

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number:	CPS 8267/2
File Number:	DWERVT1827
Duration of Permit:	From 31 August 2019 to 31 August 2033

PERMIT HOLDER

Michael Eric Teasdale

LAND ON WHICH CLEARING IS TO BE DONE

Lot 18 on Diagram 72490, Korbel

AUTHORISED ACTIVITY

The permit holder must not clear more than 6.73 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 31 August 2023.

2. 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.

3. Revegetation and rehabilitation – retention of vegetative material and topsoil

The permit holder must:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this permit and stockpile the vegetative material and topsoil in an area that has already been cleared;
- (b) at an *optimal time* not later than 31 August 2024, *revegetate* and *rehabilitate* the area(s) that are no longer required for extractive industry by:
 - (i) ripping the ground on the contour to remove soil compaction;
 - (ii) ripping the pit floor and contour batters within the extraction site;
 - (iii) laying the vegetative material and topsoil retained under condition 3(a) on the cleared area(s); and
 - (iv) undertake additional *planting* as required, ensuring only *local provenance* propagating materials are used to *revegetate* the area.

4. Trees not authorised to clear

- (a) Prior to undertaking any clearing authorised under this Permit, the permit holder must identify, record, and photograph all salmon gum (*Eucalyptus salmonophloia*) trees with a diameter at breast height of 50 centimetres or greater within the area cross-hatched yellow in Figure 1 of Schedule 1.
- (b) The permit holder must retain all salmon gum (*Eucalyptus salmonophloia*) trees with a diameter at breast height of 50 centimetres or greater as identified in condition 4(a).
- (c) On completion of clearing authorised under this Permit, the permit holder must identify, record, and photograph all salmon gum (*Eucalyptus salmonophloia*) trees retained in accordance with condition 4(b).

5. Weed 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*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known 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.

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
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No.	Relevant matter	Specifications
1.	In relation to the authorised	(a) the species composition, structure, and density of the cleared area;
	clearing activities generally	 (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 2; and
		(f) actions taken to minimise the risk of the introduction and spread of weeds in accordance with condition 5.
2.	In relation to the	(a) the size of the area revegetated and rehabilitated;
	<i>revegetation</i> and <i>rehabilitation</i> of areas pursuant to	(b) the date(s) on which the area <i>revegetation</i> and <i>rehabilitation</i> was undertaken; and
	condition 3	(c) a description of the <i>revegetation</i> and <i>rehabilitation</i> activities undertaken;
		 (d) photographic evidence of areas <i>revegetated</i> and/or <i>rehabilitated</i> under condition 4 of this permit from the following monitoring points and directions, taken in the month of August each calendar year that this permit is active;
		A. 118.10089; -31.618273 – facing north; B. 118.101715; -31.617194 – facing south; C. 118.098405; -31.616649 – facing east; and
		D. 118.103344; -31.616939 – facing west.
3.	In relation to condition 4	 (a) the location of all salmon gum (<i>Eucalyptus salmonophloia</i>) trees with a diameter at breast height of 50 centimetres or greater identified and retained, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
		(b) photographs of all salmon gum trees identified, taken prior to clearing; and
		(c) photographs of all salmon gum trees retained, taken after clearing.

7. Reporting

- (a) The permit holder must provide to the *CEO*, on or before 31 December of each calendar year, a written report containing:
 - (i) the records required to be kept under condition 6; and
 - (ii) records of activities done by the permit holder under this permit between 1 July of the preceding calendar year and 30 June of the current calendar year.
- (b) If no clearing authorised under this permit has been undertaken, a written report confirming that no clearing under this permit has been undertaken, must be provided to the *CEO* on or before 31 December of each calendar year.
- (c) The permit holder must provide to the *CEO*, no later than 90 calendar days prior to the expiry date of the permit, a written report of records required under condition 6, where these records have not already been provided under condition 7(a).

DEFINITIONS

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

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
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.
department	means the department established under section 35 of the <i>Public Sector</i> <i>Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
fill	means material used to increase the ground level, or fill a hollow;
EP Act	Environmental Protection Act 1986 (WA)
local provenance	means native vegetation propagating material from natural sources within the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared;
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.
optimal time	means the period June to July for undertaking <i>planting</i> (for the Wheatbelt northern region);
planting	means the re-establishment of vegetation by creating favourable soil conditions and planting saplings of the desired species.
rehabilitate/ed/ion	means actively managing an area containing native vegetation in order to improve the ecological function of that area;
revegetate/ed/ion:	means the re-establishment of a cover of local provenance native vegetation in an area using planting methods

Table 2: Definitions

Term	Definition
	 means any plant – (a) that is a declared pest under section 22 of the <i>Biosecurity and</i> Agriculture Management Act 2007: or
weeds	 (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

23 December 2021

SCHEDULE 1

The boundary of the area authorised to be cleared is shown in the map below (Figure 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	on details	
Permit number:	CPS 8267/2	
Permit type:	Area permit	
Applicant name:	Mr Michael Eric Teasdale	
Application received:	13 July 2021	
Application area:	6.73 hectares of native vegetation	
Purpose of clearing:	Extractive industry	
Method of clearing:	Mechanical	
Property:	Lot 18 on Deposited Plan 72490	
Location (LGA area/s):	Shire of Merredin	
Localities (suburb/s):	Korbel	

1.2. Description of clearing activities

This amendment is to extend the duration of the permit and the period in which clearing can occur, there is no change to the area applied for under the amendment (see Figure 1, Section 1.5). CPS 8267/1 allowed for the clearing of 6.73 hectares of native vegetation within Lot 18 on Deposited Plan 72490, Korbel for the purpose of sand extraction. The applicant provided notice that approximately 40 per cent of the approved area has been cleared under CPS 8267/1.

The applicant advised that the amount of clearing completed under CPS 8267/1 was approximately 40 per cent of the amount authorised.

1.3. Decision on application

Decision:	Granted
Decision date:	23 December 2021
Decision area:	6.73 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit amendment 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 A), relevant datasets (see Appendix E.1), photographs from a site inspection undertaken in 2019 for CPS 8267/1 (see Appendix D), the clearing principles set out in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

A review of current environmental information revealed the assessment has not changed since the assessment for CPS 8267/1. The Delegated Officer determined that that the proposed clearing can be managed to be environmentally

acceptable with conditions to avoid and minimise, undertake weed control, revegetation and rehabilitation of temporarily cleared areas, as well as a revised condition to ensure no clearing of potential habitat trees.

1.5. Site map



The area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit.



The area cross-hatched red indicates areas within which specific conditions apply.

Legislative context

2

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 510 of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

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

Other legislation of relevance for this assessment include:

- Biodiversity Conservation Act 2016 (WA) (BC Act)
- Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)
- Planning and Development Act 2005 (WA) (P&D 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 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 by committing to retaining breeding trees within the application area.

3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix C) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 8267/1.

3.2.1. Biological values - (Fauna) - Clearing Principles (b)

Assessment

Available data sources indicated there are no records of conservation significant fauna within a 10-kilometre radius of the application area. An extended search to a 20-kilometre radius presents records of Carnaby's cockatoo (*Calyptorhynchus latirostris*), malleefowl (*Leipoa ocellata*) and numbat (*Myrmecobius fasciatus*).

The Malleefowl is found principally in the semi-arid to arid zone in shrublands and low woodlands dominated by mallee and associated habitats such as broombush (*Melaleuca uncinata*) and scrub pine (*Callitris verrucose*) (Benshemesh, J., 2007). The vegetation within the application area may provide some habitat for this species but noting the application area is within a small, isolated patch, the application area is not likely to support significant habitat for the species. The proposed clearing is not likely to impact on habitat for this species.

The application area is within the mapped distribution of Carnaby's cockatoo, databases show records of one roosting site within a 20-kilometre radius of the application area. One record of black cockatoo breeding is located approximately 90 kilometres to the east of the application area. Black cockatoos breed in large hollow-bearing trees, generally within woodlands or forests or in isolated trees (Commonwealth of Australia, 2012). These species nest in hollows in live or dead trees of karri, marri, wandoo, tuart, salmon gum, jarrah, flooded gum, York gum, powder bark, bullich and blackbutt (Commonwealth of Australia, 2012). Salmon gums have been identified within the application area and may provide habitat for these species. Given breeding pairs of cockatoos forage within a 6-12 kilometre radius of a breeding site and the minimal vegetation within the local area, it is unlikely that cockatoo breeding is supported within the application area however, all breeding trees have some value.

The numbat may occur in open eucalypt woodland, however, habitats usually have an abundance of termites in the soil, hollow logs and branches for shelter (DPaW, 2017). One record of the numbat, in 1932, has been recorded with the local area. Given the age of this record and the likely absence of hollow logs and branches, it is unlikely that this species will occur within the application area.

Conclusion

Based on the above assessment, the proposed clearing will result in the loss of vegetation that is likely to provide some minor linkage value for fauna species.

Given the conservation status of Carnaby's cockatoo and the value of habitat trees within extensively cleared areas, the retention of habitat trees within the application area has been applied to CPS 8267/1 and is included in the amended permit. In addition to this, a rehabilitation/revegetation condition on the clearing permit will reinstate linkage values within the application area post-extraction.

3.3. Relevant planning instruments and other matters

Other relevant authorisations required for the proposed land use include Development approval under the *Planning and Development Act 2005,* and an Extractive Industry Licence, both of which have been issued by the Shire of Merredin (2021b).

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

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an isolated patch of native vegetation fringing a salt lake within the intensive land use zone of Western Australia. It is surrounded by agricultural land use. The proposed clearing area is a small, isolated remnant in a highly cleared landscape.
	Aerial imagery indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately eight per cent of the original native vegetation cover.
Ecological linkage	There are no mapped ecological linkages within the application area or its surrounds. The application area is within 250 meters of an area of salt marsh which, while only slightly vegetated, may provide linkage values.
Conservation areas	The closest conservation area to the application area is the Korbel Nature Reserve which is located approximately six kilometres southeast of the application area.
Vegetation description	Photographs from the DWER site inspection (DWER, 2019) indicate the vegetation within the proposed clearing area consists of melaleuca/ acacia tall shrubland with some scattered mallee. Representative photographs are available in Appendix D.
	 This is consistent mapped vegetation type(s): Mt Caroline 356 described as saltbush and/or bluebush with woodland or scattered trees, and the Muntadgin 1023 described as woodland
	The mapped vegetation types retain approximately 48 per cent and 10 per cent (respectively) of the original extent (Government of Western Australia, 2019).
Vegetation condition	 Photographs from the DWER site inspection indicate the vegetation within the proposed clearing area is in good to excellent (Keighery, 1994) condition, described as: Good: Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate Excellent: Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species. The full Keighery (1994) condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.
Climate and landform	The application is around the edge of a salt pan within a flat landscape. The annual average rainfall for the area (taken from Merredin) is 325 millimetres.
Soil description	The soil is mapped as Wallambin, Stirling Phase which is described as Fringe zones on either side of the main salt lake channels with isolated salt lakes, gypsum dunes and lunettes of sand, silt, or clay. Baandee erosional and depositional surfaces.
Land degradation risk	The soil type mapped within the application area has a high risk of waterlogging and salinity.
Waterbodies	The application area is within a flat area (subject to inundation) which is on the fringe of a basin.
Hydrogeography	The application area is within the Avon River surface water area, proclaimed under the RIWI Act 1914.
	The mapped groundwater salinity within the area is >35000 milligrams per litre which is classified as being highly saline to brine.

Characteristic	Details
Flora	According to available databases, six conservation significant flora species have been recorded within the local area. The closest record is a Priority 3 (P3) <i>Acacia ancistrophylla var. perarcuata.</i>
Ecological communities	The application area is within 1350 meters of a mapped occurrence of the Eucalypt woodlands of the Western Australian Wheatbelt. This community is listed as Critically Endangered under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> and Priority 3 by Department of Biodiversity Conservation and Attractions.
Fauna	According to available databases, there are no records of conservation significant fauna within the local area (10 kilometers). An extended search to a 20-kilometre radius includes records of Carnaby's cockatoo, malleefowl, bilby and numbat.

A.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*					
Avon Wheatbelt	9,517,109.95	1,761,187.42	18.51	174,980.68	1.84
Vegetation complex					
Beard vegetation association				99.92	2.31
356 *	4,330.03	2,098.70	48.47		
Beard vegetation association				18,926.07	1.18
1023 *	1,601,605.76	172,875.16	10.79		
Local area					
10km radius			8.18	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

A.3. Land degradation risk table

Risk categories	Wallambin, Stirling Phase
Wind erosion	10-30% 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
Salinity	50-70% of map unit has a moderate to high salinity risk or is presently saline
Subsurface Acidification	10-30% of map unit has a high subsurface acidification risk or is presently acid
Flood risk	<3% of the map unit has a moderate to high flood risk
Water logging	50-70% of map unit has a moderate to very high waterlogging risk
Phosphorus export risk	10-30% of map unit has a high to extreme phosphorus export risk

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?		
Environmental value: biological values				
 <u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity." <u>Assessment:</u> 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 As per CPS 8627/1	No		
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 habitat for conservation significant fauna species.	May be at variance	Yes Refer to Section 3.2.1, above.		
Principle (c): "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora." Assessment: The area proposed to be cleared is unlikely to contain habitat for flora species listed under the BC Act.	Not likely to be at variance As per CPS 8627/1	No		
 <u>Principle (d):</u> "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." <u>Assessment:</u> The area proposed to be cleared does not contains species that can indicate a threatened ecological community. 	Not likely to be at variance As per CPS 8627/1	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." <u>Assessment:</u> The extent of the mapped vegetation types and native vegetation in the local area is inconsistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area but does have some linkage value.	At variance As per CPS 8627/1	No		

Assessment against the clearing principles	Variance level	Is further consideration required?
<u>Principle (h):</u> "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."	Not likely to be at variance	No
<u>Assessment:</u> Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.	As per CPS 8627/1	
Environmental value: land and water resources	1	
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 minor non-perennial watercourse leads to the application area but does not intersect it. Vegetation within the application area is not	Not likely to be at variance As per CPS	No
growing in association with a watercourse, The proposed clearing is unlikely to impact on- or off-site hydrology and water quality. The application area is also mapped as an area subject to inundation, however a site inspection for CPS 8627/1 revealed no riparian vegetation within the application area.	8627/1	
Principle (g): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."	Not likely to be at	No
<u>Assessment:</u> The mapped soils are moderately susceptible to salinity. Noting the comments and advise received in relation to CPS 8267/1 from the Soil and Land Commissioner, no change in this risk is anticipated. The proposed clearing is not likely to have an appreciable impact on land degradation.	Variance As per CPS 8627/1	
<u>Principle (i):</u> "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."	Not likely to be at variance	No
<u>Assessment:</u> Groundwater salinity (total dissolved solids) is mapped as more than 35,000 milligrams per litre which is considered to be brine. The area has been impacted by previous agriculture activities, the proposed clearing is not likely to cause deterioration to groundwater and lead to a perceptible rise in the water table. Additionally, the application area will be rehabilitated after the completion of the sand extraction operations.	As per CPS 8627/1	
<u>Principle (j):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."	Not likely to be at variance	No
<u>Assessment:</u> The mapped soils and low rainfall in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.	As per CPS 8627/1	
The mapped soils have a medium to high risk of waterlogging but given the low rainfall within the area, the proposed clearing is unlikely to contribute to waterlogging.		

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.

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 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



Figures 3 and 4: Vegetation within the application area (DWER, 2019). Clearing under CPS 8267/1 has occurred since the photographs have been taken



Figures 5 and 6: Vegetation within the application area (DWER, 2019). Clearing under CPS 8267/1 has occurred since the photographs have been taken



Figures 7 and 8: Vegetation within the application area (DWER, 2019). Clearing under CPS 8267/1 has occurred since the photographs have been taken

Appendix E. Sources of information

E.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:

CPS 8267/2, 23 December 2021

- 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)

E.2. References

Applicant (2021) Application to amend CPS 8267/2, received 13 July 2021 (DWER Ref: A2037666).

- Benshemesh, J. (2007). National Recovery Plan for Malleefowl. Department for Environment and Heritage, South Australia.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

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) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development.* Government of Western Australia. URL: https://maps.agric.wa.gov.au/nrm-info/ (accessed 25 August 2021).
- 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) (2019) *Site Inspection Report for Clearing Permit Application CPS 8267/1, 26* March 2019. Department of Water and Environmental Regulation, Western Australia (DWER Ref: A2040555).
- Department of Water and Environmental Regulation (DWER) (2019) Clearing Permit and Decision Report CPS 8267/1. (DWER ref: A1811119)
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