



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 7254/2
Permit type:	Area permit
Applicant name:	Justin Thomas Griffiths
Application received:	8 July 2021
Application area:	13 hectares of native vegetation
Purpose of clearing:	Grazing and pasture
Method of clearing:	Mechanical
Property:	Lot 12153 on Deposited Plan 206303
Location (LGA area/s):	Shire of Manjimup
Localities (suburb/s):	Crowea

1.2. Description of clearing activities

This amendment is to extend the duration of existing Clearing Permit 7254/1 by an additional two years. The amendment also includes administrative changes to the clearing permit conditions to bring them in line with current practice. The amount of clearing authorised under amended Clearing Permit CPS 7254/2 remains unchanged from the previous version of the permit.

Decision:	Granted
Decision date:	17 November 2021
Decision area:	13 hectares of native vegetation, as depicted in Section 1.5, below.

1.3. Reasons for decision

In undertaking the assessment, the Delegated Officer had regard for:

- the application area site characteristics (see Appendix A)
- the Clearing Principles set out in Schedule 5 of the *Environmental Protection Act 1986* (EP Act) (see Appendix B)
- relevant datasets available at the time of the assessment of the amendment application (see Appendix D)
- a review of compliance with conditions of Clearing Permit CPS 7254/1 and additional environmental values identified within the local area since the original assessment was conducted (see Section 3.1 of this report)
- other matters considered relevant to the assessment (see Section 3.2 of this report)
- advice from Shire of Manjimup (2021) on the amendment application
- advice from the Department of Water and Environmental Regulation's (DWER) Regulatory Services (Water) branch (2021) on matters regulated under the *Rights in Water and Irrigation Act 1914* (RIWI Act)
- advice from the Commissioner of Soil and Land Conservation (the Commissioner) (2013) on land degradation risks of the soils within the application area.

The clearing permit application was submitted, accepted, assessed and determined in accordance with section 51E and 51O of the EP Act. DWER advertised the application for 21 days. No public submissions were received.

Noting the above, the Delegated Officer has determined that the clearing of remaining vegetation within the area authorised to be cleared under Clearing Permit CPS 7254/1 is not likely to lead to unacceptable risks to environmental values. On this basis, the Delegated Officer decided to amend the clearing permit subject to the following conditions:

- avoid, minimise to reduce the impact and extent of clearing
- weed and dieback management to minimise the risk of introduction and spread of weeds
- fauna management to ensure that no black cockatoo habitat trees and their 10-metre buffers are impacted by the clearing activities
- riparian vegetation management to mitigate the potential impacts of the proposed clearing on:
 - native vegetation which grows in association with watercourses; and
 - habitat for conservation significant flora which may grow along creek lines.

1.4. Site map

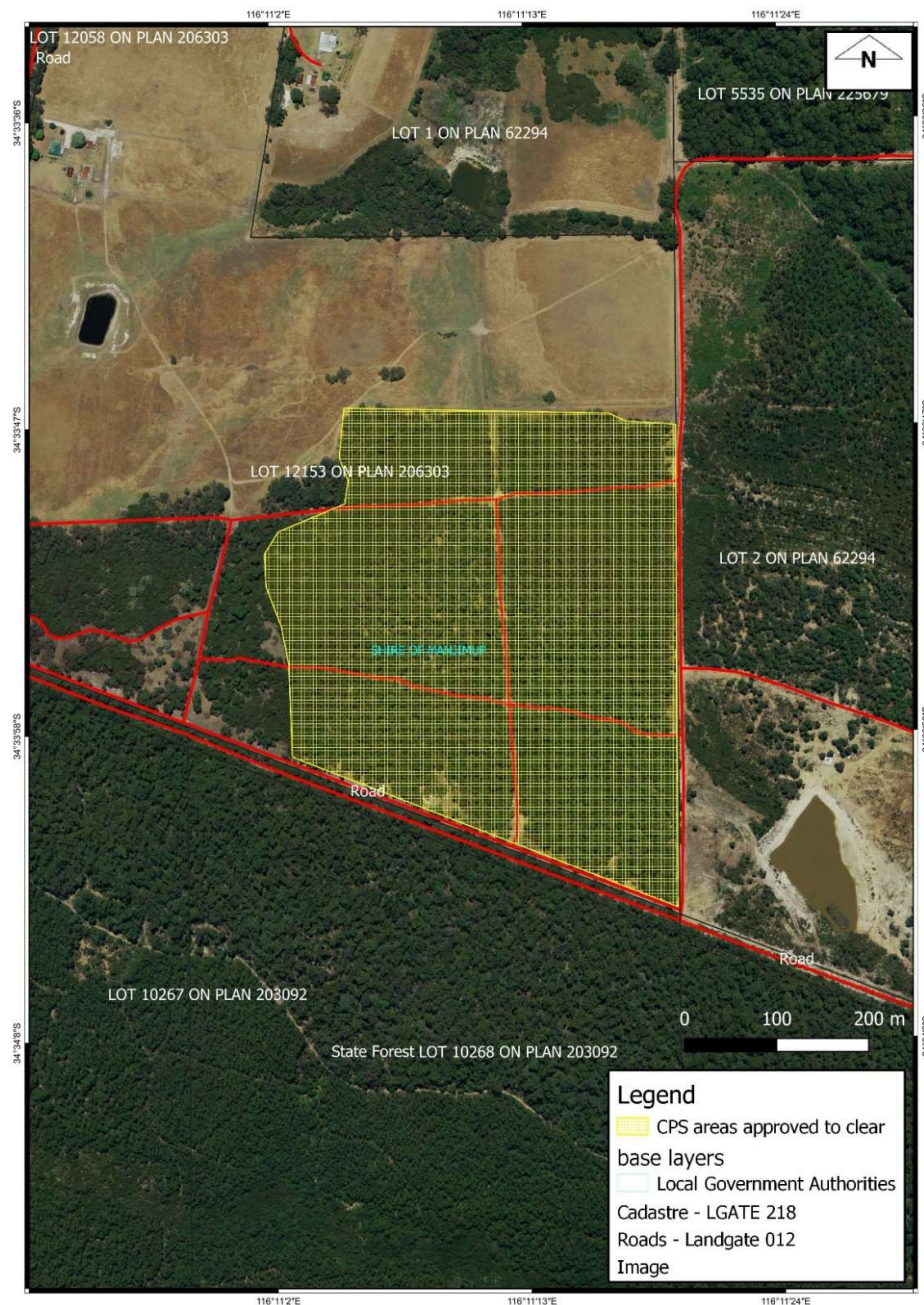


Figure 1 - Map of the application area. The area cross-hatched yellow indicates the area authorised to be cleared under the granted clearing permit. The aerial imagery does not reflect the current extent of vegetation within the area approved to clear

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 3.2 of this report), 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 relevant to this assessment include:

- *Aboriginal Heritage Act 1972*
- *Biodiversity Conservation Act 2016 (WA) (BC Act)*
- *Environment Protection and Biodiversity Protection Act 1999 (EPBC Act)*
- *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. Assessment of impacts on environmental values

The assessment of the application to amend Clearing Permit CPS 7254/1 has not significantly changed from the original assessment which is summarised in [Clearing Permit Decision Report CPS 7254/1](#). Current environmental information (Appendix D) and recent aerial imagery (Figure 2) has been reviewed, based on which the Delegated Officer has identified that:

- a majority (approximately 11.33 hectares) of the area authorised to be cleared under Clearing Permit CPS 7254/1 has been cleared;
- large trees and vegetation along watercourses have been retained as required under conditions 1 and 2 of Clearing Permit CPS 7254/1



Figure 2 Review of recent aerial imagery confirming the compliance with Clearing Permit CPS 7254/1 conditions

- an additional five conservation significant flora species have been recorded in the local area (DBCA, 2021a). The identified species (*Eryngium* sp. Lake Muir (E. Wittwer 2293), *Gonocarpus pusillus*, *Hemigenia microphylla*, *Schizaea rupestris* and *Schoenus natans*) typically occur on winter wet areas or in creek line zones (WA Herbarium, 1998-). Considering that the Permit Holder must not clear vegetation within 30-metre buffers of wetlands and watercourses within the clearing footprint, the clearing of remaining vegetation is unlikely to impact on suitable habitat for these species;

- an additional 10 conservation significant fauna species have been recorded in the local area (DBCA, 2021b). The species tend to use freshwater habitat, dense understorey or their habitat is widespread. Noting that clearing of large trees and their 10-metre buffers and vegetation along watercourses is not authorised, and that majority of the understorey has been cleared, the clearing of remaining vegetation is not likely to impact on significant habitat for these, or any other, conservation significant fauna species;
- the extent of native vegetation within Warren IBRA bioregion has decreased by approximately 0.13 per cent (879 hectares) but remains above the national targets and objectives (Commonwealth of Australia, 2001) for biodiversity protection.

Taking the above into consideration, the Delegated Officer determined that the clearing of the remaining vegetation within the area authorised to be cleared is unlikely to result in long-term negative impacts on the environment.

3.2. Relevant planning instruments and other matters

No registered 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.

On 6 August 2021, in accordance with section 51E(4)(b) of the EP Act, DWER sought comments on the application from the Shire of Manjimup and internal advice on matters regulated under the RIWI Act. The Shire (2021) advised that:

- it had no objection to the amendment and there were no planning or other matters which would affect the proposal;
- the land is zoned by Local Planning Scheme No. 4 as "Priority Agriculture" and planning approval for clearing of vegetation was not required; and
- the clearing purpose for grazing and pasture does not require local government planning approval.

DWER, Regulatory Service (Water) branch (2021a) advised that:

- the property is within the Upper Warren resource which is fully allocated for licensing purposes; and
- given that no clearing of native vegetation within 30-metre buffers of the existing watercourses will occur, a Bed and Banks Permit under Section 17 of the RIWI Act will not be required as any storage will be considered off-stream.

On 11 November 2021, in accordance with section 51KA(5)(a), DWER gave the application a written notice of an amendment of a clearing permit. In response, the applicant advised they had no objections to the proposed amendment.

END

Appendix A - Site characteristics

C.1. Site characteristics

Characteristic	Details
Local context	<p>The application area occurs approximately 7.4 kilometres northwest of Northcliffe Townsite within Warren Interim Biogeographic Regionalisation for Australia (IBRA) bioregion, Warren subregion.</p> <p>Spatial data indicate the local area (a 10-kilometre radius measured from the perimeter of the application area, which is equal to approximately 33,192.73 hectares) retains approximately 78.07 per cent (25,912.55 hectares) of the original native vegetation cover.</p>
Ecological linkage	<p>The application area does not intersect any ecological linkages.</p> <p>The closest linkage is South West Regional Ecological Linkage mapped by Molloy et al. (2009) approximately 1.7 kilometre west of the application area.</p>
Conservation areas	<p>Approximately 68.99 per cent of the local area (approximately 22,900 hectares) occurs within conservation areas.</p> <p>The closest conservation area is Warren State Forest (F 39, Class A) located approximately 30 metres south of the application area.</p>
Vegetation description	<p>The vegetation within the application area is mapped as the following South-West forest vegetation complexes (Mattiske and Havel, 1998):</p> <ul style="list-style-type: none"> • Crowea (CRY), which is described as tall open forest of <i>Corymbia calophylla</i> with mixture of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> and <i>Eucalyptus diversicolor</i> on uplands in hyperhumid and perhumid zones.; and • Angove (A) which is described as open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i>, <i>Banksia ilicifolia</i>, <i>Nuytsia floribunda</i> with some <i>Eucalyptus diversicolor</i> on gently sloping sandy terrain in hyperhumid and perhumid zones. <p>The mapped vegetation types CRY and A retain approximately 72 and 88 per cent of their original extents (Government of Western Australia, 2019b).</p>
Vegetation condition	<p>A review or recent aerial imageries indicates the vegetation within the proposed clearing area is in good (Keighery, 1994) to degraded (Keighery, 1994) condition.</p> <p>The full Keighery (1994) condition rating scale is provided in 0.</p>
Climate and landform	<p>Rainfall – main annual: 1,200 millimetres</p> <p>Evapotranspiration – areal actual: 900 millimetres</p> <p>Groundwater salinity (Total Dissolved Solids): 500-1000 milligrams per litre total dissolved solids. This level of salinity is classified as marginal by Mayer et al., (2005).</p>
Soil description	<p>The soil within the application area is mapped as the following subsystems (Department of Primary Industries and Regional Development (DPIRD), 2020):</p> <ul style="list-style-type: none"> • Crowea (Pimelia), yellow duplex Phase, which is described as gravelly yellow duplex soils; jarrah-marri forest (Schoknecht et al., 2004); and • Angove Subsystem (Pimelia), which is described as gently sloping sandy terrain; slight dissections. Humus podzols on broad crests; Kangaroo Grass sedgeland, Teatree heath. Sandy yellow duplex soils in shallow dissections; Jarrah woodland (Schoknecht et al., 2004).
Land degradation risk	<p>The Commissioner of Soil and Land Conservation (2013) advised that the soils in the application area have:</p> <ul style="list-style-type: none"> • a very high risk of waterlogging, most likely associated with watercourses; and • a low risk of land degradation in the form soils erosion (water and wind erosion) and salinity.
Waterbodies	<p>Two tributaries of Warren River intersect the application area.</p> <p>No wetlands have been mapped within the local area.</p>
Hydrogeography	<p>The application area:</p> <ul style="list-style-type: none"> • falls within a proclaimed Warren River and Tributaries Surface Water Area • does not fall within a proclaimed Groundwater Areas under the RIWI Act • does not fall within Public Drinking Water Source Areas.

Characteristic	Details
Flora	Two flora species listed as Threatened under the BC Act and nine Priority listed flora by DBCA have been recorded within the local area (DBCA, 2021a). Based on the similarities shared between the soil and vegetation types in habitats for these flora taxa and within the application area, one Threatened and eight Priority flora detailed in the below Flora analysis table may occur within the application area.
Ecological communities	No threatened or priority ecological communities are mapped in the local area.
Fauna	According to available databases, 19 conservation significant fauna species have been recorded within the local area (DBCA, 2021b). Noting the habitat requirements, distribution of the recorded species, the mapped vegetation type, the condition of the vegetation within the application area, the application area is likely to comprise suitable habitat for eight species as outlined in Fauna analysis table below.

C.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*					
Warren	833,985.56	659,432.21	79.07	558,485.38	66.97
Vegetation complex					
Mattiske veg complex CRy **	33,764.55	24,324.31	72.04	22,509.41	66.67
Mattiske veg complex A **	39,698.49	34,737.44	87.50	31,437.22	79.19
Local area (calculation - delete if not required)					
10km radius	25,912.55	33,192.73	78.07	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

C.3. Flora analysis table

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

Species name	Conservation status	Suitable habitat features ?	Suitable vegetation type?	Suitable soil type?	Distance of closest record to application area (m)	Are surveys adequate to identify?
<i>Actinotus repens</i>	3	Yes	Yes	Yes	1,490	No
<i>Caladenia christineae</i>	T	Yes	Yes	Yes	7,146	No
<i>Carex tereticaulis</i>	3	Yes	Yes	Yes	9,487	No
<i>Eryngium</i> sp. Lake Muir (E. Wittwer 2293)	2	Yes	Yes	Yes	9,901	No
<i>Gonocarpus pusillus</i>	4	Yes	Yes	Yes	6,872	No
<i>Lomandra ordii</i>	4	Yes	Yes	Yes	6,089	No
<i>Myriophyllum trifidum</i>	4	Yes	Yes	Yes	4,243	No
<i>Schizaea rupestris</i>	2	Yes	Yes	Yes	4,985	No
<i>Schoenus natans</i>	4	Yes	Yes	Yes	9,901	No

C.4. Fauna analysis table

Species name	Conservation status	Suitable habitat features?	Distance of closest record to application area (m)	Are surveys adequate to identify?
Baudin's cockatoo	EN	Yes	7,755	No
Black-stripe minnow, black-striped dwarf galaxias	EN	Yes	9,678	No
Carnaby's cockatoo	EN	Yes	1,732	No
Forest red-tailed black cockatoo	VU	Yes	4,532	No
Mud minnow, western dwarf galaxias	VU	Yes	3,666	No
Peregrine falcon	OS	Yes	5,176	No
South-western brush-tailed phascogale, wambenger	CD	Yes	9,678	No
Western ringtail possum, ngwayir	CR	Yes	6,271	No

CR: critically endangered, EN: endangered, VU: vulnerable, EX: Presumed extinct species, IA (M) Migratory birds protected under an international agreement, CD: Conservation dependent fauna, OS: Other specially protected fauna

Appendix B - Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> <i>"Native vegetation should not be cleared if it comprises a high level of biodiversity."</i></p> <p><u>Assessment:</u></p> <p>The clearing of remaining vegetation authorised for clearing under Clearing Permit CPS 7254/1 is unlikely to impact native vegetation which comprises a high level of biodiversity:</p> <ul style="list-style-type: none"> the Priority flora identified (DBCA, 2021a) within the local area typically occur in areas of granite outcrops or ironstone ridges, which do not occur within the clearing area, or in areas associated with watercourses and wetlands. The Permit Holder is not authorised to clear any vegetation within 30-metre buffers of watercourses or wetlands. no priority ecological communities are mapped in the local area significant habitat for conservation significant fauna is not likely going to be impacted as the Permit Holder is not authorised to clear black cockatoo habitat trees and their 10-metre buffers noting the abundance of native vegetation in the local area and mapped ecological linkages, the remaining clearing is unlikely to restrict fauna movement across the landscape. 	<p>Not likely to be at variance</p> <p>As per CPS 7254/1</p>	<p>Yes</p> <p>Refer to Section 3.1, above.</p>
<p><u>Principle (b):</u> <i>"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."</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared does not contain significant habitat for conservation significant fauna:</p> <ul style="list-style-type: none"> the retention of a 30-metre buffer of watercourses will ensure that the effectiveness of ecological linkages is retained for the fauna movement between areas of remnant vegetation. the retention of trees that have a diameter over bark of 50 centimetres or greater, measured at 1.3 metre from the base of trees, will ensure that arboreal fauna are not impacted by the proposed clearing ecological linkage function is unlikely to be impacted, given the local area contains an abundance of native vegetation, a majority of which occurs in conservation areas. 	<p>Not likely to be at variance</p> <p>Changed from CPS 7254/1 which was determined to be 'may be at variance' with this principle</p>	<p>Yes</p> <p>Refer to Section 3.1, above.</p>
<p><u>Principle (c):</u> <i>"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</i></p> <p><u>Assessment:</u></p> <p>Two species listed as threatened under the BC Act have been recorded in the local area. One species grow in soil pockets on granite outcrops which do not occur in the application area. The second species occurs in a proximity to watercourses and wetlands. The Permit does not authorise the Permit Holder to clear native vegetation within 30 metres of watercourses. On this basis, the proposed clearing is unlikely to impact habitat for threatened flora species listed under the BC Act.</p>	<p>Not likely to be at variance</p> <p>As per CPS 7254/1</p>	<p>No</p>

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (d):</u> <i>"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."</i></p> <p><u>Assessment:</u></p> <p>No threatened ecological communities are mapped in the local area. The proposed clearing area does not contain species composition indicative of State or Commonwealth listed TECs.</p>	<p>Not likely to be at variance</p> <p>As per CPS 7254/1</p>	No
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <i>"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."</i></p> <p><u>Assessment:</u></p> <p>The extents of:</p> <ul style="list-style-type: none"> the vegetation complexes mapped within the application area IBRA bioregion, within which the application occurs; and original native vegetation cover remaining within the local area; <p>are consistent with the national objectives and targets for biodiversity conservation in Australia.</p>	<p>Not likely to be at variance</p> <p>As per CPS 7254/1</p>	No
<p><u>Principle (h):</u> <i>"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."</i></p> <p><u>Assessment:</u></p> <p>Warren State Forest is mapped approximately 30 metres south of the application area. The proposed clearing is unlikely to directly impact this conservation area but may cause indirect impact on this environmental value through the spread of weed species and dieback. Weed and dieback management practices will assist in mitigating these risks.</p>	<p>May be at variance</p> <p>As per CPS 7254/1</p>	No
Environmental value: land and water resources		
<p><u>Principle (f):</u> <i>"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."</i></p> <p><u>Assessment:</u></p> <p>No wetlands are mapped in the local area. Two tributaries of Warren River intersect the application area. The Permit Holder is not authorised to clear any native vegetation within 30-metre buffers of these tributaries. The proposed clearing is not likely to impact on the environment associated with the watercourses.</p>	<p>Not likely to be at variance</p> <p>As per CPS 7254/1</p>	No
<p><u>Principle (g):</u> <i>"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."</i></p> <p><u>Assessment:</u></p> <p>The Commissioner of Soil and Land Conservation (2013) advised that the soils in the application area have:</p> <ul style="list-style-type: none"> a very high risk of waterlogging, most likely associated with watercourses; and a low risk of land degradation in the form soils erosion (water and wind erosion) and salinity. <p>The retention of a 30-metre buffer to watercourses and habitat trees will assist in mitigating the risk of waterlogging.</p>	<p>Not likely to be at variance</p> <p>As per CPS 7254/1</p>	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (i):</u> <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."</i></p> <p><u>Assessment:</u></p> <p>Given the abundance of native vegetation in the local area and a marginal (Mayer et al., 2005) level of salinity mapped within the application area, the proposed clearing will unlikely lead to a perceptible rise in the water table and an increase in groundwater salinity levels.</p> <p>The retention of 30-metre buffers to the watercourses is considered to be an effective mitigation measure to ensure that the proposed clearing is unlikely to impact surface water quality.</p>	<p>Not likely to be at variance</p> <p>As per CPS 7254/1</p>	No
<p><u>Principle (j):</u> <i>"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."</i></p> <p><u>Assessment:</u></p> <p>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.</p>	<p>Not likely to be at variance</p> <p>As per CPS 7254/1</p>	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.

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 D - Sources of information

H.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)

H.2. References

Commissioner of Soil and Land Conservation. (2013). Advice under *Soil and Land Conservation Act 1945* in relation to soils on Lot 12153 on Deposited Plan 206303, Crowea. Received by DWER on 16 December 2013. DWER Ref: A706203.

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

- Department of Biodiversity, Conservation and Attractions (DBCA). (2021a) Threatened and Priority Flora Database Search. Accessed in August 21. Prepared by the Species and Communities Program for DWER for the assessment of clearing permit application CPS 7254/2.
- Department of Biodiversity, Conservation and Attractions (DBCA). (2021b) Threatened and Priority Fauna Database Search. Accessed in August 21. Prepared by the Species and Communities Program for DWER for the assessment of clearing permit application CPS 7254/2.
- 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 Primary Industries and Regional Development (DPIRD) (2021). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development*. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed October 2021).
- Department of the Environment (2021). *Phascogale calura* in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: <https://www.environment.gov.au/sprat>. Accessed November 21.
- 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). (Regulatory Services – Water). (2021). *Rights in Water and Irrigation Act 1914 advice for clearing permit application CPS 7254/2*, received 17 August 2021 (DWER Ref: A2036298).
- 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>
- Government of Western Australia. (2019) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Griffiths, C. (2021a). Amendment of Clearing Permit CPS 7254/1. Covering letter. Received by DWER on 17 June 2021. DWER Ref: DWERDT465927.
- Griffiths, C. (2021b). Response to Intent to Amend correspondence. Received by DWER on 11 November 2021. DWER Ref: A2062871.
- 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.
- Mayer X., Ruprecht J., and Bari M. (2005). *Stream Salinity Status and Trends in South-west Western Australia*. Department of Environment. Salinity and land use impacts series. Report No. SLUI 38.
- Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. (2009) *South West Regional Ecological Linkages Technical Report*, Western Australian Local Government Association and Department of Environment and Conservation, Perth.
- Shire of Manjimup. (2021). Advice received in relation to clearing permit application CPS 7254/2. Received by DWER on 9 August 2021. DWER Ref: DWERDT488475.
- Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed October 2021)