



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 9268/1
Permit Holder:	City of Wanneroo
Duration of Permit:	From 05 January 2022 to 05 January 2027

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of constructing a cycle track around the perimeter of the oval at Splendid Park

2. Land on which clearing is to be done

Lot 8000 on Deposited Plan 406263, Yanchep

3. Clearing authorised

The permit holder must not clear more than 4.19 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

4. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 05 January 2023.

PART II – MANAGEMENT CONDITIONS

5. 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.

6. 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.

7. Revegetation and rehabilitation (temporary works)

The permit holder must *revegetate* and *rehabilitate* areas cleared for *temporary works*. The permit holder shall:

- (a) *revegetate* and *rehabilitate* the area(s) that are no longer required for the purpose for which they were cleared within six months of the area no longer being required for the purpose for which it was cleared
- (b) undertake deliberate planting of *native vegetation*
- (c) the revegetation area shall include a minimum of 30 per cent of *Black cockatoo feeding plants*
- (d) within 24 months of undertaking *revegetation* and *rehabilitation*, engage an *environmental specialist* to make a determination that the *Black cockatoo feeding plants* will survive.
 - i. if the determination made by the *environmental specialist* under condition 7(d) that *Black cockatoo feeding plants* will not survive, the permit holder must plant additional *Black cockatoo feeding plants*.

PART III - RECORD KEEPING AND REPORTING

8. Records that must be kept

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

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	<ol style="list-style-type: none">(a) the species composition, structure, and density of the cleared area;(b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;(c) the direction that the clearing occurred;(d) the date that the area was cleared;(e) the size of the area cleared (in hectares);(f) actions taken to avoid, minimise, and

No.	Relevant matter	Specifications
		<p>reduce the impacts and extent of clearing in accordance with condition 5; and</p> <p>(g) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 6.</p>
2.	In relation to <i>revegetation</i> pursuant to condition 7 of this permit	<p>(a) species list and density of plants within the area <i>revegetated</i> in accordance with condition 7;</p> <p>(b) determination made by the <i>environmental specialist</i> that the <i>Black cockatoo feeding plants</i> will survive; and</p> <p>(c) remedial actions implemented in accordance with condition 7(d)(i) of this permit.</p>

9. Reporting

- (a) The permit holder must provide to the *CEO* on or before 30 June of each year, a written report:
- (i) of records required under condition 8 of this permit; and
 - (ii) concerning activities done by the permit holder under this permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this permit was undertaken, a written report confirming that no clearing under this permit has been carried out, must be provided to the *CEO* on or before 30 June of each year.
- (c) The permit holder must provide to the *CEO* no later than 90 calendar days prior to the expiry of this permit, a written report of records required under condition 8 of this permit, where these records have not already been provided under condition 9(a) of this permit.

DEFINITIONS

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

Table 2: Definitions

Term	Definition
Black cockatoo feeding plants	Means Myrtaceous and proteaceous plant species e.g., <i>Banksia</i> , <i>Hakea</i> and <i>Grevillea</i> species, <i>Eucalypts</i> , <i>Corymbia</i> and <i>Callistemon</i> species.
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.
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 Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.

Term	Definition
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an <i>environmental specialist</i> is required to provide under this permit, or who is approved by the CEO as a suitable <i>environmental specialist</i> .
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
weeds	means any plant – <ul style="list-style-type: none"> (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*

10 December 2021

Schedule 1

The boundary of the area authorised to be cleared is shown in the map below (Figure 1).

Plan - CPS 9268/1



Figure 1: Map of the boundary of the area within which clearing may occur



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9268/1
Permit type:	Purpose permit
Applicant name:	City of Wanneroo
Application received:	16 April 2021
Application area:	4.19 hectares of native vegetation
Purpose of clearing:	Constructing a cycle track around the perimeter of the oval at Splendid Park
Method of clearing:	Mechanical
Property:	Lot 8000 on Deposited Plan 406263
Location (LGA area/s):	City of Wanneroo
Localities (suburb/s):	Yanchep

1.2. Description of clearing activities

The proposed clearing is for the construction of competitive cycle track (velodrome) and requires the clearing of a belt of vegetation encompassing Splendid Park (see Figure 1, Section 1). Of the 4.19 hectares of proposed clearing, approximately 3.31 hectares is comprised of a mixed native species planted in 2017. The remaining portion of the application area is comprised of degraded (Keighery 1994) to completely degraded (Keighery 1994) remnant vegetation. The application area represents a portion of the 19 hectares originally cleared in 2015 (Natural Area 2021), for the construction of Splendid Park. The application area also includes temporary clearing to be utilised during the construction of the cycle path (City of Wanneroo 2021).

1.3. Decision on application

Decision:	Granted
Decision date:	10 December 2021
Decision area:	4.19 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 21 days and one submission was received that was in support of the application. Consideration of matters raised in the public submission is summarised in Appendix A.

In making this decision, the Delegated Officer had regard for the site characteristics (see 0), relevant datasets (see Appendix F.1), the findings of a flora and fauna survey and information provided by the applicant (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 Delegated Officer also took into consideration the purpose of the clearing to construct a competitive cycle track (velodrome) for community events.

The assessment identified that the proposed clearing may result in:

- The removal of Carnaby's cockatoo foraging habitat
- the potential introduction and spread of weeds and dieback into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat 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 to lead to a significant loss of Carnaby's cockatoo foraging habitat and can be minimised and managed to unlikely lead to an unacceptable risk to environmental values.

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
- Revegetate and rehabilitate areas cleared for temporary works utilising Carnaby's cockatoo foraging species

1.5. Site map

Plan - CPS 9268/1



Figure 1 Map of the application area. The area crosshatched yellow indicates the area 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 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)
- *Soil and Land Conservation Act 1945* (WA)

Relevant policies considered during the assessment include:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

To mitigate the loss of vegetation planted as Carnaby's cockatoo foraging habitat, the City of Wanneroo has committed to replanting areas temporarily cleared for construction purposes and minimise clearing where ever possible (City of Wanneroo 2021). 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 0) 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 may present a risk to fauna. 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 r (Fauna) - Clearing Principles (b)

Assessment

Of the three Black Cockatoo species known to occur in Western Australia, only Carnaby's cockatoo (*Calyptorhynchus latirostris*) is confirmed to occur in the local area. Carnaby's cockatoos forage on the seeds, flowers and nectar of native proteaceous plant species (e.g., *Banksia*, *Hakea* and *Grevillea* species), eucalypts and Callistemon species (Commonwealth of Australia, 2012). They also forage on seeds of introduced species (e.g., *Pinus* and *Erodium* species, canola and almonds), insects and insect larvae (Commonwealth of Australia, 2012). According to available data sets foraging habitat similar to above is mapped in the local area and occurs adjacent to the application area (see Figure 2). No large trees associated with breeding or night roosting habitat occur over the application area.

There is a total of eight White tailed Black cockatoo roosts mapped with the local area, six of these are within six kilometres of the proposed clearing. Food resources within the range of breeding sites and roost sites are important to sustain populations, and foraging resources are therefore viewed in the context of known breeding and night roosting sites, particularly within 12 kilometres of an impact area (Commonwealth of Australia 2017). Due to the presence of roost sites within the potential foraging distance for Carnaby's cockatoo, the vegetation present over the application area may represent foraging habitat required to support roosting Carnaby's cockatoo populations.

With regard to foraging habitat, the vegetation with the application area falls into two categories:

1. Planted vegetation comprised of native species
2. Regrowth vegetation in good (Keighery 1994) to completely degraded (Keighery 1994) condition (see Appendix E, Figure 4).



Figure 2 Green areas indicate mapped Black Cockatoo foraging habitat adjacent to the application area (blue crosshatched).

The vegetation in category (1) was planted in 2017, in compliance to a condition relating to a subdivision approval (see section 3.3 below). The planted vegetation (see Appendix E, Figure 3) was intended to provide foraging habitat for Black cockatoos, to mitigate the loss of approximately 19 hectares of foraging habitat cleared for the construction of Splendid Park.

Vegetation within category (2) is mostly in a degraded (Keighery 1994) to completely degraded (Keighery 1994) condition with the exception of one small area representing the feeding habitat as described above. This is an area of 0.1 hectares of native vegetation dominated by *Banksia sessilis* (see Appendix E, Figures 6-8).

Whilst the clearing represents foraging habitat for Carnaby's cockatoo, the two types of vegetation within the proposed clearing area currently comprises generally low-quality foraging habitat. Of the area proposed to be cleared, only approximately 1.5 hectares would be considered low quality foraging habitat. The native vegetation that is mapped within the local area is mapped as containing *Banksia* woodlands, particularly to the east of the application area, the preferred foraging habitat for Carnaby's. The area adjacent to the application area is mapped as low closed forest and scrub. According to aerial imagery, the adjacent vegetation appears to be in better condition and density than the application area and would provide greater quality foraging habitat. The proposed clearing is therefore not considered to contain significant Carnaby's cockatoo foraging habitat.

A large proportion (20) of the conservation significant fauna species recorded in the local area are migratory wetland birds, shore birds, onshore sightings of pelagic marine fauna or freshwater fauna. As the application area does not include marine or freshwater habitats it is unlikely these will be impacted by the proposed clearing.

The proposed clearing in the southwest portion may also include foraging habitat for ground dwelling fauna (see Appendix E figures 7-9), such as *Isodon fusciventer* (quenda, southwestern brown bandicoot). However due to the present of larger tracts of adjoined higher quality vegetation to the north and west of the application area it is unlikely the proposed clearing will significantly impact the habitat of ground dwelling fauna (see Appendix B).

Conclusion

Based on the above assessment, the proposed clearing will not result in the significant loss of Carnaby's cockatoo foraging habitat. Due to the low foraging and habitat values of the application area, other fauna species are unlikely to be present within the application area.

Conditions

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

- 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
- Revegetate and rehabilitate areas cleared for temporary works

3.3. Relevant planning instruments and other matters

The application area was cleared by a land developer in 2015 under Subdivision 150716 on Deposited Plan 56101. Condition 7 of the subdivision approval conditioned the replanting of black cockatoo foraging species through landscaping areas of Public open space (POS), (City of Wanneroo 2019) and implementation of the Fauna and Vegetation Management Plan approved for the Yanchep City Local Structure Plan No. 68 (City of Wanneroo 2021b).

The application area was landscaped with black cockatoo foraging species in 2017, as required by the conditioned subdivision approval (City of Wanneroo 2019). While the application area comprises primarily juvenile landscaped vegetation at this time, the intent of the conditioned approval was to provide potential foraging habitat for black cockatoo species in the medium to longer term (City of Wanneroo 2019).

On 05 November 2021, the Department of Planning, Lands and Heritage (DPLH 2021a) advised that revegetation requirements undertaken as part of the Vegetation and Fauna Management Plan by the applicant/landowner were administered/approved by the City of Wanneroo through the clearance of Condition 7 from subdivision approval for 150716 (DPLH, 2020). The Yanchep City Agreed Structure Plan (ASP) No. 68 identifies that the City of Wanneroo have authority of this Vegetation and Fauna Management Plan (DPLH, 2021b) and has agreed to further replanting areas cleared for temporary works.

No Aboriginal Sites of Significance have been recorded within the application area. It is the applicant's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Sites of Aboriginal Significance are damaged through the clearing process.

End

Appendix A. Details of public submissions

Summary of comments	Consideration of comment
If a permit is not granted, and the construction of the cycle track prevented, no other suitable location, for the construction of a cycle track is available, resulting in a loss to the community.	The requirement for a cycle track within the City of Wanneroo municipality is outside the scope the assessment.
The proposed clearing is of limited value as wildlife foraging habitat.	The vegetation was planted in 2017, and subsequently composed of juvenile plants, currently providing limited feeding habit for black cockatoo species. However, the vegetation was planted to counterbalance the loss of cockatoo feeding habitat cleared for the construction of Splendid Park as a condition of subdivision approval for 150716 (DPLH 2021a).
The vegetation within the application area does not constitute a Threatened Ecological Community (TEC).	The vegetation within the application area is comprised of planted native vegetation and does not include species diagnostic to any locally occurring TEC.
Where possible revegetation should be incorporated into the construction of the cycle track.	The City of Wanneroo have agreed to the replanting of areas temporarily cleared for construction purposes.

Appendix B. Site characteristics

B.1. 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.

Characteristic	Details
Local context	Approximately 4.2 hectares is comprised of a mixed native species planted in 2017. This includes some floristic elects of the adjacent coastal heath. The remainder of the application area is a degraded (Keighery 1994) to completely degraded (Keighery 1994) remanent of costal dune vegetation. The northeast and northwest boundaries of the application area are adjoined to extensive tracts of native costal dune vegetation in good to excellent condition. The local area retains approximately 75 percent of its native vegetation.
Ecological linkage	The application area is not part of any ecological linkage.
Conservation areas	The application area does not occur within any conservation areas. Yanchep National Park occurs 2.54 kilometres east of the application area. The eastern portion of the local area also includes approximately 7458 hectares of the Gngangara-Moore River state Forest.
Vegetation description	<p>Photographs supplied by the applicant and a Vegetation survey (Natural area 2020) indicate the vegetation within the proposed clearing area consists of two main types of vegetation:</p> <ul style="list-style-type: none"> • Open sedgeland dominated by <i>Ficinia nodosa</i> and mixed introduced herbs with sparse mixed introduced and native shrubs. • Open Heath is comprised of a middle storey of mixed native and introduced shrubs and an understorey of mixed introduced herbs with sparse native herbs and sedges. No upper storey present. <p>Representative photos, the full survey descriptions and maps are available in Appendix E.</p> <p>The vegetation proposed to be cleared is comprised of a mix of species, some of which although native to the Swan coastal Plain or Darling Scarp, may not be native to the local area. Therefore, the vegetation within the application area is not representative of mapped vegetation:</p> <ul style="list-style-type: none"> • Quindalup Complex, which is described as coastal dune complex consisting mainly of two alliances - the strand and fore-dune alliance and the mobile and stable dune alliance. Local variations include the low closed forest of <i>Melaleuca lanceolata</i> (Rottnest Teatree) - <i>Callitris preissii</i> (Rottnest Island Pine), the closed scrub of <i>Acacia rostellifera</i> (Summer-scented Wattle) and the low closed <i>Agonis flexuosa</i> (Peppermint) forest of Geographe Bay, (Heddl et al. (1980) as updated by Webb et al. (2016).
Vegetation condition	<p>As discussed above the vegetation is comprised of planted natives not consistent with the mapped vegetation of the local and therefore applying the Keighery, (1994) condition scale may not be accurate. However, in terms of the abundance of introduced weed species and percentage bare ground, photographs supplied by the applicant and a Vegetation survey (Natural area 2020), indicate:</p> <ul style="list-style-type: none"> • 89.4 percent of the vegetation is in good (Keighery 1994) condition. • 4.2 percent of the vegetation is in degraded (Keighery 1994) condition. • 6.4 percent of the vegetation is in completely degraded (Keighery 1994) condition. <p>The full (Keighery 1994) condition rating scale is provided in Appendix D. Representative photos, the full survey descriptions and mapping are available in Appendix E.</p>
Climate	The climate is classified as Mediterranean, with dry, hot summers and cool, wet winters.

Characteristic	Details																		
	<ul style="list-style-type: none"> average rainfall is 789.1 mm per annum, with the majority falling between May and August. average maximum temperature ranges from 21.4 degrees centigrade in winter (June) to 33.1 degrees centigrade in summer (December). average minimum temperatures range from 17.6 degrees centigrade in winter to 28.8 degrees centigrade in summer. 																		
Soil description and landform description	<p>The soil is mapped as (Schoknecht et al, 2013):</p> <p>Karrakatta Sand Yellow Phase: Low hilly to gently undulating terrain. Yellow sand over limestone at 1-2 m.</p> <p>Quindalup South oldest dune Phase: The oldest phase. Dunes or remnants with low relief. Calcareous sands have organic staining to about 30 cm, overlying pale brown sand with definite cementation below 1 m.</p> <p>Karrakatta shallow soils Phase: Low hills and ridges. Bare limestone or shallow siliceous or calcareous sand over limestone.</p>																		
Land degradation risk	<p>A large amount of variation occurs between the three soil types. Karrakatta shallow soils Phase is categorised as 50-70 of the mapped soil type having high risk of wind erosion, and Karrakatta Sand Yellow Phase at 70 percent high risk.</p> <p>Quindalup South oldest dune Phase indicated moderate risk (30-50) to water erosion and Phosphorus export risk.</p>																		
Waterbodies	The desktop assessment and aerial imagery indicated that no watercourses transect the area proposed to be cleared.																		
Hydrogeography	Application area occurs in a the RIWI Act, Groundwater Areas (DWER-034).																		
Flora	<p>The local area includes seven records for the Threatened flora, <i>Eucalyptus argutifolia</i>. This species is associated with shallow soils over and adjacent to limestone outcropping. Twenty priority flora, including two species of Lichen- <i>Rinodina bischoffii</i> (P2) and <i>Placynthium nigrum</i> (P3). Both lichens are associated with undisturbed rock faces. Two Fungi <i>Amanita carneiphylla</i>, (P3) and <i>Amanita wadulawitu</i> (P4) species are also recorded in the local area,</p> <p>See section C3 for a flora analysis of conservation significant flora recorded in similar habitat to the application area.</p>																		
Ecological communities	<p>According to available databases, five threatened or priority ecological communities (TEC/PEC) are mapped within the local area, these area listed in the table below.</p> <table border="1"> <thead> <tr> <th>Name</th> <th>State Listing</th> <th>Commonwealth listing</th> </tr> </thead> <tbody> <tr> <td>Aquatic Root Mat Community Number 1 of Caves of the Swan Coastal Plain</td> <td>Critically Endangered</td> <td>Endangered</td> </tr> <tr> <td>Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region</td> <td>Priority 3</td> <td>Endangered</td> </tr> <tr> <td>Melaleuca huegelii - Melaleuca systema shrublands on limestone ridges (floristic community type 26a as originally described in Gibson et al. (1994))</td> <td>Endangered</td> <td>N/A</td> </tr> <tr> <td>Tuart (<i>Eucalyptus gomphocephala</i>) woodlands and forests of the Swan Coastal Plain</td> <td>Priority 3</td> <td>Critically Endangered</td> </tr> <tr> <td>Woodlands over sedgeland in Holocene dune swales of the southern Swan Coastal Plain (original description; Gibson et al. (1994)).</td> <td>Critically Endangered</td> <td>Endangered</td> </tr> </tbody> </table>	Name	State Listing	Commonwealth listing	Aquatic Root Mat Community Number 1 of Caves of the Swan Coastal Plain	Critically Endangered	Endangered	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	Melaleuca huegelii - Melaleuca systema shrublands on limestone ridges (floristic community type 26a as originally described in Gibson et al. (1994))	Endangered	N/A	Tuart (<i>Eucalyptus gomphocephala</i>) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	Woodlands over sedgeland in Holocene dune swales of the southern Swan Coastal Plain (original description; Gibson et al. (1994)).	Critically Endangered	Endangered
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Characteristic	Details
	According to available data sets, Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region is mapped as occurring within the Eastern edge of the application area.
Fauna	<p>The desktop assessment identified a total of 32 threatened or priority species recorded within the local area, including 22 threatened fauna species and 10 priority species. None of these records occur within the application area, with the closest record, <i>Calyptorhynchus latirostris</i> (Carnaby's cockatoo) occurring approximately 0.4 kilometres from the application area.</p> <p>The nearest Black cockatoo roost is 2 kilometres to the south of the application area. Of the 32 species recorded, 14 are shorebirds or species associated with freshwater bodies, potentially found in association with coastal and ocean habitats, and the Loch McNess wetland system. Equivalent habitat for these species does not occur within the application area.</p>

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*					
Swan Coastal Plain	1,501,221.93	579,813.47	38.62	222,916.97	14.85
Swan Coastal Plain Vegetation complex*					
Quindalup Complex	54,572.87	33,011.64	60.49	5994.64	10.98
Local area					
10 km radius	20127.41	15221.10	75.62	-	-

*Government of Western Australia (2019)

B.3. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1), and biological survey information (see Appendix E) impacts to the following conservation significant flora required further consideration.

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]
<i>Hibbertia leptotheca</i>	P3	no	no	yes	1.5	5	yes
<i>Lepidium pseudotasmanicum</i>	P4	no	no	yes	1.8	3	yes
<i>Leucopogon</i> sp. Yanchep (M. Hislop 1986)	P3	no	no	yes	1.8	14	yes
<i>Leucopogon maritimus</i>	P1	no	no	yes	2.5	12	yes
<i>Conostylis pauciflora</i> subsp. <i>euryrhipis</i>	P4	no	no	yes	2.8	11	yes
<i>Stylidium maritimum</i>	P3	no	no	yes	3.3	8	yes
<i>Acacia benthamii</i>	P2	no	no	yes	3.9	2	yes
<i>Sphaerolobium calcicola</i>	P3	no	no	yes	4.2	2	yes
<i>Pimelea calcicola</i>	P3	no	no	yes	4.5	4	Yes
<i>Lecania sylvestris</i>	P2	no	no	yes	4.5	1	yes

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]
<i>Lasiopetalum membranaceum</i>	P3	no	no	yes	4.7	1	yes
<i>Styphelia filifolia</i>	P3	no	no	yes	4.7	1	yes
<i>Conostylis pauciflora subsp. pauciflora</i>	P4	no	no	yes	5.9	1	yes
<i>Baeckea</i> sp. Limestone (N. Gibson & M.N. Lyons 1425)	P1	no	no	yes	7.1	3	yes
<i>Calandrinia oraria</i>	P3	no	no	yes	7.7	1	yes

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]
* <i>Calyptorhynchus latirostris</i> (Carnaby's cockatoo)	EN	Yes	Yes	0.4	487	Yes
<i>Synemon gratiosa</i> (graceful sunmoth)	P4	No	No	1.4	292	Yes
<i>Limosa lapponica</i> (black-striped snake, black-striped burrowing snake)	P3	No	No	1.5	2	Yes
<i>Isoodon fusciventer</i> (quenda, southwestern brown bandicoot)	P4	No	No	1.5	13	Yes
<i>Idiosoma sigillatum</i> (Swan Coastal Plain shield-backed trapdoor spider)	P3	No	No	1.8	2	Yes
<i>Notamacropus irma</i> (Western brush wallaby)	P4	No	No	2.6	2	Yes
<i>Dasyurus geoffroyi</i> (Chuditch, western quoll)	VU	No	No	2.6	32	Yes
<i>Tyto novaehollandiae</i> (masked owl (southwest))	P3	No	No	2.6	1	Yes
<i>Apus pacificus</i> (Fork-tailed swift)	MI	No	Yes	3.6	1	Yes
<i>Delma concinna major</i> (Javelin legless lizard (Shark Bay))	P1	No	No	4.2	1	Yes
<i>Bettongia penicillata ogilbyi</i> (woylie, brush-tailed bettong)	CR	No	No	6.7	1	Yes
<i>Austroconops mcmillani</i> (McMillan's biting midge (Swan Coastal Plain))	P2	No	No	6.8	8	Yes

B.5. Land degradation risk table

	Karrakatta Sand Yellow Phase	Quindalup South oldest dune Phase	Karrakatta shallow soils Phase
Risk as a percentage of mapped soil unit			
Wind erosion	70	10-30	50-70
Water erosion	<3	30-50	<3
Salinity	<3	<3	<3
Subsurface Acidification	<70	<3	3-10
Flood risk	<3	<3	<3
Water logging	<3	<3	<3
Phosphorus export risk	3-10	30-50	3-10

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p><u>Assessment:</u> The native vegetation within the application area was previously cleared in 2015, and mostly comprises juvenile planted native species and areas of degraded (Keighery 1994) condition (See Appendix E, Figure 4). The vegetation provides low quality habitat for ground dwelling fauna and is unlikely to contain locally or regionally significant flora, fauna, habitats, or assemblages of plants.</p> <p>A cultivar of the Priority 4 species <i>Dodonaea hackettiana</i> occurs in the western portion of the application area. This species has been planted for aesthetic purposes and is not considered to be naturally occurring within the local area (Western Australian Herbarium 1998-).</p>	Not at variance	No
<p><u>Principle (b):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.”</i></p> <p><u>Assessment:</u> No conservation significant fauna has been recorded in the application area. A large portion of the application area is comprised of immature planted vegetation of mixed native species (see section F, figure 4). Therefore, the area proposed to be cleared does not contain roosting or breeding habitat. However, the area may contain some foraging habitat for Carnaby’s cockatoo.</p>	May be at variance	yes <i>Refer to Section 3.2.1, above.</i>
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u> The application area was previously cleared in 2015 during the creation of Splendid Park and replanted in 2017 (Natural Area 2020), therefore the proposed clearing is unlikely to contain habitat for flora species listed under the BC Act. A cultivar of the Threatened flora <i>Grevillea thelemanniana</i> has been planted in the application area for aesthetic purposes, this species was not recorded in the local area before replanting of the application area. The known distribution of this species occurs south of the Swan River manly concentrated within Brixton Street wetlands (Florabase 1998-).</p>	Not at variance	No
<p><u>Principle (d):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u> The application area falls within the buffer zone of an ecological community- Aquatic Root Mat Community Number 1 of Caves of the Swan Coastal Plain. However, the area proposed to be cleared does not contain species or habitat features that indicate a threatened ecological community.</p>	Not at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u> The extent of the mapped vegetation type and remaining 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.</p>	Not at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (h)</u>: <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment</u>: The application area does not occur adjacent to any conservation areas.</p>	Not at variance	No
Environmental value: land and water resources		
<p><u>Principle (f)</u>: <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment</u>: Given no watercourses or wetlands intersect the application area., the proposed clearing is not growing in association with an environment associated with a watercourse or wetland.</p>	Not at variance	No.
<p><u>Principle (g)</u>: <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment</u>: The application area has been previously cleared and landscaped. Therefore, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not at variance	No
<p><u>Principle (i)</u>: <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><u>Assessment</u>: Application area occurs in RIWI Act, Groundwater Areas (DWER-034). Given no water courses or wetlands are recorded within 1.3 kilometres of the application area, the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not at variance	No
<p><u>Principle (j)</u>: <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment</u>: The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p> <p>Given no water courses or wetlands are recorded within 1.3 kilometres of the application area, the proposed clearing is unlikely to contribute to flooding.</p>	Not 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. Biological survey information



Vegetation Type	Description	Photograph
<i>Ficinia nodosa</i> Open Sedgeland	This vegetation community is comprised of an open sedgeland dominated by <i>Ficinia nodosa</i> and mixed introduced herbs with sparse mixed introduced and native shrubs present.	
Mixed Coastal Open Heathland	This Open Heath is comprised of a middle storey of mixed native and introduced shrubs and an understorey of mixed introduced herbs with sparse native herbs and sedges. No upper storey is present currently.	

Figure 3 Vegetation types Identified within the application area (Natural Area 2021).



Figure 4 Mapped vegetation types (Natural Area 2021).



Figure 5 Map of vegetation condition within the application area (Natural Area 2021).



Figure 6 Numbered yellow circles and arrows indicate the location and direction of the photographs, presented in Figures 6-17 (Natural Area 2021).



Figure 7 Orange polygons represent areas of remnant vegetation within the application area, determined as Black Cockatoo foraging habitat, see Figures 8 and 9 (Natural Area 2021).



Figure 8
2021).

Photo 1. Black cockatoo foraging habitat, mainly (*Banksia sessilis*) in the background (Natural Area



Figure 9
2021).

Photo 2 Black cockatoo foraging habitat, mainly (*Banksia sessilis*) in the background (Natural Area



Figure 10 Photo 4 (Natural Area 2021).



Figure 11 Photo 5 (Natural Area 2021).

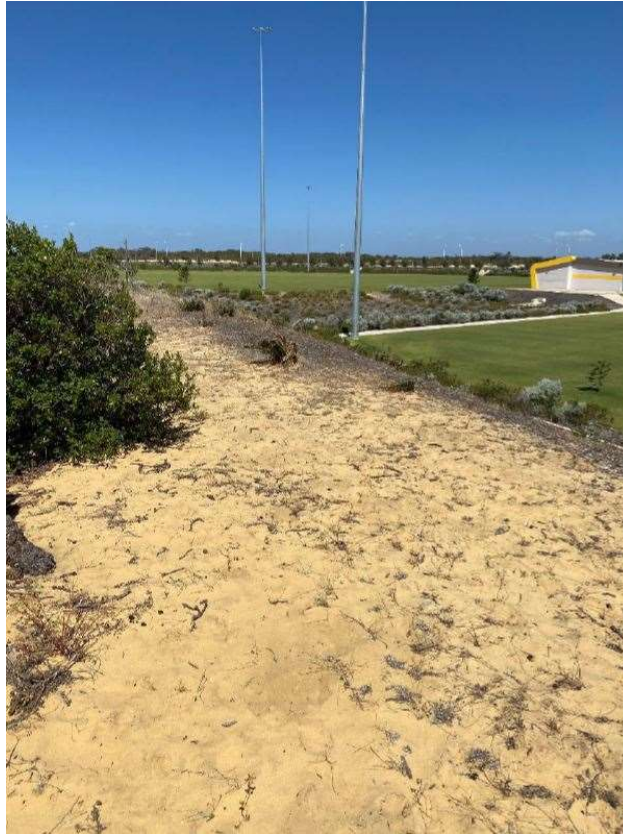


Figure 12 Photo 6 (Natural Area 2021)..



Figure 13 Photo 8 (Natural Area 2021).



Figure 14 Photo 9 (Natural Area 2021).



Figure 15 Photo 10 (Natural Area 2021).

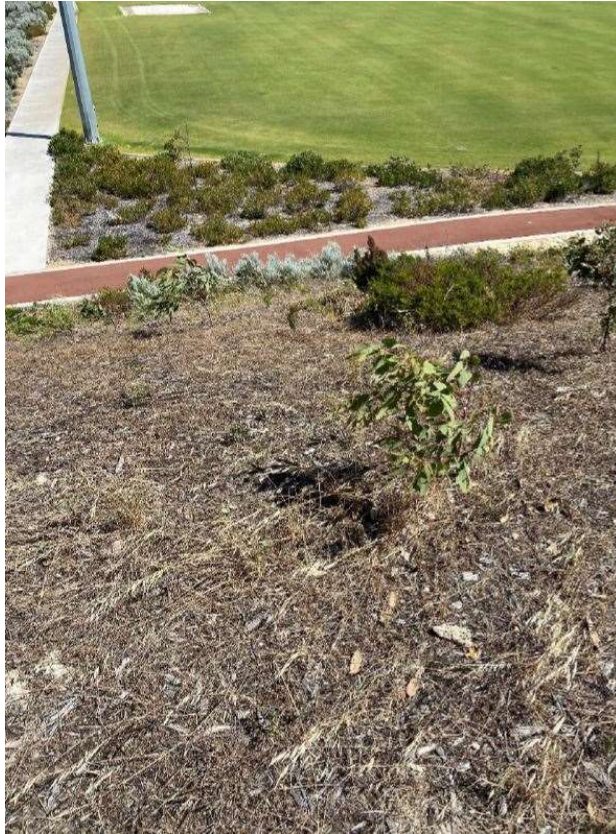


Figure 16 Photo 10 (Natural Area 2021).

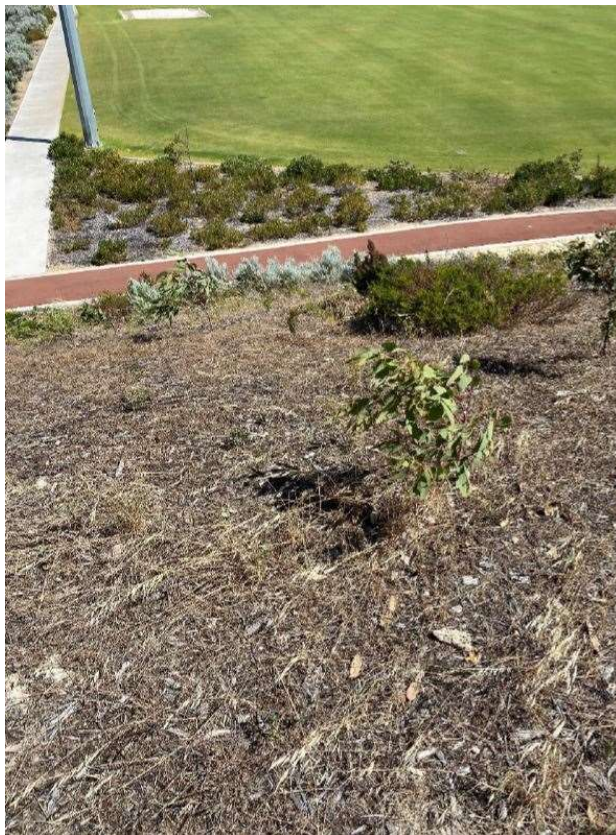


Figure 17 Photo 11 (Natural Area 2021).



Figure 18 Photo 12 (Natural Area 2021).



Figure 19 Photo 12 (Natural Area 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

- City of Wanneroo (2021) *Supporting information for clearing permit application CPS 6268/1*, received 20 September 2021 (DWER Ref: A2053485).
- City of Wanneroo (2021a) *Supporting information for clearing permit application CPS 6268/1*, received 20 September 2021 (DWER Ref: A2037882).
- City of Wanneroo (2019) Proposed Skate Park Facility within Splendid Park, Yanchep Native Vegetation Clearing Permit Application Supporting Documentation August 2019. (DWER Reference: A1817096).
- Government of Western Australia (2018) 2017 South West Vegetation Complex Statistics. Current as of October 2017. WA Department of Biodiversity, Conservation and Attractions, Perth.
- Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species, Canberra.
- Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.
- Department of Planning, Lands and Heritage (DPLH) (2020) *DPLH Advice for clearing permit application CPS 8655/1*. Department of Planning Lands and Heritage, Western Australia (DWER Ref: DWERDT243733).
- Department of Planning Lands and Heritage (DPLH) (2021a) *advice for clearing permit application CPS 9268/1*. Department of Planning Lands and Heritage, Western Australia. (DWER Ref: A206021).
- Department of Planning Lands and Heritage (DPLH) (2021b) *Advice for clearing permit application CPS 9268/1*. Department of Planning Lands and Heritage, Western Australia. (DWER Ref: A2042920).
- Department of Water and Environmental Regulation (DWER) (2020) *Decision Report for Clearing Permit Application CPS 8655/1*, 15 January 2020. Department of Water and Environmental Regulation, Western Australia (DWER Ref: A1858949).
- 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>
- Hedde, 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.
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- Schoknecht, N., Tille, P. and Purdie, B. (2013) *Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs* Resource Management Technical Report No. 280. Department of Agriculture.
- Submission (2021) *Public submission in relation to clearing permit application CPS 9268/1*, received 16 June 2021 (DWER Ref: A2017484).
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