Clearing Assessment Report

Regans Terminal and Regans Substation Resupply

July 2025

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Vegetation Clearing Desktop Report / Clearing Assessment Report
Version 4.0

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Western Power
363 Wellington Street

Perth WA 6000

GPO Box L921 Perth WA 6842

T: 13 10 87 | Fax: 08 9225 2660

TTY 1800 13 13 51 | TIS 13 14 50

Electricity Networks Corporation

ABN 18 540 492 861

enquiry@westernpower.com.au

Document Control

Document version history

Version	Date	Amendment
1	04/04/2025	Initial version
2	07/04/2025	GHD review
3	12/06/2025	Western Power review
4	24/06/2025	Final version
5	11/07/2025	Western Power revision

1. Project Information

Project Area		
Project name: Regans Terminal and Regans Substation Resupply		**Contract/Work Order No:** TT049331
Main purpose of clearing	**Permanent/Temporary**	**Clearing area (ha)**
Native vegetation clearing for the purposes of upgrading any of the above activities where such activities are not exempt from requiring a clearing permit	Permanent ☒ Temporary ☐	Up to 0.8 ha of native vegetation N/A
Proposed start date: **1/10/2025**		**Expected completion date:** **31/12/2026**
Method of clearing: Mechanical		**Machinery to be used:** Excavator, Bobcat or equivalent

Project details:

In support of the State Government decarbonisation strategy, Western Power is upgrading the existing network to enable future connections of large-scale renewable energy generation and load in the Northern region of the Southwest Interconnected Network (SWIN). A future ready transmission network is critical to deliver Western Australia's wind and solar resources to major loads. A recent SWIN demand assessment concluded that the location of the renewable resources at the fringe of the grid, coupled with the substantial footprint of the SWIN, means substantial upgrading of the network is required to meet industry demand for greener energy.

Western Power is upgrading the northern transmission network by constructing a new 330kV terminal substation at Regans Ford to increase capacity and resupply the existing 132kV Regans substation. The terminal is being constructed in cleared farmland adjacent to the substation, however some native vegetation clearing is required to facilitate decommissioning sections of existing overhead transmission lines and construct new transmission lines between the new 330kV Regans terminal and the existing 132kV substation.

Up to 0.8 ha of clearing of native vegetation is required within a 7.43 ha Project area to enable transmission line decommissioning and construction activities.

It is noted that this work is considered with regard to cumulative impacts associated with clearing within the Project area under exemption (Regulation 5, Item 12 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004) for the construction of a new access road to the new Terminal.

Native vegetation within the 7.43 ha Project area is representative of Banksia Woodlands of the Swan Coastal Plain (Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and Department of Biodiversity Conservation and Attractions (DBCA) listed Priority 3 ecological community) and potential Black Cockatoo habitat including of foraging habitat and 36 nesting trees (DBH>500 mm) with no hollows. No Black Cockatoo roosting sites were identified within the Project area.

Clearing impacts are proposed to be minimised by limiting clearing of native vegetation to up to 0.8 ha and undertaking works within previously cleared areas, firebreaks and access tracks and avoiding clearing potential Black Cockatoo nesting trees, where possible.

These works will contribute to reinforcing and de-meshing the existing network to support the movement of generation capacity into and around the SWIN.

Guardian Permit ID reference number: PER-0001565	**Permit/Exemption number:** CPS 1918/11

2. Map/photos

Paper Size ISO A3
at Scale: 1:78,000

0 0.75 1.5 2.25 3

Kilometres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Western Power
Regans Transmission Line Relocation
Clearing Assessment

Project Location

Project No. **12663046**
Revision No. **0**
Date **18/06/2025**

FIGURE 1

\\ghdnet\ghd\AU\Perth\Projects\61\12663046\GIS\Maps\Working\12663046_ReganFigures\12663046_ReganFigures.aprx\12663046_001_ProjectLocation_Rev0
Print date: 18 Jun 2025 - 11:11

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OpenStreetMap: Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri. Created by: klabez

Paper Size ISO A3
at Scale: 1:2,500

0 25 50 75 100
Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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Western Power
Regans Transmission Line Relocation
Clearing Assessment

Project Area

Project No. **12663046**
Revision No. **0**
Date **18/06/2025**

FIGURE 2

\\ghdnet\ghd\AU\Perth\Projects\61\12663046\GIS\Maps\Working\12663046_RegansFigures\12663046_RegansFigures.aprx\12663046_002_ProjectArea_Rev0
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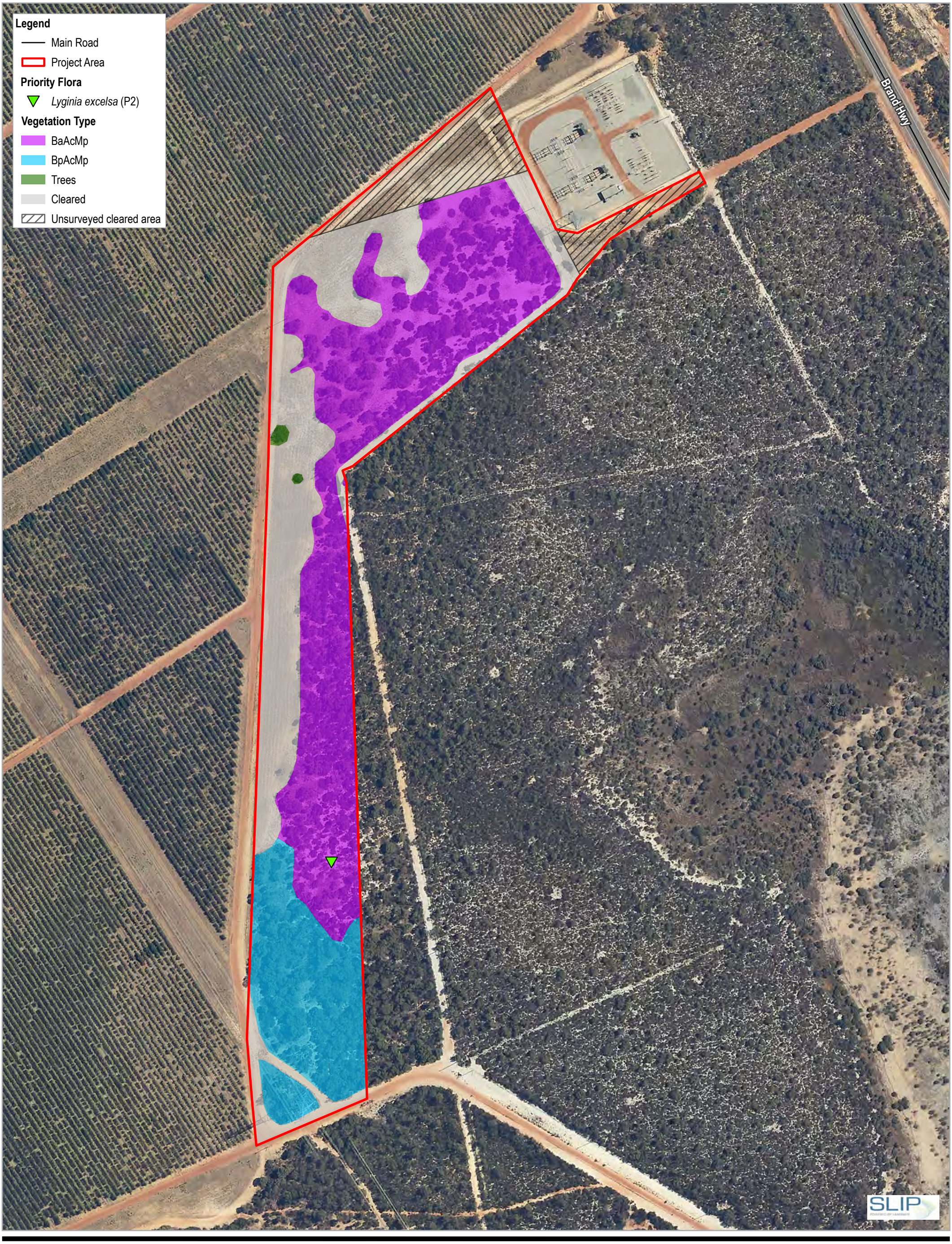

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Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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Western Power
Regans Transmission Line Relocation
Clearing Assessment

Vegetation Types and Priority Flora species (AECOM, 2024)

Project No. **12663046**
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FIGURE 3

\\ghdnet\ghd\AU\Perth\Projects\61\12663046\GIS\Maps\Working\12663046_ReganFigures\12663046_ReganFigures.aprx\12663046_003_VegetationType&PriorityFlora_Rev0
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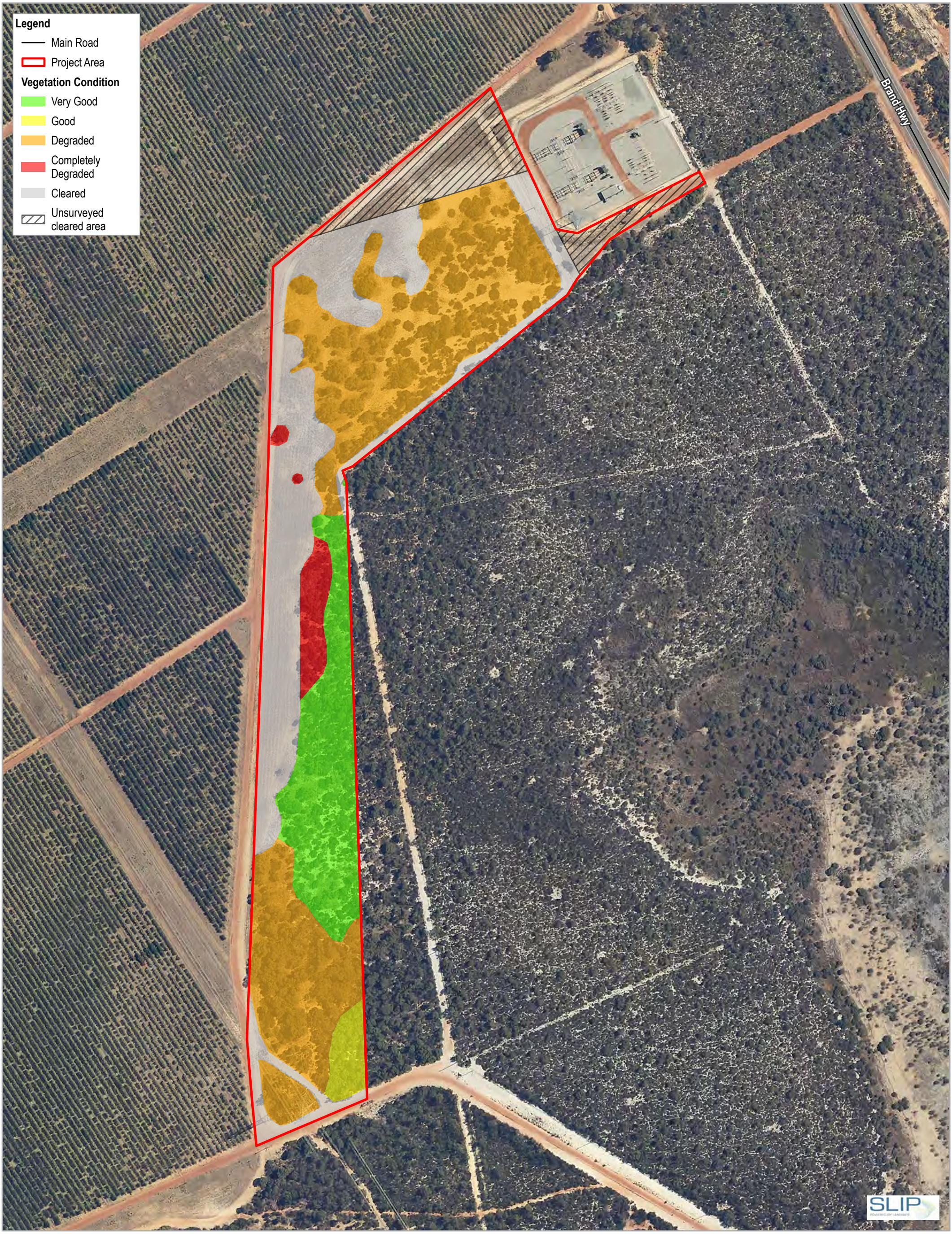

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Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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Regans Transmission Line Relocation
Clearing Assessment

Vegetation Condition (AECOM, 2024)

Project No. **12663046**
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Date **18/06/2025**

FIGURE 4

\\ghdnet\ghd\AU\Perth\Projects\61\12663046\GIS\Maps\Working\12663046_ReganFigures\12663046_ReganFigures.aprx\12663046_004_VegetationCondition_Rev0
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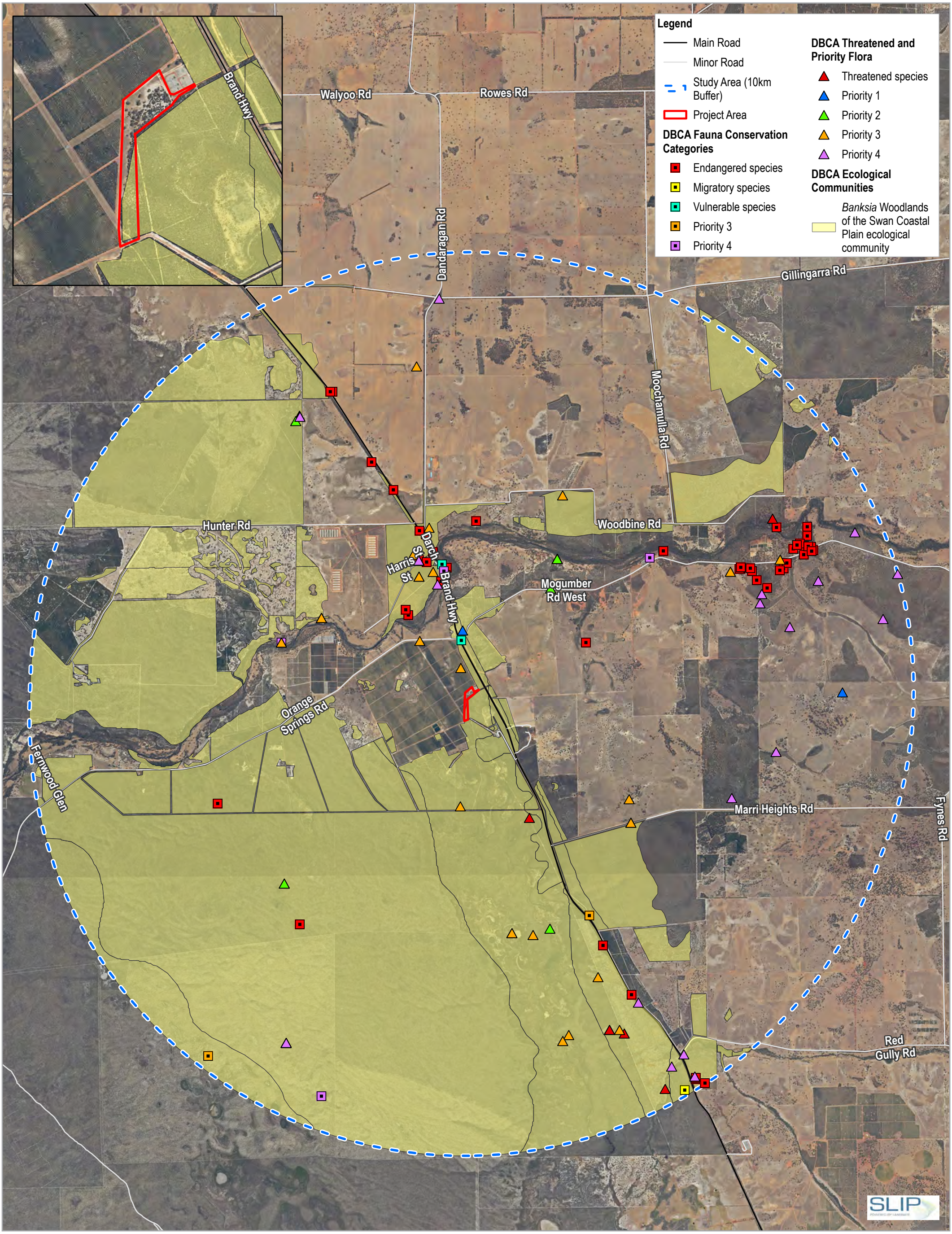

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Kilometres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

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Western Power
Regans Transmission Line Relocation
Clearing Assessment

Threatened and Priority Flora, Fauna and Ecological Communities

Project No. **12663046**
Revision No. **0**
Date **18/06/2025**

FIGURE 5

\\ghdnet\ghd\AU\Perth\Projects\61\12663046\GIS\Maps\Working\12663046_ReganFigures\12663046_ReganFigures.aprx\12663046_005_DBCADatabase_Rev0
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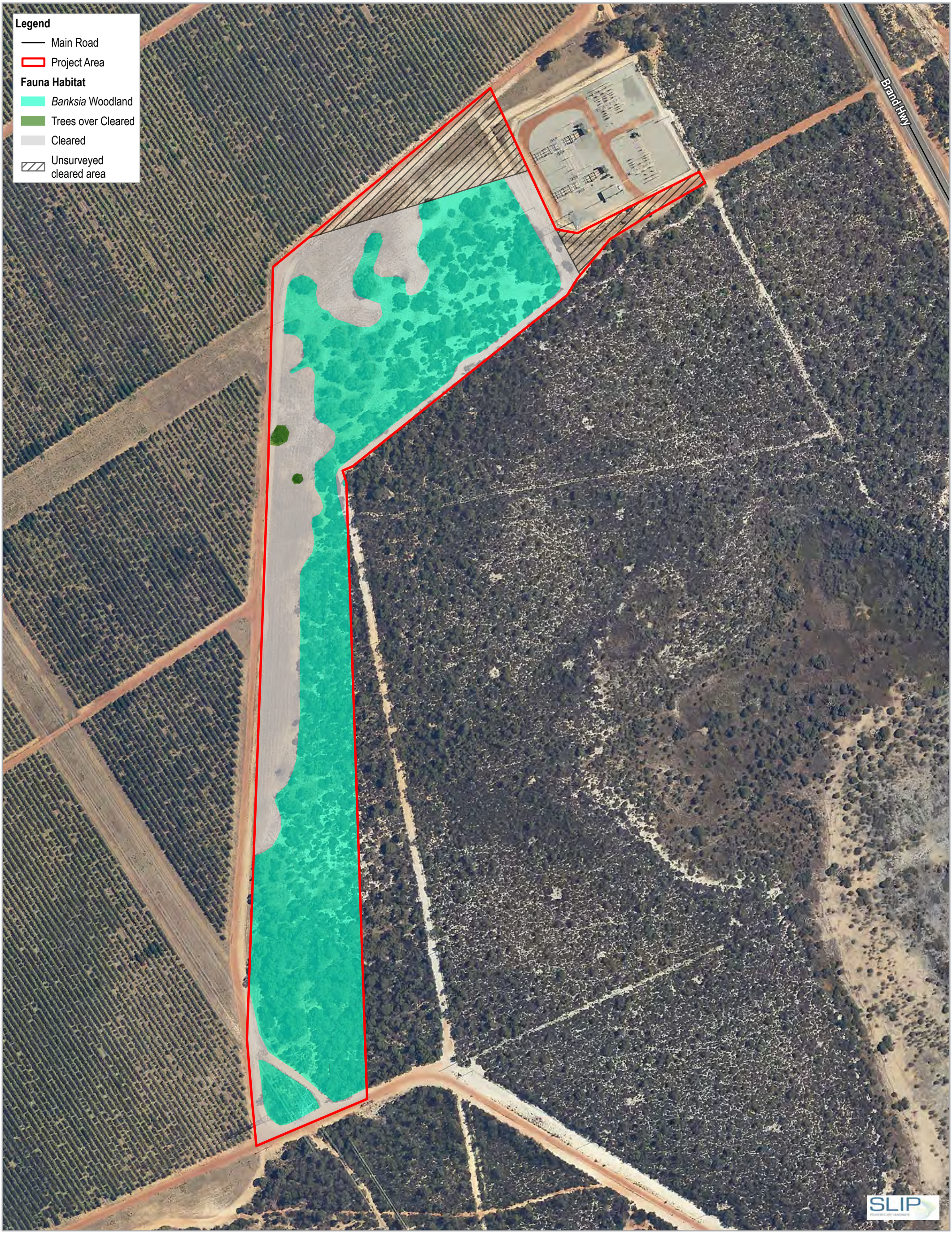

Paper Size ISO A3
at Scale: 1:2,500

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Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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Western Power
Regans Transmission Line Relocation
Clearing Assessment

Fauna Habitat (AECOM, 2024)

Project No. **12663046**
Revision No. **0**
Date **18/06/2025**

FIGURE 6

\\ghdnet\ghd\AU\Perth\Projects\61\12663046\GIS\Maps\Working\12663046_ReganFigures\12663046_ReganFigures.aprx\12663046_006_FaunaHabitat_Rev0
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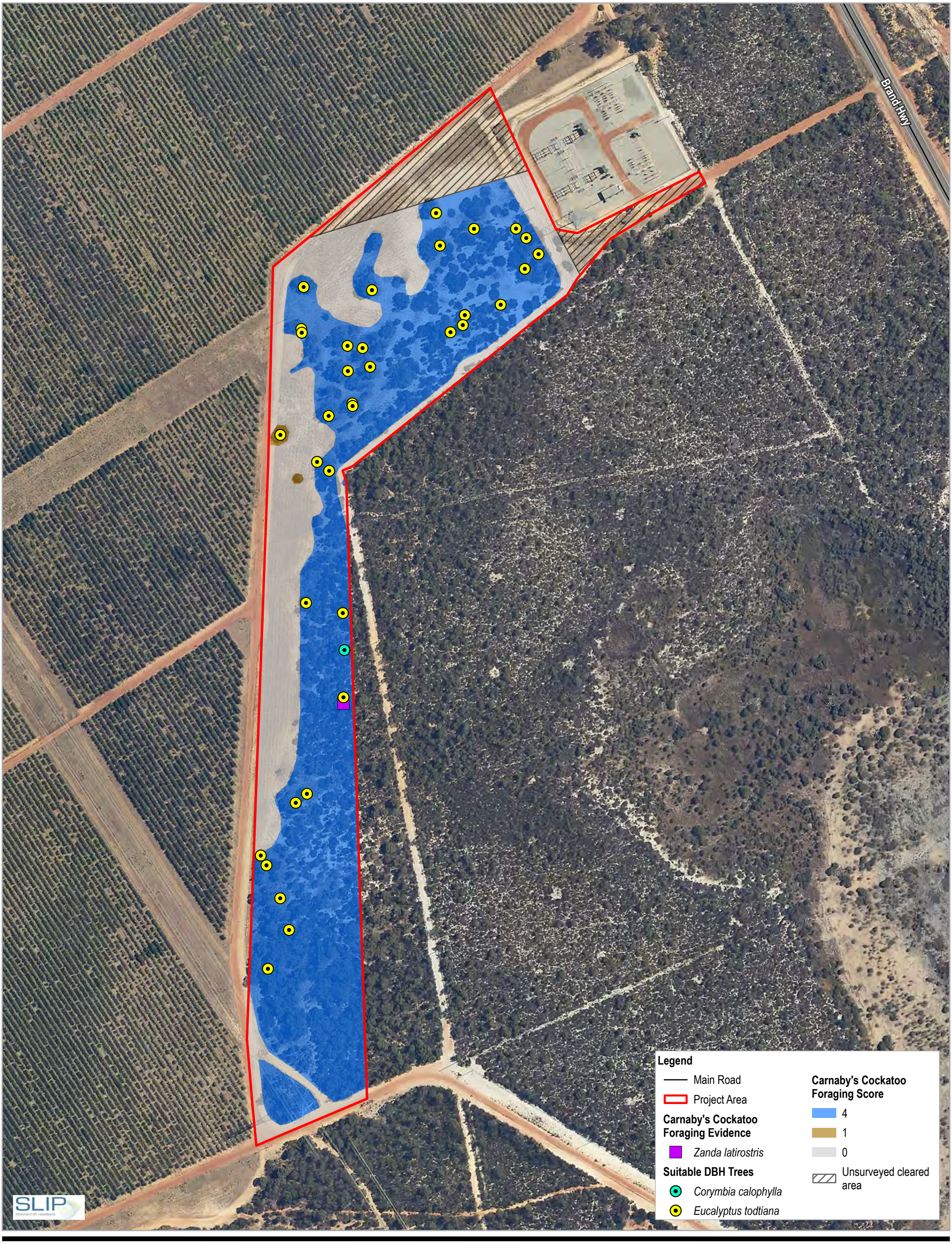

Paper Size ISO A3
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Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Western Power
Regans Transmission Line Relocation
Clearing Assessment

Black Cockatoo Habitat (AECOM, 2024)

Project No. **12663046**
Revision No. **0**
Date **18/06/2025**

FIGURE 7

\\ghdnet\ghd\AU\Perth\Projects\61\12663046\GIS\Maps\Working\12663046_RegansFigures\12663046_RegansFigures.aprx\12663046_007_BlackCockatooHabitat_Rev0
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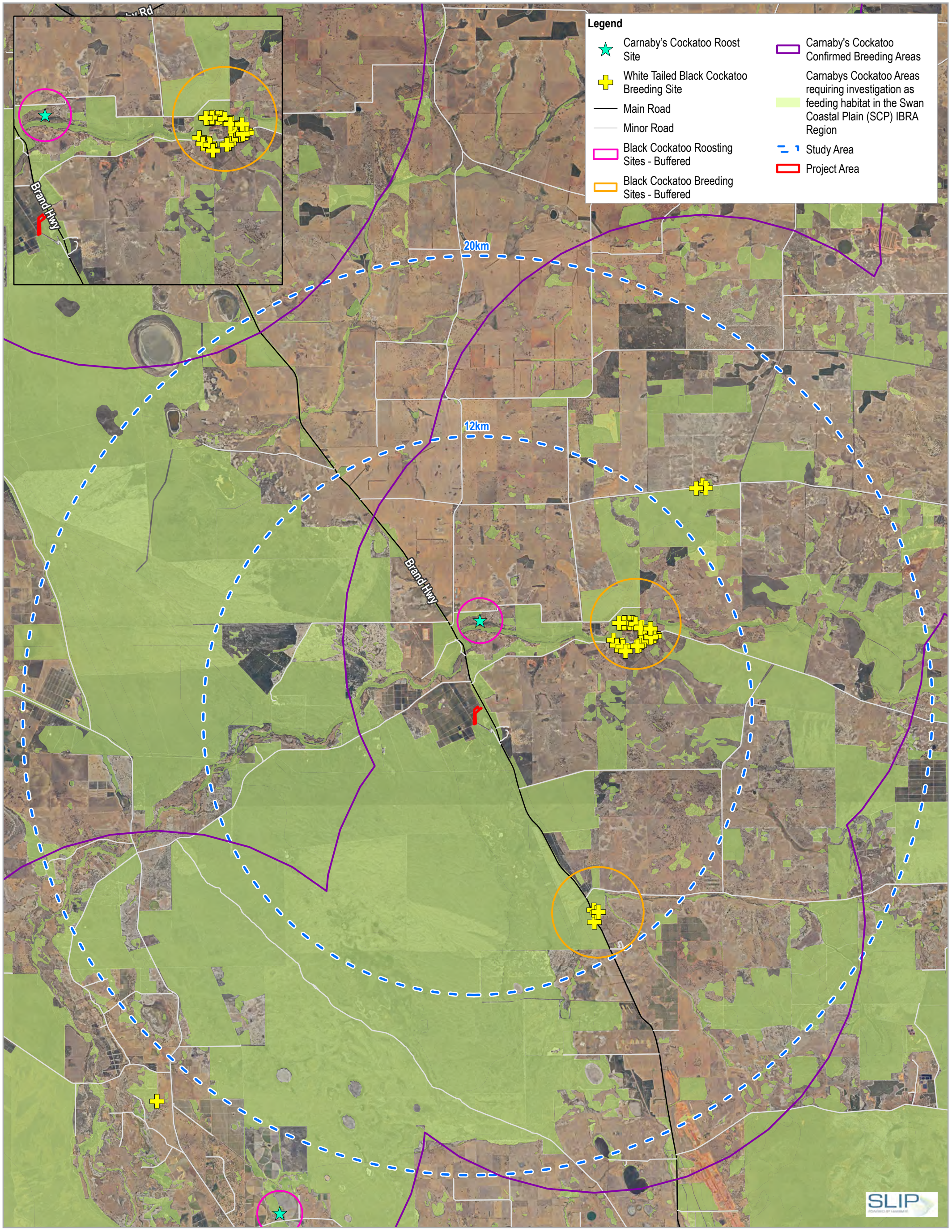

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Kilometres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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Western Power
Regans Transmission Line Relocation
Clearing Assessment

Project No. **12663046**
Revision No. **0**
Date **18/06/2025**

Black Cockatoo Local Context

FIGURE 8

\\ghdnet\ghd\AU\Perth\Projects\61\12663046\GIS\Maps\Working\12663046_ReganFigures\12663046_ReganFigures.aprx\12663046_008_BlackCockatooLocalContext_Rev0
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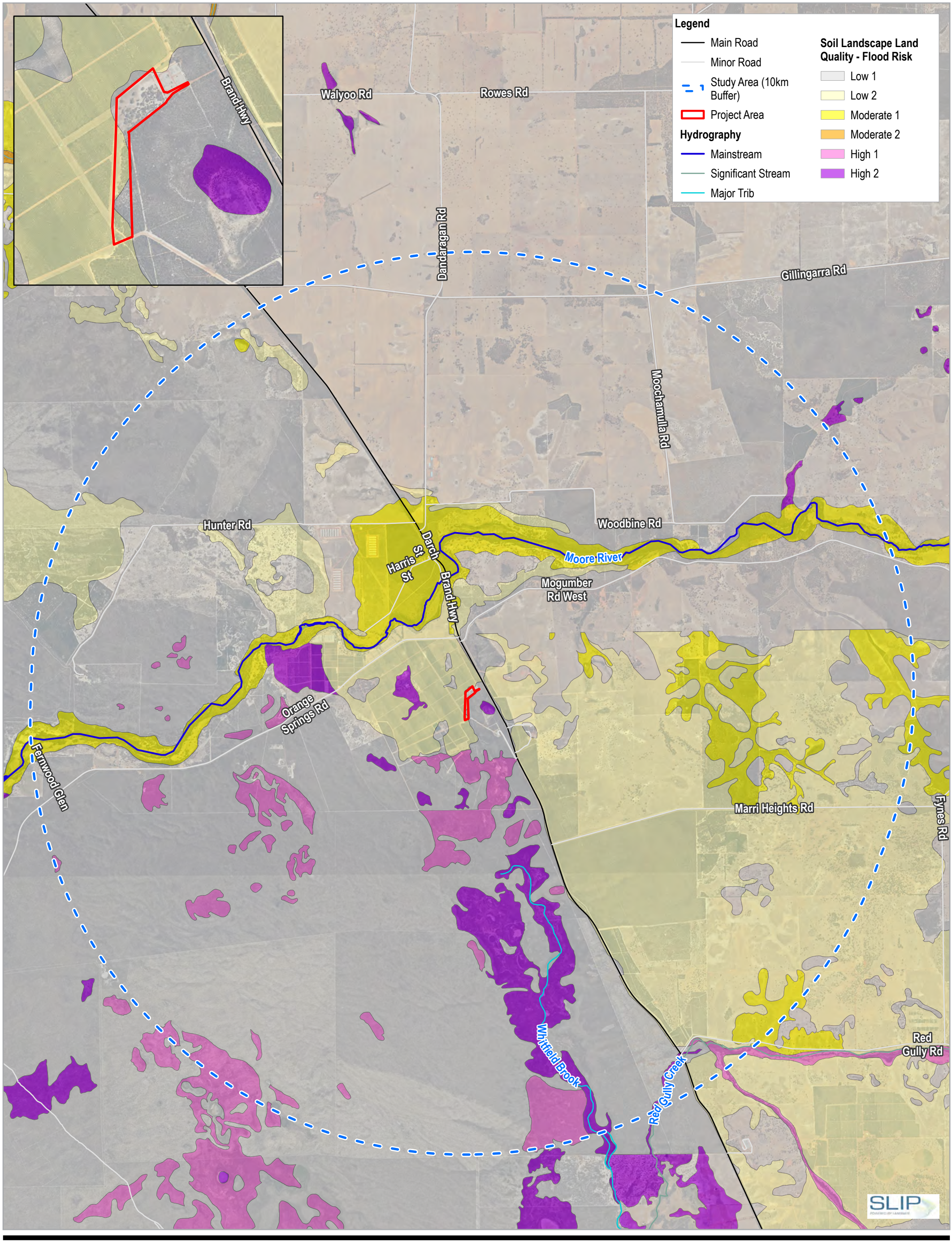

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Kilometres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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Western Power
Regans Transmission Line Relocation
Clearing Assessment

Hydrology

Project No. **12663046**
Revision No. **0**
Date **18/06/2025**

FIGURE 9

\\ghdnet\ghd\AU\Perth\Projects\61\12663046\GIS\Maps\Working\12663046_RegansFigures\12663046_RegansFigures.aprx\12663046_009_Hydrology_Rev0
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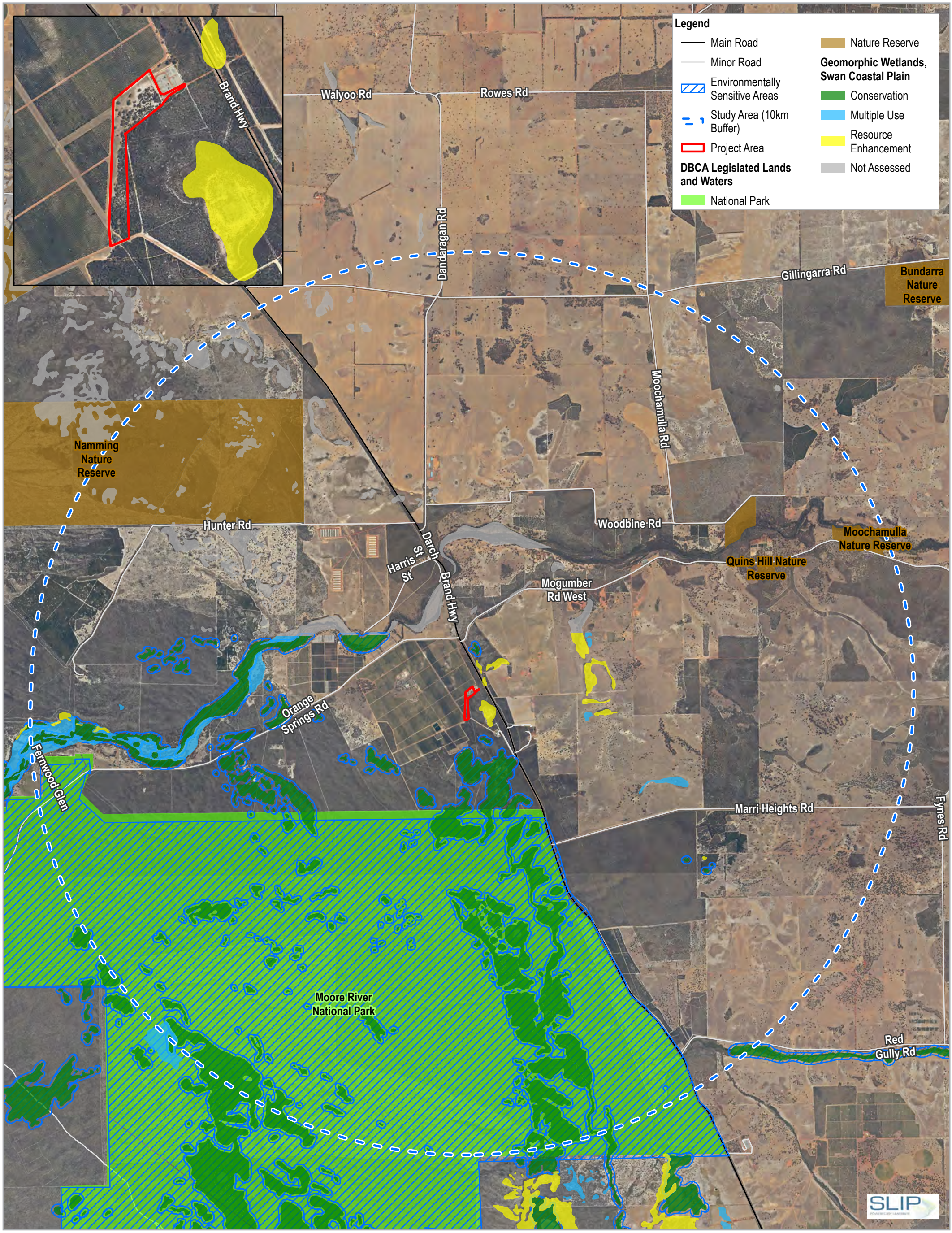

Paper Size ISO A3
at Scale: 1:78,000

0 0.75 1.5 2.25 3

Kilometres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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Western Power
Regans Transmission Line Relocation
Clearing Assessment

Conservation Areas

Project No. **12663046**
Revision No. **0**
Date **18/06/2025**

FIGURE 10

\\ghdnet\ghd\AU\Perth\Projects\61\12663046\GIS\Maps\Working\12663046_ReganFigures\12663046_ReganFigures.aprx\12663046_010_ConservationAreas_Rev0
Print date: 18 Jun 2025 - 16:35

Data source: Landgate_Subscription_Imagery\WANow: . Created by: klabez

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.

Table 1 Alternatives to clearing

Alternative to Clearing	Applicable	Discussion
Directional drilling of underground cables instead of open trenching	No	Not applicable – primary scope does not include installation of underground cables.
Existing tracks are utilised where possible	Partial	Existing site access roads and tracks will be utilised to access the Project area where possible, such as the existing Brand Highway crossover and access via firebreaks and the existing transmission easement. A new section of road will be required to fully access the terminal from the main road.
Utilising previously cleared areas where possible	Yes	The terminal itself has been sited outside of native vegetation within an existing olive farm. Access will utilise existing firebreaks and cleared areas where possible including purchase of additional land to increase the use of existing cleared areas. New connection works between the future terminal and existing substation will be constrained due to the future circuits exiting the site. Clearing for decommissioning works are tied to the current alignments of the transmission circuits.
Consideration of alternative engineering and design options	Yes	The clearing relates to the decommissioning of existing lines and installing new connections between the new Regans Terminal and Regans substation. Due to the location of existing assets, alternative design options were not feasible.
Other	Yes	Western Power has completed detailed planning studies in considering feasible options to mitigate all the identified network limitations within the North Region over the medium to long term, and specifically the ability to address the immediate need to address the generation constraints. These studies include steady-state analysis as well as other technical assessments to determine the capacity of distinct options to adequately reduce the identified network risks. Alternatives to the project overall were considered, including a 'do nothing' scenario and reconfiguration elsewhere however the proposed option best met the deliverability, sustainability, risk mitigation, investment and prudence objectives.

4. Site context

4.1 Land Tenure (Cadastral Information)

Property:

The Project area is 7.43 hectares (ha) and is located approximately 105 km north of Perth within the Shire of Gingin (Figure 1). The Project area intersects the following land parcels (Figure 2):

- 237 Orange Springs Road, Orange Springs (Lot 5 on Plan 13245, Land ID 1623024)
- Lot 10 on Diagram 98748, Orange Springs (Land ID 1329733)

Conservation Estates:

Nil

Local Government:

Shire of Gingin

4.2 Vegetation description

The Project is located within the Swan Coastal Plain (SCP) bioregion and the Perth Subregion (SWA2) as described by the Interim Biogeographic Regionalisation of Australia (IBRA).

Broadscale (1:250,000) pre-European vegetation mapping of the area was completed by Beard (1979) at an association level. The mapping indicates that one vegetation association is present within the Project area:

- Low woodland; Banksia (association no. 949).

The pre-European mapping has been adapted and digitised by Shepherd et al. (2002). The extent of the vegetation association has been determined by the state-wide vegetation remaining extent calculations maintained by DBCA (latest update March 2019 – GoWA, 2019a). As shown in Table 2, the current extents remaining of vegetation association 949 are greater than 56% at all scales.

Table 2 Pre-European Vegetation Representation

Pre-European Vegetation Association	Scale	Pre-European (ha)	Current extent (ha)	% remaining	% Current extent remaining in DBCA reserves (proportion of Current extent)
Vegetation Association No. 949	**Statewide** WA	218,193.94	123,104.02	56.42	55.86
	IBRA Bioregion Swan Coastal Plain	209,983.26	120,287.93	57.28	56.40
	IBRA Sub-region Perth	184,475.82	104,128.96	56.45	58.99
	LGA Shire of Gingin	138,102.77	81,731.46	59.18	61.66

Broadscale (1:50,000) pre-European vegetation mapping of the Swan Coastal Plain (SCP) region of Western Australia was undertaken by Heddle et al. (1980) at the complex level. The mapping indicates that one vegetation complex is present within the Project area:

- Bassendean Complex-North: Vegetation ranges from a low open forest and low open woodland of Banksia species *Eucalyptus todtiana* (Pricklybark) to low woodland of Melaleuca species and sedgelands which occupy the moister sites.

The extent of vegetation complexes has been determined by the south west vegetation remaining extent calculations maintained by DBCA (latest update March 2019 - GoWA, 2019b). As shown below in Table 3, the current extent remaining of the Bassendean Complex-North is greater than 71% of pre-European extent. At the local government scale, the Bassendean Complex-North has greater than 78% remaining in the Shire of Gingin.

Table 3 Vegetation Complexes (Heddle et al., 1980) Representation

Vegetation complex	Scale	Pre-European (ha)	Current extent (ha)	% remaining	% Current extent remaining in DBCA reserves
Bassendean Complex-North	**IBRA Bioregion** Swan Coastal Plain	79,057.35	56,659.67	71.67	38.65
	LGA Shire of Gingin	49,711.91	38,979.76	78.41	62.88

A single-phased detailed flora and vegetation assessment was undertaken of the Project area by AECOM (2024) utilising methods outlined in the Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016). The field survey was undertaken between 19 - 22 September 2023. The vegetation types and condition identified within the Project area during the biological survey is described in Table 4 and mapped on Figure 3 and Figure 4.

There is a 0.75 ha survey gap within the Project area which was not included in the AECOM (2024) survey area. This area has been extrapolated as Cleared from desktop assessment of aerial imagery (Figure 3).

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

Table 4 Project area vegetation community descriptions and photographs (AECOM, 2024)

Description	Additional Details	Photograph
BaAcMp Banksia Woodland *Banksia attenuata*, *Banksia menziesii* and *Nuytsia floribunda* low woodland, over *Adenanthos cygnorum* subsp. *cygnorum*, *Lechenaultia floribunda*, and *Allocasuarina humilis* tall to low shrubland, over *Mesomelaena pseudostygia*, **Ehrharta calycina* and *Lyginia excelsa* tall to low forbland. Represents Banksia Woodlands TEC. Recorded on sandy soils.	Survey effort: RQ01, RQ02, RR02 Species richness: 71 species Condition: Completely Degraded to Very Good Project area extent: 3.34 ha (44.9%)	
BpAcMp Banksia Woodland *Banksia prionotes* and *Eucalyptus todtiana* low woodland over *Adenanthos cygnorum* subsp. *cygnorum*, *Jacksonia floribunda* and *Scholtzia involucrata* tall to low shrubland, over *Mesomelaena pseudostygia*, *Caustis dioica* and *Patersonia occidentalis* var. *occidentalis* low sparse forbland. Represents Banksia Woodlands TEC. Recorded on sandy soils. One quadrat completed to capture "slither" of community.	Survey effort: RR01 Species richness: 23 species Condition: Degraded to Good Project area extent: 1.23 ha (16.6%)	
Trees Remnant native trees over paddock weeds.	Condition: Completely Degraded Project area extent: 0.02 ha (0.3%)	
Cleared (including 0.75 ha area not surveyed – extrapolated as Cleared from aerial imagery)	Project area extent: 2.84 ha (38.2%)	No photo available.
Total	7.43 ha	

4.3 Summary of results of surveys

AECOM was engaged by Western Power to undertake spring flora, vegetation, fauna, and Black Cockatoo assessment within the Regans 10.89 ha survey area as part of the Clean Energy Link – North Flora, Vegetation and Fauna Survey (AECOM, 2024) including:

- A single phase detailed flora and vegetation survey and targeted flora survey was undertaken in accordance with the Environmental Protection Authority (EPA) guidelines (EPA, 2016) between 19 – 22 September 2023.
- A basic fauna survey was performed in compliance with EPA guidelines (EPA, 2020). The fauna survey was conducted in conjunction with the detailed flora and vegetation survey in September 2023.
- Targeted Black Cockatoo habitat assessment as per the EPBC Act Referral Guidelines for Three Threatened Black Cockatoo Species (DAWE, 2022).

The biological survey area is located in an area zoned as general rural and is surrounded by areas of native vegetation and cleared paddocks and tracks.

Three native vegetation communities were recorded in the Project area, extending across 4.59 ha (61.8%), with areas of native vegetation largely considered Degraded (3.12 ha) with 1.47 ha in Good to Very Good condition. A total of 2.84 ha (38.2%) of the Project area was cleared. One 4.57 ha patch of the Banksia Woodlands TEC was recorded. The patch is represented by quadrats RQ01, RQ02, RR01 and RR02 and meets key diagnostic characteristics, condition and size thresholds outlined in the conservation advice for the Banksia Woodlands TEC (DEE, 2016).

One significant flora species, *Lyginia excelsa* was recorded in the Project area. This species is listed by DBCA as Priority 2. *L. excelsa* was recorded from one location (RQ01) where it was a dominant understorey species in community BaAcMp.

The survey recorded three fauna habitat types within the Project area, which are described in Table 5.

One fauna species of conservation significance was identified during the survey. Foraging evidence of Carnaby's Cockatoo (*Zanda latirostris*), listed as Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and *Biodiversity Conservation Act 2016* (BC Act), was recorded in the 'Trees over Cleared' fauna habitat. The Black Cockatoo habitat assessment identified foraging habitat within the Project area and assigned a score of '10' based on the Commonwealth (DAWE, 2022) guidance method and a score of '4' (moderate) utilising the BCE (2020) method. A total of 43 potential nesting trees with a suitable DBH (>500 mm) were identified within the Regans survey area, of which 36 occurred within the Project area. There were no suitable nesting trees (ie. trees with suitable hollows for breeding) and no Black Cockatoo roosting sites were recorded within the Project area.

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

Table 5 Project area fauna habitat descriptions and photographs (AECOM, 2024)

Description	Habitat within Project area	Conservation significant species potentially utilising habitat	Photograph
Banksia Woodland Low open *Banksia* sp. woodlands over mixed native shrubland. Consisting of mainly of *Banksia attenuata*, *Banksia prionotes*, *Banksia menziesii* and *Eucalyptus todtiana*. Mid to low native shrubland over herbland. Common fallen Banksia trees with high abundance of fine and coarse leaf litter. No hollows or native dens witnessed. Soils were light (yellow and white) and sandy.	4.57	**Potential habitat for:** – Quenda (*Isoodon fusciventer*) – Western Brush Wallaby (*Notamacropus irma*) – The Land Snail (*Bothriembryon perobesus*) – Woolybush Bee (*Hylaeus globuliferus*) – Swan Coastal Plain shield-backed trapdoor Spider (*Idiosoma sigillatum*) – A Short-tongued Bee (*Leioproctus contrarius*)	
Trees over Cleared *Corymbia calophylla* and isolated Eucalyptus over cleared. Notable Black Cockatoo foraging in high quantities.	0.02 ha (0.3%)	**Primary foraging habitat for:** – Carnaby's Cockatoo (*Zanda latirostris*)	
Cleared	2.84 ha (38.2%)		
Total	7.43 ha		

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 buffer of 10 m around the Project area.

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:

- Threatened and Priority Ecological Communities
- Heritage Areas – 20008, Register
- Contaminated Sites WP Register – Regans Substation
- Native vegetation remaining – Bassendean
- ESA Boundary – ESA C690

6. Assessment of vegetation clearing impacts

Clearing permit principles full assessment	
a) Native vegetation should not be cleared if it comprises a high level of biodiversity.	**May be at variance**

Assessment:

This Project requires clearing of up to 0.8 ha of native vegetation within the 7.43 ha Project area to enable decommissioning of existing transmission connections to the Regans zone substation and establishment of new 132kV connections to the future Regans Terminal, located in an adjacent cleared area. The clearing is proposed to be restricted, where practicable, to previously cleared areas as much as possible.

Vegetation

The total extent of the native vegetation in the Project area, based on AECOM (2024) mapping is 4.59 ha. Of this, two intact vegetation communities were mapped within 4.57 ha (61.5%) of the Project area. These communities represent Banksia woodlands dominated by *Banksia attenuata* (BaAcMp) and *Banksia prionotes* (BpAcMp) (Figure 3). One modified native vegetation community, Trees, was mapped as 0.02 ha (0.3%) and represents stands of native remnant trees over paddock weeds (Figure 3). Vegetation condition ranges between Completely Degraded to Very Good and is predominantly in Degraded condition due to the prevalence of weeds (3 to 9% foliage cover) leading to displacement of native vegetation (Figure 4).

Threatened and Priority Ecological Communities

Desktop searches of the DBCA Threatened and Priority Ecological Communities database and EPBC Act Protected Matters Search Tool (PMST) (DCCEEW, 2025) indicate the presence of three listed communities with the potential to occur within 10 km of the Project area:

- Banksia Woodlands of the Swan Coastal Plain (Endangered (EN) under the EPBC Act and DBCA listed Priority 3)
- Empodisma peatlands of southwestern Australia (EN under the EPBC Act)
- Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain (Critically Endangered (CR) under the EPBC Act and DBCA listed Priority 3)

AECOM (2024) identified the following three DBCA Priority 3 listed PECs as potentially occurring within the survey area:

- Swan Coastal Plain *Banksia attenuata - Banksia menziesii* woodlands ('floristic community type 23b') (a component of the Endangered Banksia Woodlands of the Swan Coastal Plain (SCP) EPBC listed TEC)
- *Banksia ilicifolia* woodlands, southern Swan Coastal Plain ('floristic community type 22') (a component of the Banksia Woodlands of the SCP TEC)
- Banksia woodlands of the SCP (synonymous with the Banksia Woodlands TEC where other State-listed TECs or PECs were not confirmed)

Identification of these PECs was determined through FCT analysis. The sample site data from the Regans survey area did not align strongly with any FCT using the Gibson (1994) and the Keighery (2012) single-site insertion method (AECOM, 2024).

Two remnant native vegetation types recorded in the Project area by AECOM (2024) are associated with Banksia Woodlands of the Swan Coastal Plain TEC and PEC (BaAcMp and BpAcMp). The extent of this community recorded in the project area is 4.57 ha. This TEC/PEC was verified by AECOM (2024) through quadrat and relevé data, and assessing the patch against the key diagnostic characteristics identified in the approved conservation advice (DEE, 2016). This patch represents part of a larger contiguous patch that extends for more than 100 ha outside the Project area towards the south and east.

The proposed clearing within this patch is limited to 0.8 ha of native vegetation. The Project area is located at the outer edge of this patch, in vegetation that has historically been impacted by infrastructure and agricultural activities, therefore the clearing is not expected to fragment or increase existing fragmentation of this patch. Additionally, the proposed clearing forms a relatively small proportion of the native vegetation within the Project area. Therefore, the clearing is not likely to significantly reduce the extent of Banksia Woodlands TEC/PEC in the local area.

No vegetation types representative of Empodisma peatlands or Tuart woodlands ecological communities were recorded in the Project area (AECOM, 2024).

Flora

The desktop assessment has identified 47 significant flora species within 10 km of the Project area that are known to occur from historical records of the DBCA Threatened and Priority Flora database and WA Herbarium database, or potentially occur in the Study area as identified in the EPBC Act PMST search results (DCCEEW, 2025). The desktop searches recorded:

- The PMST search identified the potential presence of one Critically Endangered, 13 Endangered, and four Vulnerable species under the EPBC Act.
- The DBCA database search identified the potential presence of five Threatened species under the BC Act and one Priority 1 (P1), five P2, 14 P3, and seven P4 species (Figure 5).

One significant flora species, *Lyginia excelsa* (P2) was recorded in the Project area during the field survey, however no flora listed under the EPBC Act or BC Act were recorded (AECOM, 2024).

Lyginia excelsa (P2) is a dioecious rhizomatous, erect, tufted herb that grows from 0.6 to 1.5 m high. It has rhizomes on the surface and flowers March to November. Generally, it occurs on sand in dry heath and Banksia woodland (WA Herbarium, 1998-). One population with an abundance of 10 plants was recorded by AECOM (2024) in the Project area, near the existing Pinjar-Regans 132kV transmission line. *Lyginia excelsa* was recorded as a dominant understory species in the BaAcMp community and is estimated to have an abundance of over 100 individuals (AECOM, 2024).

The nearest WA Herbarium record *Lyginia excelsa* is a population with six plants located 14.4 km away to the north west in Namming Nature Reserve, dated 2022. It is known from approximately nine populations recorded across 125 km from Namming Nature Reserve to Tathra National Park and one population in Mandurah (WA Herbarium, 1998-). While the clearing may impact on the local population of this species, given the large range of this species and that local records are located outside the Project area, the clearing is unlikely to significantly impact the regional extent or viability of this species.

A post-survey likelihood of occurrence assessment was undertaken for significant flora species identified in the AECOM (2024) desktop study. All moderate likelihood of occurrence species were downgraded to low, with the exception of *Comesperma rhadinocarpum* (P3) which appears to be a post-fire ephemeral (Keighery, 2002) and therefore may not have been detectable at time of survey. This species has retained their moderate likelihood of occurrence.

Comesperma rhadinocarpum (P3) is a perennial herb that flowers from October to November and generally occurs on sandy soils (WA Herbarium, 1998-). The nearest WA Herbarium record is a population with six plants located 13.2 km away to the east adjacent to Fynes Nature Reserve, dated 2017. It is known from approximately 17 populations recorded across 495 km from Perth to Kalbarri, with one population in Mount Manning Range National Park and another north of the Queen Victoria Spring Nature Reserve (WA Herbarium, 1998-). Given the large range of known populations, and local records located outside the Project area, the clearing is considered unlikely to significantly impact the regional extent or viability of this P3 species.

Aa total of 35 flora species, from 21 families, were confidently identified to species level within the Project survey area, with one species denoted with “sp.” due to insufficient material for identification (AECOM,2024; WA Herbarium, 1998). The total includes 31 (86%) locally native species and five (14%) introduced or naturalised weed species. Families with the highest representation are Cyperaceae (four taxa), Myrtaceae (four taxa) and Proteaceae (four taxa). Flora diversity was considered high with 35 species confidently identified to species level.

Fauna Habitat

Two native fauna habitats were defined and mapped by AECOM (2024) within the Project area based on the results of the field assessment (Figure 5). These included:

- Banksia Woodland (4.57 ha, 61.5%)
- Trees over Cleared (0.02 ha, 0.3%)

Cleared areas represented 2.84 ha comprising tracks, roads and highly modified or degraded vegetation with no biological benefit.

One fauna species of conservation significance was identified during the survey. Foraging evidence of the Carnaby’s Cockatoo (*Zanda latirostris*), listed as Endangered under the EPBC Act and BC Act, was recorded in the ‘Trees over

Cleared' fauna habitat. In addition, 36 potential nesting trees (DBH >500mm) with no hollows were recorded by AECOM (2024) within the Project area.

The following DBCA Priority listed fauna species are considered to have the potential to utilise the habitats within the Project area:

- Land Snail (*Bothriembryon perobesus*) – Priority 1
- A Short-tongued Bee (*Leioproctus contrarius*) – Priority 3
- Swan Coastal Plain Shield-backed Trapdoor Spider (*Idiosoma sigillatum*) – Priority 3
- Woolybush Bee (*Hylaeus globuliferus*) – Priority 3
- Quenda (*Isoodon fuscivent*er) – Priority 4
- Western Brush Wallaby (*Notamacropus irma*) – Priority 4

The Project area comprises Banksia Woodlands with varying complexity based on disturbance and is located on the edge of a larger patch of remnant native vegetation considered likely to be in better condition based on desktop assessment of aerial imagery. Towards the western edge of the Project area the condition declines leading to denser paddock weeds on sandy soils and lacking native understorey species. Therefore, the Project area is not likely to contain a relatively high level of fauna diversity compared with surrounding, intact native vegetation.

The native vegetation within the Project area is not considered to comprise a high level of biological diversity compared to the surrounding area, however the proposed clearing of up to 0.8 ha of native vegetation has potential to impact vegetation types comprising Banksia Woodland TEC/PEC, Priority flora and Black Cockatoo foraging and potential breeding habitat.

Clearing impacts are proposed to be minimised by limiting works to previously cleared areas and access tracks and avoiding clearing potential Black Cockatoo nesting trees, where possible. Potential impacts to significant flora, fauna and ecological communities will be managed by the implementation of a Vegetation Management Plan.

Based on the above, the proposed clearing may be at variance to this principle.

b) Native vegetation should not be cleared if it comprises whole or part of, or is necessary for the maintenance of, a significant habitat for fauna.	**Is at variance**

Assessment:

Fauna

The desktop assessment has identified 21 significant fauna species that are known to occur from historical records of the DBCA Threatened and Priority Fauna database or potentially occur in the Study area as identified in the EPBC Act PMST search results (DCCEEW, 2025). This total does not include those species that are exclusively marine as no marine habitat is present within the Project area. The desktop searches recorded:

- The PMST search identified the potential presence of three Critically Endangered, five Endangered, and six Vulnerable species under the EPBC Act
- The DBCA database search identified the potential presence of two Priority 3, two Priority 4, four Threatened and one specially protected species (Figure 5).

One species of conservation significance was identified during the AECOM (2024) survey. Foraging evidence of the Carnaby's Cockatoo (*Zanda latirostris*) (EPBC and BC Act Endangered) was recorded in the 'Trees over Cleared' habitat.

Fauna Habitat

Two native fauna habitats were defined and mapped by AECOM (2024) within the Project area based on the results of the field assessment (Figure 6). These included:

- Banksia Woodland (4.57 ha, 61.5%)
- Trees over Cleared (0.02 ha, 0.29%)

Cleared areas represented 2.84 ha and is representative of tracks, roads and highly modified or degraded vegetation with no biological benefit. The Trees over Cleared and Banksia Woodland fauna habitats provides potential breeding

and foraging habitat for Carnaby's Cockatoo (*Zanda latirostris*) (EPBC and BC Act Endangered), while the Banksia Woodland fauna habitat provides potential habitat for six additional significant species:

- Land Snail (*Bothriembryon perobesus*) – Priority 1
- A Short-tongued Bee (*Leioproctus contrarius*) – Priority 3
- Swan Coastal Plain Shield-backed Trapdoor Spider (*Idiosoma sigillatum*) – Priority 3
- Woolybush Bee (*Hylaeus globuliferus*) – Priority 3
- Quenda (*Isoodon fusciventer*) – Priority 4
- Western Brush Wallaby (*Notamacropus irma*) – Priority 4

The Project area comprises Banksia Woodlands fauna habitat with varying complexity based on disturbance. The Project area is located on the edge of a larger patch of remnant native vegetation considered likely to be in better condition based on desktop assessment of aerial imagery. Towards the western edge of the Project area the condition declines leading to denser paddock weeds on sandy soils and lacking native understorey species (AECOM, 2024). Discussion regarding fauna species likely to utilise fauna habitat within the Project area as identified by AECOM (2024) is presented in the table below.

Species	Number of DBCA Records and Distance	Pre-survey LOO	Post-survey LOO	Discussion
Quenda (*Isoodon fusciventer*) (P4)	Four records within 50 km, the closest is 35 km, the most recent is 2014.	High	Moderate	No evidence of the species was recorded during the survey, this species has the potential to utilise the survey area based on the preferred habitat aligning with the Banksia woodlands. There are no known records in close proximity.
Western Brush Wallaby (*Notamacropus irma*) (P4)	21 records within 50 km. The closest is 3 km north and the most recent was from 2017.	High	High	Records are from the same contiguous vegetation as present in the Project area. The Project area habitat is likely to be utilised for transient foraging and temporary resting.
The Land Snail (*Bothriembryon perobesus*) (P1)	Two records within 50 km, closest record 42 km and most recent is 2012.	High	Moderate	There are no records nearby or known from vegetation that is connected to the survey habitat. To take precaution, the species has been reduced to 'Moderate' but cannot be excluded due to poor understanding and lack of robust invertebrate survey effort.
Woolybush Bee (*Hylaeus globuliferus*) (P3)	Two records with 50 km, closest record 9 km south west and most recent record 1996.	High	High	Suitable foraging habitat is prolific in the Project area and adjacent native vegetation. One record known from Moore River National Park which is connected to the habitat within the Project area. The occurrence of this species cannot be excluded and remains 'High'.
Swan Coastal Plain shield-backed trapdoor Spider (*Idiosoma sigillatum*) (P3)	Three records with 50 km, closest record 34 km and most recent record 2011.	High	Moderate	There are no records within connected native vegetation. There is one coastal population at Ledge Point (1967) and one inland near Gingin (2011). Based on the absence of records in Moore River National Park, this species has been reduced to 'Moderate'.
A Short-tongued Bee (*Leioproctus contrarius*) (P3)	Three records with 50 km, closest record 5 km south (representing four occurrences from 1999) and most recent record 2001.	High	High	There are two occurrences known from the same area of remnant native vegetation that connect to the Project area. A *Goodenia reinwardtii* was recorded 1.1 km north of the Project area and *Lechenaultia floribunda* was recorded in the Project area (<10% foliage cover). Their presence insinuates suitable habitat is present. This species likelihood remains High within the Banksia Woodland habitat.

Quenda and Western Brush Wallaby are mobile species that would not be reliant on the Project area for habitat. There are extensive areas of similar habitat outside of the Project area.

The Project area may contain suitable habitat for the land snail and Swan Coastal Plain shield-backed trapdoor spider. However, as these species have not been previously recorded within the study area, and suitable habitat extends beyond the Project area, the proposed clearing is unlikely to impact on these species.

Woolybush bee and *Leioproctus contrarius* have been recorded within the same remnant vegetation that is connected to the project area, and suitable habitat for both species is present. Habitat for Woolybush bee includes flowering *Adenanthos cygnorum* and *Banksia attenuata*, while *Leioproctus contrarius* is associated with *Goodenia* sp. and *Leschenaultia* sp. (AECOM, 2024). These flora species were recorded within the BaAcMp and BpAcMp vegetation communities.

A total of 4.57 ha of Banksia woodlands was mapped within the project area, with over 100 ha of similar habitat estimated to occur adjacent to the site. Given the proposed clearing is limited to 0.8 ha, suitable habitat for both these species will be retained within the project area and surrounding area. As such, the proposed clearing is unlikely to result in a significant impact on habitat for these species.

Black Cockatoo

The Project area is located within the known range for the Carnaby's Cockatoo (*Zanda latirostris*) (DAWE, 2022), and foraging evidence attributed to Carnaby's Cockatoo was observed under *Corymbia calophylla* trees within the Trees over Cleared fauna habitat (AECOM, 2024) (Figure 7). The project is located outside the modelled distribution of Forest Red-tailed Black Cockatoo and Baudin's Cockatoo and neither species were observed or heard during the survey.

Breeding

- A total of 36 potential nesting trees with a suitable DBH (>500 mm) were recorded within the Project area however none were found to have suitable hollows (AECOM, 2024). This comprised of 35 *Eucalyptus todtiana* trees, and one *Corymbia calophylla* tree (Figure 7).
- The Project area occurs approximately 7.5 km west of the nearest recorded Black Cockatoo breeding site (Black Cockatoo Breeding Sites – Buffered (DBCA-063)) and is covered by a buffer for the Carnaby's Cockatoo Confirmed Breeding Areas within the Swan Coastal Plain and Jarrah Forest IBRA Regions (DBCA-054) dataset (Figure 8).

Roosting

- No known roosting sites were observed within the Project area.
- Two tall (15-20 m) *Corymbia calophylla* trees along Orange Springs Road are located approximately 500 m south of Moore River are likely to provide potential roosting habitat.
- The closest confirmed roost area from Birdlife data provided by DBCA is 3.8 km north of the Project area, likely tall riparian trees associated with Moore River, as mapped on Figure 8.
- The closest DBCA mapped known roosting site located approximately 3.8 km to the north of the Project associated with the Moore River (Carnaby's Cockatoo Confirmed Roost Sites (DBCA-050)) (Figure 8).

Foraging

- The Black Cockatoo habitat assessment identified foraging habitat within the Project area and assigned a score of '10' based on the Commonwealth (DAWE, 2022) guidance method and a score of '4' (moderate quality) utilising the Bamford Consulting Ecologists (BCE) (2020) method.
- Native vegetation within the Project area is dominated by Banksia Woodland that includes foraging species such as *Banksia attenuata*, *B. menziesii* and *B. prionotes*. Other areas of fauna habitat include Trees over Cleared where *Corymbia calophylla* also provide primary foraging for this Black Cockatoo species.
- The foraging score tool does not account for variance in vegetation communities or condition, providing only a single score for the entire area. The BCE (2020) foraging assessment method has been used to refine the quality of foraging habitat across the Project area accounting for different vegetation communities and

condition. The Banksia Woodland fauna habitat provides moderate quality foraging habitat when calculated using the BCE (2020) methodology. Figure 7 maps the Black Cockatoo foraging score as calculated using this method. This habitat provides key foraging species such as *Banksia attenuata*, *B. menziesii* and *B. prionotes* with a 20-40% project foliage cover.

- Foraging habitat within the Project area forms part of a larger patch of Banksia woodlands that would likely provide similar habitat in better condition. It is estimated this patch extends for over 100 ha outside the Project area.
- There are also numerous large areas of remnant native vegetation that likely comprise habitat for Carnaby's Cockatoo. A desktop assessment of pre-European vegetation associations (4, 949, 999, 1008, 1009, 1015, 1016, 1017, 1031, 1035) considered likely to provide foraging resources within remaining vegetation extent, indicates that the proposed clearing of up to 0.8 ha represents 0.003% of the available foraging resources within a 12 km radius of the Project area (approximately 25,586 ha). The 12 km radius represents the distance Black Cockatoos will generally forage while breeding. This includes Moore River National Park, which is approximately 2 km south of the Project area.

Conclusion

The proposed clearing of up to 0.8 ha will impact on native fauna habitat. However, significant fauna species are unlikely to be solely reliant on the native habitats within the Project area. The clearing occurs at the edge of a large remnant of native vegetation that extends for over 100 ha outside the Project area. There is also a high level of connectively to Moore River National Park, which would provide similar habitat in better condition.

Furthermore, the proposed clearing of up to 0.8 ha of Carnaby's Cockatoo foraging habitat within the Project area represents approximately 0.003% of the available foraging resources within a 12 km radius of the Project (estimated at 25,840 ha). No trees with suitable breeding hollows or roosting habitat will be removed.

The Project area has direct connectivity to remnant vegetation to the east and as the proposed clearing is within an area disturbed by existing access tracks, transmission lines and agricultural activities, it is considered unlikely to further fragment fauna habitat in the local area. A suitably qualified environmental specialist will be on site during all native vegetation clearing activities to observe for fauna.

As the clearing comprises habitat for Carnaby's Cockatoo, the proposed clearing is considered at variance to this principle. Potential impacts to significant fauna habitat will be managed by the implementation of a Vegetation Management Plan.

c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.	**Not likely to be at variance**

Assessment:

The desktop assessment identified 20 threatened flora species within 10 km of the Project area that are known to occur from historical records of the DBCA Threatened and Priority Flora database and WA Herbarium database, or potentially occur in the Study area as identified in the EPBC Act PMST search results (DCCEEW, 2025). The desktop searches recorded:

- The PMST search identified the potential presence of one Critically Endangered, 13 Endangered, and four Vulnerable species under the EPBC Act.
- The DBCA database search identified the potential presence of five Threatened species under the BC Act (Figure 5).

The field survey did not record any Threatened flora listed under the EPBC Act or BC Act within the Project area. A post-survey likelihood of occurrence assessment determined the likelihood of Threatened flora occurring in the Project area is low.

Proposed clearing of vegetation within the Project area is considered unlikely to impact on Threatened flora listed under the EPBC or BC Act and therefore is considered not likely to be at variance with this principle.

d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.	Is at variance

Assessment:

Desktop searches of the DBCA Threatened Ecological Communities (TEC) database and EPBC Act PMST indicated the presence of three listed communities with the potential to occur within 10 km to the Project area:

- Banksia Woodlands of the Swan Coastal Plain (EN under the EPBC Act and DBCA listed Priority 3)
- Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain (CR under the EPBC Act and DBCA listed Priority 3)
- Empodisma peatlands of southwestern Australia (EN under the EPBC Act)

No vegetation representative of Tuart Woodlands or Empodisma peatlands has been recorded in the Project area (AECOM, 2024).

Two remnant native vegetation types were recorded in the Project area by AECOM (2024) survey that are associated with Banksia Woodlands of the Swan Coastal Plain TEC (BaAcMp and BpAcMp) (Figure 3). One 4.57 ha patch of Banksia Woodlands TEC was recorded in the Project area. This TEC was verified through quadrat and relevé data and assessing the patch against the key diagnostic characteristics identified in the approved conservation advice (DEE, 2016). The patch was considered to be of Very Good condition as per the conservation advice (DEE, 2016), however, condition of the patch did vary, and included areas of Degraded vegetation where weed invasion reduced condition. This patch represents part of a larger contiguous patch that extends for more than 100 ha.

A total of 4.57 ha of Banksia Woodlands TEC is mapped within the Project area, of which up to 0.8 ha may be cleared for this Project. Although the proposed clearing will reduce the extent of an occurrence of Banksia Woodlands TEC, given the small scale of clearing and degraded condition of the vegetation, and noting the extent of Banksia Woodlands TEC that occurs in the local area (>100 ha), the clearing is unlikely to fragment or increase fragmentation, or to substantially reduce the quality or integrity of the larger TEC occurrence.

Given the vegetation to be cleared forms part of a TEC, the clearing is considered at variance to this principle. Potential impacts to this TEC from clearing will be managed by the implementation of Vegetation Management Plan.

e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.	Not at variance

Assessment:

The Project is located within the Swan Coastal Plain (SCP) bioregion and the Perth Subregion (SWA2) as described by the Interim Biogeographic Regionalisation of Australia (IBRA).

Broadscale (1:250,000) pre-European vegetation mapping of the area was completed by Beard (1979) at an association level. The mapping indicates that one vegetation association is present within the Project area:

- Low woodland; banksia (association no. 949).

As shown below, the current extents remaining of vegetation association 949 are greater than 56% at all scales (GoWA, 2019).

The National Objectives and Targets for Biodiversity Conservation recognise that the retention of 30% or more of the pre-clearing extent of each ecological community is necessary if Australia's biological diversity is to be protected (Commonwealth of Australia, 2001). As shown below, the current extents remaining of vegetation association 949 are greater than 56% and Bassendean Complex-North is greater than 71% at all scales.

The proposed clearing of up to 0.8 ha of native vegetation will result in 0.001% to 0.0006% reduction in the current extent of vegetation association 949 and 0.001% to 0.004% reduction of the Bassendean Complex-North.

The Project area is also not located in an extensively cleared landscape. Based on DPIRD remnant vegetation mapping, there is an estimated 55% (18,354 ha) of native vegetation located in the local area (10 km). Approximately 476,841 ha of native vegetation extent remains on the Swan Coastal Plain. A reduction of up 0.8 ha in native vegetation will lead to a 0.0002% reduction of native vegetation on the SCP and 0.0044% within 10 km of the Project area.

Therefore, it is considered the proposed clearing is not at variance to this principle.

Pre-European Vegetation Association	Scale	Pre-European extent (ha)	Current extent (ha)	Current extent (%)	% Current Extent remaining in DBCA reserves (proportion of Current extent)	Proposed clearing reduction of current extent (%)
Vegetation Association No. 949	**Statewide** WA	218,193.94	123,104.02	56.42	55.86	0.0006
	IBRA Bioregion Swan Coastal Plain	209,983.26	120,287.93	57.28	56.40	0.0007
	IBRA Sub-region Perth	184,475.82	104,128.96	56.45	58.99	0.0007
	LGA Shire of Gingin	138,102.77	81,731.46	59.18	61.66	0.001

Heddle / Mattiske Vegetation Complex	Scale	Pre-European extent (ha)	Current extent (ha)	Current extent (%)	% Current extent remaining in DBCA reserves (proportion of Current extent)	Proposed clearing reduction of current extent (%)
Bassendean Complex-North	**IBRA Bioregion** Swan Coastal Plain	79,057.35	56,659.67	71.67	38.65	0.001
	LGA Shire of Gingin	49,711.91	38,979.76	78.41	62.88	0.002

f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.	**Not at variance**

Assessment:

The Project area is located in the Moore River catchment and Lower Moore sub-catchment (GoWA, 2025). Desktop assessment of the following hydrological landmarks within 10 km of the Project area includes the following:

- No wetlands or watercourses intersect the Project area. One major watercourse, the Moore River, is located approximately 2 km north of the Project area and the Whitfield Brook, a major tributary is located 3.5 km south of the Project area (Figure 9).
- No Internationally Important Wetlands (Ramsar) or Nationally Important Wetlands occur within 10 km of the Project area.
- The Project area and entire 10 km buffer intersects a surface water area proclaimed under the RIWI Act, Moore River and certain Tributaries.
- The nearest wetland to the Project area is a Resource Enhancement wetland 132 m to the east (UFI 10065). The nearest Conservation Category wetlands to the Project area is an unknown dampland (UFI 9916) 530 m south and Moore R. N. P. wetland (UFI 9917) 670 m south (Figure 10).

The AECOM (2024) biological survey did not record any vegetation growing in association with a wetland or watercourse. Accordingly, the proposed clearing is not at variance to this principle.

g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	Not likely to be at variance

Assessment:

The DPIRD Soil Landscape Mapping (DPIRD-027) dataset indicates that the Project area is mapped as the following:

- Moore River, phase 14 – Brownish-yellow weak clayey sand
- Bassendean, phase 6+7 – Light grey sand to depth between 90-150 cm overlaying pale yellow to yellow sand and Bleached sands, co-dominant

The Project area intersects an area that is mapped as having a low flood risk (DPIRD-007) (Figure 9), low water erosion risk (DPIRD-013), low surface acidity (DPIRD-035), low to moderate subsurface acidity (DPIRD-036) and low to moderate repellence risk (DPIRD-015). The Australian Soil Resource Information System (ARIS) Acid Sulfate Soils (ASS) mapping indicates that the Project area is located in an area with an Extremely Low Probably of Occurrence of ASS (CSIRO, 2025).

Standard erosion, sedimentation and dust management control measures will be implemented during construction works.

Clearing of native vegetation within the clearing area is not expected to cause appreciable land degradation. The proposed clearing is not likely to be at variance to this principle.

h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.	Not likely to be at variance

Assessment:

Desktop assessment of the DBCA Legislated Lands and Waters (DBCA-011) dataset indicates that the Project area does not intersect any conservation areas however four nature reserves and one national park occur within a 10 km buffer of the Project area (Figure 10) including:

- Moore River National Park (Reserve 28462) is a Class C reserve located approximately 2 km to the south
- Namming Nature Reserve (Reserve 28558) located approximately 5.5 km to the northwest
- Reserve 25591 (Un-named nature reserve) located approximately 6.4 km to the northeast
- Quins Hill Nature Reserve (Reserve 43285) located approximately 6.8 km to the northeast
- Moochamulla Nature Reserve (Reserve 15816) located 8.7 km to the northeast.

Numerous Environmentally Sensitive Areas (ESA) (DWER-046) are located within the 10 km buffer of the Project area, these are largely associated with the Moore River National Park and Conservation Category Geomorphic Wetlands of the SCP (DBCA-019). The closest ESAs to the Project area include the following Conservation Category wetlands (Figure 10):

- UFI 9916 – basin located approximately 500 m to the south
- Moore River National Park wetland (UFI 9917) – basin located approximately 620 m to the south
- UFI 9918 – basin located approximately 750 m to the north.

Given the small scale of the proposed clearing and distance to the nearest conservation areas and ESAs, it is considered that the proposed clearing is not likely to have an appreciable impact on the environmental values of Moore River National Park or any of the other nearby conservation areas or ESAs. The proposed clearing is not likely to be at variance with this Clearing Principle.

i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.	Not likely to be at variance

Assessment:

The Project area is located in the Lower Moore sub-catchment within the Moore-Hill Rivers Basin (DWER-030). No wetlands or watercourses intersect the Project area. One major watercourse, the Moore River, is located approximately 2 km north of the Project area and the Whitfield Brook, a major tributary is located 3.5 km south of the Project area (Figure 9). No Internationally Important Wetlands (Ramsar) or Nationally Important Wetlands occur within 10 km of the Project area.

The nearest wetland to the Project area is a Resource Enhancement wetland 136 m to the east (UFI 10065). The nearest Conservation Category wetlands to the Project area is an unknown dampland (UFI 9916) 530 m south and Moore River National Park wetland (UFI 9917) 670 m south.

No Public Drinking Water Source Areas occur within 10 km of the Project area. The Project area intersects a surface water area proclaimed under the RIWI Act, Moore River and certain Tributaries. The Project area also intersects the Gingin Groundwater Area, proclaimed under the RIWI Act.

It is considered unlikely that the small scale of clearing of vegetation adjacent to previously cleared tracks and transmission lines would disturb or interrupt any natural drainage and surface water run-off patterns and is unlikely to alter the groundwater quality in the local area.

Proposed clearing of up to 0.8 ha native vegetation is unlikely to cause any deterioration in the quality of surface or underground water. The proposed clearing is not likely to be at variance with this Clearing Principle.

j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	**Not likely to be at variance**

Assessment:

The DPIRD Soil Landscape Mapping (DPIRD-027) dataset (GoWA, 2025) indicates that the Project area is mapped as the following:

- Moore River, phase 14 – Brownish-yellow weak clayey sand
- Bassendean, phase 6+7 – Light grey sand to depth between 90-150 cm overlaying pale yellow to yellow sand and Bleached sands, co-dominant.

The Project area intersects an area that is mapped as having a low flood risk (DPIRD-007) (Figure 9), low water erosion risk (DPIRD-013) and low to moderate repellence risk (DPIRD-015). The annual total rainfall recorded at the three nearest BoM stations from 2022 – 2024 are as follows (BoM, 2025):

Station (number)	2022	2023	2024
Wannamal (9040)	603.6 mm	336.6 mm	468.8 mm
Baramba (9144)	672.2 mm	438.4 mm	N/A
Lake Nammen (9210)	649.6 mm	377.6 mm	486.6 mm

The removal of a relatively small area of vegetation is considered unlikely to change the existing surface water flow rates or paths and is unlikely to increase the incidence or intensity of flooding or localised waterlogging in the surrounding area. The proposed clearing is not likely to be at variance to this principle.

7. Planning instrument or other relevant matters

The Project area is zoned General Rural and A19 – Tourist Complex under the Shire of Gingin Planning Scheme No. 9. 237 Orange Springs Road is subject to the following State Planning Policies (SPP):

- 3.7 - Planning in Bushfire Prone Areas
- 5.4 - Road and Rail Noise.

No clearing is proposed within the Brand Highway Road reserve.

The project does not intersect any Aboriginal cultural heritage sites registered under the *Aboriginal Heritage Act 1972*.

No other approved policies and planning instruments are considered likely to apply to the Project area.

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 the Volt (Doc ID ID80-1811635832-79523).

In accordance with the Clearing Intervention thresholds this project has been deemed High Risk given that clearing will be undertaken under CPS 1918/11 and is at variance with the clearing principles. Accordingly, a clearing intervention is required.

9. Post assessment requirements

Post assessment	Outcome	Justification / Further Action Required
Are submissions required?	Yes	Submissions will be sought from the public and interested parties in accordance with condition 7 of CPS1918.
Could the area be affected by dieback?	Yes	The Project area is located south of the 26th parallel and receives over 400 mm 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	Biological survey has not identified any other pathogens affecting the site.
Is a Vegetation Management Plan required?	Yes	See Appendix B.
Is rehabilitation/revegetation required?	No	No temporary clearing is proposed.
Is a Dieback Management Plan required?	Yes	Managed as per Western Power standard dieback hygiene practices.
Is an offset required?	Yes	Offsets are considered likely to be required for clearing of up to 0.8 ha of Banksia Woodlands TEC and Black Cockatoo foraging habitat. Western Power proposes to make a financial contribution to the State Offset Fund to purchase land for conservation of these values. The offset will be developed in consultation with DWER.
What is the clearing risk rating?	High	The clearing has been deemed high risk, therefore a clearing intervention is required.

10. References

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Appendix A Stakeholder consultation

In accordance with Condition 7 of CPS 1918/11, Western Power has published the Clearing Assessment Report on its website and invited submissions from the public. Responses to public submissions will be published on the website.

Western Power has identified the following parties as having an interest in aspects of the proposed clearing that are at variance or may be at variance to the clearing principles.

Stakeholders	Invited to make submissions?	Date sent	Submission received?	Date received
Office of the Commissioner of Soil and Land Conservation within Department of Primary Industries and Regional Department (DPIRD)	Yes ☐ Not required ☒	Click here to enter a date.	Yes ☐ No ☐	Click here to enter a date.
Department of Water and Environmental Regulation Drainage and Waterways Branch	Yes ☐ Not required ☒	Click here to enter a date.	Yes ☐ No ☐	Click here to enter a date.
Conservation Council of WA	Yes ☐ Not required ☒	Click here to enter a date.	Yes ☐ No ☐	Click here to enter a date.
Department of Biodiversity, Conservation and Attractions	Yes ☐ Not required ☒	Click here to enter a date.	Yes ☐ No ☐	Click here to enter a date.
Local Government where the clearing is proposed	Yes ☒ Not required ☐	TBD	Yes ☐ No ☐	Click here to enter a date.
Owner or occupier of the land on which clearing is proposed	Yes ☒ Not required ☐	TBD	Yes ☐ No ☐	Click here to enter a date.
Any other party that may have an interest	Yes ☐ Not required ☒	Click here to enter a date.	Yes ☐ No ☐	Click here to enter a date.

Responses to all submissions will be published on the Western Power website.

Appendix B Vegetation Management Plan

1.1 Introduction

The Vegetation Management Plan (VMP) has been prepared in accordance with condition 6 of CPS 1918/11.

1.2 Scope of the Project Activities

In support of the State Government decarbonisation strategy, Western Power is upgrading the existing network to enable future connections of large-scale renewable energy generation and load in the Northern region of the Southwest Interconnected Network (SWIN). A future ready transmission network is critical to deliver Western Australia's wind and solar resources to major loads. A recent SWIN demand assessment concluded that the location of the renewable resources at the fringe of the grid, coupled with the substantial footprint of the SWIN, means substantial upgrading of the network is required to meet industry demand for greener energy.

The proposed clearing is required to enable decommissioning of existing transmission connections to the Regans zone substation and establishment of new 132kV connections to the future Regans Terminal, located in an adjacent cleared area.

Up to 0.8 ha of clearing of native vegetation is required within a 7.43 ha Project area to enable decommissioning of existing transmission connections to the Regans zone substation and establishment of new 132kV connections to the future Regans Terminal, located in an adjacent cleared area (agricultural land).

Native vegetation within the Project area is representative of Banksia Woodlands of the Swan Coastal Plain (Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and Department of Biodiversity Conservation and Attractions (DBCA) listed Priority 3) and potential Black Cockatoo habitat including of foraging habitat and 36 nesting trees (DBH>500 mm) with no hollows. No Black Cockatoo roosting sites were identified within the Project area.

Clearing of native vegetation is proposed to be limited to up to 0.8 ha and located adjacent to previously cleared areas within the Project area such as access tracks, fire breaks and cleared patches.

These works will contribute to reinforcing and de-meshing the existing network to support the movement of generation capacity into and around the SWIN.

1.3 Scope of the Vegetation Management Plan

The VMP highlights the project management issues and provides actions required to be undertaken before, during and following project completion. The aim of the VMP is to provide management actions to avoid, mitigate and/or manage the clearing impacts, to allocate areas of responsibility required for the implementation of management actions identified and to provide timeframes for completion and monitoring actions.

1.4 Non-Compliance

All non-compliances related to this VMP will follow Western Power's incident management procedure and will be logged in Guardian.

Project Component	Management Action	Evidence Action completed	Responsible Person	Completion Timeframe
Standard Actions				
Clearing	At the pre-start meeting provide clear maps indicating the areas approved to be cleared to the crew undertaking the works	Record sheet to be signed at pre-start meeting by all personnel.	Site Supervisor	Prior to clearing commencing
	All access and laydown areas will be clearly delineated on plans	Plans to be captured in the Volt.	Site Supervisor	Prior to clearing commencing
	Have a copy (electronic or hard copy) of the VMP on site during the clearing activities	One compliance inspection will occur prior to clearing.	Site Supervisor	Once clearing has been completed
	Clearing of vegetation shall not exceed the approved limits of clearing. All vegetation to be cleared will be demarcated on site prior to the commencement of project activities	One compliance inspection will occur prior to clearing. Representative photos will be taken.	Site Supervisor	Prior to clearing commencing
	Any vegetation cleared beyond the extent of approvals shall be rehabilitated to the pre-clearing condition	Clearing incident reported	Site Supervisor	Within 24 months

Project Component	Management Action	Evidence Action completed	Responsible Person	Completion Timeframe
	Cleared vegetation will be respread in the neighbouring areas after project activities are completed	One compliance inspection will occur after clearing.	Site Supervisor	Once clearing has been completed
Specific Actions				
Principle a	Where possible avoid and limit the amount of clearing on site.	One compliance inspection will occur prior to clearing.	Site Supervisor	Prior to clearing activities.
	Ensure Banksia Woodlands of the SCP TEC/PEC/Priority flora species/ Black Cockatoo potential nesting trees (DBH>500 mm) to be retained is demarcated and the importance of protecting this area will be communicated to the crew during the pre-start.	One compliance inspection will occur prior to clearing. Representative photos will be taken.	Site Supervisor	Prior to clearing activities.
Principle b	Clearing will progress slowly in one direction to ensure fauna has opportunity to move on	One compliance inspection will occur prior to clearing.	Site Supervisor	Prior to and during clearing activities.

Project Component	Management Action	Evidence Action completed	Responsible Person	Completion Timeframe
	In the event that sick, injured or orphaned native wildlife are located on the project site, the WILDCARE Helpline ((08) 9474 9055) will be contacted for assistance and an incident will be lodged in Guardian.			
	Feeding, disturbance, harassing of fauna or the presence of firearms or pets is prohibited on site.			
	Ensure that all suitable DBH trees in the clearing area to be retained are demarcated prior to clearing and the importance of protecting these trees will be communicated to the crew during the pre-start.	One compliance inspection will occur prior to clearing. Representative photos will be taken. DBH trees in the clearing area clearly marked.	Site Supervisor	Prior to clearing activities.
Principle d	PEC/TEC extent to be retained will be demarcated and the importance of protecting this area will be communicated to the crew during the pre-start	One compliance inspection will occur prior to clearing. Representative photos will be taken.	Site Supervisor	Prior to clearing activities.

Project Component	Management Action	Evidence Action completed	Responsible Person	Completion Timeframe
	Implement weed hygiene and control measures to prevent new weed infestations from occurring within the project area and the spread of existing weeds.	One compliance inspection of weed infestations will occur post clearing.	Site Supervisor	Completion construction
	Remove or kill any weeds growing in project area that are likely to spread and result in environmental harm to adjacent area of native vegetation that are in good or better condition.			
Standard Record Keeping				
Record Keeping-Clearing	Maintain the following records for the cleared area: • Location of clearing area as a shapefile • Size of clearing (ha) • Date(s) on which clearing was done	Clearing data via CPS 1918/11 Condition 12a submitted to Environment team.	WP Project Owner	Data to be submitted within 30 days of project clearing activities being completed

Project Component	Management Action	Evidence Action completed	Responsible Person	Completion Timeframe
Record Keeping - Clearing	Copies of all Vehicle Environmental Inspection Registers used to check that clearing machinery is free of soil and vegetative material must be maintained	Copies of completed registers submitted to WP Project Owner	Site Supervisor	Copies of completed registers are to be submitted within 30 days of project clearing activities being completed
Record Keeping- Other	Maintain the other records in accordance with Condition 12b (VMP), Condition 12c (revegetation), 12d (dieback/pathogen/weeds) and 12e (offsets).	Data via CPS 1918/11 Condition 12b, 12c, 12d and 12e managed by Social Performance & Approvals team.	TET	Data to be submitted within 30 days of project activities being completed

Appendix C – Surveys

Clean Energy Link - North Flora, Vegetation and Fauna Survey (AECOM, 2024)
Executive Summary

Western Power has engaged AECOM Australia Pty Ltd (AECOM) to complete flora, fauna and vegetation surveys for four discrete survey areas between Eneabba and Perth. The Project is being delivered as part of the North Region strategy, referred to as the Clean Energy Link (CEL). This report addresses four CEL sites situated north of the Perth Metropolitan Region. The four sites include, ENBENT 132kV (Eneabba), Cataby Substation (Cataby), Yandin Terminal (Yandin) and Regans Terminal (Regans).

A summary of the Regans results are presented below:

- One significant flora species, *Lyginia excelsa* (P2) was recorded.
- One patch of the Banksia Woodlands of the Swan Coastal Plain TEC (listed as Endangered under the EPBC Act) was recorded for 4.60 ha.
- Three native vegetation communities were recorded, extending across 5.16 ha (47%). With areas of native vegetation largely considered Degraded (3.14 ha, 29%).
- The survey area was predominantly cleared (5.73 ha, 53%).
- Two species of conservation significance were identified during the survey. Foraging evidence of Carnaby's Cockatoo (*Zanda latirostris*) was recorded in the Trees over Cleared habitat. The Blackfaced cuckoo shrike (*Coracina novaehollandiae*) was both seen and heard.
- Suitable habitat is present for seven significant fauna species including:
    - Carnaby's Cockatoo (*Zanda latirostris*) Endangered under the EPBC Act and BC Act – known
    - Quenda (*Isoodon fusciventer*) Priority 4 – Moderate
    - Western Brush Wallaby (*Notamacropus irma*) Priority 4 – High
    - Land Snail (*Bothriembryon perobesus*) Priority 1 – Moderate
    - Woolybush Bee (*Hylaeus globuliferus*) Priority 3 – High
    - Swan Coastal Plain Shield-backed Trapdoor Spider (*Idiosoma sigillatum*) Priority 3 – Moderate
    - A Short-tongued Bee (*Leioproctus contrarius*) Priority 3 – High.
- The Black Cockatoo assessment received a score of '10' with the Commonwealth DAWE (2022) method and '4' for native fauna habitat utilising the BCE (2020) method.
- Forty-three potential black cockatoo nesting trees were recorded.
- No black cockatoo roosting sites were recorded. Two tall (15-20 m) remnant *Corymbia calophylla* trees along Orange Springs Road are located approximately 500 m south of Moore River and likely provide roosting habitat.

Conclusion

Western Power has engaged AECOM to complete flora, fauna and vegetation surveys for four discreet survey areas between Eneabba and Perth. The four sites include, ENB-ENT 132kV (Eneabba), Cataby Substation (Cataby), Yandin Terminal (Yandin) and Regans Terminal (Regans).

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    - Woolybush Bee (*Hylaeus globuliferus*) Priority 3 – High
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The survey was undertaken by experienced personnel during the ideal detection period for significant flora. Survey effort was considered satisfactory, and no access issues were encountered. The potential presence of several conservation significant invertebrate species was identified. Conservation significant invertebrate surveys and/or Short-range endemic surveys may be required to verify their presence and/or absence within the survey area.