GOVERNMENT OF WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 10926/1

File Number: DWERVT17672

Duration of Permit: From 20 June 2025 to 20 June 2027

PERMIT HOLDER

Shire of Mundaring

LAND ON WHICH CLEARING IS TO BE DONE

Clifton Street road reserve (PIN 11440506), Chidlow.

AUTHORISED ACTIVITY

The permit holder must not clear more than 0.047 hectares of *native vegetation*, including 34 native trees, 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. Watercourse surface flow management

The permit holder must maintain the existing surface water flows where a watercourse is to be impacted by clearing authorised under this permit.

5. 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; (g) the direction(s) *clearing* was undertaken in accordance with *condition* 3; and (h) actions undertaken in accordance with *condition* 4.

6. Reporting

The permit holder must provide to the *CEO* the records required under *condition* 5 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

Jessica Burton
A/MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

27 May 2025

SCHEDULE 1

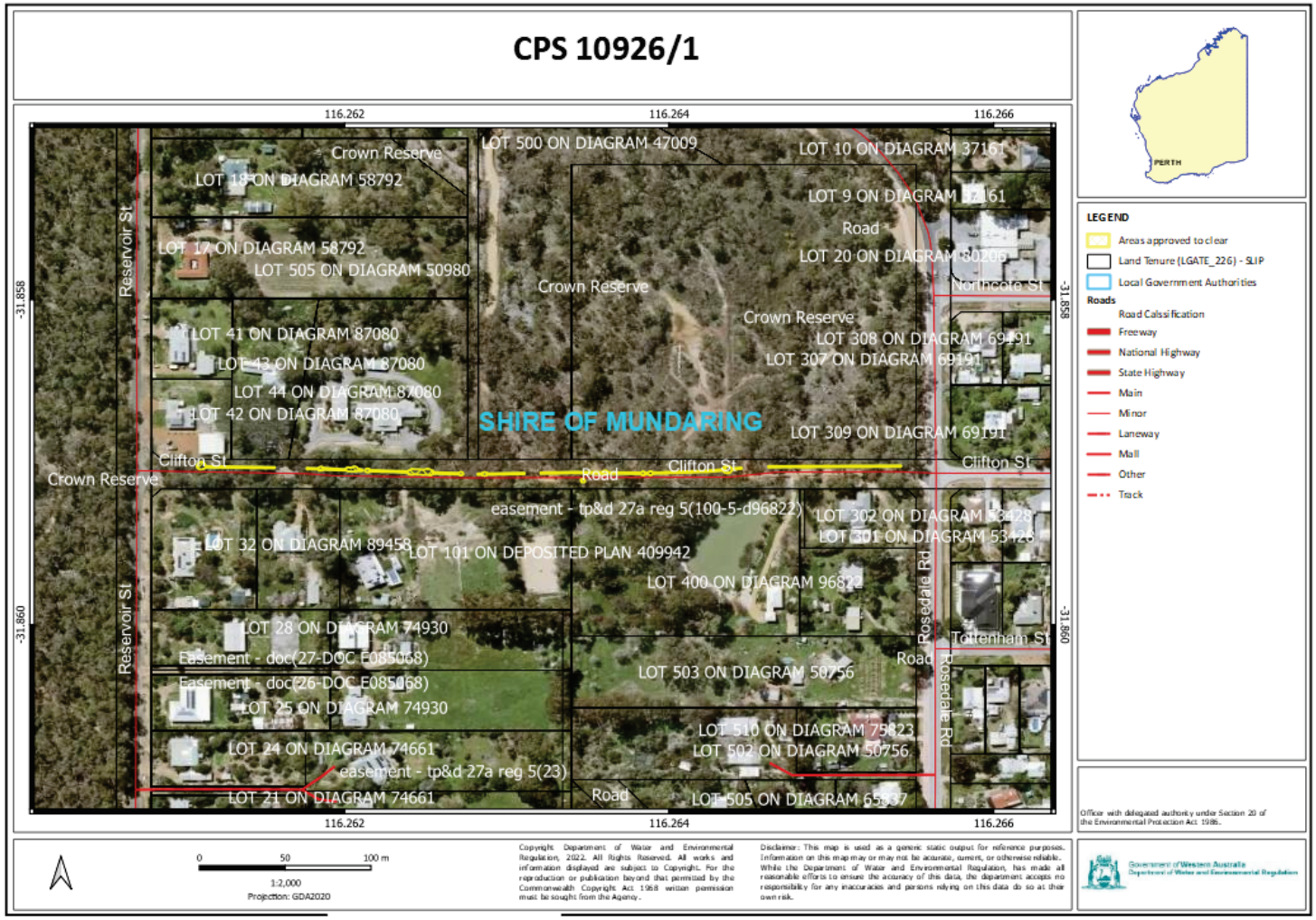

Figure 1: Map of the boundary of the area within which *clearing* may occur cross-hatched yellow

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 10926/1
Permit type:	Area permit
Applicant name:	Shire of Mundaring
Application received:	23 January 2025
Application area:	0.047 hectares of native vegetation, including 34 trees
Purpose of clearing:	Improving road safety
Method of clearing:	Mechanical cleaning
Property:	Clifton Street road reserve (PIN 11440506)
Location (LGA area/s):	Shire of Mundaring
Localities (suburb/s):	Chidlow

1.2. Description of clearing activities

The vegetation proposed to be cleared is distributed across several separate areas along the Clifton Street Road reserve (see Figure 1, Section 1.5).

A section of Cliffton Street is currently unsealed and narrow (3-5 metres) which cause limitations for traffic, including fire appliance, to traverse within the road network safety. The application is to facilitate the upgrade of this section, including sealing road surface and widening road carriageway, to accommodate safe travel (Shire of Mundaring, 2025a). The final structure of the road after upgrade will be 2-coat, 5- to 5.5-metre-wide asphalt sealed with 0.5 metre typical gravel shoulder and draining infrastructure (Shire of Mundaring, 2025a). 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:	27 May 2025
Decision area:	0.047 hectares of native vegetation, including 34 trees, 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 (DWER) 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 supplied by the applicant (see Appendix E), the clearing principles set out in Schedule 5 of the EP Act (see B.4), 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 provides 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;
- the potential impacts to an environment associated with a watercourse; 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 unlike 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 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
- Maintain the existing surface water flows.

1.5. Site map

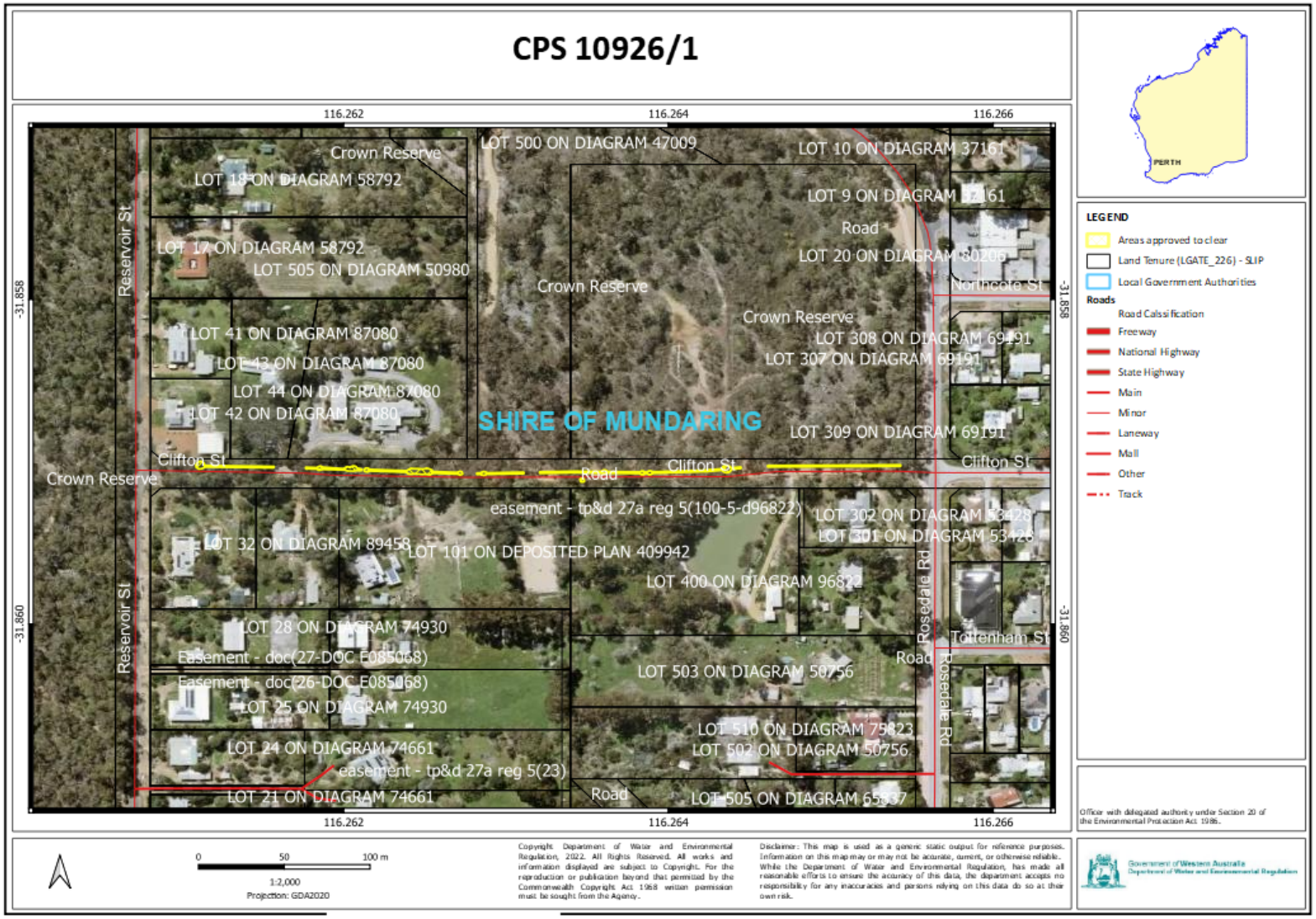

Figure 1 Map of the application area

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 any significant/habitat trees (Shire of Mundaring, 2025a):

- The trees proposed to be cleared are of small size, with the diameter at breast height (DBH) of less than 20 centimetres.
- The design has been undertaken to avoid mature trees (see the Shire's detailed explanation in the title of Photo 6 in Appendix E).

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), and water resources. 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 24 conservation significant fauna species recorded in the 10-kilometre radius of the application area (local area), including seven bird species, 13 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, habitat for 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 112 records of Carnaby's cockatoo (*Zanda latirostris*), 109 records of Baudin's cockatoo (*Zanda baudinii*) and 71 records of forest-tailed black cockatoos (*Calyptorhynchus banksii naso*) (with the closest distance of approximately 0.3, 1.2, and 3.7 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 300 metres away from the proposed clearing area (QGIS database).

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 application area comprised some marri (*Corymbia calophylla*), jarrah (*Eucalyptus marginata*) and wandoo (*E. wandoo*) trees which provide suitable habitat for BC. However, noting the small size of the trees proposed to be cleared with DBH of less than 30 centimetres (Shire of Mundaring, 2025a), the Degraded (Keighery, 1994) condition of vegetation and the better quality of adjacent remnant vegetation, the proposed clearing area is unlikely to provide significant habitat for BC.

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 20 records of this species within the local area, with the closest record of approximately only 100 metres from the application area. Given the application area includes eucalyptus forest and riparian area, it may provide suitable habitat for chuditch. However, noting the small extent clearing area, its location of along an existing road and the existing of higher quality remnant vegetation along the river, the proposed clearing is unlikely to result in significant impacts to habitat for this species.

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 447 records within the local area and occurs as close as 200 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 26 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.

The 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 five records mapped within the local area, in which the closest record is mapped approximately four kilometres from the application area. Noting the limited number of records within the local area, the degraded condition and small area of vegetation proposed to be cleared, the application area is not considered as comprising significant 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 if they occur 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 12 records of *A. cygnorum* subsp. *chamaephyton* are mapped within the local area, with the closest record approximately 0.85 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, 12 records of *T. pilifera* are mapped, with closest record approximately 0.76 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-). Five records are mapped within the local area, with the closest record approximately 1.87 kilometres from the area proposed to be cleared.

All these three 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 for these species occurring within the application area is minimal. Considering the relatively high number of WA Herbarium records, the proposed clearing of 0.047 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.

3.2.3. Water courses - Clearing Principles (f) and (j)

Assessment
There is a minor non-perennial watercourse mapped intersecting the application area. The proposed clearing may impact the water flow in short term during clearing process. However, these impacts are likely in short term and can be managed by a condition requesting maintaining the surface water flows.

The clearing and subsequent construction activities may also impact the surface water quality. However, noting the small scale of the proposed clearing, the impacts are likely to be minimal and short term. The applicant is not proposing to excavate at depth, so groundwater quality is not likely to be impacted.

Noting that the application area falls within the Swan River System Surface Water Area, as proclaimed under the RIWI Act, a permit to interfere with bed and banks under Section 17 of the RIWI Act is required for the proposed clearing (DWER, 2025). The applicant has obtained the permit to interfere with bed and banks for the proposed works as requested (Shire of Mundaring, 2025b).

Conclusion

Based on the above assessment, the proposed clearing is unlikely to impact the hydrology in long term and well as water quality of the water course within the application area. However, the proposed clearing may have short term impacts to the water flows of the watercourse within the application area.

Conditions

To address the impacts to the water flows in short term, the following management measure will be required as condition on the clearing permit:

- Maintain the existing surface water flows.

3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on DWER's website on 25 February 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
Permit to interfere bed and banks for proposed works	This information has been reviewed and presented in Section 3.2.3 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 several narrow strips of vegetation along the northern side and one tree on the southern side of Clifton Street road reserve, 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 50 per cent of the original native vegetation cover.
Ecological linkage	The application area is not mapped within any formal linkages or appears to be within any informal ones.
Conservation areas	The application area is not mapped within conservation areas. The closest conservation area is Wooroloo Regional Park, mapped approximately 40 metres from the application area but separated by an existing road.
Vegetation description	Photographs and information supplied by the applicant (Shire of Mundaring, 2025a) indicate the vegetation within the proposed clearing area consists of small trees and saplings of kurrojong (*Brachychiton* sp.), marri (*Corymbia calophylla*), jarrah (*Eucalyptus marginata*), blackbutt (*E. patents*), wandoo (*E. wandoo*), sedges and weeds. Photos of vegetation proposed to be cleared are available in Appendix E. This is consistent with the mapped vegetation types: • Dwellingup D4, which is described as open forest to woodland *of Eucalyptus marginata* subsp. *thalassica* - *Corymbia calophylla* on lateritic uplands in semiarid and arid zones. • Pindalup Pn, which is described as open forest of *Eucalyptus marginata* subsp. *thalassica* - *Corymbia calophylla* on slopes and open woodland of *Eucalyptus wandoo* with some *Eucalyptus patens* on the lower slopes in semiarid and arid zones (Heddle et al., 1980). *The mapped vegetation types retain approximately 87.3 and 76.8 per cent of the original extent, respectively (Government of Western Australia, 2019).*
Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in Degraded (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. • Yarragil 1 Phase (255DpYG1): described as very gentle to moderately inclined concave sideslopes. Moderately well drained yellow duplex soils and yellow and brown massive earths and gravels. • Yarragil 4 Phase (255DpYG4): described valley floors with some poorly drained mottled yellow duplex soils and gentle lower slopes with moderately well to well drained loamy and sandy earths, gravels and duplex soils.
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 intersects a mapped minor non-perennial watercourse.
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 20 conservation significant flora species within the local area, including three threatened and 17 priority species. The most frequently recorded species are *Adenanthos cygnorum* subsp. *chamaephyton* (P3) and *Tetratheca pilifera* (P3), with 12 records of each species mapped within the local area. The closest recorded species is *Acacia aphylla* (T) which is mapped approximately 480 metres from the application area.
Ecological communities	No threatened and priority ecological communities are mapped within the local area.
Fauna	According to available databases, 24 conservation significant fauna species have been recorded within the local area, including 11 threatened fauna species, nine priority fauna species, and four specially protected fauna species. The closest record is for Chuditch (*Dasyurus geoffroii*), approximately 80 metres from the application area. There are 16 roosting sites of black cockatoos being mapped within the local area and the closest roosting site is approximately 300 metres 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	0.85	12	N
Cyanicula ixioides subsp. *ixioides*	P4	Y	Y	Y	1.87	5	N
Tetratheca pilifera	P3	Y	Y	Y	0.76	12	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	3.7	71	N/A
Chuditch (*Dasyurus geoffroii*)	VU	Y	Y	0.1	20	N/A
Quenda (*Isoodon fusciventer*)	P4	Y	Y	0.2	447	N/A
South-western brush-tailed phascogale (*Phascogale tapoatafa wambenger*)	CD	Y	Y	1.4	26	N/A
Western ringtail possum (*Pseudocheirus occidentalis*)	CR	Y	Y	4.0	5	N/A
Baudin's cockatoo (*Zanda baudinii*)	EN	Y	Y	1.2	109	N/A
Carnaby's cockatoo (*Zanda latirostris*)	EN	Y	Y	0.3	112	N/A

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

B.4. Land degradation risk table

Risk categories	Soil type		
	255DpDW2	255DpYG1	255DpYG4
Wind erosion	H2	M1	L2
Water erosion	L1	L1	M1
Salinity	L1	L1	L2
Subsurface Acidification	H2	H2	H2
Flood risk	L1	L1	M1
Water logging	L1	L1	M2
Phosphorus export risk	L1	L2	M1

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 suitable habitat for conservation significant flora and fauna species. However, noting the Degraded (Keighery, 1994) condition of the vegetation proposed to be cleared and its location along to an existing road, the clearing area is considered as not comprise a high level of biodiversity compared to its adjacent remnant vegetation.	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 separated with the application area by an existing road, the proposed clearing is not likely to have an impact on the environmental values of the adjacent 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: Given a minor non-perennial watercourse intersects the application area, the proposed clearing is likely to impact an environment associated with a watercourse.	May be at variance	Yes *Refer to Section 3.2.3, above.*
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 Degraded (Keighery, 1994) condition of the vegetation proposed to be cleared and the final land use purpose as a sealed road, the proposed clearing is not likely to have an 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 a minor perennial water courses intersects the area proposed to be cleared and the application area falls within the Swan River System Surface Water Area, as proclaimed under the RIWI Act, the proposed clearing may impact surface water quality.	May be at variance	Yes *Refer to Section 3.2.3, above.*
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. Given a minor non-perennial water course are recorded intersecting the application area, the proposed clearing may contribute to waterlogging. However, noting that the proposed clearing area is small, and the road upgrade consists of drainage maintenance works, the potential that the proposed clearing will cause waterlogging is minimal and can be neglectable.	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 (left): Kurrojong tree and one small Marri sapling with a DBH of 5cm proposed to be removed. Larger trees to be retained. No natives species underneath the trees.

Photo 2 (right): Marri tree on the edge of the road to be removed. The tree is in severe decline with dead branches, possible canker and evidence of borers in the tree.

Photo 3 (left): Borer activity on the tree shown in photo 2.

Photo 4 (right): Jarrah trees with a DBH 15cm and 30cm and a Marri tree proposed to be removed. Marri tree is in decline with canker and borer activity. No native shrubs underneath any of the trees.

Photo 5 (left): Eucalyptus patens (Blackbutt) with a DBH 15cm to be removed. Weeds underneath.

Photo 6 (right): View of Clifton Road. Vegetation as seen on the right side of the photo will be retained with the road constructed to avoid the removal of any mature trees. This alignment will therefore impact the smaller trees on the northern side of Clifton Street, with a total of 19 trees that range from a DBH of 5cm to 20cm.

Photo 7 (left): Dead tree removed.

Photo 8 (right): Wandoo tree on a lean and overhanging the road. Tree required to removed as pruning will cause a weak canopy and failure in the future. Wandoo tree has a DBH of 20cm.

Photo 9 (left): Small Marri sapling showing damage (possibility from vehicles) to be removed.

Photo 10 (right): 3 x Marri trees with a DBH of 20cm, 10cm and 20cm respectively. All proposed to be removed.

Photo 11 & 12: An area measuring 1m x 70m (70sqm total) may be required to be removed to widen the road. All efforts will be made to retain this vegetation and has been included as a worst-case scenario, for the purpose of the clearing permit application. The vegetation is a mix of small Marri saplings, sedges and ground covers. Some weedy grasses and bulbs.

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)
- Contours (DPIRD-073)

- DBCA – Lands of Interest (DBCA-012)
- 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
- Soil Landscape Mapping – Systems

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

F.2. References

Bureau of Meteorology (BOM) (2025). *Climate statistics for Australian locations – Bickley*. Available at: http://www.bom.gov.au/climate/averages/tables/cw_009240.shtml (Accessed in March 2025).

Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.

Commonwealth of Australia (2012) *EPBC Act referral guidelines for three threatened black cockatoo species: Carnaby's cockatoo (endangered) Calyptorhynchus latirostris, Baudin's cockatoo (vulnerable) Calyptorhynchus baudinii, Forest red-tailed black cockatoo (vulnerable) Calyptohynchus banksii naso*. Department of Sustainability, Environment, Water, Population and Communities (now the Department of Agriculture, Water and Environment), Canberra

Department of Environment and Conservation (2012a) *Chuditch (Dasyurus geoffroii) National Recovery Plan. Wildlife Management Program No. 54*. Department of Environment and Conservation, Western Australia.

Department of Environment and Conservation (DEC) (2012b) *Fauna profiles: Quenda*. Available at: https://library.dbca.wa.gov.au/FullTextFiles/925284.pdf

Department of Environment and Conservation (DEC) (2012c) *Fauna profiles: Brush-tailed phascogale, Phascogale tapoatafa*. Available at: https://library.dbca.wa.gov.au/FullTextFiles/925273.pdf

Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf

Department of Parks and Wildlife (DPAW) (2017). *Fauna Profile - Western Ringtail Possum Pseudocheirus occidentalis*. Retrieved from https://www.dcceew.gov.au/sites/default/files/documents/recovery-plan-western-ringtail-possum.pdf

Department of Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development.* Government of Western Australia. URL: https://maps.agric.wa.gov.au/nrm-info/ (accessed 30 June 2020).

Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF.

Department of Water and Environmental Regulation (DWER) (Water Regulation - Swan Avon Region team) (2025) *Rights in Water and Irrigation Act 1914 advice for clearing permit application CPS 10926/1*, received 27 February 2025 and 2 April 2025 (DWER Ref: DWERDT1100958).

Government of Western Australia (2019) *2018 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, https://catalogue.data.wa.gov.au/dataset/dbca

Heddle, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Shire of Mundaring (2025a) *Clearing permit application CPS 10926/1 and supporting information*, received 22 January 2025 (DWER Ref: DWERDT1065580).

Shire of Mundaring (2025b) *Providing the permit to interfere with bed and banks for the proposed works under the clearing permit application CPS 10926/1*, received 08 May 2025 (DWER Ref: DWERDT1116259).

Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dpaw.wa.gov.au/ (Accessed May 2025)