GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 9150/1
Permit Holder:	Department of Biodiversity, Conservation and Attractions
Duration of Permit:	From 13 January 2022 to 13 January 2027

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of constructing a public walking trail.

2. Land on which clearing is to be done

Lot 300 on Deposited Plan 68345, Allanson

Lot 301 on Deposited Plan 68344, Allanson

Lot 302 on Deposited Plan 68345, Allanson

Coalfields Highway road reserve (PINs 11471806, 11625448, 11483057, 11746071), Allanson

3. Clearing authorised

The permit holder must not clear more than 0.58 hectares of *native vegetation* within the combined areas cross-hatched yellow in Figure 1, Figure 2 and Figure 3 of Schedule 1.

PART II – MANAGEMENT CONDITIONS

4. 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.

5. 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.

PART III - RECORD KEEPING AND REPORTING

6. 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 Geocentric Datum Australia 1994 (GDA94), 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); and (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 4; and (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 5.

7. Reporting

The permit holder must provide to the *CEO* the records required under condition 6 of this permit when requested by the *CEO*.

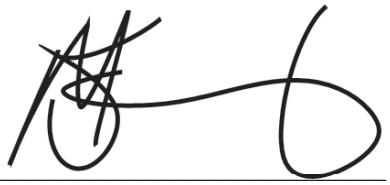
DEFINITIONS

In this permit, the terms in Table 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.
dieback	means the effect of *Phytophthora* species on native vegetation.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	*Environmental Protection Act 1986* (WA)
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



Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

20 December 2021

Schedule 1

The boundary of the area authorised to be cleared is shown in the maps below (Figure 1, Figure 2, Figure 3).

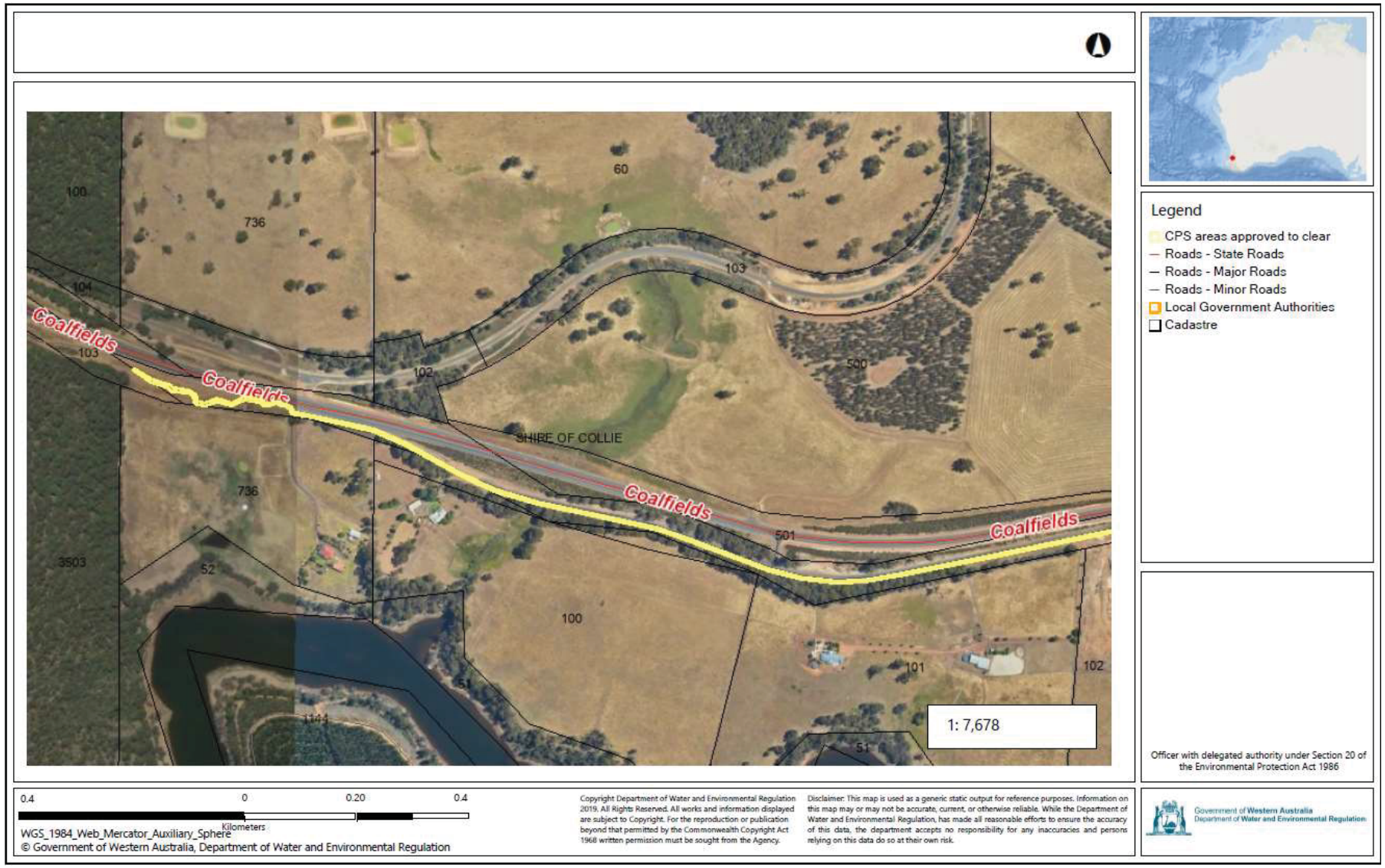


Figure 1: Map of the boundary of the area within which clearing may occur

Figure 2: Map of the boundary of the area within which clearing may occur

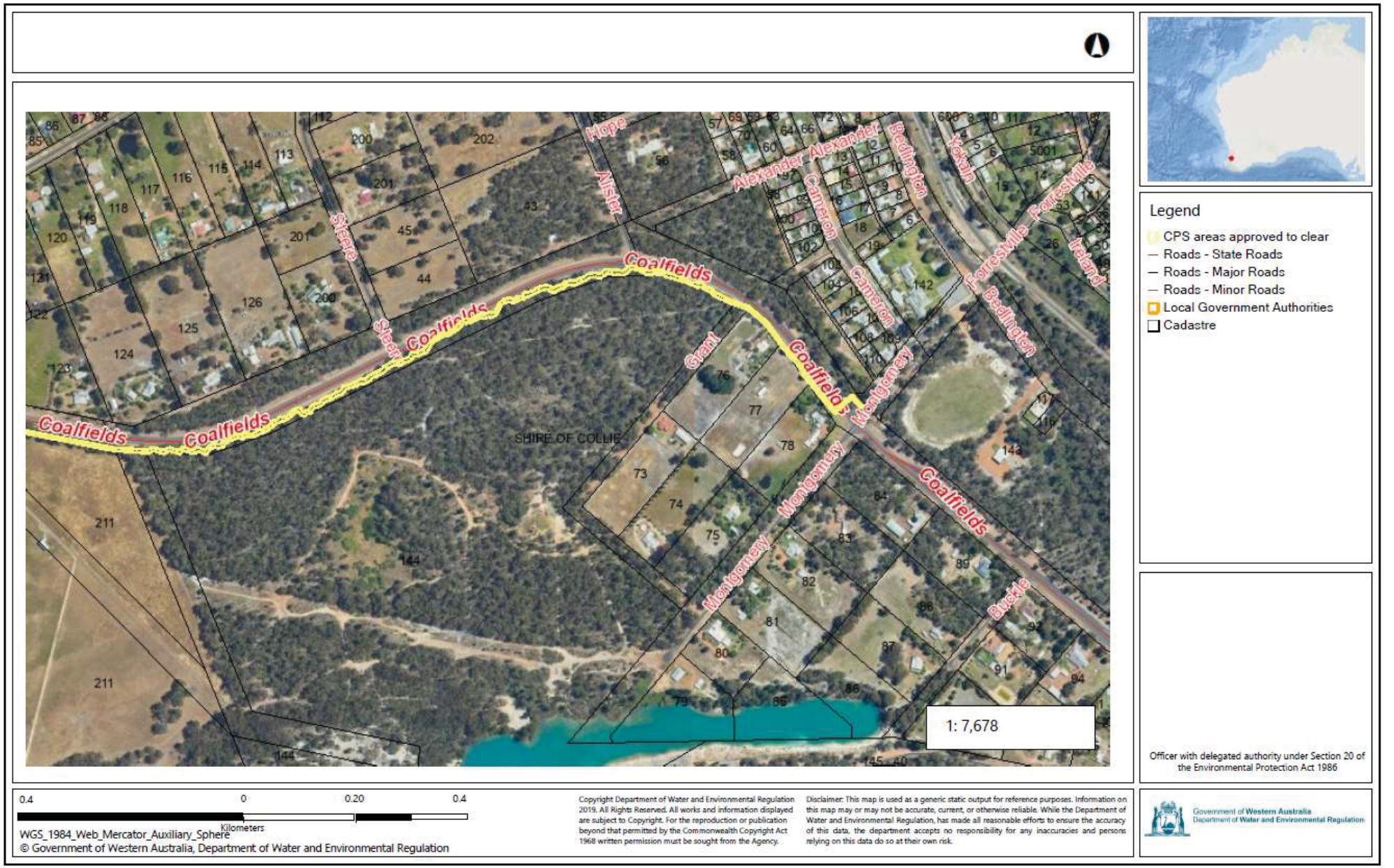


Figure 3: Map of the boundary of the area within which clearing may occur

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 9150/1
Permit type:	Purpose permit
Applicant name:	Department of Biodiversity, Conservation, and Attractions
Application received:	16 December 2020
Application area:	0.58 hectares of native vegetation
Purpose of clearing:	Construction of a public walking trail
Method of clearing:	Mechanical
Property:	Lot 300 on Deposited Plan 68345 Lot 301 on Deposited Plan 68344 Lot 302 on Deposited Plan 68345 Coalfields Highway road reserve (PINs 11471806, 11625448, 11483057 and 11746071)
Location (LGA area/s):	Shire of Collie
Localities (suburb/s):	Allanson

1.2. Description of clearing activities

The vegetation proposed to be cleared is 0.58 ha of native vegetation contained within a single contiguous area (see Figure 1, Section 1.5) for the purpose of constructing a public walking trail. The final constructed trail width is to be kept between 1.2 and 1.5 metres wide (DBCA, 2020).

1.3. Decision on application

Decision:	Granted
Decision date:	20 December 2021
Decision area:	0.58 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 (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), flora and vegetation survey, the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the proposed clearing may result in:

- the loss of native vegetation that is suitable habitat for conservation significant fauna and flora;
- 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 proposed clearing is unlikely have significant or long-term adverse environmental impacts and can be appropriately minimised and managed. 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

1.5. Site map

Figure 1: Map of the application area

The area cross hatched yellow indicates the area 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)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Country Areas Water Supply Act 1947* (WA) (CAWS Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Rights in Water and Irrigation Act 1914 (WA) (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 applicant advised that no trees above 100mm diameter at breast height (DBH) will be removed and the final constructed trail width is to be kept between 1.2 and 1.5 metres wide. A small excavator will be used to avoid clearing of established trees. Alternative trails alignments were considered including keeping the trail within the nearby National Park, however this option would come at a significant cost to build a bridge over the Collie River and require

clearing within a conservation area and was therefore not considered feasible (DBCA, 2020). In addition, the alignment of the trail was modified after a flora survey was conducted to avoid two areas of dense *Anigozanthos manglesii* (DBCA, 2021).

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), flora survey 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 potential 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 (b)

Assessment

Information supplied by the applicant, relevant databases, and aerial imagery has identified that the proposed clearing has the potential to impact on vegetation that may be used by a number of conservation significant fauna. Approximately 2.3 km of the application is unvegetated or is highly disturbed and degraded and comprises exotic vegetation on the road verge. The approximately 1.3 km on the eastern end of the clearing area, adjacent to an unmanaged class C reserve has the potential to contain habitat for the following fauna species:

- Western Ringtail Possum
- Quenda
- Quokka
- Carnaby's Cockatoo
- Forest Red-tail Black Cockatoo
- Baudin's Cockatoo

Black Cockatoos
Black cockatoos breed in large hollow bearing trees generally within woodlands or forests. Breeding trees will generally have a DBH of over 500 mm for most species and 300 mm for salmon gum and wandoo. Foraging occurs on a number of species generally within a 6-12 km radius of a nesting site or within 6 km of a night roost. All species of black cockatoo will feed on marri and jarrah, along with other Eucalypts and proteaceous species. Night roosts will occur in the tallest trees in an area and are usually near an important water source and suitable foraging habitats.

A large portion of the application area is devoid of any trees or canopy species. If cleared, these portions of the application area are unlikely to impact on species of black cockatoos. Approximately 1.9 km of the application area is adjacent to mapped black cockatoo feeding areas with a small portion intersecting one of these areas. Photographs and a flora survey supplied by the applicant indicate that *E. marginata* and *C. calophylla,* species utilised by black cockatoos, occupy within the majority of the vegetated portion of the application area (DBCA, 2020 and 2021).

The applicant intends to retain all trees over 100 mm DBH and configure the proposed trail so it meanders through vegetation, reducing how much is cleared. Given this, the distance from known breeding sites, and the amount of mapped foraging habitat adjacent to the application area (see appendix B.1), it is unlikely that the clearing associated with this application will significantly impact on black cockatoo habitat.

Western Ringtail Possum
There are 24 records of the Critically Endangered Western Ringtail Possum (WRP) (*Pseudocheirus occidentalis*) within the local area with the closest record approximately 300 m west, in Wellington National Park. The portion of application area closest to this record is devoid of native vegetation, notably any trees species to act as habitat for WRP.

Long term survival of WRP requires linkage between suitable patches of remnant vegetation. These remnants include long unburnt, mature remnants of peppermint (*Agonis flexuosa)* woodlands with high canopy continuity, jarrah/marri (*Eucalyptus marginata, Corymbia calophyhlla)* woodlands with limited disturbance (DPaW 2017). Given the condition of the vegetation, the intent for the applicant to retain trees over 100 mm DBH and meander the trail to avoid

vegetation, it is unlikely the proposed clearing will impact or remove vegetation that will be utilised by WRP or impact on any potential existing linkage function.

Quenda and Quokka
Quenda inhabit areas of dense vegetation including wetland fringes and heathlands. They have been observed in areas of native bushland and where exotic shrub species are prevalent. Quenda rarely venture from cover and will feed by digging in leaf litter and soil to find food and will construct nests under vegetation (DPaW 2017).

On the mainland, quokka occupy jarrah, marri, and karri forests and woodlands in high rainfall areas. These habitats generally have thick understorey, nearby to swamps and will be close to more open, recently burnt vegetation (DPaW, 2017).

Given the degraded to completely degraded condition of a large portion of the application area and the minimal clearing to be undertaken, including the meandering of the trail to reduce clearing, it is unlikely quokkas or quendas will be present or that habitat will be significantly impacted as a result of the clearing.

Conclusion

Given the above assessment, it is unlikely that quenda or quokka will be present within the application area or that the clearing will have any significant impact on black cockatoo or western ringtail possum habitat.

Conditions
No fauna management conditions required.

3.2.2. Biological values (Flora) - Clearing Principles (a and c)

The local area contains 50 records from 13 species of conservation significance, all of which can occur on one of the same soil types as the application area. The most common species is the Priority 4 *Grevillea ripicola* with 14 records, followed by the Priority 3 *Lomandra whicherensis*. There are 2 records within 1 km, *Lomandra whicherensis* and *Thysanotus unicupensis* (Priority 3).

An adequately timed spring flora survey of the application area identified no conservation significant flora species within the application area (DBCA, 2021).

Photographs of the application area indicate that the eastern portion of the application area occurs in a very good (Keighery, 1994) condition and is adjacent to similar condition vegetation. The proposed clearing may introduce and/or increase the spread and weeds and dieback into adjacent vegetation.

Conclusion

Given the above assessment, it is unlikely that the application area provides suitable habitat for conservation significant flora species, however the proposed clearing may contribute to the spread or introduction of weeds and dieback into adjacent, good quality, vegetation.

Conditions
To address the above impacts, the following conditions will be on the clearing permit:

- Avoid and minimise clearing
- The permit holder is to take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback

3.3. Relevant planning instruments and other matters

The Shire of Collie did not have any objections to the proposed clearing (Shire of Collie, 2021).

The proposed clearing occurs within a CAWS area and is located in Zones D and B, low salinity risk and high salinity risk parts of the catchment respectively. DWER Policy and Guidelines for the "Granting of Licences to Clear Indigenous Vegetation" in Zone D provide for the unconditional grant of a licence subject to the retention of native vegetation on at least 10% of the owner's holding area. It is considered for there to be more than 10% native vegetation within the DBCA managed lands. Furthermore, analysis of the proposal indicates there will be no clearing of native vegetation for the part of the proposal within Zone B, where conditions for clearing a licence for government works would normally apply. Therefore, there is no objection to the proposed clearing under the CAWS Act (DWER, 2021).

Th proposed clearing occurs within the Collie River surface water area under the *Rights in Water and Irrigation Act 1914* and intersects two mapped watercourses. Therefore, approval to interfere with the bed or banks of a watercourse will be required to be obtained prior to clearing.

The Collie River Waugal Aboriginal Site of Significance has 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 comments	Consideration of comment
Further information in the form of a flora survey was requested from the applicant during the assessment. The applicant provided a flora survey of the application area and amended the alignment to avoid areas of high densities of *Anigozanthos manglesii.*	Additional information provided by the applicant was considered under sections 3.1 and 3.2.2 of this report.

Appendix B. 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 the assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

B.1. Site characteristics

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. The eastern third of the application area is adjacent to a "Class C" reserve and Coalfields Rd. The remaining portion of the application area is adjacent to cleared land zoned rural, and Coalfields Rd. Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 74 per cent of the original native vegetation cover.
Ecological linkage	The application area is located approximately 420 m, at the nearest point, from a mapped South West Regional Ecological Linkage. Given the minimal clearing and avoidance measures, it is unlikely the vegetation proposed to be cleared will sever any ecological linkages.
Conservation areas	A eastern portion of the application is adjacent to a Class C unmanaged reserve (23032). The Wellington National Park is located approximately 90 m from the western end of the application area.
Vegetation description	Photographs supplied by the applicant indicate that the vegetation varies along the application area but consists of open areas of invasive grasses, *Acacia* sp. shrubs, Mature and juvenile *Eucalyptus marginata,* and *Corymbia calophylla*. Representative photos are available in Appendix E. This is consistent with most of the mapped vegetation complexes: • Yarragil 1 which is described as open forest of *Eucalyptus marginata* subsp. *marginata* – *Corymbia calophylla* on slopes with mixtures of *Eucalyptus patens* and *Eucalyptus megacarpa* on the valley floors in humid and subhumid zones. • Murray 1 which is described as open forest of *Eucalyptus marginata* subsp. *marginata* - *Corymbia calophylla* - *Eucalyptus patens* on valley slopes to woodland of *Eucalyptus rudis* - *Melaleuca rhaphiophylla* on the valley floors in humid and subhumid zones. • Dwellingup D1 which is described as open forest of *Eucalyptus marginata* subsp. *marginata* - *Corymbia calophylla* on lateritic uplands in mainly humid and subhumid zones. • Collie Cl which is described as open forest of *Eucalyptus marginata* subsp. *marginata* - *Corymbia calophylla* - *Allocasuarina fraseriana* on gravelly-sandy upland soils in the subhumid zone. • Muja MJ which is described as open woodland of *Melaleuca preissiana -Banksia littoralis* - *Banksia ilicifolia* with some *Eucalyptus patens* on moister sites, *Banksia spp*. on drier sites of valley floors in the subhumid zone. The mapped vegetation complexes retain approximately between 59 and 86 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 Very Good to Completely Degraded (Keighery, 1994). The full Keighery (1994) condition rating scale is provided in Appendix D. Representative photos are available in Appendix E.
Climate	Rainfall – The mean annual rainfall for the application area is 1100 mm Evapotranspiration – The areal actual evapotranspiration is 700 mm

Characteristic	Details
Topography	The topography of the application area ranges from 170 m AHD at the lowest elevation in the approximate centre, to 185 190 m AHD at the western and eastern extents respectively.
Soil description	The soils within the application area are mapped as: • Grimwade Subsystem (255LvGR) described as moderately deep valleys (30-70 m) in granite. Soils are loamy earths and loamy gravels. • Wilda wet plats Phase (255DpWGw) described as poorly drained flats and depressions with some sandy and gravelly rises. Soils are non-saline wet soils and sands with some gravels. • Cardiff Subsystem (255CfCF) described as low lying poorly drained flats over coal measures. Soils are deep sands and wet soils. • Muja gentle slopes Phase (255CfMU2) described as relief 10-30m, slopes 3-15% • Collie Subsystem (255CfCl) described as broad lateritic divides over coal measures relief 5-25 m, slopes 2-10%. Soils are deep sands and sandy gravels.
Land degradation risk	The application area has the following land degradation risks: **Flood risk:** • <3% of the map unit has a moderate to high flood risk. **Salinity Risk:** • <3% of map unit has a moderate to high salinity risk or is presently saline **Phosphorous export risk:** • 10-30% of map unit has a high to extreme phosphorus export risk • 30-50% of map unit has a high to extreme phosphorous export risk • 50-70% of map unit has a high to extreme phosphorous export risk **Subsurface acidification risk:** • >70% of map unit has a high subsurface acidification risk or is presently acid **Wind erosion risk:** • 30-50% of map unit has a high to extreme wind erosion risk • >70% of map unit has a high to extreme wind erosion risk Given the narrow configuration and minimal area of the proposed clearing, it is unlikely it will lead to any appreciable land degradation.
Waterbodies	The desktop assessment and aerial imagery indicated that the Collie River is located approximately 190 m from the application area at the nearest point. The application area intersects Ironstone Gulley which runs through a culvert under Coalfields Hwy. The application area intersects the waterway prior to it going through the culvert. The application area intersects a mapped tributary of the Collie River. The application area intersects the tributary after it enters the culvert under a local road and as such will not be impacted by the proposed clearing. Two lakes are located approximately 450 m south on the eastern side of the application area.
Hydrogeography	The majority of the application area is located within the Collie Groundwater Area, proclaimed under the *Rights in Water and Irrigation Act 1914.* The application area is located within the Collie River mainstream proclaimed surface water area. The application area intersects two clearing control catchment areas (*Country Area Water Supply Act* Part IIA), Wellington Dam Catchment Areas Zone B and D. The Country Areas Water Supply Act branch of DWER has provided comments regarding the clearing (see Section 3.3). The application area is not located within any Public Drinking Water Source Areas.

Characteristic	Details
Flora	The local area contains 50 records from 13 species of conservation significance, all of which can occur on one of the same soil types as the application area. The most common species is the Priority 4 *Grevillea ripicola* with 14 records, followed by the Priority 3 *Lomandra whicherensis.* There are 2 records within 1 km, *Lomandra whicherensis* and *Thysanotus unicupensis* (Priority 3). Flora survey of the application area has not identified any threatened or priority flora that will be impacted by the proposed clearing (DBCA, 2021).
Ecological communities	The application area does not intersect any Threatened or Priority Ecological Communities (T/PEC). There are no TECs or PECs within the local area.
Fauna	The local area contains 351 records from 18 species of conservation significance. The most common species is the Quokka (*Setonix brachyurus)* with 57 records, followed by the Chuditch (*Dasyurus geoffroii)* with 52 records. The nearest confirmed white tailed black cockatoo breeding tree is located approximately 28 km from the application area. The nearest red tail black cockatoo breeding record is approximately 38 km away. The application area is adjacent to, and intersects, mapped areas of black cockatoo feeding areas. There are three confirmed roost sites within the local area, located approximately 4.2 km, 7.2 km and 6.7 km from the application area.

B.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Jarrah Forest	4,506,660.25	2,399,838.15	53.25	1,673,614.25	37.14
Vegetation complexes**					
Mattiske vegetation complex Murray 1 **	68,695.18	52,296.01	76.13	44,444.95	64.70
Mattiske vegetation complex Yarragil 1 **	80,202.95	64,927.06	80.95	59,063.57	73.64
Mattiske vegetation complex Dwellingup, D1 **	208,490.90	181,038.81	86.83	171,561.01	82.29
Mattiske vegetation complex Muja, MJ **	10,200.51	6,070.51	59.51	4,4470.56	43.83
Mattiske vegetation complex Colle, CI **	11,004.73	7,354.88	66.83	6,450.50	58.62

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

B.3. Flora analysis table

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 (Local Area)	Are surveys adequate to identify? [Y, N, N/A]
Adenanthos cygnorum subsp. *chamaephyton*	P3	N	Y	Y	5.8	1	Y
Caladenia validinervia	P1	Y	Y	Y	5.8	1	Y
Calothamnus graniticus subsp. *leptophyllus*	P4	N	Y	Y	5.8	1	Y
Grevillea rara	T	N	N	N	8.4	6	Y
Grevillea ripicola	P4	N	Y	Y	1.9	14	Y
Hypolaena robusta	P4	N	Y	N	5.6	1	Y
Juncus meianthus	P3	N	Y	Y	7.3	1	Y
Lomandra whicherensis	P3	N	N	Y	0.015	8	Y
Pultenaea skinneri	P4	N	Y	N	5.8	7	Y
Stylidium acuminatum subsp. *acuminatum*	P2	N	N	N	9.4	1	Y
Synaphea aff. hians	P3	Y	Y	Y	7.1	5	Y
Tetratheca parvifolia	P3	Y	Y	Y	2.2	3	Y
Thysanotus unicupensis	P3	Y	Y	Y	0.095	1	Y

B.4. 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 (Local Area)
Calyptorhynchus baudinii	EN	Y	Y	0.39	38
Calyptorhynchus banksia naso	VU	Y	Y	3.3	19
Calyptorhynchus latirostris	EN	Y	Y	0.012	7
Setonix brachyurus	VU	Y	N	4.2	57
Isoodon fusciventer	P4	N	N	0.135	43
Pseudocheirus occidentalis	CR	Y	Y	0.3	24
White-tailed black cockatoo*	EN	Y	Y	-	18

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

*Records may indicate C. baudinii or C. latirostris

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 does not contain locally or regionally significant flora, fauna, habitats, assemblages of plants.	Not likely to be at variance	Yes *Refer to Section 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 may contain vegetation that is utilised by conservation significant fauna for foraging and roosting purposes and is adjacent and intersects mapped black cockatoo feeding areas.	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: A flora survey and habitat assessment identified that the application area is unlikely to contain habitat for threatened flora.	Not likely to be at variance	Yes *Refer to Section 3.2.1, 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 intersect a threatened ecological community. There are no mapped TECs within the local area. Given the degraded to completely degraded condition of a large portion of the application area and no trees over 100 mm DBH to be removed, it is unlikely to impact on TECs that may occur in the area.	Not likely to be 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 complexes 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 perform a significant ecological linkage function.	Not likely to be 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 the distance to the nearest conservation area from clearing activities, the proposed clearing is not likely to have an impact on the environmental values of the nearby Wellington National Park and Class A Collie State Forest.	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 A portion of the application area, near Rose Rd, crosses a tributary of the Collie River. Bridges/boardwalks are to be constructed over this tributary and photos indicated a high abundance of exotic species. The vegetation associated with this watercourse is in a degraded (Keighery, 41994) condition and consists of *Acacia saligna, Acacia pulchella* and *Juncus Pallidus* with dense weed species such as *Casuarina glauca*, Kikuyu, Blackberry, Couch grass, Lovegrass, *Paspalum* species, a garden variant of *Callistemon* and introduced plantings (DBCA, 2021). Given the degraded condition of the riparian vegetation and the small extent of clearing within this area, it is not considered for the impact to vegetation growing in association with a watercourse or wetland to be significant.	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 moderately to highly susceptible to wind erosion and nutrient export. Noting the extent of the application area and the condition of the vegetation, 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 The application area is not within a priority drinking water source area, however a portion intersects a proclaimed surface water area and is entirely within a proclaimed groundwater area. The application area is within two CAWS Act areas. Given the extent of the area proposed to be cleared and the linear configuration as well as the bridges/boardwalks to be placed over the waterway near Rose Rd, it is unlikely the clearing will impact on the quality of surface or groundwater.	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 Given the minimal extent of clearing and configuration of the application area, it is unlikely the clearing will cause, exacerbate the incidence 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 & Trail Design (DBCA, 2020)

Photograph 1: Vegetation occur within the eastern end of the application area.

Photograph 2: Vegetation occurring within the eastern end of the application area

Photograph 3: Vegetation occurring within the central portion near a watercourse that traverses the application area.

Photograph 4: Vegetation occurring within the central portion near a watercourse that traverses the application area.

Appendix F. Sources of information

F.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- 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)
- Offsets Register – Offsets (DWER-078)
- 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
- Wheatbelt Wetlands Stage 1 (DBCA-021)

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
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

F.2. References

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