GOVERNMENT OF WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 11173/1

File Number: DWERVT19396

Duration of Permit: From 17 October 2025 to 17 October 2027

PERMIT HOLDER

Shire of Mundaring

LAND ON WHICH CLEARING IS TO BE DONE

William Road Reserve (PIN 11464091), Mount Helena

Bunning Road Reserve (PIN 11464090), Mount Helena

AUTHORISED ACTIVITY

The permit holder must not clear more than 0.10 hectares of *native vegetation*, within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Avoid, minimise, and reduce impacts and extent of clearing

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

(a) avoid the *clearing* of *native vegetation*;

(b) minimise the amount of *native vegetation* to be cleared; and

(c) reduce the impact of *clearing* on any environmental value.

2. Weed and dieback management

When undertaking any *clearing* authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds* and *dieback*:

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

(b) ensure that no known *dieback* or *weed*-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and

(c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

3. Directional clearing

The permit holder must

(a) conduct *clearing* activities in a slow, progressive manner towards adjacent remnant *native vegetation*; and

(b) allow reasonable time for fauna present within the area being cleared under this permit to move into adjacent *native vegetation* ahead of the *clearing* activity.

4. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised *clearing* activities generally	(a) the species composition, structure, and density of the cleared area; (b) the location where the *clearing* occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of *clearing* in accordance with *condition* 1; (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with *condition* 2; and (g) the direction(s) *clearing* was undertaken in accordance with *condition* 3.

5. Reporting

The permit holder must provide to the *CEO* the records required under *condition* 4 when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in Table 2 have the meanings defined.

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
fill	means material used to increase the ground level, or to fill a depression.
dieback	means the effect of *Phytophthora* species on native vegetation.
EP Act	*Environmental Protection Act 1986* (WA)
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS

J Burton

Jessica Burton
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

24 September 2025

SCHEDULE 1

CPS 11173/1

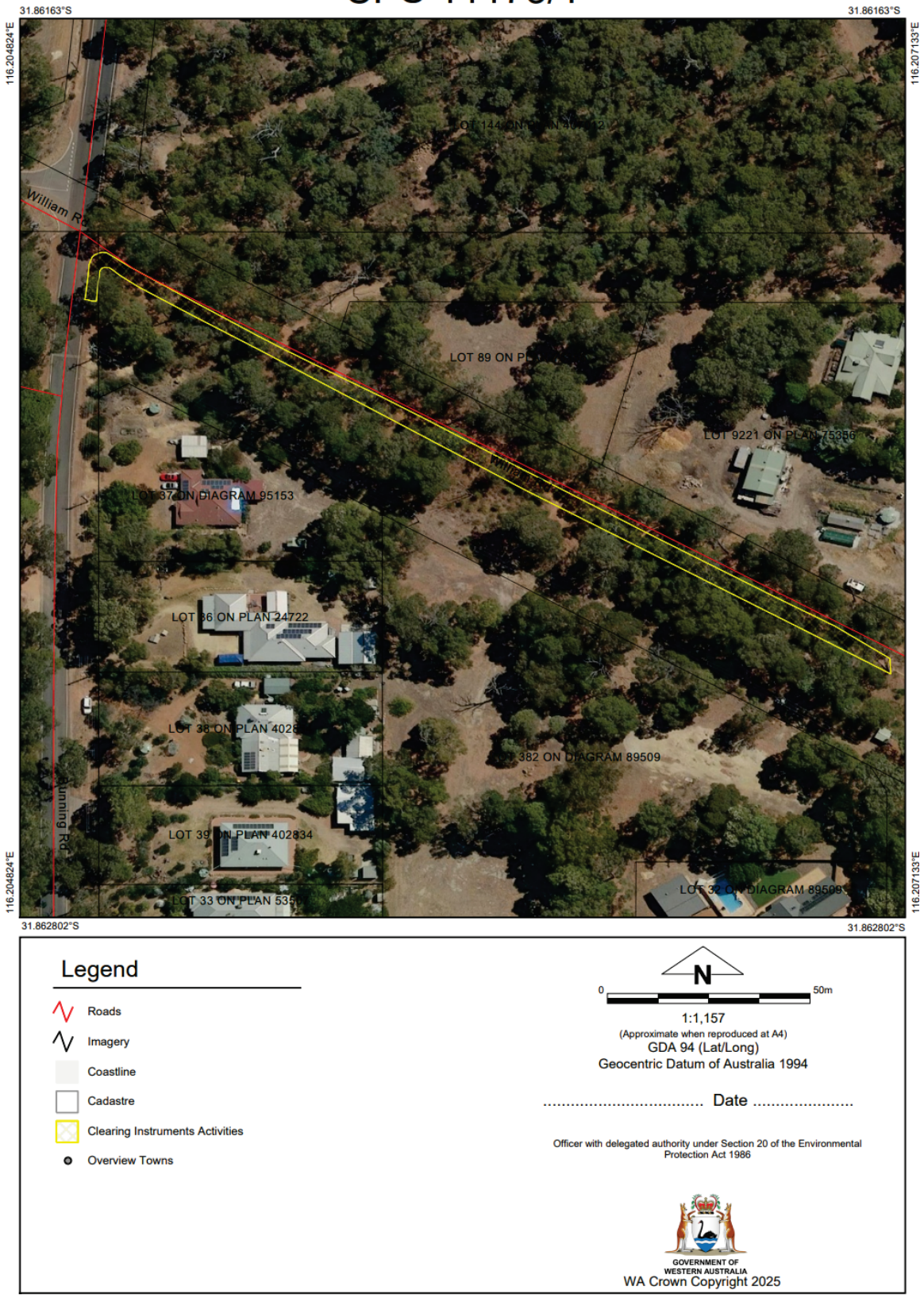

Figure 1: Map of the boundary of the area within which *clearing* may occur cross-hatched yellow

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 11173/1
Permit type:	Area permit
Applicant name:	Shire of Mundaring
Application received:	7 July 2025
Application area:	0.1 hectares of native vegetation
Purpose of clearing:	Road upgrades
Method of clearing:	Mechanical cleaning
Property:	William Road Reserve (PIN 11464091), Mount Helena Bunning Road Reserve (PIN: 11464090), Mount Helena
Location (LGA area/s):	Shire of Mundaring
Localities (suburb/s):	Mt Helena

1.2. Description of clearing activities

The vegetation proposed to be cleared is contained in one area along William Road reserve to the intersection of Bunning Road reserve (see Figure 1, Section 1.5).

A section of Cliffton Street is currently unsealed and narrow (3-5 metres) which is causing limitations for local traffic. The application is to facilitate the upgrade of this section, including sealing road surface to accommodate local traffic (Shire of Mundaring, 2025). The final road design being a 5.0m – 5.5m wide asphalt road with 0.5m typical gravel shoulder. The vegetation proposed to be cleared mostly consists of saplings and small trees with the diameter at breast height (DBH) of less than 20 centimetres (see Appendix E).

1.3. Decision on application

Decision:	Granted
Decision date:	24 September 2025
Decision area:	0.10 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (the department) advertised the application for 21 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix F.1), site visit notes and photographs supplied by the applicant (see Appendix E), the clearing principles set out in Schedule 5 of the EP Act (see 0), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3.3). The Delegated Officer also took into consideration that the purpose of the clearing is to improve road safety.

The assessment identified that the proposed clearing will result in:

- the loss of native vegetation that is suitable foraging habitat for Carnaby's cockatoo, Baudin's cockatoo and forest red-tailed black cockatoo (black cockatoo species);
- the loss of native vegetation that may provide suitable habitat for chuditch, quenda, south-western brush-tailed phascogale, and western ringtail possum;
- potential impacts to conservation significant fauna if present during the clearing activities; and
- the potential introduction and spread of weeds and dieback into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the impacts of the proposed clearing to conservation significant fauna species are unlikely to be significant, noting the small scale of the clearing and vegetation extent in the local area. The potential impacts to fauna present during the clearing activities, impacts to a watercourse and risks of weeds and dieback spread can be managed through permit's conditions. The applicant has suitably demonstrated avoidance and minimisation measures.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- Avoid, minimise to reduce the impacts and extent of clearing;
- Take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback;
- Undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity; and

The Delegated Officer notes that clearing within the application area has previously been submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act), reference CPS 3815/1. The Department of Water and Environmental Regulation (the department) granted clearing permit CPS 3815/1 on 26 August 2010 and is now expired.

1.5. Site map

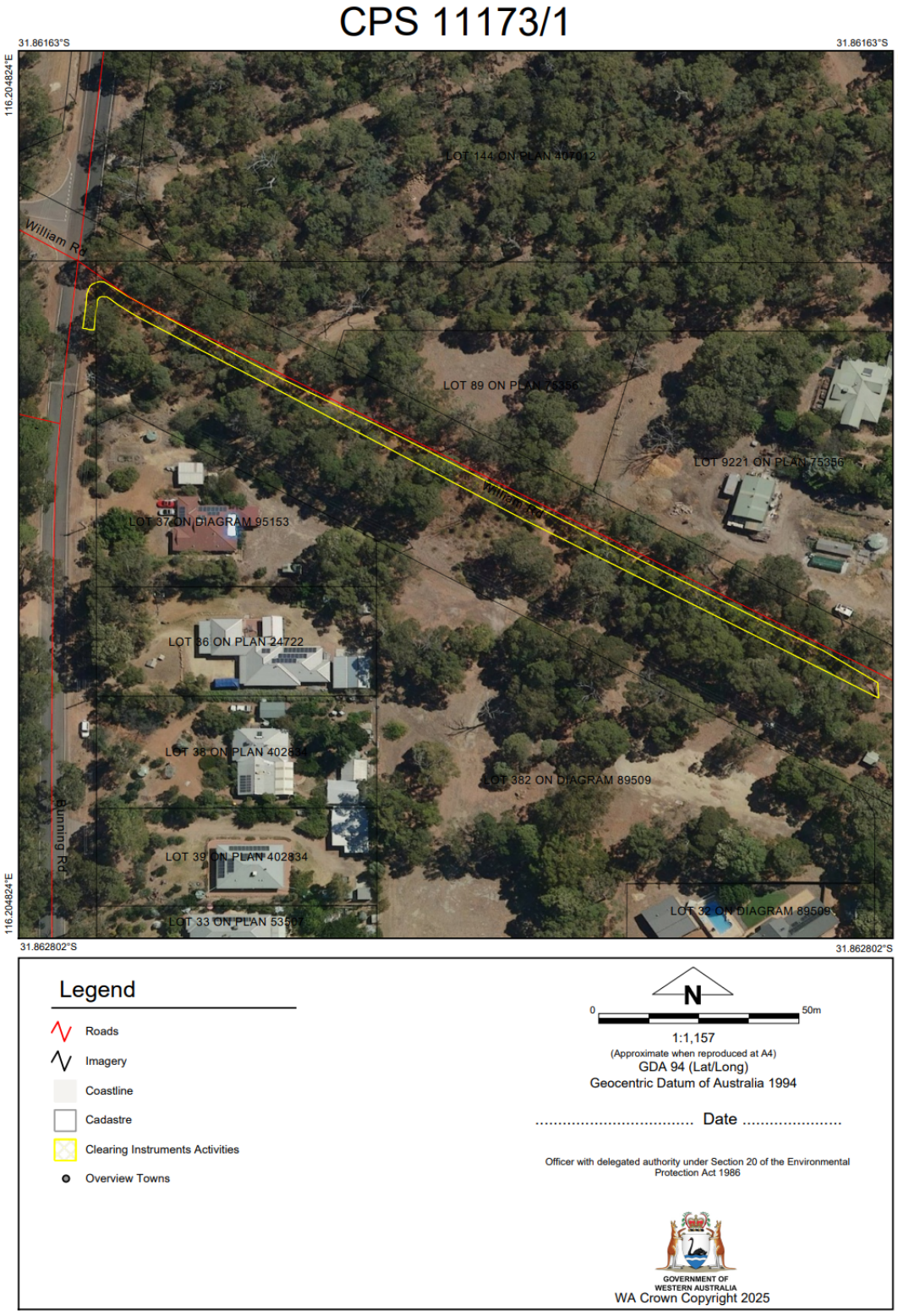

Figure 1 Map of the application area

The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

2 Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Rights in Water and Irrigation Act 1914* (RIWI Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The supporting document was submitted by the applicant showing that the applicant has applied the following mitigation hierarchy to ensure that the alignment of the purposed works limits the amount of vegetation required to be removed and avoids vegetation clearing where possible (Shire of Mundaring, 2025a):

- The trees proposed to be cleared are small in size (regrowth), with the diameter at breast height (DBH) of less than 30 centimetres.
- The design has been undertaken to avoid mature trees and clear to one side of the road reserve.

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see **Error! Reference source not found.**) identified that the impacts of the proposed clearing present a risk to biological values (fauna and flora). The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values (fauna) - Clearing Principles (a) and (b)

Assessment

The desktop assessment identified 23 conservation significant fauna species recorded in the 10-kilometre radius of the application area (local area), including seven bird species, 12 mammal species, two reptile species, and two invertebrate species. In determining the likelihood of conservation significant fauna occurring within the application area, consideration was given to the results of the preferred habitat types, proximity of records to the application area, and the type and condition of the vegetation within the application area. Based on these analysis factors, seven species, including three threatened black cockatoo species and four mammal species, are considered to potentially occur in the application area (see fauna analysis table in Appendix B.3).

Black cockatoos (BC)

Based on known distribution and habitat preference of bird species recorded, all the three threatened black cockatoo most likely occur over the application area. Within the local area, there are 203 records of Carnaby's cockatoo (*Zanda latirostris*), 158 records of Baudin's cockatoo (*Zanda baudinii*) and 331 records of forest-tailed black cockatoos (*Calyptorhynchus banksii naso*) (with the closest distance of approximately 0.3, 0.3, and 0.7 kilometres, respectively,

from the application area). The application area is located within the mapped distribution areas of all three black cockatoo species, and it occurs in the potential breeding range of Carnaby's cockatoos. The closest black cockatoo roost is recorded approximate 1.2 kilometres away from the proposed clearing area.

There are three key components of black cockatoo habitat: foraging habitat; roosting habitat; and breeding habitat. The quality of BC foraging habitat to support populations at breeding sites or night roosting sites varies depending upon how BC utilise the habitat in that particular location. Any tall trees, generally close to riparian environment, can be potential roosting habitat of BC (Commonwealth of Australia, 2012). A tree suitable for a black cockatoo breeding is defined as a tree with a DBH of 50 centimetres or greater. BC generally forage within six kilometres of a night roost site and, while nesting, within a 12 kilometres radius of their nest site (Commonwealth of Australia, 2012).

The vegetation within the application area is comprised of a mix *Eucalyptus marginata* (Jarrah) and *Corymbia calophylla* (Marri), with *Xanthorrhoea* (grass trees) in the midstory and a diverse native understory. The proposed clearing is likely to provide foraging and potential roosting habitat for these three species of conservation significant black cockatoo species.

The local area retains approximately 56.73 per cent remnant native vegetation including approximately 18,000 hectares of native vegetation within provides suitable foraging habitat for conservation significant black cockatoo species. Given the semi mature development of the vegetation within the application area, noting the extent of nearby foraging resource, much of which is located within safer foraging environments for black cockatoos, the vegetation proposed to be cleared is not likely to be a significant foraging resource for local black cockatoo populations. However, it is recognised that cumulative impacts to this species are evident in the loss of foraging habitat in the wider swan coastal plain.

Chuditch

Chuditch (*Dasyurus geoffroii* – Vulnerable) are carnivorous marsupials, typically associated with riparian jarrah forest or other forest, woodland or shrubland habitats that contain suitable den sites, including hollow logs and tree hollows, and sufficient prey biomass (DEC, 2012a). There are 55 records of this species within the local area, with the closest record of approximately 790 metres from the application area. Given the application area includes eucalyptus forest but is devoid of riparian vegetation, it is not likely to provide critical habitat for chuditch. No significant impacts to this species are expected as a result of the clearing.

Quenda

Quenda (*Isoodon fusciventer* – Priority 4) are ground-dwelling marsupials, typically associated with forest or woodlands near watercourses, where understorey consists of dense scrub and leaf litter is abundant. It is understood that individuals have overlapping home ranges between 1-2 hectares (DEC, 2012b). This species is known from 1031 records within the local area and the closest record being 440 meters from the application area. Quendas are likely to be transient visitors to the application area while moving through adjacent vegetation. Given that the application area is located along an existing road and the proposed clearing area is small, it is unlikely to represent significant habitat for this species.

South-western brush-tailed phascogale

The south-western brush-tailed phascogale (*Phascogale tapoatafa wambenger* - conservation dependent fauna) is an arboreal dasyurid, associated with dry sclerophyll forests and open woodlands that contain hollow-bearing trees, characterised by high canopy cover and connectivity (DEC, 2012c). There are 31 records of this species mapped within the local area with the closest distance of 1.4 kilometres from the application area. The proposed clearing vegetation with woodland structure and connecting canopy to adjacent remnant vegetation may provide suitable habitat for this phascogale species. However, noting the small extent of the clearing area, the location of along a road, and the existence of adjacent remnant vegetation, the proposed clearing area is unlikely to comprise significant habitat for this species.

Western ringtail possum

The western ringtail possum (*Pseudocheirus occidentalis* – critically endangered) is a medium sized, nocturnal species that roams through the trees at night, feeding on leaves of eucalypt, marri and peppermint trees and other fruits and flowers (DPAW, 2017). According to the database, the application area is not mapped within three key management zones of this species. There are four records mapped within the local area, in which the closest record is mapped approximately five kilometres from the application area. Noting the limited number of records within the local area, preferred habitats for this species and small area of vegetation proposed to be cleared, the application area is not considered as comprising critical habitat for this species.

Conclusion

Based on the above assessment, the proposed clearing is unlikely to impact to significant habitat for any conservation significant fauna species. However, the clearing activities may impact to fauna individuals occurring within the

application area at the time of clearing. In addition, the clearing activities have the potential to impact the quality of the surrounding fauna habitat by facilitating the spread of weeds and dieback.

Conditions
To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- Directional clearing, which requires slow, progressive, one directional clearing to allow terrestrial fauna to disperse ahead of the clearing activity should they occur on site at the time of clearing.
- Weed and dieback management measures to assist in mitigating impacts to surrounding vegetation that provides fauna habitat.

3.2.2. Biological value (flora) - Clearing Principles (a and c)

Assessment

Flora
Results of the desktop assessment and an analysis of suitable soil type, vegetation type, and habitat showed that there are three priority flora species having the potential to be present within the application area (see Appendix B.2 for flora analysis table). This presumption is based on known records on similar landform types within the local area. These species include:

- *Adenanthos cygnorum* subsp. *chamaephyton* (P3)
- *Tetratheca pilifera* (P3)
- *Cyanicula ixioides* subsp. *ixioides* (P4)

Adenanthos cygnorum subsp. *chamaephyton* is a mat-forming shrub species, mainly distributed on the Swan Coastal Plain and Jarrah Forest IBRA regions in Western Australia. There are 23 records of this species in the available database with several records having high frequency (WAH, 1998-). A total of ten records of *A. cygnorum* subsp. *chamaephyton* are mapped within the local area, with the closest record approximately 4.55 kilometres from the area proposed to be cleared.

Tetratheca pilifera is a spreading shrub species, with 36 populations recorded on the Swan Coastal Plain and Jarrah Forest regions (WAH, 1998-). In the local area, 10 records of *T. pilifera* are mapped, with closest record approximately 5.97 kilometres from the area proposed to be cleared.

Cyanicula ixioides subsp. *ixioides* is a perennial orchid species, distributed across Avon Wheatbelt, Jarrah Forest and Swan Coastal Plain regions. There are 28 populations of this species recorded in the available database, many of them have high frequency (WAH, 1998-). Two records are mapped within the local area, with the closest record approximately 7.71 kilometres from the area proposed to be cleared.

The above flora species are associated with *Eucalyptus* forest and woodland which occurs in the application area and its surrounding. However, based on the photos of the proposed clearing vegetation (see Appendix E) and noting the small clearing area, the potential of these species occurring within the application area is minimal given previous disturbance and degraded understory. Considering the relatively high number of WA Herbarium records, the proposed clearing of 0.1 hectares of suitable habitat within the application area is not likely to have a significant impact on the conservation status of these species.

Conclusion
Based on the above assessment, the proposed clearing is unlikely to comprise and have an impact on any conservation significant flora species.

Conditions
No management conditions required.

3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on DWER's website on 12 August 2025, inviting submissions from the public within a 21-day period. No submissions were received.

No Aboriginal sites of significance have been mapped within the application area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

End

Appendix A. Additional information provided by applicant

Summary of information provided	Consideration of information provided
Supporting information provided by the applicant. Environmental Site Visit and Assessment (Shire of Mundaring, 2025)	This information has been reviewed and presented in relevant sections of this report.

Appendix B. Site characteristics

B.1. Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the intensive land use zone of Western Australia. It comprises a narrow strip of vegetation along the southern side of William and Bunning road reserves in the Shire of Mundaring. Aerial imagery indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately more than 56.73 per cent of the original native vegetation cover.
Ecological linkage	The application area is not mapped within any formal ecological linkages and does not appear to be within or contributing to an informal ecological linkage.
Conservation areas	The application area is not mapped within a conservation areas. The closest conservation area is Leschenaultia Conservation Park, mapped approximately 1.5 kilometres from the application area.
Vegetation description	Photographs and information supplied by the applicant (Shire of Mundaring, 2025b) indicate the vegetation within the proposed clearing area consists of small trees and saplings of marri (*Corymbia calophylla*), jarrah (*Eucalyptus marginata*). Photos of vegetation proposed to be cleared are available in Appendix E. This is consistent with the mapped vegetation type: • Dwellingup D2 described as open forest of *Eucalyptus marginata subsp. marginata* and *Corymbia calophylla* on lateritic uplands in subhumid and semiarid zones. The mapped vegetation types retain approximately 82.5 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in degraded to good (Keighery, 1994) condition. The full Keighery (1994) condition rating scale is provided in Appendix D. Photos of vegetation are available in Appendix E.
Climate	The closest BOM weather station with available data is located at Bickley, which is approximately 12 kilometres from Mundaring (BOM, 2025). The highest mean maximum temperature is in January at 30.7°C, the lowest is in July at 15.1°C. The highest mean minimum temperature is in February at 15.9°C and the lowest is in July at 7.4°C. The average annual rainfall is 1,092.4 mm.

Characteristic	Details
Soil and landform description	The soils and landforms are mapped as: • Dwellingup 2 Phase (255DpDW2): described as very gently to gently undulating terrain (<10%) with well drained, shallow to moderately deep gravelly brownish sands, pale brown sands and earthy sands overlying lateritic duricrust.
Land degradation risk	The soils within the application area are mapped susceptible to wind erosion and subsurface acidification. The risks from other factors including water erosion, salinity, flooding, water logging and phosphorus export are moderate or low.
Waterbodies	The application area does not intersect any mapped wetlands or watercourses.
Hydrogeography	The application area falls within the Swan River System Surface Water Area proclaimed under the RIWI Act. Groundwater salinity within the application area is mapped as 1000 to 3000 milligrams per litre total dissolved solids.
Flora	According to available databases, there are 23 conservation significant flora species within the local area, including four threatened and 17 priority species. The most frequently recorded species are *Acacia aphylla* (T) (24 records), *Adenanthos cygnorum* subsp. *chamaephyton* (P3) and *Tetratheca pilifera* (P3), with 10 records of each species mapped within the local area. The closest recorded species is *Acacia aphylla* (T) which is mapped approximately 820 metres from the application area. *A aphylla* prefers granite outcrops and hills, habitat which are not found within the application area.
Ecological communities	No threatened (TEC) and one priority ecological communities (PEC) are mapped within the local area (being Central Northern Darling Scarp Granite Shrubland Community). The vegetation within the application area is not consistent with a known TEC or PEC
Fauna	According to available databases, 23 conservation significant fauna species have been recorded within the local area, including ten threatened fauna species, nine priority fauna species, and four specially protected fauna species. The closest record is for Baudin's and Carnaby's black cockatoo, both recorded approximately 30 metres from the application area. There are 31 roosting sites of black cockatoos being mapped within the local area and the closest roosting site is approximately 1.2 kilometres from the application area.

B.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1), and photographs provided, impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features ? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records in the local area	Are surveys adequate to identify? [Y, N, N/A]
Adenanthos cygnorum subsp. *chamaephyton*	P3	Y	Y	Y	4.55	10	N
Cyanicula ixioides subsp. *ixioides*	P4	Y	Y	Y	7.71	2	N
Tetratheca pilifera	P3	Y	Y	Y	5.97	10	N

P: priority

B.3. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*)	VU	Y	Y	0.7	331	N/A
Chuditch (*Dasyurus geoffroii*)	VU	Y	Y	0.69	55	N/A
Quenda (*Isoodon fusciventer*)	P4	Y	Y	0.44	1031	N/A
South-western brush-tailed phascogale (*Phascogale tapoatafa wambenger*)	CD	Y	Y	1.43	31	N/A
Western ringtail possum (*Pseudocheirus occidentalis*)	CR	Y	Y	5.04	4	N/A
Baudin's cockatoo (*Zanda baudinii*)	EN	Y	Y	0.3	158	N/A
Carnaby's cockatoo (*Zanda latirostris*)	EN	Y	Y	0.3	203	N/A

CR: critically endangered, EN: endangered, VU: vulnerable, CD: conservation-dependent, P: Priority

B.4. Land degradation risk table

Risk categories	255DpDW2
Wind erosion	H2
Water erosion	L1
Salinity	L1
Subsurface Acidification	H2
Flood risk	L1
Water logging	L1
Phosphorus export risk	L1

Note:

L1 <3% of map unit has a moderate/high to high/extreme (or is presently acid/saline for the risk of subsurface acidification/salinity)

L2 3-10% of map unit has a moderate/high to high/extreme (or is presently acid/saline for the risk of subsurface acidification/salinity)

M1 10-30% of map unit has a moderate/high to high/extreme (or is presently acid/saline for the risk of subsurface acidification/salinity)

M2 30-50% of map unit has a moderate/high to high/extreme (or is presently acid/saline for the risk of subsurface acidification/salinity)

H1 50-70% of map unit has a moderate/high to high/extreme (or is presently acid/saline for the risk of subsurface acidification/salinity)

H2 >70% of map unit has a moderate/high to high/extreme (or is presently acid/saline for the risk of subsurface acidification/salinity)

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The area proposed to be cleared contain significant habitat for conservation significant flora and fauna species or vegetation that is significant as an ecological community.	Not likely to be at variance	Yes *Refer to Section 3.2.1 and 3.2.2, above.*
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: The area proposed to be cleared contains suitable habitat for conservation significant fauna species. However, noting the small clearing extent and the existence of better-quality habitat in the surrounding areas, the proposed clearing is unlikely to be significant habitat for fauna.	Not likely to be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: The area proposed to be cleared does not contain threatened flora species.	Not at variance	Yes *Refer to Section 3.2.2, above.*
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."* Assessment: The area proposed to be cleared does not contain species that can indicate a threatened ecological community.	Not at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (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."* Assessment: The extent of the mapped vegetation typed and native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.	Not at variance	No
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."* Assessment: Given that the nearest conservation area is 1.5 kilometres from the proposed clearing, it is not likely to have an impact on the environmental values of this conservation areas	Not likely to be at variance	No
Environmental value: land and water resources		

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: No wetlands or watercourses are mapped within the application and the vegetation within the application area is not known to be associated with surface water expressions.	Not at variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soils are highly susceptible to wind erosion and subsurface acidification. However, noting the small extent of clearing, the condition of the vegetation and the final land use purpose as a sealed road, the proposed clearing is not likely to have a long term appreciable impact on land degradation.	Not likely to be at variance	No
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."* Assessment: Given no surface water expressions intersect the application area it is not likely the clearing will cause deterioration in the quality of surface or underground water.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.	Not likely to be at variance	No

Appendix D. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix E. Photographs of the vegetation

Photographs of vegetation proposed to be cleared provided by the applicant (Shire of Mundaring, 2025a)

Photo 1: View of William Rd looking in a northwestern direction. It is proposed to seal the gravel road. The proposed alignment impacts vegetation along the southern side of Williams Road and looks to minimise tree removal and avoid significant / habitat trees (as those that can be seen in the photo on either side of the road). As part of the works it is recommend that there are tree protection zones (TPZ) or physical barriers placed around significant trees to ensure they are protected during the construction phase.

Photo 2: Clearing proposed on the southern side of the road verge. Vegetation along both sides of William Road is a mix *Eucalyptus marginata* (Jarrah) and *Corymbia calophylla* (Marri), *Xanthorrhoea* (grass trees) in the midstory and diverse native understory.

Photo 3 (above left): Grass tree that will be impacted by the proposed works.

Photo 4 (above right): Cluster of grass trees that can all be retained with the alignment of the works.

Photo 5: William Road widens heading towards Bunning Road on the southern side, with no clearing proposed in this section and minimal clearing as the road advances further to the west (as seen in the photos below).

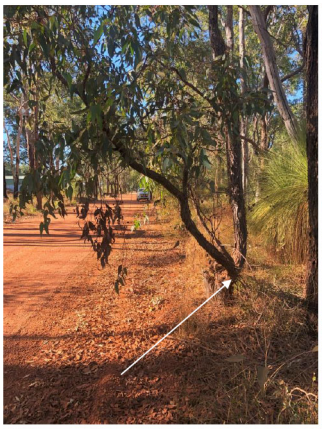
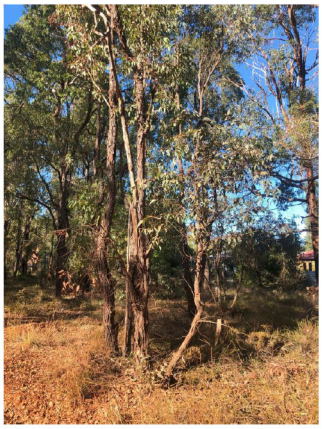

Photo 6 (above left): Minimal clearing proposed with the alignment impacting the small, coppiced Jarrah, weedy understorey and some native ground covers species.

Photo 7 (above right): Removal of several small dead trees proposed (DBH under 10cm).


Photo 8 and 9: Several trees in decline or senescent will be removed for the road widening.


Photo 10: Another view of the trees that are in decline. Several tree deaths on the southern side of the road near the intersection of Bunning Road. Most of the vegetation is degraded in poor health, with evidence of borers in the trees. **Dieback may be present.** Recommend hygiene measures are put into place for the proposed works to ensure no spread of disease.

Photo 11: Another view of the dead trees. No hollows present.

Appendix F. Sources of information

F.1. GIS databases

Publicly available GIS Databases used (sourced from www.data.wa.gov.au):

- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)

- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities

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