

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number:	CPS 10037/1
File Number:	DWERVT11514
Duration of Permit:	From 22 April 2023 to 22 April 2030

PERMIT HOLDER

S & K O'Brien Super Investments

LAND ON WHICH CLEARING IS TO BE DONE

Lot 2 on Deposited Plan 50171, Bootenal

AUTHORISED ACTIVITY

The permit holder must not clear more than six (6) native trees 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 22 April 2025.

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. 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.

4. **Revegetation and rehabilitation – Mitigation planting**

The permit holder must within 12 months of undertaking clearing authorised under this permit:

- (a) Undertake deliberate *planting* of at least eight trees within the area cross-hatched red in Figure 2 of Schedule 1 by;
 - i. Ensuring only *local provenance* species are used;
 - ii. Ensuring *planting* is undertaken at the *optimal time*.
- (b) Undertake *weed* control and watering of *plantings* for at least three years post planting;
- (c) The permit holder must within 24 months of *planting* the eight trees in accordance with condition 4(a) of this permit;
 - i. engage an *environmental specialist* to make a determination that the eight trees will survive.
 - ii. If the determination made by the *environmental specialist* under condition 4(c)(i) that eight trees will not survive, the permit holder must plant additional trees that will result in eight trees persisting within Lot 2 on Deposited Plan 50171, Bootenal.
- (d) where additional *planting* of trees is undertaken in accordance with condition 4(c), the permit holder must repeat the activities required by condition 4(a), 4(b) and 4(c) of this permit

5. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

No.	Relevant matter	Spee	Specifications		
1.	In relation to the authorised clearing	(a)	the species composition, structure, and density of the cleared area;		
	activities generally	(b)	the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings;		
		(c)	the date that the area was cleared;		

Table 1: Records that must be kept

No.	Relevant matter	Spec	Specifications		
			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 2; and		
		(f)	actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 3		
2. In relation to the actions		(g)	the tree species planted;		
required under condition 4	(h)	the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings;			
		(i)	a copy of the <i>environmental specialist's</i> report;		
		(j)	a description of the activities undertaken; and		
		(k)	any remedial actions required to be undertaken		

6. Reporting

The permit holder must provide to the *CEO* the records required under condition 5 of this permit when requested by the *CEO*.

DEFINITIONS

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

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <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.
fill	means material used to increase the ground level, or to fill a depression.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
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.

Definition		
Environmental Protection Act 1986 (WA)		
Means <i>native vegetation</i> seeds and propagating material from natural sources within 50 kilometres and the same IBRA subregion of the area cleared.		
means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.		
has the meaning given under section 3(1) and section 51A of the EP Act.		
means the period from May to July for undertaking planting.		
means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species		
means any plant –		
(a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or		
 (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned 		

END OF CONDITIONS

Mathew Gannaway MANAGER NATIVE VEGETATION REGULATION

Officer delegated under Section 20 of the Environmental Protection Act 1986

29 March 2023

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



Figure 2: Map of the boundary of the area within which specific mitigation conditions apply



Clearing Permit Decision Report

1 Application details and outcome

	1.1.	Permit a	application	details
--	------	----------	-------------	---------

Permit number:	CPS 10037/1
Permit type:	Area permit
Applicant name:	S & K O'Brien Super Investments
Application received:	04 January 2023
Application area:	Six (6) native trees
Purpose of clearing:	Installation of power lines
Method of clearing:	Mechanical clearing with excavator
Property:	Lot 2 on Deposited Plan 50171
Location (LGA area/s):	City of Greater Geraldton
Localities (suburb/s):	Bootenal

1.2. Description of clearing activities

S & K O'Brien Super Investments is proposing to undertake the clearing of remnant vegetation near the northeast verge of Arthur Road. The proposed clearing will facilitate the installation of powerlines requested from western power. The vegetation proposed to be cleared is distributed across four separate areas (see Figure 1, Section 1.5).

.3. Decision on application					
Decision:	Granted				
Decision date:	29 March 2023				
Decision area:	Six native trees, as depicted in Section 1.5, below.				

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 14 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), 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).

The assessment identified that the proposed clearing will result in the loss of native vegetation that is significant as a remnant of native vegetation in an area that has been extensively cleared. There is only approximately 11 per cent pre-European vegetation remaining within the local area (10 kilometre radius) of the proposed clearing.

To mitigate the loss of trees within an extensively landscape, the permit holder will be planting eight native trees within Lot 2 on Deposited Plan 50171, Bootenal.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to lead to an unacceptable risk to the environment.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback
- undertake deliberate planting of at least eight trees of local provenance species within Lot 2 on Deposited Plan 50171, Bootenal to mitigate the loss of six native trees within an extensively cleared landscape



Figure 1 Map of the application area

The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

2 Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection* (*Clearing of Native Vegetation*) Regulations 2004 (Clearing Regulations).

In addition to the matters considered in accordance with section 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)
- Soil and Land Conservation Act 1945 (WA)

Relevant policies considered during the assessment include:

• Environmental Offsets Policy (2011)

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)
- Environmental Offsets Guidelines (August 2014)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

Evidence was submitted by the applicant (S & K O'Brien Super Investments, 2023), demonstrating that the powerline was relocated 10 m away from the trees alongside the road verge. After consideration of avoidance and mitigation measures, it was determined that further avoidance and/or mitigation measures were required to counterbalance the significant residual impacts to the remnant native vegetation in the local area. Upon request from the department, S & K O'Brien Super Investments committed to planting eight native trees within Lot 2 on Deposited Plan 50171, Bootenal to mitigate the loss of six trees.

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix A) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix B) identified that the impacts of the proposed clearing present a risk to significant remnant vegetation. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Significant remnant vegetation - Clearing Principle (e)

Assessment

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001). There is approximately 11 per cent pre-European vegetation remaining within the local area (10 kilometre radius) of the proposed clearing (Appendix A2).

The Geraldton Sandplains retains approximately 45 percent native vegetation but the Beard vegetation association Greenough 371 retain approximately 11 per cent native vegetation within the Geraldton Sandplains (Government of Western Australia, 2019). Given the above, the local area is considered to fall within an extensively cleared area.

To mitigate the loss of six trees, S & K O'Brien Super Investments proposed to plant eight trees within Lot 2 on Deposited Plan 50171, Bootenal (S & K O'Brien Super Investments, 2023), to ensure the clearing will not contribute to the loss of native vegetation within an extensively cleared area. The department has assessed the suitability of this mitigation measure. The mitigation planting proposed was input into the WA Environmental Offsets Metric Calculator to determine the ratio required to mitigate the loss of six trees. From this, eight trees were determined to be a suitable mitigation measure. A significant residual impact does not remain following the mitigation planting. The department considers that the mitigation planting aligns with the WA Environmental Offset Policy (2011) and WA Environmental Offsets Guideline (2014).

The proposed clearing may cause degradation of adjacent and nearby remnant native vegetation by facilitating the spread of weeds and dieback. It is considered that the impact of clearing can be mitigated through weed and dieback management measures.

Conclusion

Based on the above assessment, the proposed clearing will result in removal of native vegetation within an extensively cleared area. While the vegetation within the application area is not considered to provide a linkage across the local area, it is considered significant as a remnant due to the highly cleared nature of the vegetation association Greenough 371 and the vegetation within the local area. Therefore, the proposed clearing is at variance to this principle.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- Avoidance and mitigation
- Weed and dieback management to manage potential impacts to adjacent vegetation as a result of the proposed clearing.
- Undertake planting of eight trees within Lot 2 on Deposited Plan 50171, Bootenal

3.3. Relevant planning instruments and other matters

The City of Greater Geraldton advised DWER that local government approvals are not required. The Shire did not have any objections to the proposed clearing (City of Greater Geraldton, 2023). The application area is zoned as Rural under the local planning scheme for the City of Greater Geraldton.

Several 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

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to the department 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. The 'local area' is considered a ten kilometre radius of the application area.

Characteristic	Details			
Local context	The area proposed to be cleared is six native <i>Eucalyptus</i> sp. trees that are close to the road reserve in a highly cleared landscape. The proposed clearing area is adjacent to an isolated patch of native vegetation surrounding buildings on a farm.			
	Spatial data indica proposed to be cle	ates the local area (10 kil eared) retains 11.24 per	ometre radius from the centre of the area cent of the original native vegetation cover	
Ecological linkage	Is not part of an e	cological linkage but doe	s have roadside conservation area nearby.	
Conservation areas	Three conservation the application are	on reserves in the local an ea	rea with the closest approximately 5 km from	
Vegetation description	The pre-European extent in the application area was mapped as Greenough vegetation association 371 and described as "Acacia, Rottnest pine, coastal moort or mixed tropical forest <i>Acacia rostellifera</i> , <i>Callitris preissii</i> , <i>Eucalyptus lehmannii</i> , <i>E. cornuta</i> .". The mapped vegetation type retains approximately 10.66 per cent of the original extent (Government of Western Australia, 2019). Photographs supplied by the applicant indicated the vegetation within the proposed clearing area consists of six mature <i>Eucalyptus</i> sp. trees. Representative photos are			
Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in a degraded condition (Keighery, 1994) condition. The full Keighery (1994) condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.			
Climate and landform	The Geraldton reg degrees C in Febr in August with mo August (BOM 202	eraldton region has hot dry summers with a mean maximum temperature of 32.6 s C in February and cool wet winters with a mean minimum temperature of 8.9 ust with most of the rainfall falling in four months of the year between May and t (BOM 2023).		
Soil description	Name	Greenough 4 Bootenal we	ell drained phase	
	Soils	221Ga_4Bwd		
	Description	Level to very gently undul slope). Red sandy and loa	ating prior alluvial depositional plain (1-3% amy duplex soils with Brown deep sands	
Land degradation risk	The degradation r	ition risk factors mapped over the application area are detailed below:		
	Wind erosion	M1		
	Water erosion	L1	_	
	Salinity risk	L1		
	Phosphorous expo	ort L1		
	Water repellence	L1		
	Waterlogging	L1		
	Subsurface acidification	H2		

A.1. Site characteristics

Characteristic	Details				
	Acid sulphate soils	Risk class 3 – no known risk			
	Flooding	Not in flood risk area			
	Floodplains	Not in floodplain			
Waterbodies	The desktop assessr the area proposed to	nent and aerial imager be cleared.	y indicated that no waterbodies intersect		
Hydrogeography	The desktop assessment and aerial imagery indicated that no watercourses intersect the area proposed to be cleared. It is within the Greenough River and Tributaries Catchment Area surface water area for RIWI and the Arrowsmith groundwater area for RIWI and is in the 3000-7000 groundwater salinity area				
Flora	There are records of 15 priority and threatened flora in the local area, with the nearest record of <i>Acacia leptospermoides</i> subsp. <i>psammophila</i> that is 4.5 km away, two priority flora, <i>Blackallia nudiflora</i> and <i>Thryptomene stenophylla</i> are found on the same soil type as the application area.				
	Proposed clearing is <i>Eucalyptus</i> spp. trees over weeds. Priority and threatened flora are not likely to be impacted by the proposed clearing.				
Ecological communities	There is one priority ecological community in the local area, namely the coastal sands dominated by <i>Acacia rostellifera</i> , <i>Eucalyptus oraria</i> and <i>Eucalyptus obtusiflora</i> which is 5.45 km from the application area. Application does not appear representative of this community.				
Fauna	There are 18 fauna records in the local area with the nearest records of <i>Pandion cristatus</i> (Eastern Osprey) and <i>Thalasseus bergii</i> (Crested Tern) 6.76 km from the application area. While it is within the Carnaby's distribution the nearest record is 9.01 km away and no known roosts are in the local area. The six trees are not likely to contain significant fauna habitat.				

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*						
Geraldton Sandplains	3,136,037.83	1,404,424.32	44.78	40.46	18.12	
Vegetation complex						
Beard vegetation association Greenough 371*	32,816.04	3,499.60	10.66	6.92	0.74	
Local area						
10km radius	31808.69	3574.90	11.24	-	-	
*Government of Western Australia (2019a))			•		

Appendix B. Assessment against the clearing principles	5	
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."	Not at variance	No
Assessment:		
The area proposed to be cleared does not contain locally or regionally significant flora, fauna, habitats, assemblages of plants.		
<u>Principle (b):</u> "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."	Not likely to be at variance	No
Assessment:		
The area proposed to be cleared is not likely to contain significant foraging, roosting or breeding habitat for fauna.		
<u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."	Not likely to be at	No
Assessment:	variance	
The area proposed to be cleared is unlikely to contain habitat for threatened flora.		
<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."	Not at variance	No
Assessment:		
The area proposed to be cleared does not contains species that can indicate a threatened ecological community.		
Environmental value: significant remnant vegetation and conservation ar	eas	
<u>Principle (e):</u> "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."	At variance	Yes See section
Assessment:		3.2.1
The extent of the 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.		
<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 at variance	No
Assessment:		
Given the nearest conservation area is approximately 5 km away, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.		
Environmental value: land and water resources		
<u>Principle (f):</u> "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."	Not at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Assessment:		
Given one watercourse is recorded over 500 m from the application area, the proposed clearing is not in association with an environment associated with a watercourse for wetland.		
<u>Principle (g):</u> "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
Assessment:	variance	
The mapped soils are highly susceptible to subsurface acidification and moderately susceptible to wind erosion. Noting the extent of the application area and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.		
<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 at variance	No
Assessment:		
Given one drain and one non perennial watercourse are recorded over 500 m of the application area, the proposed clearing is unlikely to impact surface or ground water quality.		
<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 at variance	No
Assessment:		
The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.		
Given one watercourse and one drain are recorded over 500 m from the application 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.

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.

Condition	Description	
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 (S & K O'Brien Super Investments, 2023)



Figure a. site photo of trees applied to be cleared



Figure b. site photo of trees applied to be cleared



Figure c. site photo of trees applied to be cleared



Figure d. site photo of trees applied to be cleared



Figure e. site photo of trees applied to be cleared

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:

- 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

Bureau of Meterology (BOM) (2023) Climate statistics for Australian locations. Australian Government. URL: http://www.bom.gov.au/climate/averages/tables/cw_008051_All.shtml (accessed 21/03/2023)

City of Greater Geraldton (2023) Planning advice, received 23 March 2023 (DWER Ref: DWERDT754342).

- 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 28 March 2023).
- 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.
- 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. <u>https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics</u>
- Heddle, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- 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.
- 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.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) Atlas of Australian Soils, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.

- S & K O'Brien Super Investments (2023) *Clearing permit application CPS 10037/1*, received 4 January 2023 (DWER Ref: DWERDT707247).
- S & K O'Brien Super Investments (2023a) *Supporting information for clearing permit application CPS 10037/1,* received 21 March 2023 (DWER Ref: DWERDT753248).
- 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.
- Shah, B. (2006) *Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia.* December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Valentine, L.E. and Stock, W. (2008) Food Resources of Carnaby's Black Cockatoo (Calyptorhynchus latirostris) in the Gnangara Sustainability Strategy Study Area. Edith Cowan University and Department of Environment and Conservation. December 2008.
- Western Australian Herbarium (1998-). *FloraBase the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dpaw.wa.gov.au/ (Accessed 23 March 2023)