GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 9030/1

File Number: DWERVT6401

Duration of Permit: From 9 March 2021 to 9 March 2023

PERMIT HOLDER

Mr Barry Stimpson and Ms Wendy Stimpson

LAND ON WHICH CLEARING IS TO BE DONE

Lot 71 on Deposited Plan 50597, Cowaramup

AUTHORISED ACTIVITY

The permit holder must not clear more than 0.16 hectares of native vegetation within the areas 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 conduct clearing activities in a slow, progressive manner from north to south to allow fauna 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 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); (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) actions taken to undertake directional clearing in accordance with condition 3.

5. Reporting

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

Meenu Vitarana
A/MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

12 February 2021

SCHEDULE 1

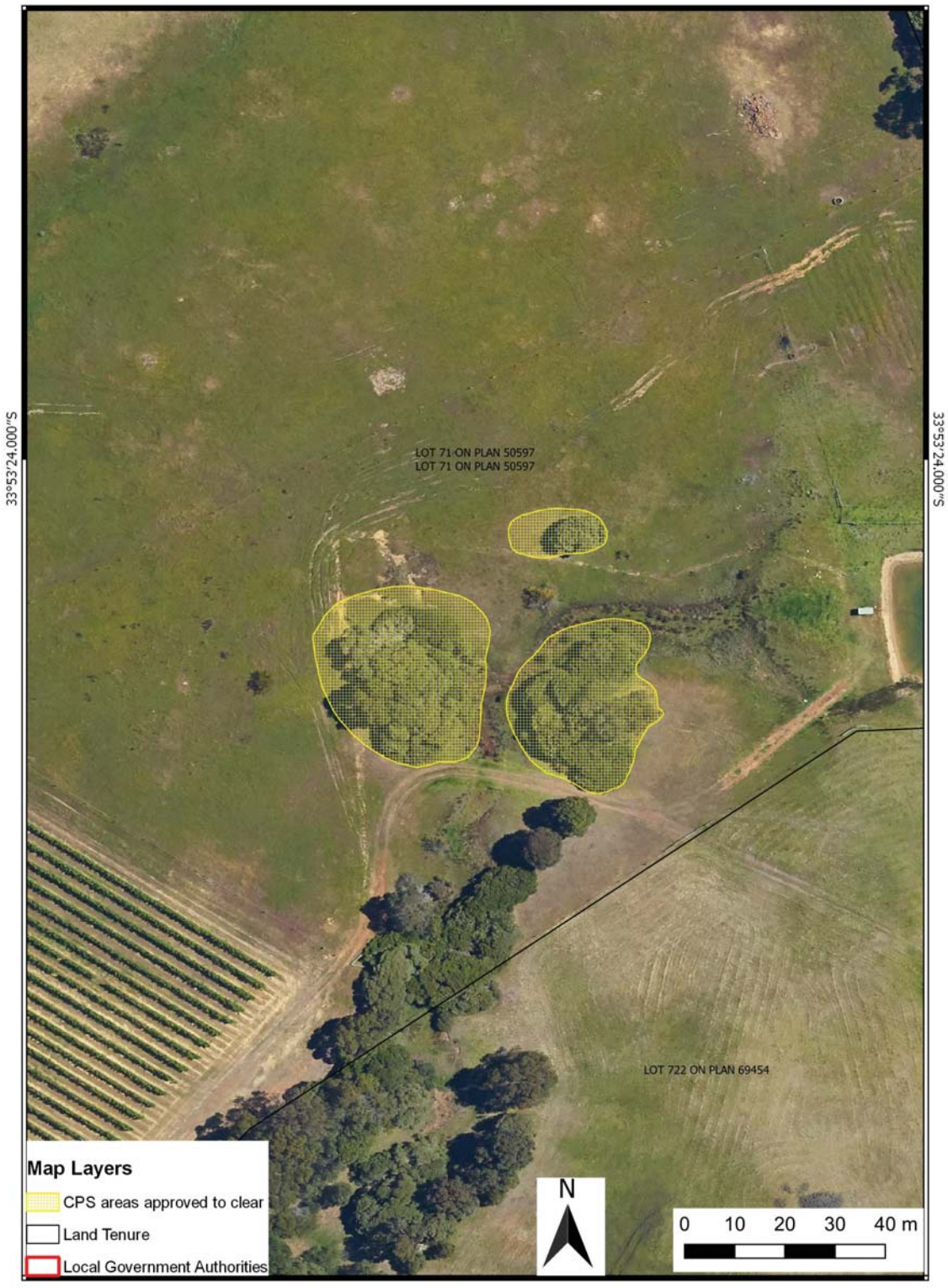

Figure 1: Map of the boundary of the area within which clearing may occur

Clearing Permit Decision Report

1. Application details and outcome

1.1. Permit application details

Permit number:	CPS 9030/1
Permit type:	Area permit
Applicant name:	Mr Barry Stimpson and Ms Wendy Stimpson
Application received:	31 August 2020
Application area:	0.16 hectares of native vegetation
Purpose of clearing:	Dam construction to facilitate viticultural irrigation
Method of clearing:	Mechanical
Property:	Lot 71 on Deposited Plan 50597
Location (LGA area/s):	Shire of Augusta Margaret River
Localities (suburb/s):	Cowaramup

1.2. Description of clearing activities

The vegetation applied to be cleared consists of three separate areas of close vegetation within close proximity (i.e. 20 metres) of one another (see Figure 1, Section 1.5).

1.3. Decision on application and key considerations

Decision:	Granted
Decision date:	12 February 2021
Decision area:	0.16 hectares of native vegetation as depicted in Section 1.5 below.

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Water and Environmental Regulation (DWER) on 31 August 2020. DWER advertised the application for public comment and no submissions were received.

In undertaking their assessment, and in accordance with section 51O of the EP Act, the Delegated Officer has given consideration to the Clearing Principles in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments, and any other pertinent matters they deemed relevant to the assessment (see Section 3).

In particular, the Delegated Officer has determined that the proposed clearing:

- is not likely to have a significant impact on fauna species, including black cockatoo species, western ringtail possum, masked owl or quenda;
- is not likely to impact conservation signficiant flora species;
- is not likely to be significant as a remnant of native vegetation;
- is not likely to signficantly impact water quality or ecological values of the watercourse mapped adjacent to the proposed clearing area.

In determining to grant a clearing permit subject to conditions the Delegated Officer found that the proposed clearing is not likely to lead to an unacceptable risk to the environment.

1.5. Site map

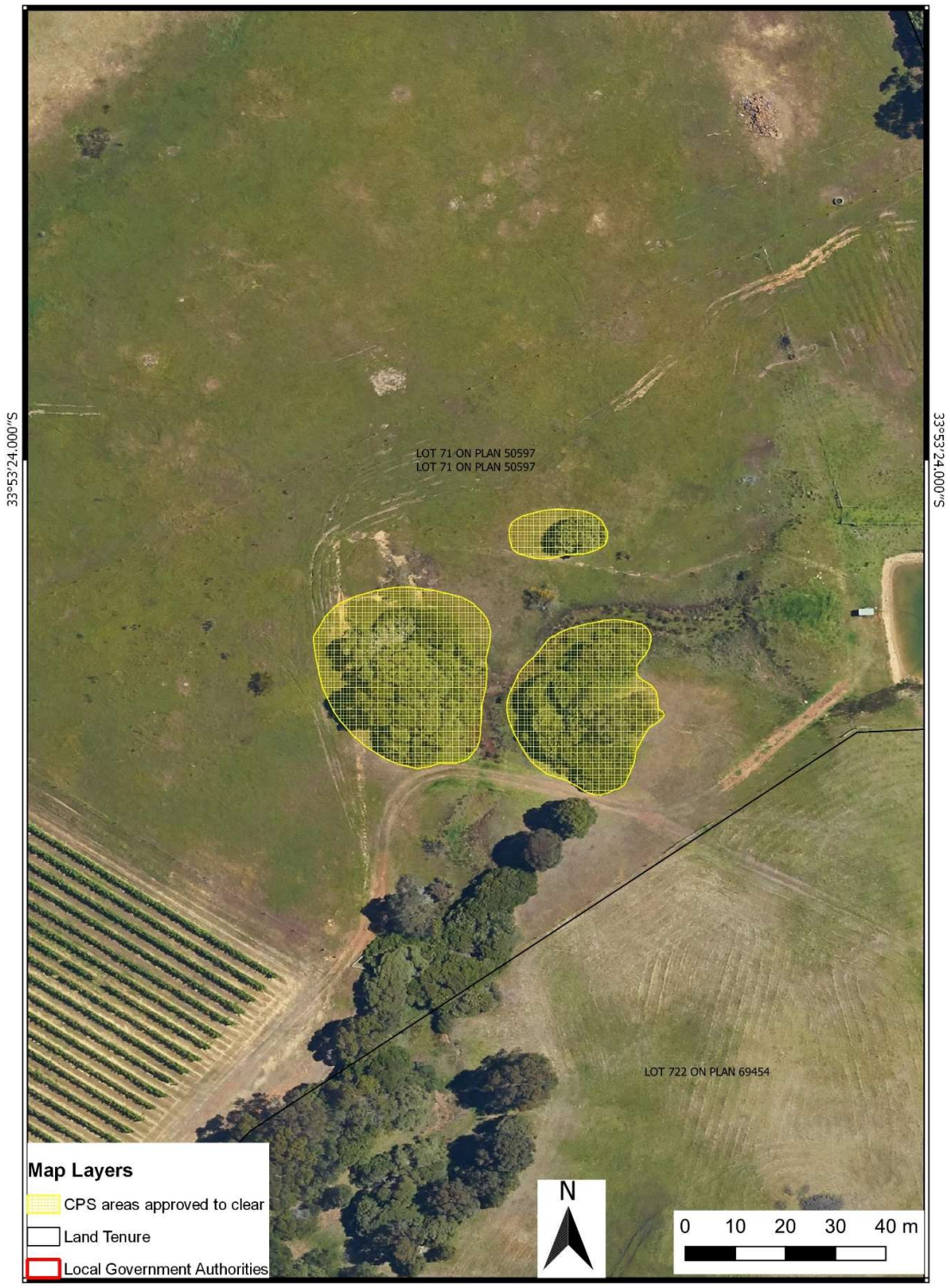

Figure 1. Map of the application area. The areas cross-hatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

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 1.3), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

1. the precautionary principle;
2. the principle of intergenerational equity; and
3. 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* (WA) (RIWI Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (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 the dam location was chosen to minimise any clearing. Given the extent of the clearing, it is considered that all reasonable efforts had been taken to avoid and minimise potential impacts of the clearing on environmental values.

3.2. Assessment of environmental impacts

In assessing the application in accordance with section 51O of the EP Act, the Delegated Officer has examined the application and site characteristics (Appendix A) and considered whether the clearing poses a risk to environmental values. The assessment against the Clearing Principles is contained in Appendix B.

This assessment identified that the clearing may pose a risk to the environmental value(s) of biological values, significant remnant vegetation and conservation areas, and land and water resources, and that these required further consideration. The detailed consideration and assessment of the clearing impacts against the specific environmental values is provided below. Where the assessment found that the clearing presents an unacceptable risk to environmental values, conditions aimed at controlling and/or ameliorating the impacts have been imposed under sections 51H and 51I of the EP Act. These are also identified below.

3.2.1. Environmental value: biological values (fauna) – Clearing Principles (a) and (b)

Assessment: Vegetation within the application area may provide habitat for the following three threatened and two priority listed fauna species:

- *Calyptorhynchus banksii naso* (Forest red-tailed black cockatoo) (T);
- *Calyptorhynchus baudinii* (Baudin's cockatoo) (T);
- *Calyptorhynchus latirostris* (Carnaby's cockatoo) (T);
- *Pseudocheirus occidentalis* (Western ringtail possum, ngwayir) (T);
- *Tyto novaehollandiae novaehollandiae* (Masked Owl (southwest)) (P3); and
- *Isoodon fusciventer* (Quenda, southwestern brown bandicoot) (P4).

The application area contains some peppermint and marri trees preferred as habitat for western ringtail possums (DPAW, 2017). However, given that the vegetation is largely dominated by *Melaleuca* spp. not preferred by western ringtails possums, it is unlikely that the density of peppermint and marri trees would create a sufficient canopy to support western ringtail possums (DPAW, 2017). The small extent and semi-isolated nature of the application area further reduces the suitability of the application area as habitat for this species.

Marri trees present within the application area may provide foraging habitat for the forest red-tailed black cockatoo, Baudin's cockatoo and Carnaby's cockatoo (hereafter collectively referred to as black cockatoos) (Commonwealth of

Australia, 20212), however given that only several of these trees are present, they are unlikely to represent significant foraging habitat. Furthermore, these marri trees do not have sufficiently large trunks (i.e. with a diameter at breast height of greater than 50 cm) to contain breeding hollows for black cockatoos (Commonwealth of Australia, 2012) or roosting habitat for the masked owl. As such the application area is unlikely to provide significant habitat for black cockatoo species or the masked owl.

The application area may provide suitable habitat for the quenda (Department of Environment and Conservation, 2012), however given its small extent and that it is largely isolated from other vegetation, it is unlikely to provide significant habitat.

Given the proximity of western ringtail possum and quenda records to the application area (within approximately 200m), a condition has been placed on the permit to require clearing from a north to south direction to allow any individuals that may be present to move into vegetation to the south.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable subject to relevant conditions (see below) in relation to this environmental value.

Conditions: To address the above impacts, the following condition will be added to the permit:

- Clearing is required to take place from a north to south direction to facilitate movement of fauna from the application area into vegetation present to the south.

3.2.2. Environmental value: biological values (flora) – Clearing Principles (a) and (c)

Assessment: One threatened (*Caladenia excelsa*) and three priority (*Franklandia triaristata*, *Pimelea ciliata subsp. longituba* and *Stylidium lowrieanum*) flora species have been recorded within the local area in the same vegetation and soil types mapped within the application area. However, it is noted that these species have been recorded in the "Cowaramup, undifferentiated upland Phase" soil type mapped within a small portion of the eastern application area, and not the "Cowaramup vales Phase" soils mapped within the majority of the application area. Furthermore, given that the aerial imagery and topographical data indicate that the application area is low-lying, and photographs indicate the vegetation present is more consistent with vegetation found within depressions within the "Cowaramup vales Phase" soil type, it is considered unlikely that soils within the application area would support the above species. Considering the above and the small extent of the application area, it is considered that these species are unlikely to be present within the application area.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable in relation to this environmental value.

Conditions: No management conditions required.

3.2.3. Environmental value: significant remnant vegetation – Clearing Principle (e)

Assessment: The National Objectives and Targets for Biodiversity Conservation 2001-2005 include a target to have clearing controls in place that prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750 (Commonwealth of Australia, 2001). The mapped vegetation complex Cw1 falls below the threshold level of 30 per cent (28.09 per cent). Although vegetation within the application area is partly consistent with vegetation of this vegetation type, noting the small extent of the clearing, the lack of conservation significant flora, that vegetation is not likely to comprise significant habitat for fauna and that the vegetation extent within the local area is greater than 30 per cent, the proposed clearing area is not considered to comprise a significant remnant to vegetation.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable in relation to this environmental value.

Conditions: No management conditions required.

3.2.4. Environmental value: water resources – Clearing Principles (f) and (i)

Assessment: Although the proposed clearing area is adjacent to a mapped minor non-perennial watercourse and appears to be seasonally inundated, given the extent of the clearing, the seasonal nature of the inundation within the application area and mapped watercourse and the distance to the nearest downgradient perennial waterbody, it is not considered likely that the proposed clearing will impact upon surface water or groundwater quality. Noting that

the vegetation within the watercourse itself has already been cleared it is therefore unlikely to be functioning ecologically as a natural watercourse, the proposed clearing is not likely to have any further ecological impacts to the watercourse.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable in relation to this environmental value.

Conditions: No management conditions required.

3.3. Relevant planning instruments and other matters

Other relevant authorisations that may be required for the proposed land use include:

- Development approval under the *Planning and Development Act 2005* (issued by the Shire of Augusta Margaret River);
- Licence to abstract water under the *Rights in Water and Irrigation Act 1914* (RIWI Act); and
- Permit to interfere with bed and banks under the RIWI Act.

The Shire of Augusta Margaret River advised DWER that the proposed dam is consistent with the Shire's Local Planning Scheme (Shire of Augusta Margaret River, 2020). A Development Approval for the dam was granted by the Shire on 4 February 2021. The Shire advised that they expected that the clearing would be offset through revegetation to minimise any negative long term environmental impacts and that impacts on fauna would be managed as per DBCA requirements (Shire of Augusta Margaret River, 2020).

The DWER Water Licensing Branch (Geographe Capes district) advised that the application area is located within proclaimed groundwater and surface water areas and subject to water licensing under the RIWI Act (DWER, 2020). DWER provided conditional approval under the RIWI Act on 2 February 2021, pending the issuing of this clearing permit and Development Approval issued by the Shire of Augusta Margaret River (DWER, 2021).

The closest Aboriginal Site of Significance is located approximately 1 km west of 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 impacted through the clearing process.

Appendix A – Site specific information

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 B.

1. Site characteristics

Site characteristic	Details
Local context	The proposed clearing areas is located at north-eastern end of a strip of native vegetation running in a southwest-northeast direction between cleared and viticultural areas within the property. Other than this strip of vegetation, the proposed clearing area is immediately surrounded by cleared land on all sides. This strip of native vegetation is contiguous with others on the same property and adjacent properties within the local area. Spatial data indicates the local area (10 km radius of the proposed clearing area) retains approximately 43% of the original native vegetation cover.
Vegetation description	Photographs supplied by the applicant indicate the vegetation within the two larger southern patches of vegetation within the proposed clearing area largely consists of *Melaleuca spp.* shrubs and small trees, with occasional *Agonis flexuosa* (peppermint) trees and several larger *Corymbia calophylla* (marri) trees present, and an understorey of introduced grasses (Figures D-1, D-2 and D-3, Appendix D). The smaller northern patch of vegetation within the proposed clearing area consists of several peppermint individuals, including a larger tree and several saplings with an understorey of introduced grasses (Figure D-4, Appendix D). This is partially consistent with the Mattiske and Havel (1998) vegetation type mapped within the majority of the application area: • Cowaramup Cw1, which is described as Mixture of open forest to woodland of *Eucalyptus diversicolor-Corymbia calophylla* and woodland of *Eucalyptus marginata subsp. marginata -Corymbia calophylla* on slopes and low woodland of *Melaleuca preissiana-Banksia littoralis* on depressions in the hyperhumid zone. Photographs supplied by the applicant indicate the vegetation does not appear to be consistent with the vegetation type mapped within the eastern portion of the application area: • Cowaramup C1, which is described as Open to tall open forest of *Eucalyptus marginata subsp. marginata-Corymbia calophylla-Banksia grandis* on lateritic uplands in the hyperhumid zone.
Vegetation condition	Photographs supplied by the applicant indicate two larger patches of vegetation are in Degraded to Good (Keighery, 1994) condition, with middle and upper storey vegetation retaining a basic structure and understorey vegetation dominated by exotic species spread from the surrounding cleared agricultural areas (Figures D-1, D-2 and D-3, Appendix D). The smaller vegetation patch is in Completely Degraded (Keighery, 1994) condition as it comprises exotic grass species with isolated native peppermint trees and saplings (Figure D-4, Appendix D). Refer to Appendix C for full Keighery (1994) condition rating scale descriptions.
Soil description	The soil is mapped as: • Cowaramup vales phase (216CoCOv), described as Small, narrow V-shaped drainage depression with gravelly duplex (Forest Grove) soils. • Cowaramup, undifferentiated upland Phase (216CoCOu), described as Flats and gentles slopes (0-5% gradient) with gravelly duplex (Forest Grove) and pale grey mottled (Mungite) soils (DPIRD, 2017).
Land degradation risk	• Cowaramup vales phase (216CoCOv)

Site characteristic	Details
	○ Wind erosion: 50-70% of map unit has a high to extreme wind erosion risk ○ Water erosion: <3% of map unit has a high to extreme water erosion risk ○ Flood risk: 10-30% 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 ○ Phosphorus export risk: 30-50% of map unit has a high to extreme phosphorus export risk ○ Subsurface acidification risk: >70% of map unit has a high subsurface acidification risk or is presently acid ○ Waterlogging risk: 3-10% of map unit has a moderate to very high waterlogging risk • Cowaramup, undifferentiated upland Phase (216CoCOu), described as Flats and gentles slopes (0-5% gradient) with gravelly duplex (Forest Grove) and pale grey mottled (Mungite) soils (DPIRD, 2017). ○ Wind erosion: >70% of map unit has a high to extreme wind erosion risk ○ Water erosion: <3% of map unit has a high to extreme water erosion risk ○ 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 ○ Phosphorus export risk: 3-10% of map unit has a high to extreme phosphorus export risk ○ Subsurface acidification risk: >70% of map unit has a high subsurface acidification risk or is presently acid ○ Waterlogging risk: 30-50% of map unit has a moderate to very high waterlogging risk
Waterbodies	A minor non-perennial watercourse, a tributary of Ellen Brook, runs between the two larger proposed clearing areas, originating from a dam from a dam located 40 m east of the application area. Another dam is located downstream along the same watercourse, approximately 350 m southwest of the application area. The Ellen Brook is located approximately 1 kilometre southeast of the application area. Photographs and aerial imagery indicate the proposed clearing area appears to be at least partially seasonally inundated, and vegetation present is consistent with riparian vegetation.
Conservation areas	Properties with conservation covenants are located is 530 m north-east and 590 m south-west of the application area. The Leeuwin-Naturaliste National Park is located 1.06 km west of the application area.
Climate and landform	Rainfall: 1100 mm Evapotranspiration: 800 mm Hydrogeology: Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers, Gneiss, migmatite lithology Topography: 90-95 m AHD

2. Flora, fauna and ecosystem analysis

A search of relevant datasets found that two threatened flora species, 25 priority flora species, 25 threatened fauna species, nine priority fauna species, eight other conservation significant fauna species and two priority ecological communities have been recorded within the local area (10km). With consideration for the site characteristics set out above, relevant datasets (see Appendix E), the following conservation significant flora and fauna species, and ecological communities may be impacted by the clearing.

Flora Species	Distance of closest record to application area (kilometres)	Number of records in local area	Suitable vegetation type?	Suitable soil type?	Are surveys adequate to identify?
Caladenia excelsa (T)	2.3	33	Y	Y	N/A
Chamaescilla gibsonii (P3)	5.4	1	N	Y	N/A
Franklandia triaristata (P4)	6.7	1	Y	Y	N/A
Pimelea ciliata subsp. longituba (P2)	2.9	2	Y	Y	N/A
Stylidium lowrieanum (P3)	4.6	3	Y	Y	N/A
Fauna Species	**Distance of closest record to application area (kilometres)**	**Number of records in local area**	**Most recent record**	**Suitable habitat?**	**Are surveys adequate to identify?**
Calyptorhynchus banksii naso (Forest red-tailed black cockatoo) (T)	5.6	9	2019	Y	N/A
Calyptorhynchus baudinii (Baudin's cockatoo) (T)	1.7	485*	2019	Y	N/A
Calyptorhynchus latirostris (Carnaby's cockatoo) (T)	2.9	130*	2018	Y	N/A
Isoodon fusciventer (Quenda, southwestern brown bandicoot) (P4)	0.2	98	2019	Y	N/A
Pseudocheirus occidentalis (Western ringtail possum, ngwayir) (T)	0.2	211	2019	Y	N/A
Tyto novaehollandiae novaehollandiae (Masked Owl (southwest)) (P3)	7.1	3	2006	Y	N/A

* A further 52 records of Calyptorhynchus sp. 'white-tailed black cockatoo' were recorded in the local area, which may be either Carnaby's or Baudin's cockatoo.

3. Vegetation extent

	Pre-European extent (hectares)	Current extent (hectares)	% remaining	Current extent in all DBCA managed land (hectares)	% current extent in all DBCA managed land (proportion of pre-European extent)
IBRA bioregion					
Warren	833,985.56	659,432.21	79.07	558,485.38	66.97
Vegetation complex					
Cowaramup Cw1	6,144.37	1,726.07	28.09	592.86	9.65
Cowaramup C1	18,981.79	6,540.87	34.46	2,286.01	12.04

Appendix B – 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 proposed clearing area is not likely to contain locally or regionally significant flora, fauna, habitats or assemblages of plants.	Not likely to be at variance	Yes: Refer to Section 3.2.1 and 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 proposed clearing area is not likely to contain significant habitat for conservation significant 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 proposed clearing area is unlikely to] contain habitat for flora species listed under the BC Act.	Not likely to be 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 proposed clearing area does not contains species that can indicate a threatened ecological community under the BC Act 2016.	Not likely to be at variance	No
Environmental values: 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 type is inconsistent with the national objectives and targets for biodiversity conservation in Australia. Vegetation in the proposed clearing area is not considered to be part of a significant ecological linkage in the local area.	May be at variance	Yes: Refer to Section 3.2.3 above.
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 and extent of the proposed clearing area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.	Not likely to be at variance	No
Environmental values: 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: Vegetation within the application area is growing in association with a watercourse.	At variance	Yes: Refer to Section 3.2.4 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 susceptible to wind erosion and subsurface acidification, however noting the extent of the proposed clearing, 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: Noting the extent of the proposed clearing and the distance to downstream perennial waterbodies, the clearing is unlikely to impact surface or ground water quality.	Not likely to be at variance	Yes: Refer to Section 3.2.4 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: Given the extent of the clearing and mapped soil types, the proposed clearing is unlikely to contribute to flooding or waterlogging other than water within the proposed dam.	Not likely to be at variance	No

Appendix C – 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.

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 D – Photographs of the vegetation

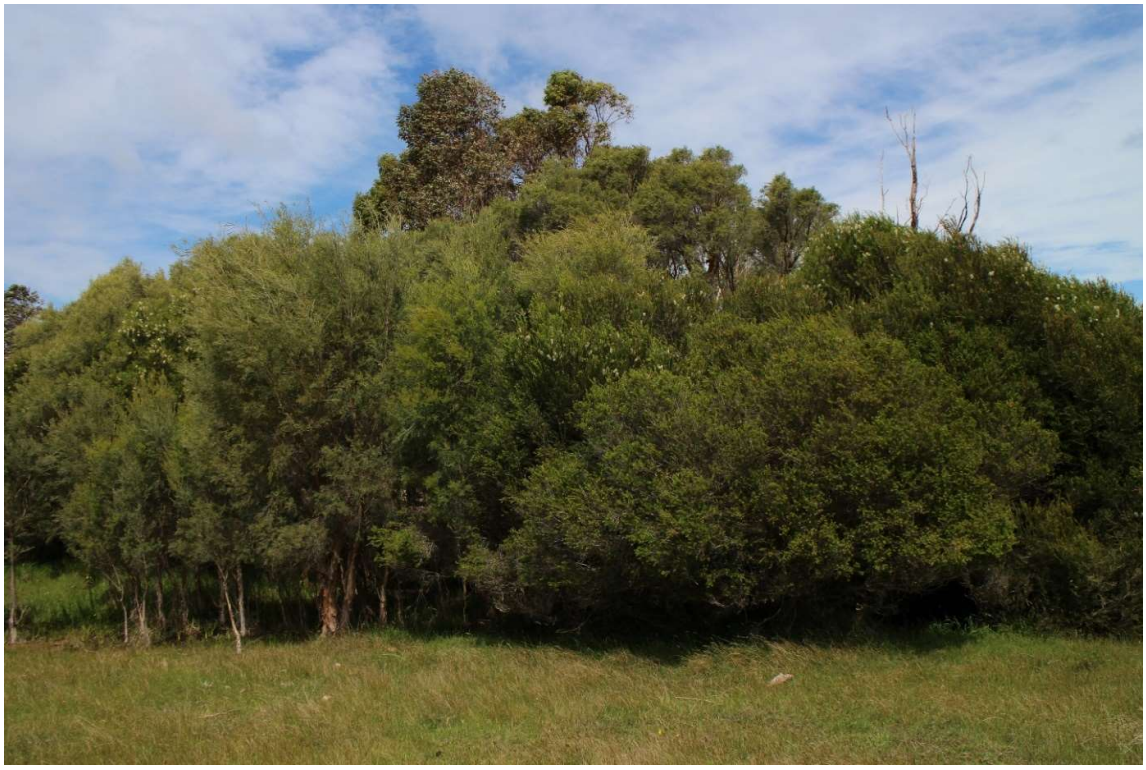

Figure D-1 – *Melaleuca* spp. *Corymbia calophylla* and understorey of exotic grasses in south-western portion of proposed clearing area (Stimpson, B. and Stimpson, S., 2020b).

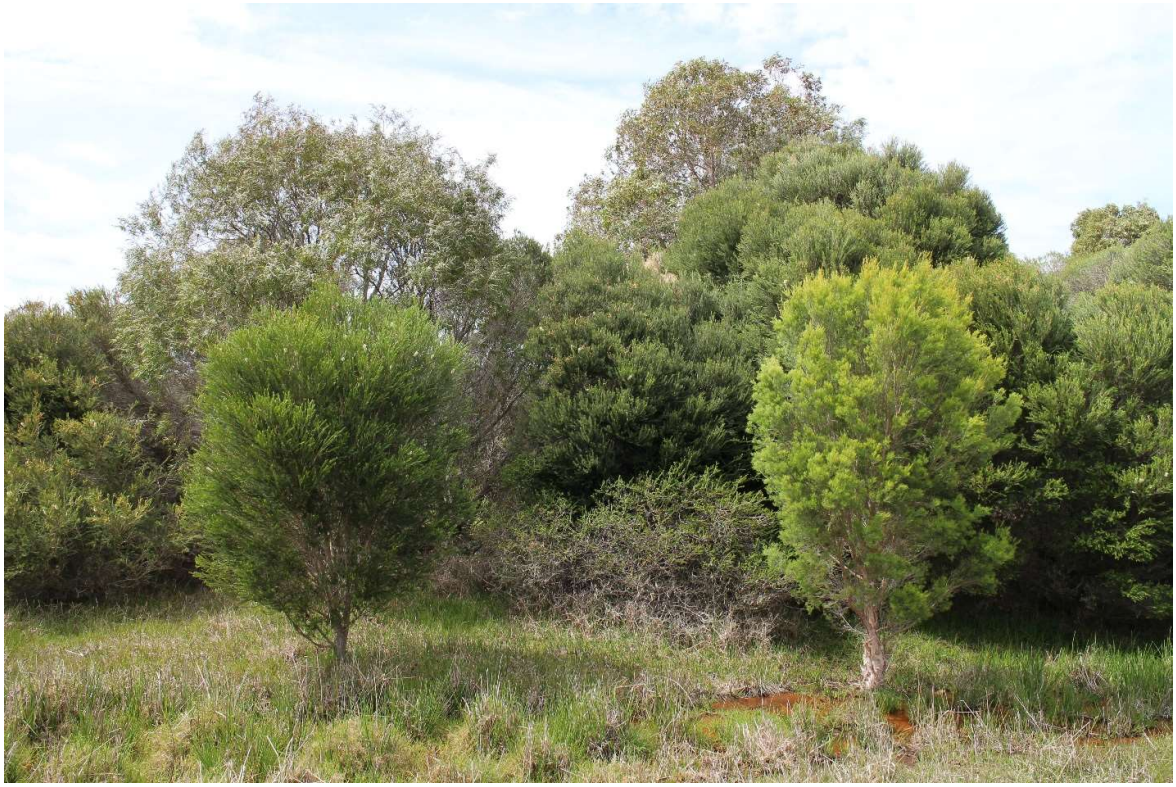

Figure D-2 – *Melaleuca* spp., *Agonis flexuosa*, *Corymbia calophylla* and understorey of exotic grasses in south-eastern portion of proposed clearing area. Ground on right side of photo is inundated with water (Stimpson, B. and Stimpson, S., 2020b).

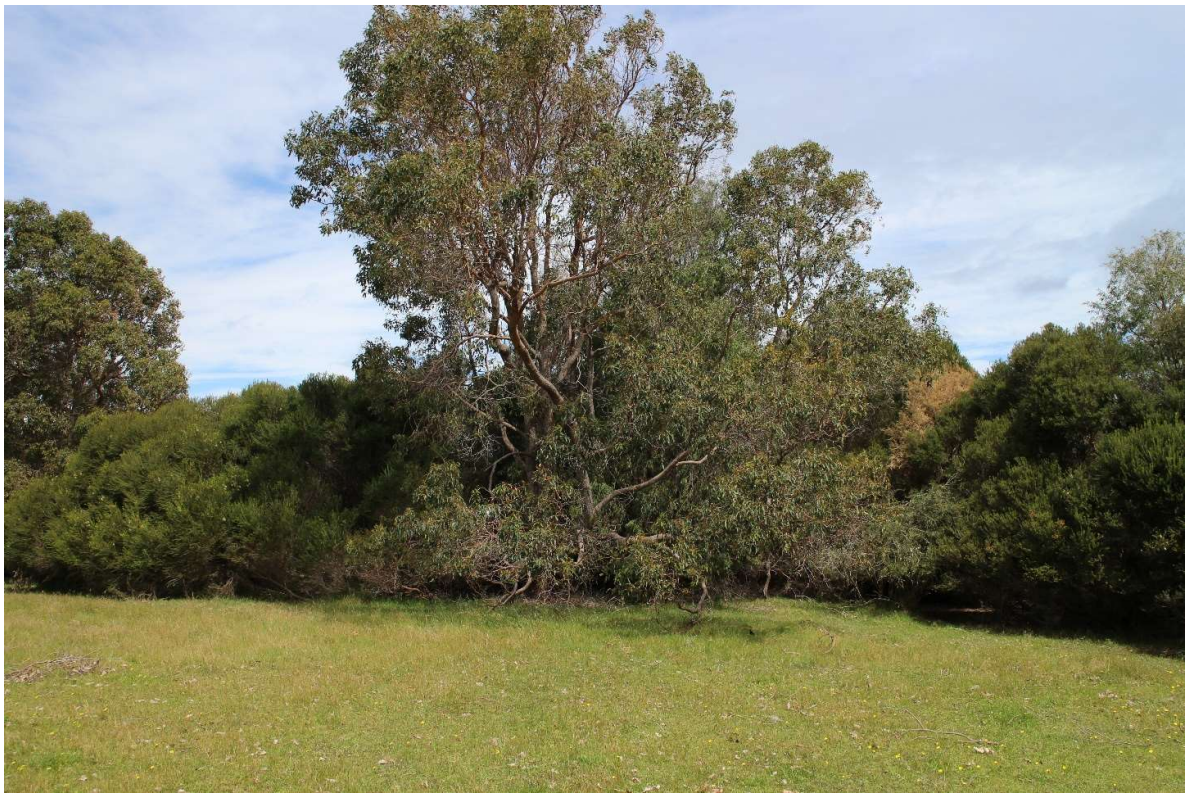

Figure D-3 – Larger *Corymbia calophylla* (centre), *Melaleuca* spp., and understorey of exotic grasses in south-eastern portion of proposed clearing area (Stimpson, B. and Stimpson, S., 2020b).

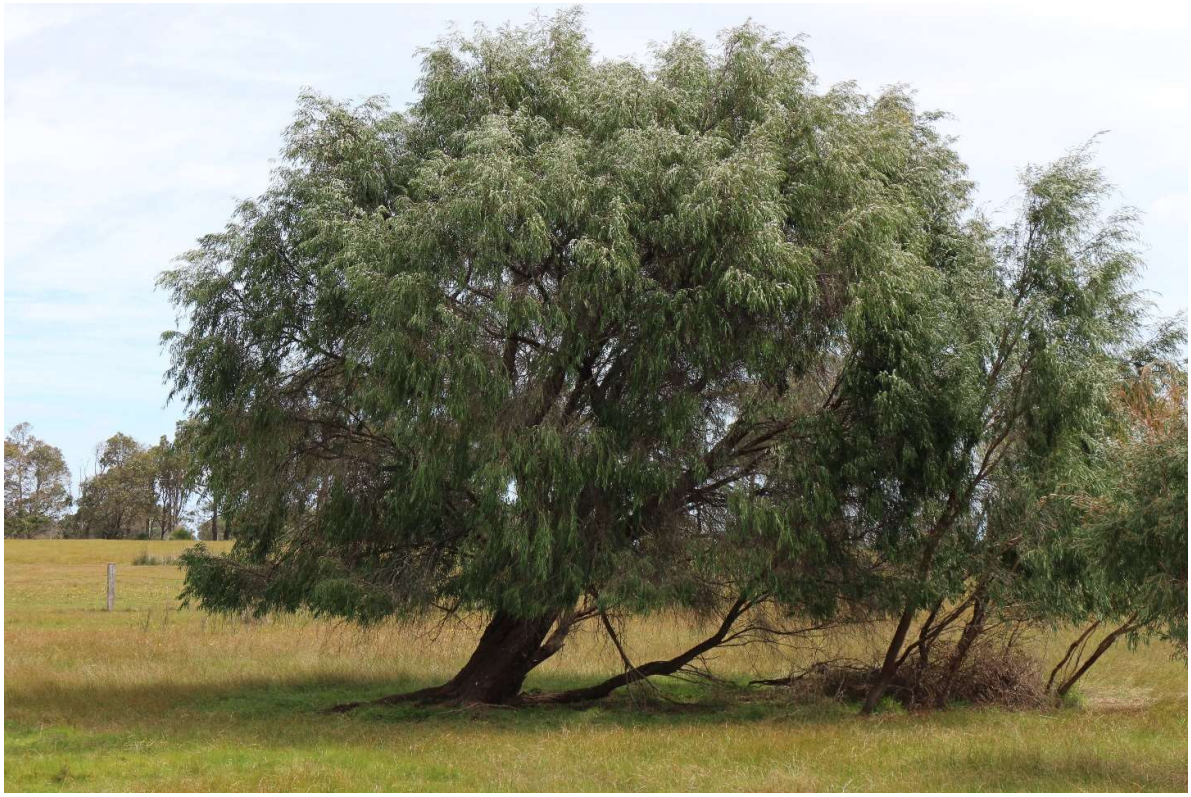

Figure D-4 – *Agonis flexuosa* trees and understorey of exotic grasses in northern portion of proposed clearing area (Stimpson, B. and Stimpson, S., 2020b).

Appendix E – References and databases

1. GIS datasets

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Consanguineous Wetlands Suites (DBCA-020)
- 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)
- Geomorphic Wetlands Leeuwin Naturaliste Ridge and Donnybrook to Nannup - Unreviewed (DBCA-043)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Remnant Vegetation, All Areas
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)

- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- RIWI Act, Groundwater Areas (DWER-034)

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)

2. References

Stimpson, B. and Stimpson, S. (2020a). Application form and supporting documents. DWER ref: A1928643)

Stimpson, B. and Stimpson, S. (2020b). Photographs of vegetation within application area. DWER refs: A1941204 and A1941205

Commonwealth of Australia (2001). National Objectives and Targets for Biodiversity Conservation 2001–2005. Department of the Environment and Heritage, Canberra.

Commonwealth of Australia (2012). EPBC Act referral guidelines for three threatened black cockatoo species. Department of Sustainability, Environment, Water, Populations and Communities, Canberra.

Department of Environment and Conservation (2012). Quenda - *Isoodon obesulus* (Shaw, 1797). Retrieved from https://www.dpaw.wa.gov.au/images/documents/conservation-management/pests-diseases/quenda_2012.pdf

Department of Environmental Regulation (2014) A Guide to the Assessment of Applications to Clear Native Vegetation. Department of Environmental Regulation, Perth, Western Australia.

Department of Parks and Wildlife (DPAW) (2017). Western Ringtail Possum (*Pseudocheirus occidentalis*) Recovery Plan. Retrieved from https://www.environment.gov.au/system/files/resources/80263034-2f61-4a22-b094-0af5589956ea/files/draft-recovery-plan-western-ringtail-possum.pdf

Department of Primary Industries and Regional Development (DPIRD) (2017). NRInfo Digital Mapping. Accessed at https://maps.agric.wa.gov.au/nrm-info/ Accessed September 2018. Department of Primary Industries and Regional Development. Government of Western Australia.

Department of Water and Environmental Regulation (DWER) (2020). Advice provided regarding CPS 9030/1. DWER ref: A1946660.

Department of Water and Environmental Regulation (DWER) (2021). Advice to applicant regarding RIWI approval. DWER ref: A1977001.

Government of Western Australia. (2019a). 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth.

Government of Western Australia (2019b). 2018 South West Vegetation Complex Statistics. Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth.

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

Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.

Schoknecht, N., Tille, P. and Purdie, B. (2004) Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs' Resource Management Technical Report No. 280. Department of Agriculture.

Shire of Augusta Margaret River (2020). Advice provided regarding CPS 9030/1. DWER ref: A1941749