

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 8941/1
Permit Holder:	Darling Downs Estate Pty Ltd
Duration of Permit:	30 November 2020 – 30 November 2025

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done Clearing for the purpose of bushfire hazard risk reduction.

2. Land on which clearing is to be done

Rowley Road reserve (PINs 11358160, 12281042, 12267072, 12267068, 12244424 and 12281041), Darling Downs and Hilbert.

3. Area of Clearing

The Permit Holder must not clear more than 0.556 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8941/1.

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

PART II - MANAGEMENT CONDITIONS

5. Avoid, minimise and reduce the impacts and extent of clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in 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.

6. Fauna management - direction of clearing

The Permit Holder shall conduct clearing in a slow progressive manner from east to west to allow fauna to move into adjacent native vegetation ahead of the clearing activity.

PART III - RECORD KEEPING AND REPORTING

7. Record keeping

The Permit Holder must maintain the following records in relation to the clearing of native vegetation authorised under this Permit:

- (a) 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 or decimal degrees;
- (b) the date(s) that the area was cleared;
- (c) the size of the area cleared (in hectares);

- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 5 of this Permit; and
- (e) actions taken in accordance with condition 6 of this Permit.

8. Reporting

The Permit Holder must produce the records required under condition 7 of this Permit when required by the *CEO*.

DEFINITIONS

The following meanings are given to terms used in this Permit:

CEO means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

Meenu Vitarana A/MANAGER NATIVE VEGETATION REGULATION

Officer delegated under Section 20 of the Environmental Protection Act 1986

4 November 2020

Plan 8941/1

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Clearing Permit Decision Report

1. Application deta	ils and outcome
1.1. Permit application	on details
Permit number:	CPS 8941/1
Permit type:	Purpose permit
Applicant name:	Darling Downs Estate Pty Ltd
Application received:	11 June 2020
Application area:	0.556 hectares (ha) of native vegetation
Purpose of clearing:	Bushfire hazard risk reduction
Method of clearing:	Mechanical
Property:	Rowley Road reserve (PINs 11358160, 12281042, 12267072, 12267068, 12244424 and 12281041)
Location (LGA area/s):	City of Armadale and Shire of Serpentine-Jarrahdale
Localities (suburb/s):	Darling Downs and Hilbert

1.2. Description of clearing activities

The application area comprises a strip of native vegetation of around 200 metres that forms part of a larger 1.3 hectare stand of vegetation within the undeveloped eastern portion of Rowley Road reserve. The application area is bordered by residential development to the north and south (see Figure 1, Section 1.5). The vegetation comprises *Casuarina obesa* open woodland in a degraded (Keighery, 1994) condition (PGV Environmental, 2020).

The applicant advised that the proposed clearing is to reduce the fire hazard risk to existing dwellings that were developed under historical subdivision approvals. A recent Bushfire Attack Level Assessment (Smith Bushfire Consultants, 2020) deemed that some of these dwellings are within the flame zone, should a fire occur. The applicant notes that these dwellings were approved and built prior to the new bushfire regulations coming into force, hence the risk was not appropriately addressed by the historical planning approvals.

The applicant notes that the eastern end of the road reserve has not been included within the application area as it contains only non-native species.

1.3. Decision on app	blication and key considerations
Decision:	Granted
Decision date:	30 October 2020
Decision area:	0.556 hectares (ha) of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act* 1986 (EP Act) and was received by the Department of Water and Environmental Regulation (DWER) on 11 June 2020. DWER advertised the application for public comment and no submissions were received.

In undertaking their assessment, and in accordance with section 510 of the EP Act, the Delegated Officer has given consideration to the Clearing Principles in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments, and any other pertinent matters they deemed relevant to the assessment.

In particular, the Delegated Officer has determined that:

• the requirement for clearing to occur in slow progressive manner from east to west will allow any native fauna utilising the site to disperse into adjacent native vegetation ahead of the clearing activity.

The Delegated Officer also took into consideration the purpose of clearing to reduce the fire hazard risk to established dwellings, given a recent BAL assessment determined these dwellings were in the flame zone should a fire occur. The delegated officer also considered advice from the Department of Planning, Lands and Heritage, which noted the application area is proposed for future development associated with the construction of Rowley Road east.

In determining to grant a clearing permit subject to conditions, the Delegated Officer found that the proposed clearing of 0.556 hectares of native vegetation in a degraded condition is not likely to lead to an unacceptable risk to the environment.

1.5. Site map



Figure 1. Map of the application area.

The area cross-hatched yellow indicates the area authorised to be cleared.

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

- 1. the precautionary principle;
- 2. the principle of intergenerational equity;
- 3. the principle of the conservation of biological diversity and ecological integrity; and

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 (December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

No evidence of avoidance or mitigation measures have been provided. The applicant notes that the clearing is required for fire hazard reduction to existing dwellings, and there are no alternatives to clearing the application area to appropriately manage this risk.

3.2. Assessment of environmental impacts

In assessing the application in accordance with section 510 of the EP Act, the Delegated Officer has examined the application and site characteristics (Appendix A) and considered whether the clearing poses a risk to environmental values. The assessment against the Clearing Principles is contained in Appendix B.

This assessment identified that the clearing may pose a risk to conservation significant fauna habitat, and that this risk required further consideration. The detailed consideration and assessment of this potential impact is provided below.

3.2.1. Environmental value: biological values (fauna) – Clearing Principle (b)

Assessment:

The application area provides suitable habitat for nine species of conservation significant fauna species that have been recorded within the local area (See Table 2, Appendix A). These include three black cockatoo species. While the application area provides suitable foraging habitat for these species within the highly cleared Swan Coastal Plain, *Casuarina obesa* is not the preferred foraging habitat for these species. Noting this, the lack of suitable roosting or breeding habitat within the application area, and its size and position between residential developments, the vegetation within the application area is not considered significant for these species.

The remaining six fauna species are small terrestrial fauna that may periodically utilise the application area for foraging purposes. These species are unlikely to rely on this vegetation noting its degraded (Keighery, 1994) condition, small size and locality. Therefore, the application area is not considered significant for these species. The proposed clearing may however impact on any individuals that may be utilising the application area at the time of clearing.

Outcome:

Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable, subject to the below condition.

Conditions:

To address the potential impact to terrestrial fauna, the following condition is included on the permit:

• The Permit Holder shall conduct clearing in a slow progressive manner from east to west to allow fauna to move into adjacent native vegetation ahead of the clearing activity.

3.3. Relevant planning instruments and other matters

The Department of Planning, Lands and Heritage provided comment on the proposed clearing and advised the following (DPLH, 2020):

• "The related subdivision approvals [for the existing dwellings either side of the application area] were determined several years ago, and were assessed and determined under an earlier version of *State Planning Policy 3.7: Planning in Bushfire Prone Areas* (SPP3.7). Accordingly, the provisions of the current version of SPP3.7 and the related building construction standards cannot be applied retrospectively to the existing dwellings adjacent to the road reserve for Rowley Road. That is, modifying existing dwellings to reduce the bushfire risk is not an option as there is no enabling/enforcement mechanism.

- The local government supports the management/reduction of vegetation within the road reserve prior to the road being built, based on the Smith Bushfire Consulting report (March 2020) documenting the nature and extent of proposed clearing, and subject to inspection by the City to minimise the impact on fauna and salvage any natural material which can be re-used in other reserves managed by the City.
- It is expected that the majority of vegetation in the road reserve for Rowley Road (North) will be cleared at some future point, for road construction, once the cost of this infrastructure is fully funded ...

Based on the above, [DPLH] would have no objections to the application for a clearing permit being approved" (DPLH, 2020).

The application area is largely within the City of Armadale, with a small portion also within the Shire of Serpentine-Jarrahdale.

The Shire of Serpentine-Jarrahdale advised that it "has no objection to Darling Downs Estate Pty Ltd application for a clearing permit and hereby provides authority to Darling Downs Estate Pty Ltd to clear vegetation for asset protection for fire mitigation for the existing houses to the south of the unmade road reserve (Shire of Serpentine-Jarrahdale, 2020).

The City of Armadale (the City) provided a letter of authority to the applicant to undertake the works within Rowley Road Reserve (City of Armadale, 2020a). The City advised that it provides "authorisation for the applicant to pursue the necessary environmental approvals in the above mentioned City-managed area subject to the following requests:

- The City is given the opportunity, prior to any clearing, to identify any salvageable logs or hollows for use in City reserves
- [the applicant] continues to liaise with the City in an effort to mitigate environmental impact(s) where possible
- Immediately prior to vegetation removal an inspection is undertaken to ensure the absence of any native fauna including nesting species" (City of Armadale, 2020a).

The City of Armadale further advised that "The bushfire guidelines make clear allowances for vegetation retention within APZs and this is what we should expect to see, rather than clear felling. Any clearing of the site should be in accordance with Schedule 1 of the Guidelines for Planning in a Bushfire Prone Area" (City of Armadale, 2020b).

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.

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 DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix B.

Site characteristic	Details
Local context	The 0.556ha application area comprises a strip of around 200 metres and forms part of a larger 1.3ha stand of native vegetation stretching over 440 metres within the undeveloped eastern extent of Rowley Road reserve (see Figure 1, Section 1.5).
	The application is bordered by residential development, and forms part of a relatively small isolated remnant within an extensively cleared landscape. The application area is around 5 kilometres west of the start of the darling scarp.
	Aerial imagery indicates the local area (10 km radius of the proposed clearing area) retains around 29.8% of the original native vegetation cover.
Vegetation description	PGV Environmental included supporting information (herein referred to as 'the Report') with the application, which included an assessment of vegetation type and condition, and included photographs of the site. The supporting information described the vegetation within the application area as (PGV Environmental, 2020):
	• Open Woodland of <i>Casuarina obesa</i> over a weedy understorey of * <i>Cynodon dactylon,</i> * <i>Avena</i> sp., * <i>Eragrostis curvula,</i> * <i>Taraxacum officinale,</i> * <i>Conyza</i> sp., * <i>Bromus diandrus</i> and * <i>Trifolium arvense</i> (*denotes an introduced species).
	The Report notes that the <i>Casuarina obesa</i> is regrowth vegetation which includes trees of two different age ranges. The trees on the northern part of the road reserve, on either side of an old track, are mostly older trees up to 6 metres high. The trees in the southern part of the road reserve on lower ground are younger trees around 3 to 4 metres high (PGV Environmental, 2020).
	Broad scale vegetation complex mapping of the Swan Coastal Plain indicates that the application area is mapped as the Beermullah Complex which is described as (Heddle, 1980):
	 Mixture of low open forest of Casuarina obesa (Swamp Sheoak) and open woodland of Corymbia calophylla (Marri) - Eucalyptus wandoo (Wandoo) - Eucalyptus marginata (Jarrah). Minor components include closed scrub of Melaleuca species and occurrence of Actinostrobus pyramidalis (Swamp Cypress) (Wandoo) - Eucalyptus marginata (Jarrah).
	The application area is somewhat representative of the mapped vegetation complex noting the presence of <i>Casuarina obesa</i> , however it is in a highly degraded form and does not include the other associated species that form the complex.
Vegetation condition	The Report indicates that the vegetation within the application area is in a degraded (Keighery, 1994) condition, described as:
	• 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.
	The full Keighery condition rating scale is provided in Appendix C, below.
	Representative photos are available in Appendix D.
Soil description	The site is located on the Pinjarra Plain which is fluviatile in origin and extends from the eastern side of the Bassendean Dunes to the western edge of the Darling Scarp.

1. Site characteristics

Site characteristic	Details
	The site is mapped within the Pinjarra P3 Phase Subsystem Landform type, which is described as flat to very gently undulating plain with deep, imperfect to poorly drained acidic gradational yellow or grey-brown earths and mottled yellow duplex soils, with loam to clay loam surface horizons (DPIRD, 2017).
Waterbodies	The application area is mapped within an extensive multiple use wetland (Armadale palusplain). The closest watercourse to the application area is the Birriga Main Drain located 250m south west.
Conservation areas	The closest conservation area to the application area is an un-named nature reserve located 2.7km east. Forrestdale Lake Nature Reserve occurs 3.1km north west.
Climate and landform	The region experiences a Mediterranean climate with annual rainfall of 900mm. Topographic contours indicate relatively flat topography typical of the Swan Coastal Plain.

2. Flora, fauna and ecosystem analysis

Threatened and priority ecological communities

Table 1. Closest mapped threatened and priority ecological communities.

Ecological Community	Distance of closest record to application area (kilometres)	Application area representative of the TEC/PEC
Corymbia calophylla - Eucalyptus marginata woodlands on sandy clay soils of the southern Swan Coastal Plain (floristic community type 3b as originally described in Gibson et al. (1994)) (State listed TEC – Vulnerable)	2.9km north west	No
Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region (State listed P3 and federally listed TEC – Endangered)	1.7km north west	No

Conservation Significant Fauna

There are 44 records of conservation significant fauna in the local area, of which nine species may utilise the application area on the basis of habitat suitability. These species are shown below in Table 2:

Table 2: Conservation Significant Fauna speci	cies recorded in the local area that may	utilise the application area.
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Scientific Name	Common Name	Class	Conservation Code
Calyptorhynchus baudinii	Baudin's cockatoo	BIRD	EN
Calyptorhynchus latirostris	Carnaby's cockatoo	BIRD	EN
Calyptorhynchus banksii naso	Forest red-tailed black cockatoo	BIRD	VU
Falco peregrinus	Peregrine falcon	BIRD	OS
Acanthophis antarcticus	Southern death adder	REPTILE	P3
Lerista lineata	Perth slider	REPTILE	P3
Neelaps calonotos	Black-striped snake	REPTILE	P3

Ctenotus delli	Dell's skink	REPTILE	P4
Isoodon fusciventer	Quenda	MAMMAL	P4

Threatened and Priority Flora

The closest threatened flora to the application area is *Diuris purdeii*, located 1.5km north east. The closest priority flora to the application area is *Verticordia lindleyi* subsp. *lindleyi* (Priority 4) located 1.7km north west. The application area is not likely to provide the required habitat for these species.

Appendix B – Assessment against the Clearing Principles

Assessment against the Clearing Principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity."	Not likely to be at variance	No
The application area is unlikely to comprise a high level of biological diversity noting the following:		
 it is in a degraded (Keighery, 1994) condition with a lack of species diversity it is not representative of any known priority or threatened ecological communities it is unlikely to include threatened or priority flora it is unlikely to provide significant fauna habitat, or provide fauna linkage values 		
<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	Yes - Refer to Section 3.2.1 above.
The application area provides suitable habitat for nine conservation significant fauna species, however it is unlikely to provide significant habitat for these species based on the following:		
 it comprises a thin strip between existing residential developments it is in a degraded (Keighery, 1994) condition it is not considered the preferred habitat for conservation significant fauna within the local area it does not contain large hollow bearing trees 		
<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 variance	No
The application area is in a degraded (Keighery, 1994) condition and does not provide suitable habitat for the closest recorded threatened flora species (1.5km east). Therefore, it is unlikely to include or be necessary for the continued existence of 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 likely to be at variance	No
There are no threatened ecological communities (TEC's) mapped within the application area. The application area is not considered to be representative of any known TEC's.		
Environmental values: significant remnant vegetation and conservation a	reas	

Assessment against the Clearing Principles	Variance level	Is further consideration required?
<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."	Not likely to be at variance	No
The local area retains around 29.6% native vegetation, and is generally considered to occur within a highly cleared landscape. The mapped vegetation complex (Beermullah Complex) has also been extensively cleared and retains only 6% of its pre-European occurrence. However, the vegetation within the application area is in a degraded (Keighery, 1994) condition and contains few other native species representative of the complex. Therefore, it is not considered a significant remnant, or truly representative of the Beermullah complex.		
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."	Not likely to be at variance	No
Noting that the application area does not provide any linkage values to the two closest conservation areas, which occur in excess of 2km from the application area, the proposed clearing is not likely to impact on these or any other conservation areas.		
Environmental values: land and water resources	·	
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."	Is at variance	No
The application area occurs within an extensive multiple use wetland (Armadale Palusplain) and includes <i>Casuarina obesa</i> which is commonly considered a riparian species. However, it is not likely to significantly impact on the greater extent of riparian vegetation in the local area, noting it comprises a small area within an extensive palusplain.		
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
Noting the size and linearity of the application area and degraded (Keighery, 1994) condition of the vegetation, the proposed clearing is not likely to result in appreciable land degradation.	Vananoe	
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."	Not likely to be at variance	No
There are no watercourses mapped within the application area, and impacts to surface water quality are unlikely, noting also that the application area is not likely to be hydrologically linked to any other major watercourses or significant wetlands.		
Given the topography and underlying marginal groundwater salinity, the proposed clearing is unlikely to cause deterioration in groundwater quality.		
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 "	Not likely to be at variance	No

Assessment against the Clearing Principles	Variance level	Is further consideration required?
Given the extent and linearity of proposed clearing, it is unlikely to cause flooding.		

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.

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.

Measuring Vegetation Condition for the South West and Interzone Botanical Province (Keighery, 1994)

Appendix D – Biological survey information excerpts / photographs of the vegetation







Figure 2-5. Photographs of the application area (PGV Environmental, 2020).

Appendix E – References and databases

1. GIS datasets

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

- Aboriginal Heritage Places (DPLH-001)
- Contours (DPIRD-073)
- DBCA Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- Local Planning Scheme Zones and Reserves (DPLH-071)
- Soil and Landscape Mapping Best Available

Restricted GIS Databases used:

- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities

2. References

- City of Armadale (2020b) Further advise from the City of Armadale on Clearing Permit Application CPS 8941/1. Received by DWER on 30 October 2020 (DWER Ref: A1950130).
- Department of Planning, Lands and Heritage (DPLH) (2020) Direct Interest Advice for Clearing Permit Application CPS 8941/1. Received 27 July 2020. DWER Ref A1917001.
- Department of Primary Industries and Regional Development (DPIRD) (2017). *NRInfo Digital Mapping*. Accessed at https://maps.agric.wa.gov.au/nrm-info/ Accessed October 2020. Department of Primary Industries and Regional Development. Government of Western Australia.
- Department of Water and Environmental Regulation (2019). *Native vegetation clearing permits Application, assessment, and management requirements under Part V Division 2 of the Environmental Protection Act 1986*. Department of Water and Environmental Regulation, Western Australia.
- Department of Water and Environmental Regulation (DWER) (2014). A guide to the assessment of applications to clear native vegetation Under Part V Division 2 of the Environmental Protection Act 1986. Department of Water and Environmental Regulation, Western Australia.
- Government of Western Australia. (2019). 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions. https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics
- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

City of Armadale (2020a) Letter of Authority for Applicant relating to Clearing Permit Application and City's advise on CPS 8941/1. Received by DWER on 1 September 2020 (DWER Ref: A1929299).

- PGV Environmental (2020) Supporting Information for Clearing Permit Application CPS 8941/1. DWER Ref A1902277.
- Shire of Serpentine-Jarrahdale (2020) Direct Interest Advice for Clearing Permit Application CPS 8941/1. Received 3 September 2020. DWER Ref A1929838.

Western Australian Herbarium (WAH) (1998-). FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. https://florabase.dpaw.wa.gov.au/ Accessed October 2020.