Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9425/1
Permit type:	Area permit
Applicant name:	Shire of Mundaring
Application received:	16 August 2021
Application area:	0.023 hectares of native vegetation
Purpose of clearing:	Installation of low voltage underground cables
Method of clearing:	Mechanical removal
Property:	Seaborne Street Road reserve (PIN 11419745)
Location (LGA area/s):	Shire of Mundaring
Localities (suburb/s):	Parkerville

1.2. Description of clearing activities

The vegetation within the application areas is located within the Seaborne Street Road Reserve (PIN 11419745), Parkerville (see Figure 1, Section 1.5).
The application is within a previously cleared road reserve (existing powerline corridor). The works will involve drilling instead of trenching to minimise clearing. Native grass trees will be removed by the Shire of Mundaring (the Shire) and provided to the Native Grass Tree contractor for relocation (Shire 2021).

1.3. Decision on application

Decision:	Granted
Decision date:	10 November 2021
Decision area:	0.023 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

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

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), photographs provided of the application area (see Appendix E), the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the proposed clearing will result in the potential introduction and spread of weeds and dieback into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its values.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely have long-term adverse impacts on the adjacent vegetation and can be minimised and managed to unlikely to lead to an unacceptable risk to environmental values. The applicant has suitably demonstrated avoidance and minimisation measures.

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

- avoid, minimise to reduce the impacts and extent of clearing, and
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback.

1.5. Site map

Figure 1 Map of the application area

The 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 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Rights in Water and Irrigation Act 1914* (RIWI Act)
- *Soil and Land Conservation Act 1945* (WA)

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)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The Shire (2021) advised that the works will involve drilling instead of trenching to minimise clearing. The drill set up location has also been chosen on a previously cleared area to minimise clearing extent for the works proposed to be undertaken.

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

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) 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 C) identified that the impacts of the proposed clearing present a risk to nearby conservation areas, The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values / Significant remnant vegetation and conservation areas / Land and water resources - Clearing Principles (h)

Assessment

The application area is connected through fragmented native vegetation with an unmanaged Class C Reserve 38094 (465 metres East) and to Wooroloo Regional Park (approximately 370 meters West). The movement of material from the proposed clearing, which would include some digging, has the potential to introduce weeds and dieback into the area. Weed and dieback management will assist in ensuring that adjacent native vegetation is not impacted by the proposed clearing.

Conclusion

Based on the above assessment, the proposed clearing may increase the risk of weeds and dieback occurring within the area.

Conditions

To address the above impacts, weed and dieback management will be required as a condition of the clearing permit to mitigate impacts to adjacent vegetation.

3.3. Relevant planning instruments and other matters

No known 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. Additional information provided by applicant

Additional information provided by the applicant:

- Response to request for more information confirming the actual area to be cleared;
- Design drawing; and
- Photographs of the clearing area (Shire, 2021).

Appendix B. Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

B.1. Site characteristics

Characteristic	Details
Local context	The application area forms three (3) parts of native vegetation within the Seaborne Street Road reserve (PIN 11419745) managed by the Shire. The area proposed to be cleared is a total of 0.023 hectares of native vegetation in the intensive land use zone of Western Australia. The proposed clearing area is primarily surrounded by remnant vegetation, rural, and parks and recreation land uses. Spatial data indicate the local area, defined as 10 kilometre (km) radius from the centre of the area proposed to be cleared, retains approximately 52.31per cent of the original native vegetation cover.
Ecological linkage	The area proposed to be cleared does not form part of a significant mapped ecological linkage within the local area.
Conservation areas	The vegetation within the application area is located approximately 465 meters East of an unmanaged Class C Reserve (38094) and 370 meters West of the Wooroloo Regional Park and is separated by areas of remnant vegetation.
Vegetation description	Photographs provided by the applicant (Shire, 2021) and Google (2021) street view digital imagery indicates that the vegetation within the application area primarily comprises sparse native shrubs and grasses, and scattered eucalyptus species. This description is consistent with the Dwellingup (D2) vegetation complex mapped over the application area, described as open forest of *Eucalyptus marginata* subsp. *marginata-Corymbia calophylla* on lateritic uplands in subhumid and semiarid zones (Mattiske and Havel, 1998). The mapped vegetation type retains approximately 82.50 per cent of the original extent (Government of Western Australia, 2019a). Representative photographs of the application area are available in Appendix E.
Vegetation condition	Photographs provided by the applicant (Shire, 2021) indicate the vegetation within the proposed clearing area is in degraded (Keighery, 1994) condition and has been previously disturbed from the construction of the existing powerline corridor. The full Keighery (1994) condition rating scale is provided in Appendix D. Representative photos are available in Appendix E.
Climate and landform	The application area is on the northern extent of the Darling Scarp with an approximate height of 275 meters on the Australian Height Datum. The annual mean rainfall for the area is estimated to be 1225.8 millimetres (BOM, 2021). The application area is located on relatively flat ground as shown on Appendix E.
Soil description	The soil is mapped as Darling Scarp and foothills land capability (255DpDW2) which is described as very gently to gently undulating terrain (<10%) with well drained, shallow

Characteristic	Details
	to moderately deep gravelly brownish sands, pale brown sands and earthy sands overlying lateritic duricrust (Schoknecht et al. 2004).
Land degradation risk	The mapped soil types have low risks for water erosion, waterlogging, water repellence, flood, salinity and phosphorous export. The mapped soil types have high risks for subsurface acidification, subsurface compaction and wind erosion, but noting the extent and purpose of clearing, land degradation risk remains low (DPIRD, 2019).
Waterbodies	Spatial data and aerial imagery indicate that no mapped watercourses or wetlands intersect the application area. Closest DIWA is over 14 km away to the south-west which is the Perth Airport Woodland Swamps.
Hydrogeography	The vegetation within the application area is mapped within the Swan River System surface water area, proclaimed under the RIWI Act. No Public Drinking Water Source Areas intersect the application area.
Flora	No records of threatened or priority flora occur within the proposed clearing areas. According to available databases, 37 flora taxa of conservation significance have been recorded within the local area (10 km buffer). From those, a total of 20 flora taxa (three species listed as threatened and 17 species listed as priority) are found on the same soil type than the area proposed to be cleared. The nearest records of threatened and priority flora are *Lepyrodia heleocharoides* (P3; 1 km north west) *and Acacia aphylla* (T; 1.6 km east). Noting the vegetation condition and the small extent of clearing proposed, the vegetation within the application area is not likely to comprise significant habitat for this species or other conservation significant flora recorded within the local area. The clearing proposed is not likely to impact the conservation status of conservation significant flora within the local area.
Ecological communities	No records of conservation significant ecological communities occur over the application area. According to available databases, two conservation significant ecological communities known as Central Northern Darling Scarp Granite Shrubland Community (Priority 4) and Banksia woodlands Threatened Ecological Community (TEC) have been recorded within the local area, situated approximately 3.20 km and 7.47 km respectively from the application area.
Fauna	No records of fauna occur over the application area. According to available datasets, there are 28 fauna species of conservation significance have been recorded within the local area, comprising 10 mammal, 12 bird, two reptile and four invertebrate taxa. Of these records, one fauna is associated with aquatic environments. This habitat type is absent from the application area. The nearest records of conservation significant fauna species are a *Isoodon fusciventer* (Southwestern brown bandicoot; Priority 4) and a *Calyptorhynchus sp*. (white tailed black; Endangered) cockatoo, located approximately 0.067 km and 0.417 km respectively. The vegetation within the application area is located within the known distribution range for all three black cockatoo species (Commonwealth of Australia, 2012) and within areas suitable for Carnaby's cockatoo and Red-tailed black cockatoo breeding and foraging. 19 black cockatoos breeding sites and 35 black cockatoos roost sites have been recorded within the local area. Noting the degraded condition of the vegetation (previously disturbed from the construction of the existing powerline corridor), the above fauna species are unlikely to occur within the application area.

B.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Jarrah Forest	4,506,660	2,399,838	53	1,673,614	37.1
Vegetation complex					
Dwellingup (D2)**	86,128	71,056	82.5	58,975	68.5
Local area					
10 km radius	7870.51	4117.32	52.31	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

B.3. Flora analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Acacia aphylla	T	N	Y	Y	1.4	47	N/A
Lepyrodia heleocharoides	P3	N	N	N	1	4	N/A

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

B.4. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Isoodon fusciventer Quenda, Southwestern brown bandicoot	P4	N	Y	0.067	407	N/A

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Calyptorhynchus sp. White tailed black cockatoo	EN	N	N	0.417	215	N/A
Calyptorhynchus banksii naso Forest red-tailed black cockatoo	VU	N	N	0.469	155	N/A
Dasyurus geoffroii chuditch, western quoll	VU	N	N	0.746	83	N/A
Calyptorhynchus latirostris Carnaby's cockatoo	EN	N	N	0.794	492	N/A

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

B.5. Ecological community analysis table

Community name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Threatened Ecological Communities Central Northern Darling Scarp Granite Shrubland Community	Priority 4	N	N	Y	3.20	5	N/A
Threatened Ecological Communities Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	N	N	N	7.47	53	N/A

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

B.6. Land degradation risk table

Risk categories	Darling Scarp Subsystem
Wind erosion	M1: 10-30% of the map unit has a high to extreme hazard
Water erosion	L2: 3-10% of the map unit has a very high to extreme hazard
Salinity	L2: 3-10% of the map unit has a moderate or high hazard or is presently saline
Subsurface Acidification	M2: 30-50% of the map unit has a high susceptibility
Flood risk	L1: <3% of the map unit has a moderate to high hazard
Water logging	L2: 3-10% of the map unit has a moderate to very high to risk
Phosphorus export risk	L2: 3-10% of the map unit has a high to extreme hazard

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The area proposed to be cleared does not appear to contain conservation significant flora, fauna, habitats, or a unique assemblage of plants. The clearing area is restricted to only a few small shrubs and does not comprise an area of high biodiversity.	Not likely to be at variance	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 does not contain foraging, roosting, or breeding habitat for conservation significant fauna.	Not likely to be at variance	No
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	No
Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."* Assessment: The area proposed to be cleared does not contains species that indicate a threatened ecological community.	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The extent of the mapped vegetation type and the native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.	Not likely to be at variance	No
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.	Not likely to be at variance	Yes Refer to Section 3.2.1, above.
Environmental value: land and water resources		

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: Given no water courses or wetlands are recorded within 230 meters of the application area, the proposed clearing is unlikely to impact an environment associated with a watercourse or wetland.	Not likely to be at variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soils are highly susceptible to subsurface acidification, subsurface compaction and wind erosion. Due to the small size of the proposed clearing footprint, total of 0.023 ha, it is unlikely to have an appreciable impact on land degradation.	Not likely to be at variance	No
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: Given no water courses / wetlands / Public Drinking Water Sources Areas are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: 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.	Not likely to be at variance	No

Appendix D. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix E. Photographs of the vegetation within the application area

Figure 2: Photograph of the application area (Shire of Mundaring, 2021)

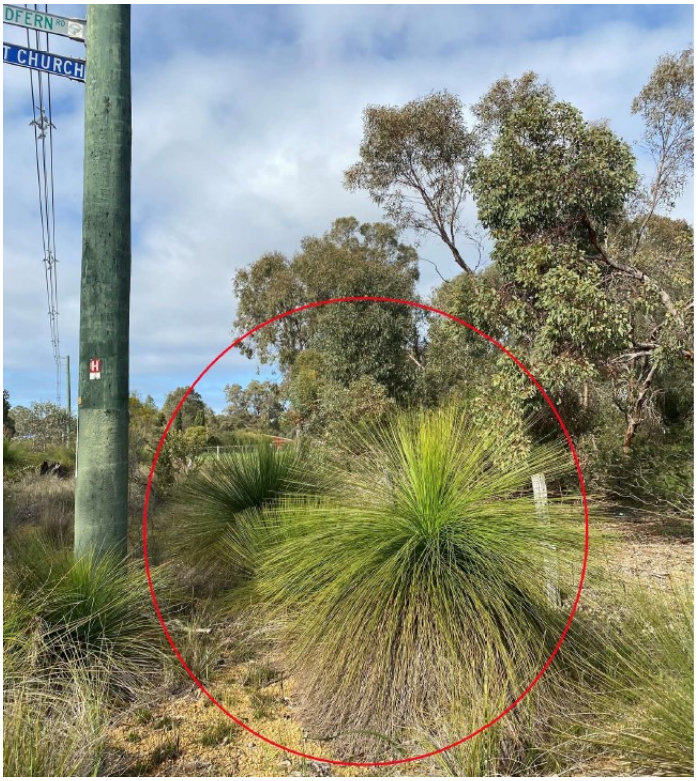

Figure 3: Photograph of the application area (Shire of Mundaring, 2021)

Figure 4: Photograph of the drill set up location to avoid clearing (Shire of Mundaring, 2021)

Appendix F. Sources of information

F.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

F.2. References

Department of Environment Regulation (DER) (2014). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from:
Key document template - Guideline (der.wa.gov.au)

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.

Environmental Protection Authority (EPA) (2016). *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment*. Available from: https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf

Environmental Protection Authority (EPA) (2020). *Technical Guidance – Terrestrial Fauna Surveys.* Available from: https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/2020.09.17%20-%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.pdf

Google map street view (2021): https://www.google.com.au/maps

Government of Western Australia (2019) *2018 South West Vegetation Complex Statistics. Current as of April 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, https://catalogue.data.wa.gov.au/dataset/dbca

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

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

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

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