome	Justification / Further Action Required
Are submissions required?	*No*	Clearing 'not likely to be at variance' to the clearing principles a-J.
Could the area be affected by dieback?	*Yes*	Clearing located south of the 26th parallel and receives over 400mm annual rainfall.
Has advice been received from DWER or an environmental specialist that the area may be susceptible to a pathogen other than dieback?	*No*	Clearing not in conservation estate or DBCA managed area.
Is a Vegetation Management Plan required?	*No*	CDR and therefore VMP not required.
Is rehabilitation/revegetation required?	*No*	There is no temporary clearing proposed. Area is less than 0.5 ha, not in an ESA and not likely to be at variance to the clearing principles.
Is a Dieback Management Plan required?	*No*	Works recommended to be completed in dry conditions.
Is an offset required?	*No*	
What is the clearing risk rating?	*Low*	Clearing 'not likely to be at variance' with any clearing principles. Clearing area <0.5 ha.

10. References

Western Power – Pinjarra Road Flora, Vegetation and Fauna Assessment (2024). AECOM Biological Survey. Volt Link: https://westernpowerwa.sharepoint.com/:b:/r/sites/ID98/SA515/ESPA%20Projects/Project%20Support/Major%20Projects/Summer%20Ready%202024/60733490_RPT_PinjarraRdFloraVeg_Rev0.pdf?csf=1&web=1&e=46l8WW

Bureau of Meteorology (BoM) (YEAR). Climate Averages for Australian Sites – SITE – Available online from http://www.bom.gov.au/climate/data/index.shtml Accessed 07/04/2025.

Department of Environment Regulation. (2014). A Guide to the Assessment of Applications to Clear Native Vegetation Under Part V Division 2 of the Environmental Protection Act 1986.

Environmental Protection Authority (EPA). (2016). Technical Guide – Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment (eds. K Freeman, G Stack, S Thomas and N Woolfrey). Perth, Western Australia.

Appendix A:

Western Power – Pinjarra Road Flora, Vegetation and Fauna Assessment (2024) Executive Summary

AECOM Australia Pty Ltd (AECOM) was engaged by Western Power to undertake a reconnaissance flora, vegetation, fauna and targeted Black Cockatoo assessment for a linear survey area along Pinjarra Road. The 23.97 ha survey area corridor includes 2.97 ha of native vegetation and 20.99 ha of cleared (road, pipeline and paddocks) land.

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