

DCE Electrical Mullewa Clearing Referral Supporting Information



Prepared For: DCE Electrical
159 Abernathy Road
Belmont WA 6014

Report Number: AP2024-086

Report Version: V1

Report Date: 24 July 2024

DISCLAIMER

This document has been produced in accordance with and subject to an agreement between Aurora Environmental (“**Aurora**”) and the client for whom it has been prepared (“**Client**”). It is restricted to those issues that have been raised by the Client in its engagement of Aurora and prepared using the standard of skill and care ordinarily exercised by Environmental/Occupational Health and Safety consultants in the preparation of such documents.

Any person or organisation that relies on or uses the document for purposes or reasons other than those agreed by Aurora and the Client without first obtaining the prior written consent of Aurora, does so entirely at their own risk and should not alter their position or refrain from doing so in reliance of this document. Aurora denies all liability in tort, contract or otherwise for any loss, damage or injury of any kind whatsoever (whether in negligence or otherwise) that may be suffered as a consequence of relying on this document for any purpose other than that agreed by Aurora.

QUALITY ASSURANCE

Aurora Environmental has implemented a comprehensive range of quality control measures on all aspects of the company’s operation.

An internal quality review process has been applied to each project task undertaken by us. Each document is carefully reviewed and signed off by senior members of the consultancy team prior to issue to the client.

Document No: DCE_PP03643_NVR_01_MM-BN_V1

Report No: AP2024-086

Author: Brett Neasham
Principal Ecologist

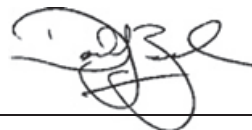


24 July 2024

Signature

Date

Reviewed by: Paul Zuvela
Principal Environmental
Scientist



24 July 2024

Signature

Date

DISTRIBUTION

NO. OF COPIES	REPORT FILE NAME	REPORT VERSION	DATE	PREPARED FOR	INITIALS
1	DCE_PP03643_NVR_01_MM-BN_V1	V1	24 July 2024	DCE Electrical	MM

TABLE OF CONTENTS

DISCLAIMER	2
DISTRIBUTION	3
TABLE OF CONTENTS	4
ATTACHMENTS	5
1 PROJECT OVERVIEW AND LOCATION	6
1.1 PROJECT BACKGROUND	6
1.2 THE REFERRAL AREA	6
2 REFERRAL CRITERIA	7
2.1 CRITERION ONE – THE AREA PROPOSED TO BE CLEARED IS SMALL RELATIVE TO THE TOTAL REMAINING VEGETATION	7
2.2 CRITERION TWO – THERE ARE NO KNOWN OR LIKELY SIGNIFICANT ENVIRONMENTAL VALUES WITHIN THE AREA	7
2.3 CRITERION THREE – THE STATE OF SCIENTIFIC KNOWLEDGE OF NATIVE VEGETATION WITHIN THE REGION IS ADEQUATE	10
2.4 CRITERION FOUR – CONDITIONS WILL NOT BE REQUIRED TO MANAGE ENVIRONMENTAL IMPACTS	10
3 SUMMARY AND CONCLUSIONS	11
4 REFERENCES	12

TABLES IN TEXT

- A. Assessment Against Criterion One
- B. Assessment Against Criterion Two

ATTACHMENTS

LIST OF FIGURES

1. Locality
2. Significant Fauna
3. Threatened Ecological Communities (TEC)/Priority Ecological Communities (PEC)
4. Significant Flora

LIST OF APPENDICES

1. Significant Fauna Likelihood of Occurrence Assessment – Taxa Within 10 km
2. Significant Flora Likelihood of Occurrence Assessment – Taxa Within 2.5 km

1 PROJECT OVERVIEW AND LOCATION

1.1 PROJECT BACKGROUND

DCE Electrical and Leopard Controls (DCE Electrical) are assisting Western Power to install new power poles, a high voltage line and associated electrical infrastructure in Mullewa, Western Australia (referred to as ‘the Project’). The construction of the Project will require clearing of 926 m² (0.0926 hectares [ha] – the ‘referral area’) of native vegetation. The referral area sits within an approximately 2 ha Development Envelope (DE) located across two lots of Crown land (Lot 63 on Plan 181863 and Lot 66 on Plan 188752).

Western Power’s scope of works requires DCE Electrical to either obtain a clearing permit, a referral determination notice from the Department of Water and Environmental Regulation (DWER) indicating that a clearing permit is not required, or written details of a relevant clearing permit exemption and supporting documents (regulator correspondence/landowner exemption clearing letter).

The proposed activity for which clearing is required is not considered an exempt purpose under Schedule 6 of the *Environmental Protection Act 1986* (EP Act) or Regulation 5 of the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Regulations).

The DWER provide an option for project proponents to refer a proposed low environmental impact clearing activity for assessment to determine whether a clearing permit is required. DWER (2021) provide four criteria that must be satisfied to provide an exemption from requiring a clearing permit that is not covered by the Schedule 6 or Regulation exemptions. The criteria are:

- The area proposed to be cleared is small relative to the total remaining vegetation.
- There are no known or likely significant environmental values within the area.
- The state of scientific knowledge of native vegetation within the region is adequate.
- Conditions will not be required to manage environmental impacts.

If it cannot be demonstrated that each of these criteria do not apply, then a native vegetation clearing permit (NVCP) will be required. To determine whether a clearing permit is required for the project, DCE Electrical engaged Aurora Environmental (Aurora) to conduct a desktop assessment to review the proposed clearing against these four criteria for use in support of a referral to DWER.

1.2 THE REFERRAL AREA

The referral area is located south of the Geraldton – Mount Magnet Road, approximately 1.5 kilometres (km) southwest of Mullewa, Western Australia, within the City of Greater Geraldton Local Government Authority (LGA) and the Merredin subregion of the Interim Biogeographic Regionalisation of Australia (IBRA) version 7 (Figure 1).

The referral area is contiguous with areas to the northeast and southwest where clearing has been previously undertaken for the installation of other infrastructure associated with the Project. The southern section of the referral area sits adjacent to an established track of approximately 10 metres (m) width while the northern section is dissected by a track measuring approximately 6 m.

2 REFERRAL CRITERIA

2.1 CRITERION ONE – THE AREA PROPOSED TO BE CLEARED IS SMALL RELATIVE TO THE TOTAL REMAINING VEGETATION

Criterion One in the DWER's (2021) guideline on native vegetation clearing referrals has three criteria and thresholds against which the proposed clearing must be considered. An assessment of the proposed clearing against these criteria is provide in Table A.

TABLE A: ASSESSMENT AGAINST CRITERION ONE

CRITERION	THRESHOLD	ASSESSMENT
Extent of proposed clearing area.	If more than 1 ha in the Intensive Land Use Zone is proposed to be cleared, a permit will be required.	The proposed clearing (0.0926 ha) is less than the 1 ha threshold.
Threshold for remaining extent of that native vegetation association or complex in the relevant IBRA bioregion.	If less than 30% of that native vegetation or complex is remaining within the relevant IBRA bioregion, a permit is required.	The referral area is mapped as Vegetation Association 687: Shrublands; bowgada and jam scrub with scattered <i>Allocasuarina huegeliana</i> and York Gum (Shepherd <i>et al.</i> 2002). The current remaining extent of this association within the Avon Wheatbelt IBRA bioregion is 10,242.84 ha, which is 27.34% of the inferred pre-European extent (Government of Western Australia 2019). While the remaining extent of this association is below 30%, it is noted that the proposed clearing would change the existing extent to 10,242.75 ha, which will not alter the percentage remaining (i.e. will still be 27.34% remaining). The proposed reduction in remaining extent is negligible.
Threshold for remaining native vegetation surrounding the boundary of the proposed clearing.	If less than 30% of native vegetation is remaining within a 5 km buffer of the proposed clearing, a permit is required.	There is 1,658 ha of native vegetation remaining (Department of Primary Industries and Regional Development [DPIRD] 2023) within 5 km of the referral area, which represents 21% and is less than the 30% threshold. The proposed reduction in remaining extent is negligible due to the small extent of clearing proposed and the remaining extent will remain at 21%.

2.2 CRITERION TWO – THERE ARE NO KNOWN OR LIKELY SIGNIFICANT ENVIRONMENTAL VALUES WITHIN THE AREA

Criterion Two of the DWER (2021) guideline on native vegetation clearing referrals has 12 categories against which proposed clearing is considered. An assessment of the proposed clearing against these is provided in Table B.

TABLE B: ASSESSMENT AGAINST CRITERION TWO

ENVIRONMENTAL VALUE	THRESHOLD ASSESSMENT
Vegetation condition	A site assessment has not been conducted as part of this assessment and therefore, the current vegetation condition cannot be confirmed. However, it

TABLE B: ASSESSMENT AGAINST CRITERION TWO

ENVIRONMENTAL VALUE	THRESHOLD ASSESSMENT
	<p>is noted the referral area is at the end of a track that is 11 m wide, is dissected by a narrower track of approximately 6 m and has existing power infrastructure at both ends.</p> <p>The absolute best that the vegetation condition at the site could be classified is 'Very Good' condition, according to the scale of Keighery (1994), due to known disturbances. There are obvious tracks present and existing infrastructure in the area. Based on aerial photography, the canopy structure appears to be retained but there is likely to be some loss of midstory and understory species as a consequence of disturbances associated with the site use.</p>
Significant fauna	<p>A total of 23 taxa were listed in the Department of Biodiversity, Conservation and Attractions (DBCAs) database search within a 50 km radius of the referral area (reference 15-0724FA, DBCA 2024a), comprised of nine threatened (T), two migratory (MI), one other specially protected (OS), two Priority 1 (P1), five P3 and two P4 species.</p> <p>Given the small size of the referral area, a likelihood of occurrence assessment (LOA) was completed for species with records within a 10 km radius (Figure 2 and Appendix 1). It was noted that the records within a 10 km radius included two species that are outside of their known distributions. <i>Pezeporus flaviventris</i> (Western Ground Parrot) is known from Fitzgerald River and Cape Arid National Parks only (Department of Sustainability, Environment, Water, Population and Communities [DSEWPAC] 2013) and as such, this record is potentially an incorrect identification (the record is from 1950 and is noted as being uncertain). There was a record for <i>Calyptorhynchus banksii naso</i> (Forest Red-tailed Black Cockatoo) which is also highly likely to be incorrect as this is substantially out of the known distribution and in an area where the species preferred habitat does not occur. The referral area is, however, within the known distribution of <i>Calyptorhynchus banksii escondidus</i>, which is known to occur in the area. This species is not conservation dependent.</p> <p>For the remaining significant fauna within a 10 km radius, three reptile taxa – <i>Cyclodomorphus branchialis</i> (T; Gilled slender blue-tongue), <i>Egernia stokesii badia</i> (T; Western spiny-tailed skink) and <i>Lerista yuna</i> (P3; Yuna broad-blazed slider) were considered to be likely to be resident in the vegetation surrounding the site; however, given the extent of disturbance associated with the application and immediate surrounds, are unlikely to be resident in this immediate area.</p> <p>There are records of <i>Idiosoma</i> spp. (trapdoor spiders) within a 10 km radius of the referral area. Given the extent of disturbance adjacent to the application and potential loss of surface soil cryptogamic crusts and litter, it is unlikely they will be present.</p>
Fauna habitat	<p>The referral area is within an area of intact native vegetation and as such is likely to be habitat for a range of volant and non-volant terrestrial vertebrate fauna as well as habitat for a range of invertebrates. The size of the referral area is considered to be too small to constitute critical habitat for invertebrate and vertebrate fauna.</p>
Significant ecological linkage	<p>The vegetation surrounding the referral area is considered to be a significant ecological linkage. It is the largest section of native vegetation to the south of the Mullewa townsite and provides a connection south with remnants associated with drainage lines and paddocks and north along a minor watercourse that leads into the southern extent of pastoral lands.</p> <p>While the linkage is significant, the referral area comprises a small section and is concentrated around areas of disturbance, which greatly reduces any linkage</p>

TABLE B: ASSESSMENT AGAINST CRITERION TWO

ENVIRONMENTAL VALUE	THRESHOLD ASSESSMENT
	value at that location. The ecological linkage will remain should clearing proceed.
Mapped ecological community	<p>There were two Priority Ecological Communities (PECs) recorded within a 50 km radius of the referral area (search ref 10-0724EC_Mullewa).</p> <p>The Priority 1 ecological community Tallering Peaks vegetation complexes (banded ironstone formation), located approximately 37 km north, is considered to be unlikely to occur within the referral area due to the absence of banded ironstone.</p> <p>The Priority 3 ecological community Eucalypt woodlands of the Western Australian wheatbelt is known to occur to the south, southeast and east of the referral area, with the nearest occurrence 14 km southeast (Figure 3).</p> <p>The referral area is located on Pre-European vegetation association 687, which is characterised by the presence of scattered York gum (<i>Eucalyptus loxophleba</i>) and as such, could theoretically contain areas that meet the description of the Eucalypt woodlands. Given the scale of the proposed clearing and the proximity of the referral area to existing disturbances and cleared areas, the vegetation is not likely to be considered to be representative of any significant ecological community.</p>
Significant flora	<p>A total of 145 taxa were listed in the DBCA database search within a 50 km radius of the referral area (search reference: 19-0724FL, DBCA 2024b)) comprised of 12 threatened (T), 29 Priority One (P1), 25 Priority Two (P2), 67 Priority 3 (P3) and 12 Priority Four (P4) species. Given the comparatively small impact area, a LOA was completed for species within a 2.5 km radius of the referral area (Figure 4) which consisted of two T, four P1, one P2, seven P3 and two P4 taxa.</p> <p>The LOA considered information from Florabase, the Australian Virtual Herbarium, relevant taxonomic texts and information provided in the spatial datasets from the DBCA in addition to 1:1 million surface geology and surface water features spatial data. Based on the LOA, one P1, one P2, three P3 and two P4 species were considered likely to occur within the referral area (Appendix 2).</p> <p>The two threatened taxa with records within a 2.5 km radius – <i>Eucalyptus beardiana</i> and <i>Grevillea bracteosa</i> subsp. <i>howatharra</i> – were both considered in detail and are not likely to be present in the referral area due to an absence of suitable habitat. <i>Eucalyptus beardiana</i> is typically found on sand dunes and ridges (Western Australian Herbarium [WAH] 1998 -), a feature that is not present in the referral area. <i>Grevillea bracteosa</i> subsp. <i>howatharra</i> is found on heavy soils of clay loam and with laterite in open sunny positions (Olde and Marriott 2008). The records of <i>G. bracteosa</i> subsp. <i>howatharra</i> close to the referral area were noted as being on sand or gravelly sand which is not likely to be the substrate present in the referral area.</p>
Mapped wetland	There are no mapped wetlands in or near the referral area.
Mapped watercourse	The referral area is located approximately 2.5 km northeast of the closest surface water feature, a minor river (Wooderarrung River).
Water resources	<p>The referral area is not located within 1 km of the following areas:</p> <ul style="list-style-type: none"> • Watercourses; • Public Drinking Water Source Area; and

TABLE B: ASSESSMENT AGAINST CRITERION TWO

ENVIRONMENTAL VALUE	THRESHOLD ASSESSMENT
	<ul style="list-style-type: none"> • Catchment proclaimed under the <i>Country Areas Water Supply Act 1947</i> (CAWS Act). <p>The referral area is located within the Gascoyne Proclaimed Groundwater area, and the Greenough River and Tributaries Surface water Catchment Area, proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act).</p> <p>Works will not require dewatering, and thus no change to surface or groundwater level or quality are expected. No deterioration in surface or groundwater quality is anticipated due to the nature and scale of clearing.</p>
Conservation reserve	The nearest conservation reserve to the referral area is Urawa Nature Reserve, which is more than 10 km northeast of the referral area.
Land and soil quality	<p>The referral area is located on the Ag surface geology unit, which contains undifferentiated felsic intrusive rocks (e.g., granite) (Raymond <i>et al.</i> 2012). DPIRD Natural Resource Information (WA) mapping indicates that the referral area has:</p> <ul style="list-style-type: none"> • <3 % very high to extreme water erosion hazard; • <3 % moderate to high land instability hazard; • <3 % high to extreme wind erosion hazard; • <3 % very poor to poor site drainage potential; and • <3 % moderate salinity hazard. <p>No registered contaminated sites have been mapped within or in the vicinity of the referral area.</p>
Heritage-related values and native title matters	The Project is located within an area in which native title is held by the Yamatji nation (Landgate 2018). There is a lodged Aboriginal heritage site (Department of Planning, Lands and Heritage [DPLH] 2023a) located 1,400 m northeast and a registered site (DPLH 2023b) located 1,100 m northeast of the Project. The proposed clearing will not impact on either of these sites.

2.3 CRITERION THREE – THE STATE OF SCIENTIFIC KNOWLEDGE OF NATIVE VEGETATION WITHIN THE REGION IS ADEQUATE

The referral area is located in a region in which there is a substantial amount of knowledge regarding the ecological values of natural ecosystems, with documented records of fauna and flora collections dating back almost 100 years and as recently as 2022.

2.4 CRITERION FOUR – CONDITIONS WILL NOT BE REQUIRED TO MANAGE ENVIRONMENTAL IMPACTS

The proposed clearing area is 0.0926 ha and is concentrated around areas in which there has been a permanent alteration to the landscape to facilitate the provision of vital services to the community in Mullewa. As a contractor to Western Power, the proponent is expected to complete the Project with minimal impact. Impacts to threatened flora and fauna are considered to be highly unlikely, as are effects in the surrounding landscape. Project activities will be managed through the preparation and implementation of a Construction Environmental Management Plan (CEMP) which must comply with Western Power standards.

3 SUMMARY AND CONCLUSIONS

DCE Electrical are assisting Western Power to install new power poles, a high voltage line and associated electrical infrastructure in Mullewa, Western Australia. The construction of the Project will require localised clearing of 926 m² (0.0926 ha) of native vegetation.

Due to the small extent of clearing required for the Project, Aurora Environmental has prepared this native vegetation clearing referral. The proposed clearing has been assessed by Aurora Environmental against the criterion outlined in the DWER's (2021) guidelines on native vegetation clearing referrals. The assessment found:

- The clearing area is small and significantly less than the 1 ha threshold for the Intensive Land Use Zone.
- The clearing impacts will not alter the remaining extent of Vegetation Association 687, or remaining extent of vegetation within 5 km of the referral area.
- The proposed clearing is highly unlikely to significantly impact any conservation significant ecological communities.
- The proposed clearing is highly unlikely to impact any threatened flora or threatened fauna. Several Priority flora species may occur near the referral area. The likelihood of significantly impacting Priority taxa is considered low due to the small extent of clearing proposed and the proximity of the Project to existing disturbances within the area.
- The proposed clearing will not alter ecological linkage values within the local area.
- The referral area is not within or adjacent to any significant areas such as wetlands, watercourses, drinking water source areas, conservation reserves and known heritage sites.

Based on the assessment, Aurora Environmental considers that the proposed clearing is negligible and that potential impacts to the environment can be adequately managed through the preparation and implementation of a CEMP in accordance with Western Power requirements. As a result of this assessment, Aurora Environmental considers a clearing permit is not required.

4 REFERENCES

Benshemesh, J. (2007) National Recovery Plan for Malleefowl. South Australia, Department for Environment and Heritage.

Brown, AP and Brockman, G (2015) New taxa of *Caladenia* (Orchidaceae) from south-west Western Australia. *Nuytsia* 25: 45-123.

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001 – 2005. Available from: National Objectives and Targets for Biodiversity Conservation 2001-2005 2001–2005 (habitatadvocate.com.au)

DAWE (2022) Referral guidelines for 3 WA threatened black cockatoo species: Carnaby’s Cockatoo, Baudin’s Cockatoo and the Forest-Red-tailed Black Cockatoo. Canberra, Department of Agriculture, Water and the Environment.

Department of Biodiversity, Conservation and Attractions (DBCA) (2023) DBCA Fire History (DBCA-060). Kensington, Department of Biodiversity, Conservation and Attractions. Accessed from: [DBCA Fire History \(DBCA-060\) - Datasets - data.wa.gov.au](#). Accessed July 2024.

Department of Biodiversity, Conservation and Attractions (DBCA) (2024a) Threatened and Priority Fauna Database Search (ref:15-0724FA). Joondalup, Department of Biodiversity, Conservation and Attractions.

Department of Biodiversity, Conservation and Attractions (DBCA) (2024b) Threatened and Priority Flora List (ref: 19-0724FL). Joondalup, Department of Biodiversity, Conservation and Attractions.

Department of Environment and Conservation (DEC) (2012) Western Spiny-tailed Skink *Egernia stokesii* Recovery Plan. Perth, Department of Environment and Conservation.

Department of Environment, Water, Heritage and the Arts (DEWHA) (2008) Approved Conservation Advice for *Eucalyptus beardiana* (Beard’s Mallee). Canberra: Department of Environment, Water, Heritage and the Arts. Accessed online from: [18933-conservation-advice.pdf \(environment.gov.au\)](#) Retrieved July 2024.

Department of Primary Industries and Regional Development (DPIRD) (2023) Native Vegetation Extent (DPIRD-005). Accessed from: [Native Vegetation Extent \(DPIRD-005\) - Datasets - data.wa.gov.au](#). Accessed July 2024.

Department of Planning, Lands and Heritage (DPLH) (2023a) Aboriginal Cultural Heritage – Lodged (DPLH-100). Perth, Department of Planning, Lands and Heritage. Accessed from: [Aboriginal Cultural Heritage - Lodged \(DPLH-100\) - Datasets - data.wa.gov.au](#). Accessed July 2024.

Department of Planning, Lands and Heritage (DPLH) (2023b) Aboriginal Cultural Heritage – Register (DPLH-099). Perth, Department of Planning, Lands and Heritage. Accessed from: [Aboriginal Cultural Heritage - Register \(DPLH-099\) - Datasets - data.wa.gov.au](#). Accessed July 2024.

Department of Sustainability, Environment, Water, Populations and Communities (DSEWPAC) (2013) Approved Conservation Advice for *Pezoporus wallicus flaviventris* (western ground parrot). Canberra, Department of Sustainability, Environment, Water, Populations and Communities. Available from: [84650-conservation-advice.pdf \(environment.gov.au\)](#)

Department of Water and Environmental Regulation (DWER) (2021) Guideline: Native Vegetation Clearing Referrals. Native vegetation clearing activities regulated under the *Environmental Protection Act 1986* and *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*. Department Water and Environmental Regulation, WA.

Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. Perth, WA Department of Biodiversity, Conservation and Attractions. Accessed from <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>. Accessed July 2024.

Keighery, BJ. (1994) Bushland Plant Survey: a Guide to Plant Community Survey for the Community. Nedlands, Wildflower Society of WA (Inc.).

Landgate (2018) Native Title (NNTT) (LGATE-004). Perth, Landgate. Accessed from: [Native Title \(NNTT\) \(LGATE-004\) - Datasets - data.wa.gov.au](#). Accessed July 2024.

Olde, PD. and Marriott, NR. (2008) Recognition of new taxa in *Grevillea* (Proteaceae: Grevilleoideae) from south-west Western Australia. *Nuytsia* 18: 223-234.

Pizzey, G and Knight, F (2024) The Field Guide to the Birds of Australia Digital App. Noosaville: Gibbon Multimedia.

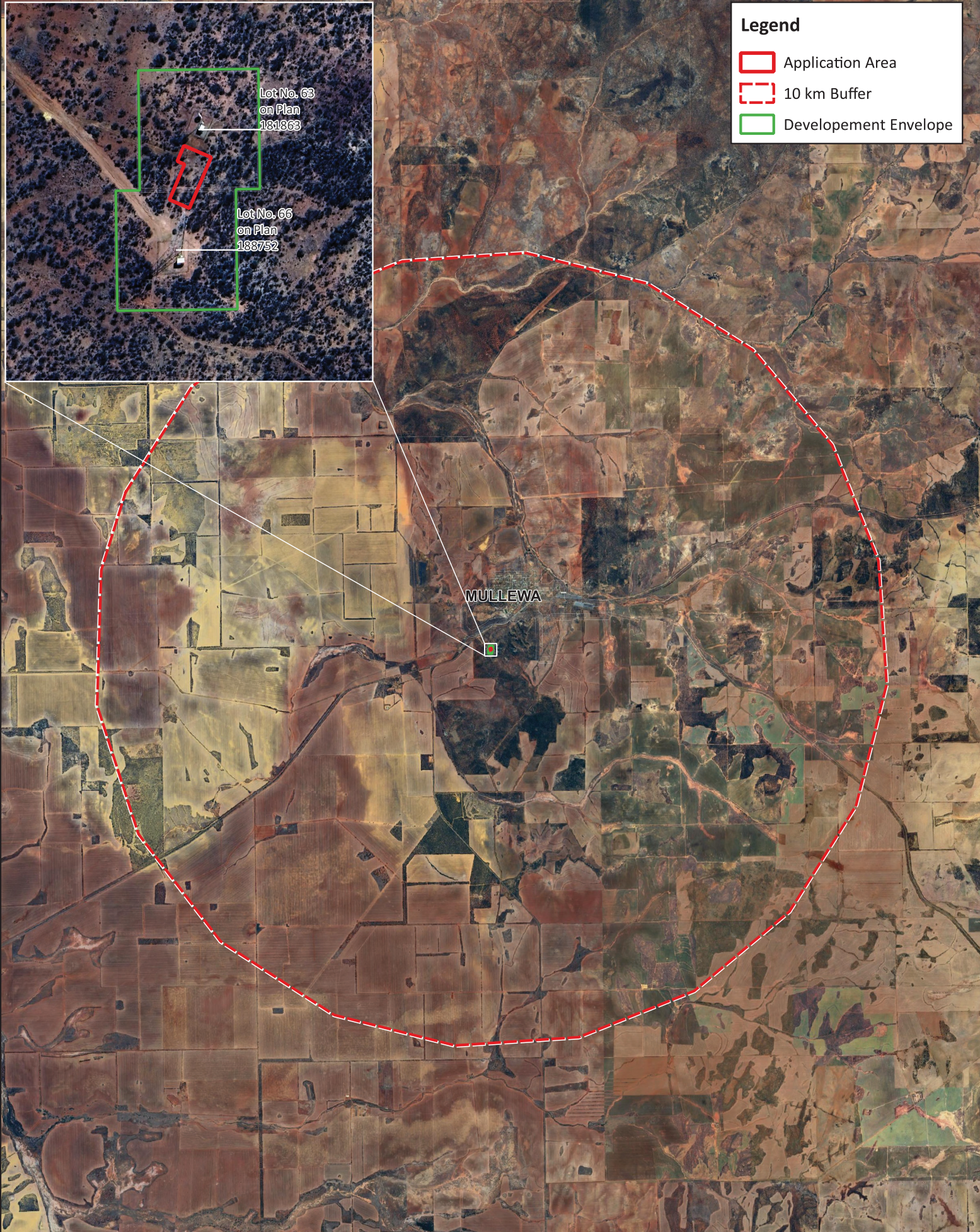
Raymond, OL., Liu, S., Gallagher, R., Zhang, W. and Highet, L.M. (2012) Surface Geology of Australia 1:1 million scale dataset 2012 edition. Geoscience Australia.

Rye, BL. (2022). An expanded circumscription and revision of the Western Australian genus *Balaustion* (Myrtaceae: Chamelaucieae: Hysterobaeckeaenae). *Nuytsia* 33: 149 – 204.

Shepherd, DP., Beeston GR. And Hopkins, AJM. (2002) Native Vegetation in Western Australia: Extent, types and status. Kensington, Department of Agriculture.

Western Australian Herbarium (WAH) (1998 -) Florabase – the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <https://florabase.dbca.wa.gov.au> (Accessed 15 July 2024).

FIGURES



Legend

- Application Area
- 10 km Buffer
- Development Envelope

N

Paper Size ISO A4

0 1 2 3 km

Scale 1:120,000

Map Projection: Universal Transverse Mercator (UTM)
Grid: GDA2020 / MGA zone 50



DCE Electrical
Native Vegetation Clearing Permit
Referral
Supporting Document

Project No. **DCE-PP03643**
Revision No. **V1**
Date **12/07/2024**

Locality

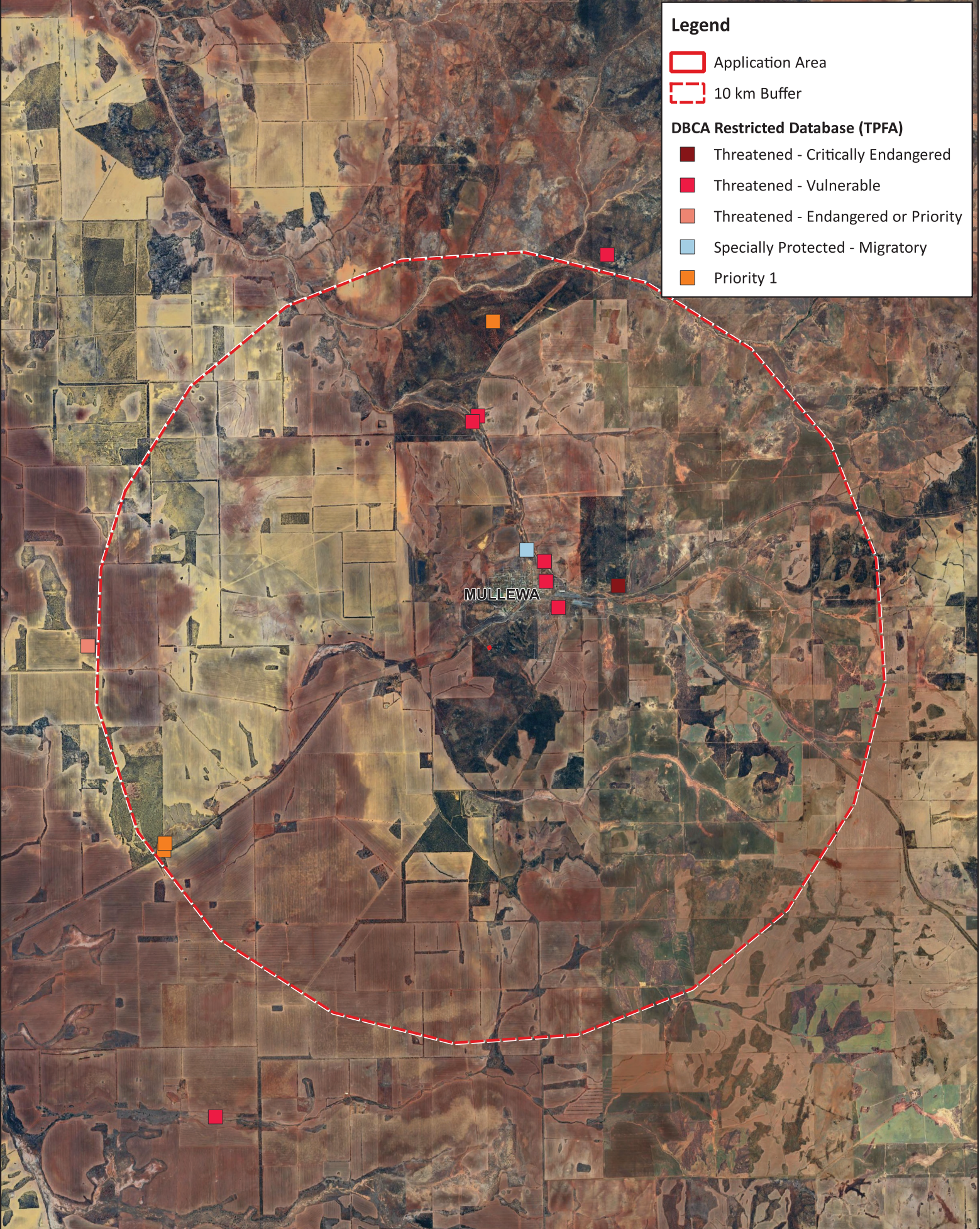
FIGURE 1

Legend

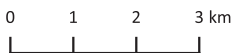
- Application Area
- 10 km Buffer

DBCRA Restricted Database (TPFA)

- Threatened - Critically Endangered
- Threatened - Vulnerable
- Threatened - Endangered or Priority
- Specially Protected - Migratory
- Priority 1



Paper Size ISO A4



Scale 1:120,000

Map Projection: Universal Transverse Mercator (UTM)
Grid: GDA2020 / MGA zone 50



DCE Electrical
Native Vegetation Clearing Permit
Referral
Supporting Document

Project No. **DCE-PP03643**
Revision No. **V1**
Date **12/07/2024**

Significant Fauna

FIGURE 2

Legend

 Application Area

 10 km Buffer

**DBCRA Restricted Database
(Significant Ecological Communities)**

 Threatened



Paper Size ISO A4
0 1 2 3 km
Scale 1:150,000



Map Projection: Universal Transverse Mercator (UTM)
Grid: GDA2020 / MGA zone 50



DCE Electrical
Native Vegetation Clearing Permit
Referral
Supporting Document

Project No. **DCE-PP03643**
Revision No. **V1**
Date **12/07/2024**






TEC/PEC

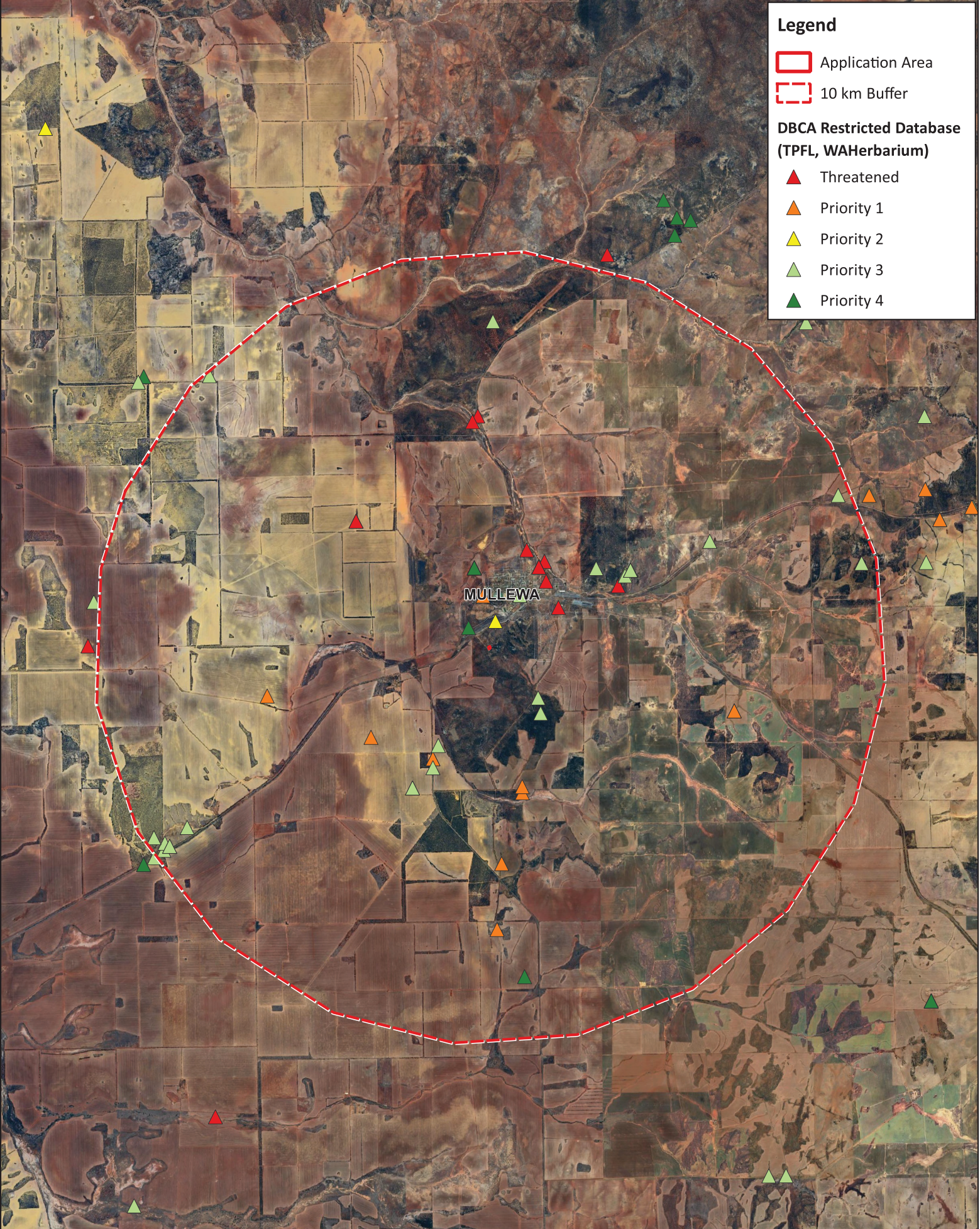
FIGURE 3


Legend

-  Application Area
-  10 km Buffer

DBCRA Restricted Database (TPFL, WAHerbarium)

-  Threatened
-  Priority 1
-  Priority 2
-  Priority 3
-  Priority 4





Paper Size ISO A4

0 1 2 3 km

Scale 1:120,000

Map Projection: Universal Transverse Mercator (UTM)
Grid: GDA2020 / MGA zone 50

Aurora 

environmental

ASSESS • ADVISE • APPLY

DCE Electrical
Native Vegetation Clearing Permit
Referral
Supporting Document
Significant Flora

Project No. **DCE-PP03643**
 Revision No. **V1**
 Date **12/07/2024**

FIGURE 4

APPENDIX 1

Significant Fauna Likelihood of Occurrence Assessment
– Taxa Within 10 km

APPENDIX 1: SIGNIFICANT FAUNA LIKELIHOOD OF OCCURRENCE ASSESSMENT – TAXA WITHIN 10 KM

TAXON	BC ACT / DBCA CONSERVATION CODE	NEAREST RECORD (KM)	HABITAT	COMMENT	LIKELIHOOD ASSESSMENT
<i>Idiosoma</i> sp. Trapdoor spider	Threatened or Priority	10 km west	Atlas of Living Australia (ALA) records for <i>Idiosoma</i> spp. in the region surrounding the referral area were noted as being in either mallee woodland or <i>Acacia</i> shrubland.	There was a single record of an <i>Idiosoma</i> sp close to the referral area from 1954, which was noted as being a moderately certain identification. A review of records in the DBCA database search indicate records of <i>Idiosoma clypeatum</i> (P3 and <i>I arenaceum</i> (P3), within a 50 km radius. While either of these species has the potential to be in the vegetation surrounding the referral area, the extent of disturbance associated with the existing infrastructure is considered to reduce the habitability of the area and as such, this species is considered to be unlikely to present	Unlikely
<i>Calyptrorhynchus banksii</i> <i>naso</i> Forest red-tailed black cockatoo	Threatened	10.2 km northeast	<i>Calyptrorhynchus banksii</i> spp. are found in tall, open forests, woodlands, grasslands, scrublands, floodplains, river margins, wetlands or in river red gums on watercourses (Pizzezy and Knight 2024).	This record, from 1966 (DBCA 2024b), falls substantially outside of the mapped distribution of the threatened <i>C. banksii naso</i> (DAWE 2022) but is within the distribution of <i>C. banksii escondidus</i> , which is not considered to be a conservation dependent species. Based on this, the threatened species is not considered to be likely to be in the region.	Unlikely
<i>Cyclodamorphus branchialis</i> Gilled slender blue-tongue	Threatened	1.9 km northeast	Found in shrublands of the semi-arid regions, in particular on heavy red soils and rocky ridges and slopes.	The most recent observation of this species was in 2016, with a confirmed identification. The vegetation surrounding the referral area is considered to suitable habitat. The referral area is adjacent to areas in which there is a significant amount of disturbance, and this greatly reduces the potential for the species to be present and as such, it is not considered to be resident in the referral area.	Possible
<i>Leiposa ocellata</i> Malleefowl	Threatened	5.7 km north	Within the Western Australian wheatbelt, habitat critical for survival of this species is considered to be landscapes that are lower in rainfall, have greater amounts of mallee and shrubland in large remnants and lighter soil textures (Benshemesh 2007). In smaller remnants, the amount of litter, presence of tall shrubs, abundance of food shrubs and a greater soil gravel content were considered important (Benshemesh 2007).	The nearest record of this species to the referral area was made in 1977 with moderate certainty (DBCA 2024b). This record was made in vegetation that was contiguous with a larger tract of uncleared land in pastoral areas. The referral area is within the mapped distribution of malleefowl and would <i>sens. lat.</i> be suitable habitat; however, the size of the vegetation within which it is located and the proximity to extensively cleared areas, the townsite and the Geraldton Mt Magnet Road greatly reduce the likelihood of this species being present in this block. Given the extent of disturbance adjacent to the referral area and the very small clearing area, malleefowl are considered to be unlikely to be present or unlikely to be impacted by the Project.	Unlikely
<i>Calidris melanotos</i> Pectoral sandpiper	Specially protected - migratory	2.6 km northeast	Shallow freshwaters, often with low grass or other herbage, swamp margins, flooded pastures, sewage ponds (Pizzezy and Knight 2024).	This is a migratory species that may transit through the local area if there are areas of suitable habitat. The surface geology and topography of the landscape within and surrounding the referral area is not consistent with the habitat requirements of this species and it is therefore this species is considered to be unlikely to be present.	Unlikely
<i>Pezoparus flaviventris</i> Western ground parrot	Threatened	3.5 km east	This species is known to occur in Fitzgerald River National Park and the Cape Arid-Nuytsland Nature Reserve (DSEWPAC 2013).	There is a single record of this species from 1960, which was noted as being unsure (DBCA 2024b). Given the known distribution of this species, it is unlikely they will be present in the referral area.	Highly unlikely
<i>Egernia stokesii badia</i> Western spiny-tailed skink	Threatened	2.5 km northeast	This species is found in open eucalypt woodlands and <i>Acacia</i> -dominated shrublands within the semi-arid to arid areas of the Geraldton Sandplains and Yalgoo IBRA bioregion, where they shelter in logs, cavities in the trunks and branches of shrubs and in old houses and ruins (DEC 2012).	The nearest record of this species to the referral area was made in 1929. While this is an old record, the referral area is within the known distribution of this species and suitable habitat is potentially present, particularly given there are no records of fires at the site (DBCA 2023) which greatly increases the chances of old logs being present. The vegetation surrounding the referral area is considered to be potential habitat for this species; however, given the extent of disturbance adjacent to the referral area, it is considered to be unlikely to be present.	Possible
<i>Lerista yuna</i> Yuna broad-blazed slider	Priority 3	8.3 km north	Mallee woodlands and shrublands.	This distribution of this species is between Mullewa to north of Wandana Nature Reserve. This species is likely to be present in the vegetation surrounding the referral area but is unlikely to be resident in the proposed disturbance areas.	Possible

APPENDIX 2

Significant Flora Likelihood of Occurrence Assessment –
Taxa Within 2.5 km

APPENDIX 2: SIGNIFICANT FLORA LIKELIHOOD OF OCCURRENCE ASSESSMENT – TAXA WITHIN 2.5 KM

TAXON	BC ACT / DBCA CONSERVATION CODE	NEAREST RECORD (KM)	HABITAT	COMMENT	LIKELIHOOD ASSESSMENT
<i>Eucalyptus beardiana</i>	Threatened	2.3 km northeast	Sandplain, broad sandy crest, dry yellow sand (DBCA 2024b), red or yellow sand. Sand dunes and ridges (WAH 1998 -), with other eucalypts including <i>E. jucunda</i> , <i>E. eudesmioides</i> , banksias including <i>Banksia sceptrum</i> and <i>B. ashbyi</i> and species of <i>Acacia</i> , <i>Grevillea</i> and <i>Persoonia</i> (DEWHA 2008).	The records of this species and broad descriptions of habitat indicate that the preferred habitat is sandplains or dunes, typically with other eucalypts. The referral area is located on Ag surface geology unit, which contains undifferentiated felsic intrusive rocks (e.g. granite) (Raymond <i>et al.</i> 2012). Based on the substrate in the referral area, this species is considered unlikely to occur.	Unlikely
<i>Grevillea bracteosa</i> subsp. <i>howatharra</i>	Threatened	1.5 km northeast	Heavy soils of clay loam with laterite in open sunny positions, associated with <i>Grevillea pinaster</i> (Olde & Marriot 2008).	This record is from 1968, and while almost 80 km east of the known distribution of this species, was collected by C.A. Gardner with a confirmavit by Mike Hislop in 2013. There are no other records of this species in this location since this initial record. The site at which this species was collected was noted as being on the Qrc surface geology unit, which is characterised as colluvium and/or residual deposits, sheetwash, talus, scree, boulder, gravel and sand (Raymond <i>et al.</i> 2012). The collection notes suggest the site was either sandy or sandy and gravelly (DBCA 2024b). The referral area is located on Ag surface geology unit, which contains undifferentiated felsic intrusive rocks (e.g. granite) (Raymond <i>et al.</i> 2012). While the historic record is in close proximity to the referral area, it is not considered likely to occur, due to a lack of suitable substrate.	Unlikely
<i>Acacia ampliata</i>	Priority 1	2 km north	Red/orange sand, sandy loam, loam. Sandplains, hillsides (WAH 1998 -).	The records of this species returned in the database search were generally found on orange/yellow sand or red loam. The nearest record to the application error appears to be incorrectly located, as the locality for this collection is 16 km east of Mullewa (DBCA 2024b). Based on the habitat recorded for other collections close to the referral area, with all records on the Czi surface geology unit, which is characterised by a ferruginous duricrust (pisolitic) and the Qrc surface geology unit, which is colluvial (Raymond <i>et al.</i> 2012), this species is considered unlikely to occur.	Unlikely
<i>Acacia lineolata</i> subsp. <i>multilineata</i>	Priority 1	1.5 km northeast	Yellow sand, rocky clay. Sandplains (WAH 1998 -).	The nearest record of this species, collected in 1973, has no habitat information but was noted as being on the Qrc surface geology unit, which is not present in the referral area. Given the absence of suitable habitat in the referral area, this species is considered unlikely to occur.	Unlikely
<i>Frankenia bracteosa</i>	Priority 1	2 km north	In open sandy places near saltwater (DBCA 2024b).	This species is a halophytic species and as such, will be typically found where groundwater is saline. This type of habitat is not present in the referral area, and as such, this species is unlikely to occur.	Unlikely
<i>Pterostylis macrocalymma</i>	Priority 1	1.3 km north	Rocky red clay-loam. Flats. (WAH (1998 -). Water catchment, ridge. Brown loam, rocky, ironstone gravel (DBCA 2024b).	The record of this species close to the referral area was noted as being collected on brown loam, rocky, ironstone gravel and is on the same surface geology unit as the referral area, and as such, is considered likely to be present.	Likely
<i>Caladenia pluvialis</i>	Priority 2	0.69 km north	Red loam and ironstone to N. (DBCA 2024b). Red or yellow sand in tall shrubland of <i>Acacia</i> , <i>Allocasuarina</i> and <i>Melaleuca</i> spp. (Brown and Brockman 2015).	Given the proximity of this species to the referral area, with both occurring on the same surface geology unit, this species is considered likely to occur within the referral area.	Likely
<i>Acacia scalena</i>	Priority 3	2 km north	Yellow or yellow gravelly sand, loam (WAH 1998 -).	There is a single record of this species within a 50 km radius of the referral area from 1961. It is noted that this is an outlier record, with the majority of records of this species in the Wubin / Daiwallinu / Kalannie area, which is approximately 200 km south (Wah 1998 -). Based on the age of this record and the lack of additional records in the area, this species is considered unlikely to be present.	Unlikely
<i>Anthrotroche myoporoides</i>	Priority 3	1.5 km northeast	Yellow or red sand. Sandplains (WAH 1998 -).	There are two records of this species within 2.5 km of the referral area, both from 1931. Given the age of records and the lack of suitable habitat near the referral area, this species is considered unlikely to occur.	Unlikely
<i>Apectospernum exsertum</i>	Priority 3	1.5 km northeast	Sandplain (DBCA 2024b).	This type of habitat is not present within the referral area, and as such, this species is considered unlikely to occur.	Unlikely

APPENDIX 2: SIGNIFICANT FLORA LIKELIHOOD OF OCCURRENCE ASSESSMENT – TAXA WITHIN 2.5 KM

TAXON	BC ACT / DBCA CONSERVATION CODE	NEAREST RECORD (KM)	HABITAT	COMMENT	LIKELIHOOD ASSESSMENT
<i>Balaustion grande</i>	Priority 3	1.5 km northeast	Sandplains or in sand overlying laterite (Rye 2022).	The single record of this species is from 1975. In addition to this, Rye (2022) considers this record "...likely to be inaccurate or extremely vague". Based on, this species is considered unlikely to occur in the referral area.	Unlikely
<i>Cryptandra nola</i>	Priority 3	1.7 km southeast	Sandy soils over granite, laterite. Along drainage lines, breakaways, hillsides (WAH 1998 -).	The nearest records of this species are at a comparable elevation, same substrate and in vegetation that is continuous with the referral area. Given the proximity to the referral area and the potentially comparable habitat between this area and sites where recorded, this species is considered likely to occur within the referral area.	Likely
<i>Darwinia chantiaie</i>	Priority 3	2 km north	Red sandy loam (DBCA 2024b).	The nearest record of this species to the referral area is on the same surface geology unit, as are records to the east. Based on the presence of records on the same substrate and the proximity of a record to the referral area, this species is considered likely to be present.	Likely
<i>Gastrolobium propinquum</i>	Priority 3	1.5 km northeast	Clay, clay-loam or sandy clay soils, granite, shale. Hills, flats, drainage lines, winter-wet areas 9WAH 1998 -). In sandy soil among rocks, with <i>Acacia</i> and <i>Melaleuca uncinata</i> (DBCA 2024b).	The majority of records of this species are between Geraldton and Hutt River, with only two records near Mulllewa (WAH 1998 -). Of the two locations at which the species was recorded close to the referral area, the nearest is from 1962. The combination of a lack of recent records and the description of the substrate on which the closest collection was made tends to suggest this species is unlikely to occur in the referral area.	Unlikely
<i>Persoonia pentasticha</i>	Priority 3	1.1 km northeast	Base of granite outcrops (WAH 1998 -).	The closest record to the referral area was noted as being on granite crest (DBCA 2024b). Based on the presence of the Ag surface geology unit in the referral area, which contains undifferentiated felsic intrusive rocks (e.g. granite) (Raymond <i>et al.</i> 2012) and the proximity of the existing record, this species is considered likely to occur.	Likely
<i>Banksia benthamiana</i>	Priority 4	1.5 km northeast	Sandy loam, clay-loam, yellow sand, gravel (WAH 1998 -).	There is no date or landform information associated with this record. The location at which the record has been made and the habitat description are not consistent with the surface geology of the referral area, and as such, this species is considered unlikely to occur within the area.	Unlikely
<i>Verticordia capillaris</i>	Priority 4	0.7 km northwest	Yellow sand, sandy loam, sandy clay. Sandplains (WAH 1998 -).	The nearest collection of this species was described as being on yellow sand (DBCA 2024b). While the record falls within the same surface geology unit as the referral area, the habitat data for the collection better aligns with the description on Florabase (WAH 1998 -). Notwithstanding the potential absence of suitable habitat, based on proximity this species is possibly within the referral area.	Possible
<i>Verticordia penicillaris</i>	Priority 4	2 km north	Shallow gritty soils. Granite outcrops (WAH 1998 -).	The collections of this species within a 5 km radius of the referral area were all made on granite (DBCA 2024b). Given this is the surface geology unit in the referral area, this species is considered likely to be present.	Likely