

Document Reference: EP24-042(01)--003 GAB

Emerge contact: [REDACTED]

25 September 2024

Attention: Native Vegetation Regulation  
Department of Water and Environmental Regulation  
Locked Bag 10  
JOONDALUP WA 6919

PERTH OFFICE  
Suite 4, 26 Railway Road  
Subiaco  
Western Australia 6008

P +61 8 9380 4988  
F +61 8 9380 9636  
emergeassociates.com.au

Emerge Environmental Services Pty Ltd ABN  
57144772510 trading as Emmerge Associates

Delivered by email to: [info@dwer.wa.gov.au](mailto:info@dwer.wa.gov.au)

Dear Sir/Madam,

## **CLEARING PERMIT APPLICATION FOR VEGETATION REMOVAL AT RAY OWEN RESERVE - LOT 580 AND 581 ON DEPOSITED PLAN 71883**

Regarding the letter's content outlined below, please keep in mind the following key terms as it relates to this clearing application:

- **Clearing footprint** – this refers to the area of native vegetation that is proposed to be cleared and is the subject of this clearing permit application.
- **Avoidance area** – refers to the proposed building extension footprint that has been avoided through refined design.

This letter provides supporting information to be read in conjunction with the clearing permit application form and the following attachments.

- **Attachment 1** – *Ray Owen Oval Redevelopment – Site Clearing Plan* (City of Kalamunda 2024)
- **Attachment 2** – *EPBC Act Protected Matters Report* (DCCEEW 2024)
- **Attachment 3** – *Flora Species List*
- A shape (.shp) file of the native vegetation clearing area has been submitted to Department of Water and Environmental Regulation (DWER) as part of the application.

### **1 OVERVIEW**

Emerge Associates (Emerge) have been engaged by the City of Kalamunda (the 'applicant') to support the preparation of a clearing permit application, including a flora and fauna assessment, for the proposed clearing of vegetation within Ray Owen Reserve Lot 580 and 581 on Deposited Plan 71883 (Crown Reserve R 26126 and R 26127) (herein referred to as the 'site').

The clearing area comprises up to 0.26 ha of native vegetation to be cleared. A summary of the clearing area values is shown below in **Table 1**.

Table 1: Clearing permit area summary and values

Vegetation Value	Clearing Footprint
Native Vegetation	<b>Bs:</b> 0.02 ha to be cleared <b>Cc:</b> 0.24 ha to be cleared <u>0.26 ha in total</u>
ESA (yes/no)	No
TECs and PECs	N/A
Black cockatoo foraging habitat (ha)	0.26 ha of Primary Native Foraging Habitat
Black cockatoo potential breeding trees (number)	Evidence of use: 0 Suitable hollows: 0 No Hollows: 9

- Of the 0.26 ha of native vegetation to be cleared, the following will be impacted:
  - 0.26 ha of moderate - high quality Carnaby's, Baudin's and Forest red-tailed black cockatoo foraging habitat.
  - 9 potential breeding trees for Black Cockatoo's

## 2 INTRODUCTION AND BACKGROUND

The applicant seeks to clear vegetation at Ray Owen Reserve, within the City of Kalamunda, for the extension of the oval which will be purposed as a training ground.

To implement the proposed extension, 0.26ha native vegetation will need to be cleared. The clearing permit application is for this area.

### 2.1 Previous Approvals

A clearing permit (ref CPS 9253/1) was granted on the 10<sup>th</sup> September 2021 for vegetation removal to the south of the site, which includes a portion of vegetation within this application. Clearing was granted for the application area, however the clearing permit has since expired (10<sup>th</sup> September 2023). Plate 1 below shows the area of previous clearing permit approval that overlaps with this current application.

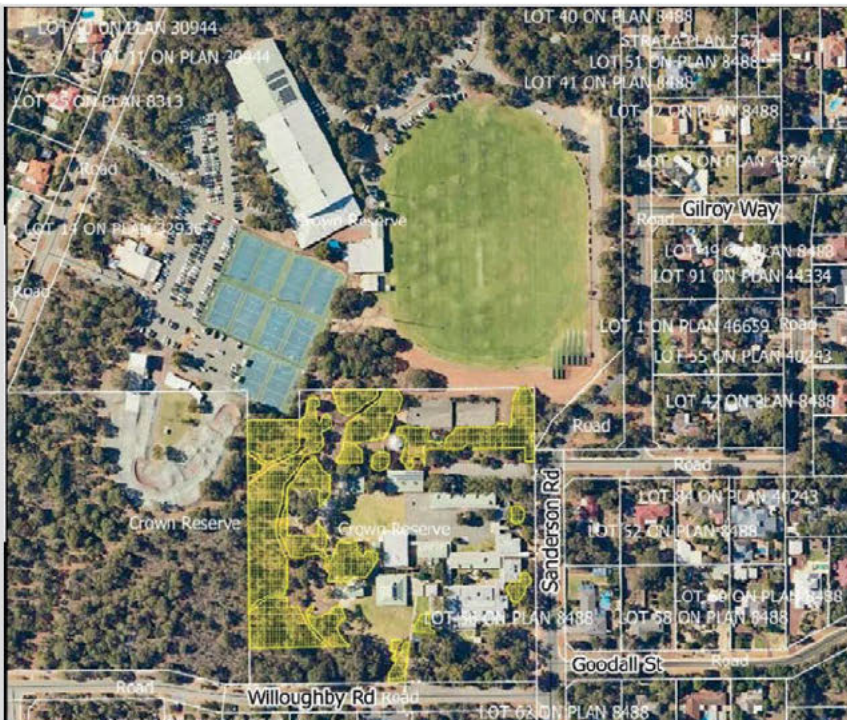


Plate 1: CPS 9253/1 Previous clearing permit approval with part area included.



### 3 SUMMARY OF ENVIRONMENTAL CONDITIONS

#### 3.1 Clearing application area

The native vegetation to be cleared is 0.26 ha. The location and extent of the associated clearing footprint and area is shown in **Figure 1**. The development design is shown in **Attachment 1**. Overall, there is 0.51 ha of native vegetation however only 0.26 ha is proposed to be cleared. The remaining 0.25 ha is to remain and has been mapped as an avoidance area.

Consideration of the clearing principles in the context of the above clearing is provided in **Section 4**.

#### 3.2 Historical clearing

Aerial images (from 1953 onwards) show that the area was vegetated until clearing commenced in the area prior to 1965. By 1974, a large amount of vegetation had been cleared and the existing oval was present, with a number of the surrounding sporting fields evident. Native vegetation near the proposed changeroom location had been cleared to make way for a basketball/netball court. In 2021, vegetation immediately to the south of the proposed development had been removed to make way for the existing shed, water tanks and other facilities.

#### 3.3 Soils and Landforms

Review of geological mapping by Churchwood and McArthur (1980) indicated that the site is located on the lateritic uplands of the Darling Plateau. The soil association relevant to the site is Dwellingup Phase 2. The Dwellingup 2 Phase was described as “*Shallow to moderately deep gravelly brownish sands, pale brown sands and earthy sands overlying lateritic duricrust*” (DPIRD 2019).

#### 3.4 Acid Sulfate Soils and Dewatering

Acid Sulfate Soils (ASS) mapping from the City of Kalamunda Environmental Land Use Planning Strategy (CoK 2019) indicates that the site is located in an area of ‘*no known risk of ASS.*’

#### 3.5 Flora and vegetation values

The *Protected Matters Search Tool* (DCCEEW 2024) and searches of DBCA’s threatened and priority flora database (reference no. 03-0714FL) identified 33 threatened and 76 priority flora as occurring or potentially occurring within a 10 km radius of the site (refer **Attachment 2**). Based on a review of distribution and habitat preferences the following 17 species were considered to have a moderate likelihood of occurrence in the clearing application area: (*Acacia anomala* (VU), *Acacia horridula* (P3), *Acacia oncinophylla* subsp. *patulifolia* (P4), *Asteridea gracilis* (P3), *Babingtonia urbana* (P3), *Banksia pteridifolia* subsp. *vernalis* (P3), *Boronia humifusa* (P1), *Cyanicula ixiooides* subsp. *ixiooides* (P4), *Cyanothamnus tenuis* (P4), *Darwinia apiculata* (EN), *Halgania corymbosa* (P3), *Paracaleana ferricola* (P2), *Pimelea rara* (P4), *Senecio leucoglossus* (P4), *Stylidium striatum* (P4), *Thelymitra stellata* (EN) and *Thysanotus anceps* (P3))<sup>1</sup>.

Emerge Associates has undertaken ecological surveys across the site on 2 May and 1 September 2024, including surveying vegetation units and vegetation condition (**Figure 2** and **Figure 3**).

A total of 58 native flora species were recorded during the survey, along with 24 non-native planted or weed species. An inventory of flora is provided as **Attachment 3**.

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<sup>1</sup> CR = critically endangered, EN = endangered, VU = vulnerable, P1 = Priority 1, P2 = Priority 2, P3 = Priority 3 and P4 = Priority 4.

None of the threatened or priority flora identified in database searches were recorded. Given the timing of the visits were suitable to enable the detection of these species they are considered absent from the site.

Three vegetation units were identified within the site as shown in Figure 2. Values of native vegetation units Cc and Bs are summarised in Table 2. A representative image of vegetation unit Cc (the majority of vegetation) is provided in Plate 2.

Table 2: Vegetation values within the clearing permit application area.

Native vegetation units and description	Vegetation condition (Keighery 1994)	Clearing area (ha)
Cc: <i>Corymbia calophylla</i> (Marri) over an understory of mixed native herbs and sedges	'Good' 'Degraded'	0.24 ha
Bs: <i>Banksia sessilis</i> over predominantly non-native grasses and herbs or bare ground	'Degraded'	0.02 ha
<b>Total</b>		0.26 ha



Plate 2: Vegetation unit Cc.

In addition to the native vegetation, non-native/ unvegetated cleared areas comprise approximately 0.57 ha of the application area.

The Cc or Bs vegetation is not representative of any threatened or priority ecological community.

The native vegetation area to be cleared is based on the presence of native vegetation canopy cover and includes canopy cover that extends over the existing cleared and bare ground areas. Vegetation retention is discussed in Section 4.



### 3.6 Fauna values

The clearing application area occurs within the modelled distribution for Carnaby's black cockatoos, forest red-tailed black cockatoos and Baudin's black cockatoos (DoEE 2016). Nine (9) habitat trees (native eucalypt with trunk diameter greater than 50cm) occur within the clearing area of which none contain hollows suitable for use by black cockatoos for nesting. These trees therefore classify as 'potential nesting trees' according to the *Referral guideline for 3 WA threatened black cockatoo species* (DAWE 2022).

The mapped Cc and Bs vegetation represent approximately 0.26 ha of native foraging habitat for black cockatoos as shown in **Figure 5**. Approximately 0.26 ha of this vegetation under the *Referral guideline for 3 WA threatened black cockatoo species* (DAWE 2022), would be considered high quality native foraging habitat for Carnaby's, Baudin's and forest red tailed black cockatoo (associated with 'Cc' vegetation unit). 0.02 ha of the 'Bs' unit would represent 'high quality' primary native foraging for Carnaby's but not for Baudin's or Forest red tailed black cockatoo.

The clearing application is likely to support foraging and could be inhabited by *Isoodon obesulus fusciventer* (P3)(quenda) along with range of common and widespread native fauna.

### 3.5 Wetlands

A review of the DBCA-019 dataset identifies that no wetlands are mapped within the site.

A resource enhancement wetland (REW), unique feature identifier (UFI) 12349, exists approximately 730 metres to the northeast of the site. The identified REW will not be impacted by works associated with this project.

### 3.7 Hydrology

The surface hydrology dataset (DWER MGA 2007) indicates that a perennial lake, a minor drain, a major drain and an earth dam exist within approximately 800 metres of the site to the north and east.

A search of the Water Register (2023) shows the footprint area exists within the unproclaimed Karri Groundwater Area, within the Yarragadee aquifer.

### 3.8 Aboriginal Heritage

A review of the Aboriginal Cultural Heritage Inquiry System (ACHIS) indicated that no places of Aboriginal Cultural Heritage exist within the site. The nearest registered place, ID 3758, is located approximately 2 kilometres northeast of the site.

## APPLICATION OF MITIGATION HIERARCHY

In accordance with *A guide to the assessment of applications to clear native vegetation* (DER 2014), the impact mitigation sequence has been considered as part of the proposed clearing, in order to ensure the environmental impact was kept to a minimum.

### 3.9 Avoidance

Early conceptual planning stages have implemented numerous changes to design in the effort to minimise impact to extended vegetation to the west. This includes the avoidance of clearing approximately 0.25 ha of native vegetation, and 3 potential breeding trees.

## 4 RESPONSE TO EP ACT CLEARING PRINCIPLES

Under Section 51C of the EP Act, clearing of native vegetation is an offence unless a clearing permit has been obtained or an exemption applies. When assessing clearing permit applications, DWER has regard to the ten clearing principles contained in Schedule 5 of the EP Act so far as they are relevant to the matter under consideration.

In support of this clearing permit referral, we have considered and responded to the ten clearing principles in the following sections.

Principle (a) – Native vegetation should not be cleared if it comprises a high level of biological diversity.

The clearing area is in the Swan Coastal Plain region of Western Australia, which is an area recognised for its high biological diversity. Based on the results of the flora and vegetation assessment undertaken by Emerge in 2024, the application area has been significantly disturbed through historic activities. The application area contains two plant communities and cleared areas ranging from ‘good’ to ‘completely degraded’ condition as shown in **Figure 4**.

Approximately 65% of the application area comprises existing cleared or non-native vegetation (0.52 ha) and is generally void of native of vegetation, comprising predominantly of grassland and weeds and bitumen or gravel shoulders. The native vegetation proposed to be cleared, as per **Table 1**, comprises predominantly the native plant communities Cc and Bs which were assessed to be in a ‘good’ and ‘degraded’ condition (0.26 ha).

At a regional scale, vegetation complex mapping indicates the native vegetation proposed to be cleared falls within the Dwellingup D2 complex described as “Open forest of *Eucalyptus marginata* subsp. *Marginata Corymbia calophylla* on lateritic uplands in subhumid and semiarid zones”. The Dwellingup D2 complex retains approximately 82.5 per cent of its pre-European extent (Government of Western Australia 2019). The remanent vegetation mapped within the local area (10km radius) is 54.6 percent, this is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia 2001). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.

No threatened or priority flora species, nor threatened or priority ecological communities have been identified within the application area.

Due to the level of historical disturbance, the degraded nature of the native vegetation and the limited fauna habitat present within the application area (particularly compared to the broader location), the clearing area does not support a high level of biological diversity.

The proposed clearing is therefore not likely to be at variance with Principle (a).

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 indigenous to Western Australia.

Carnaby’s cockatoo, Baudin’s cockatoo and Forest red-tail black cockatoo could all occur within the application area, along with other conservation significant species.

The application area is not likely to provide significant habitat for conservation significant fauna (nor more common and widespread fauna species) given the abundance of better-quality vegetation within the broader local area, much of which is within Mundy Regional Park to the west and Korung National Park to the south-east.

Given the degraded nature of the native vegetation within the application area, the vegetation is primarily used by widespread native and non-native fauna species with non-specific habitat requirements. The overstorey native vegetation species provide suitable foraging habitat for black cockatoos.

Potential impacts related to Baudin’s, Carnaby’s and the Forest red-tailed black cockatoos, is outlined below.

Black cockatoo foraging habitat

The 0.24 ha of native vegetation to be cleared provides foraging habitat for the three black cockatoo species. The area of moderate to high quality foraging habitat varies based on species (and their individual habitat preferences), but includes approximately: 0.24 ha of moderate - high quality Carnaby’s, Baudin’s and Forest red-tailed Black Cockatoos foraging habitat.



The extent of potential foraging habitat is shown in **Figure 5**. For the purposes of this application, ‘high’ foraging value is characterised as areas with 50% of known primary food sources and moderate between 10% and 50% as defined by Emerge Associates (Emerge Associates 2023), and is based on the assessment of the vegetation identified during the surveys. The foraging habitat within the native vegetation clearing area, does not represent a significant area of habitat for the three black cockatoo species. The foraging habitat within the clearing area extends over a narrow area and there are extensive areas of potential foraging habitat located immediately adjacent to the clearing area.

#### Potential black cockatoo breeding and roosting habitat

The clearing application area contains five (5) black cockatoo habitat trees (trees with diameter at breast height (DBH)  $\geq$  50 cm). A targeted black cockatoo hollow inspection determined that no trees contain hollows that were potentially suitable for use by breeding black cockatoos within the application area.

The location of the habitat trees is shown in **Figure 4**. No evidence of roosting such as branch clippings, droppings or feathers were observed within the application area.

As none of the habitat trees contain hollows suitable for use by black cockatoos for breeding, the application area does not currently provide breeding habitat for any of the three species of black cockatoo. The habitat trees within the clearing area have the potential to form suitable hollows in the future. However, it is likely to take many decades for hollows to form that are large enough to be suitable for use by black cockatoos. Consideration of habitat within the application area in the context of the location and surrounding habitat Black cockatoos occur within the area under application and broader area, with 5 known roost sites within 12 km this area.

The removal of native vegetation as proposed in this application, is unlikely to result in a significant residual impact to the three black cockatoo species. Based on a review of publicly available native vegetation data there is significant areas of foraging, roosting and breeding habitat for the three black cockatoo species within 12 km of the application area.

The vegetation in the clearing application area comprises a part of habitat that might be considered significant for fauna indigenous to Western Australia (principally black cockatoos). Clearing may therefore be at variance to this principle. Noting the fauna habitat in the local context, habitat is not considered significant.

#### Principle (c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

No threatened or priority flora species were recorded in the clearing application area during a field survey conducted in autumn and spring 2024. The survey spanned the optimal seasonal period to detect flora in the south west of WA and so is not subject to sessional limitation. Accordingly, as the application area was searched thoroughly it is considered that threatened or priority flora are absent and the proposed clearing is not at variance with Principle (c).

#### 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.

As outlined in **Section 3.5**, the flora and vegetation assessment confirmed that the plant communities identified within the application area do not represent a threatened ecological community (TEC) or priority ecological community (PEC).

As no TECs or PECs have been identified the application area, the proposed clearing is not at variance with Principle (d).

#### 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.

The clearing application area occurs in an area where a relatively large proportion of native vegetation has been retained (i.e. the Jarrah Forest). Clearing is therefore not at variance to this principle.

The native vegetation clearing area is located within the Jarrah Forest Biogeographic Regionalisation for Australia (IBRA) region. The Jarrah Forest IBRA region has approximately 53.25% of its pre-European (1750) vegetation extent remaining, of which 12.86% is protected. (Government of Western Australia 2019).

At a regional scale, vegetation complex mapping indicates the native vegetation proposed to be cleared falls within the Dwellingup D2 complex described as “Open Forest of *Eucalyptus marginata* subsp. *Marginata Corymbia calophylla* on lateritic uplands in subhumid and semiarid zones”. The Dwellingup D2 complex retains approximately 82.5 per cent of its pre-European extent (Government of Western Australia 2019). The remnant vegetation mapped within the local area (10km radius) is 54.6 percent, this is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia 2001). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.

The vegetation proposed to be cleared is in ‘good’ and ‘degraded’ condition (see **Figure 4**) and is not considered a significant remnant of native vegetation. A review of aerial imagery indicates that the application area is within proximity to extensive areas of native vegetation within 12km of the local area and its removal would not be considered significant.

The proposed clearing is not at variance with Principle (e) given the small area being cleared in the context of the remaining and protected vegetation.

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.

No Ramsar wetlands or defined rivers were identified within or near the application area based.

A review of the Geomorphic Wetlands on the Swan Coastal Plain dataset (DBCA 2020) indicates no wetlands the site or within the vicinity of the site. Given no water courses or wetlands are recorded within or adjacent to the application area, the proposed clearing is unlikely to impact an environment associated with a watercourse or wetland.

The proposed clearing is not at variance with Principle (f).

Principle (g) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

A review of soil landscape mapping (DPIRD 2019) indicates that the native vegetation under application is within the ‘Dwellingup 2 Phase’ soil unit, which is described as ‘Very gently to gently undulating terrain (<10%) with well drained, shallow to moderately deep gravelly brownish sands, pale brown sands and earthy sands overlying lateritic duricrust’ (DPIRD 2019).

Dwellingup 2 Phase soil unit is generally of low risk of land degradation. The highest risk factor is wind erosion with 70 percent of the mapped soil unit having a high to extreme risk.

Salinity mapping (DPIRD-09) indicates the application area and surrounding area is mapped as a moderate to high salinity risk or is presently saline, salinity hazard category with <3% of the area having a moderate to high surface salinity risk.

Any risk of land degradation will be mitigated through controls applied during clearing and construction processes (such as dust suppression, mulching, erosions control and silt traps as required). No watercourses or wetlands exist within the site, nor does any associated vegetation.

The proposed clearing is therefore not likely to be at variance to Principle (g).



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.

The site is not located within a bush forever area nor is it within the vicinity of any nearby bush forever or conservation areas.

The proposed clearing is not at variance to Principle (h).

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.

The area under application is located within an area classified as having no known risk of Acid Sulfate Soils occurring within 3m of the surface.

Issues that could cause a deterioration in water quality in relation to the clearing footprint have been considered as part of the design and can be managed, and therefore the proposed clearing of vegetation is not likely to cause deterioration in the quality of surface or underground water and is not likely at variance with Principle (i).

Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Given no water courses or wetlands are recorded in or adjacent to the application area, the proposed clearing is unlikely to contribute to flooding.

The proposed clearing is not likely to be at variance with Principle (j).

## **5 EPBC ACT PRE-REFERRAL CONSULTATION**

The applicant and representatives from Emerge Associates met with the Commonwealth on the 5 September 2024 to discuss the Ray Owen Reserve proposal under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). During the meeting several key areas were discussed that required consideration for self-assessment and decision whether to refer to the Department of Climate Change, Energy, Environment and Water (DCCEEW). These considerations included:

- An assessment of likely impacts to Matters of National Environmental Significance (MNES) in the Significant Impact Guidelines 1.1.
- Statutory documents for listed threatened species and ecological communities are considered and that the proposed action does not contradict recovery, conservation or threat-abatement objectives for the determined protected matters.
- An assessment whether or not the proposed action is part of a larger action or split referral (s74A of the EPBC Act).
- Planning considerations into the environmental mitigation hierarchy of: 1. Avoid; 2. Mitigate; and 3. Offset.
- We discussed that the department is not legislatively supported to track cumulative impacts of developments, however the local council has greater opportunity through regional planning to better manage local cumulative impacts such as with the development of a City black cockatoo management plan.
- Other protected matters to consider in the self-assessment including publications and resources.

It was determined from this meeting the applicant's self-assessment concluded that the proposal would not significantly impact a protected matter and therefore a referral would not be submitted, however the self-assessment documentation would be retained for DCCEEW should they request it.

The main reason for not referring the proposal under the EPBC Act is that less than 1 ha of primary foraging habitat is to be cleared and only 9 potential habitat trees with no known or potential nesting hollows are to be cleared.

## 6 SUMMARY

The clearing application area contains:

- 0.24 ha of the native plant community Cc in 'good' – 'degraded' condition.
- 0.02 ha of native plant communities Bs in 'degraded' condition.
- 0.57 ha of cleared land, with isolated trees found in the non-native plant community in 'completely degraded' condition.
- Fauna habitat, including:
  - 0.26 ha of moderate - high quality Carnaby's, Baudin's and Forest-red-tailed black cockatoo foraging habitat.
  - 9 black cockatoo habitat trees, of which 0 contain potentially suitable hollows for breeding.

A summary of the clearing principles has been provided in Table 3.

Principle (b) may be at variance, given the application area contains 5 potential habitat trees for black cockatoos and 0.26 ha of Black Cockatoo foraging habitat.

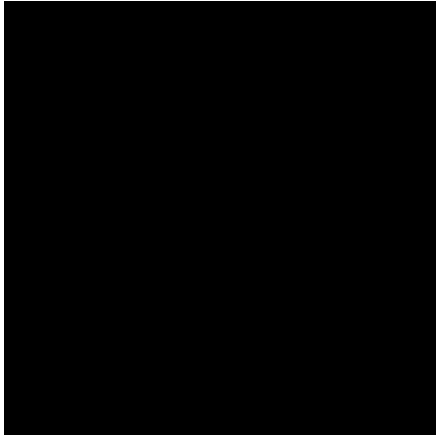
Table 3: Summary of response to each clearing principle

Clearing principle	Levels of variance	Summary of relevant response to clearing permit principle
Principle (a)	Not likely at variance	The native vegetation within the clearing area is not representative of high-level biodiversity or fauna habitat value. With the small extent of the clearing, the presence of weeds, the lack of threatened or priority flora, and the lack of high-quality fauna habitat, the native vegetation clearing area is not considered to represent a high level of biological diversity.
Principle (b)	May be at variance	Vegetation in the clearing application area provides habitat that might be considered significant for three black cockatoo species. The native vegetation to be cleared includes 0.26 ha of moderate - high quality Carnaby's, Baudin's and Forest Red-tail foraging habitat and 5 potential habitat trees.
Principle (c)	Not at variance	No state or commonwealth listed threatened or priority flora species have been recorded within the application area or are considered likely to occur given the highly degraded nature of the vegetation.
Principle (d)	Not at variance	No state or commonwealth listed threatened or priority ecological communities have been identified within the clearing area or are considered likely to occur.
Principle (e)	Not at variance	The vegetation within the application area is representative of Dwellingup D2 complex, which retains 82.5 percent of its pre-European extent. The local area retains 54.6 per cent of its original vegetation extent, which is above the 30 per cent threshold outlined in the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia 2001). Therefore, the application area is not considered to be within an extensively cleared landscape.
Principle (f)	Not at variance	There are no wetlands or watercourses within the application area, and riparian vegetation was not recorded during the Survey. Therefore, the proposed clearing is unlikely to impact on an environment associated with a watercourse or wetland.
Principle (g)	Not at variance	The application area is mapped as the Dwellingup 2 landform unit, which is mapped as having a low risk of water erosion, nutrient export, and salinity. Therefore, the proposed clearing is not likely to result in appreciable land degradation.
Principle (h)	Not at variance	The native vegetation clearing area is not located immediately adjacent to Bushforever or conservation reserves.
Principle (i)	Not at variance	Given no watercourses or wetlands are recorded within or adjacent to the application



		area, the proposed clearing is unlikely to impact on surface or groundwater quality.
Principle (j)	Not at variance	The proposed clearing is not likely to cause or exacerbate a risk of flooding given the extent of works and design measures to be implemented to manage surface water.

Should you have any questions regarding the content of this letter, please do not hesitate to contact the undersigned on [REDACTED]



Encl: Clearing Permit Application

Figure 1: Site Location and Clearing Application Area

Figure 2: Vegetation Units

Figure 3: Vegetation Condition

Figure 4: Black Cockatoo Habitat

Attachment 1 - *RO Demo drawing*

Attachment 2 - *PMST 10km radius August 5th 2024*

Attachment 3 - *Flora Species List*

## General References

Department of Agriculture, Water and the Environment (DAWE) 2022, *Referral guideline for 3 WA threatened black cockatoo species: Carnaby's Cockatoo, Baudin's Cockatoo and the Forest Red-tailed Black-cockatoo*, Canberra.

Department of Environment Regulation (DER) 2014, *A guide to the assessment of applications to clear native vegetation under Part V Division 2 of the Environmental Protection Act 1986*, Perth.

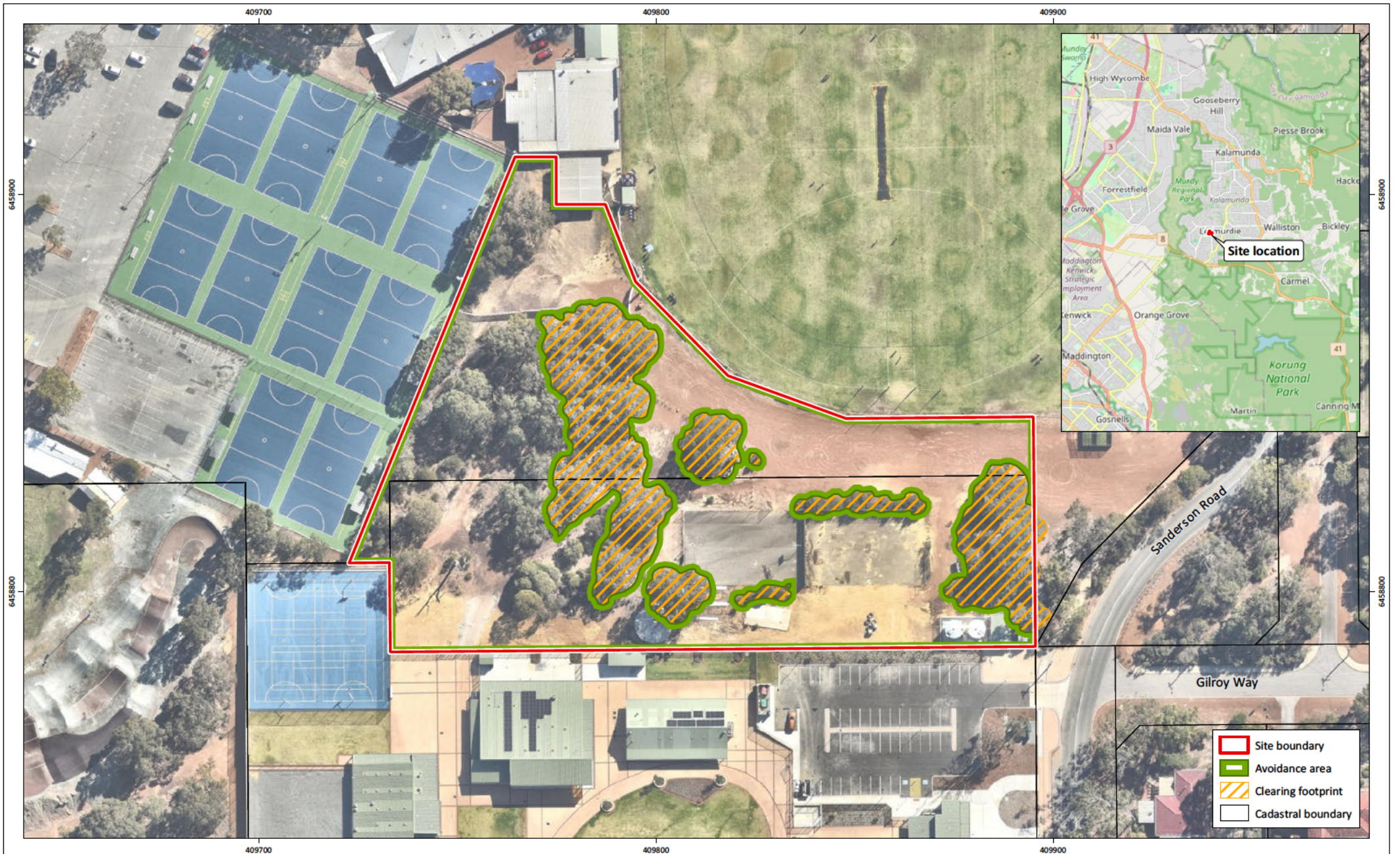
Department of the Environment and Energy (DoEE) 2016, *Modelled distribution for Carnaby's Cockatoo (Calyptorhynchus latirostris)*, Canberra.

Keighery, B. 1994, *Bushland Plant Survey: A guide to plant community survey for the community*, Wildflower Society of WA (Inc), Nedlands.

## Online References

Department of Water and Environmental Regulation (DWER) 2020c, Perth Groundwater Map, viewed July 2020, <https://maps.water.wa.gov.au/#/webmap/g>





**Figure 1: Site Location and Clearing Application Area**

**Project:** Clearing Permit Application  
Ray Owen Reserve Environmental Support  
**Client:** City of Kalamunda

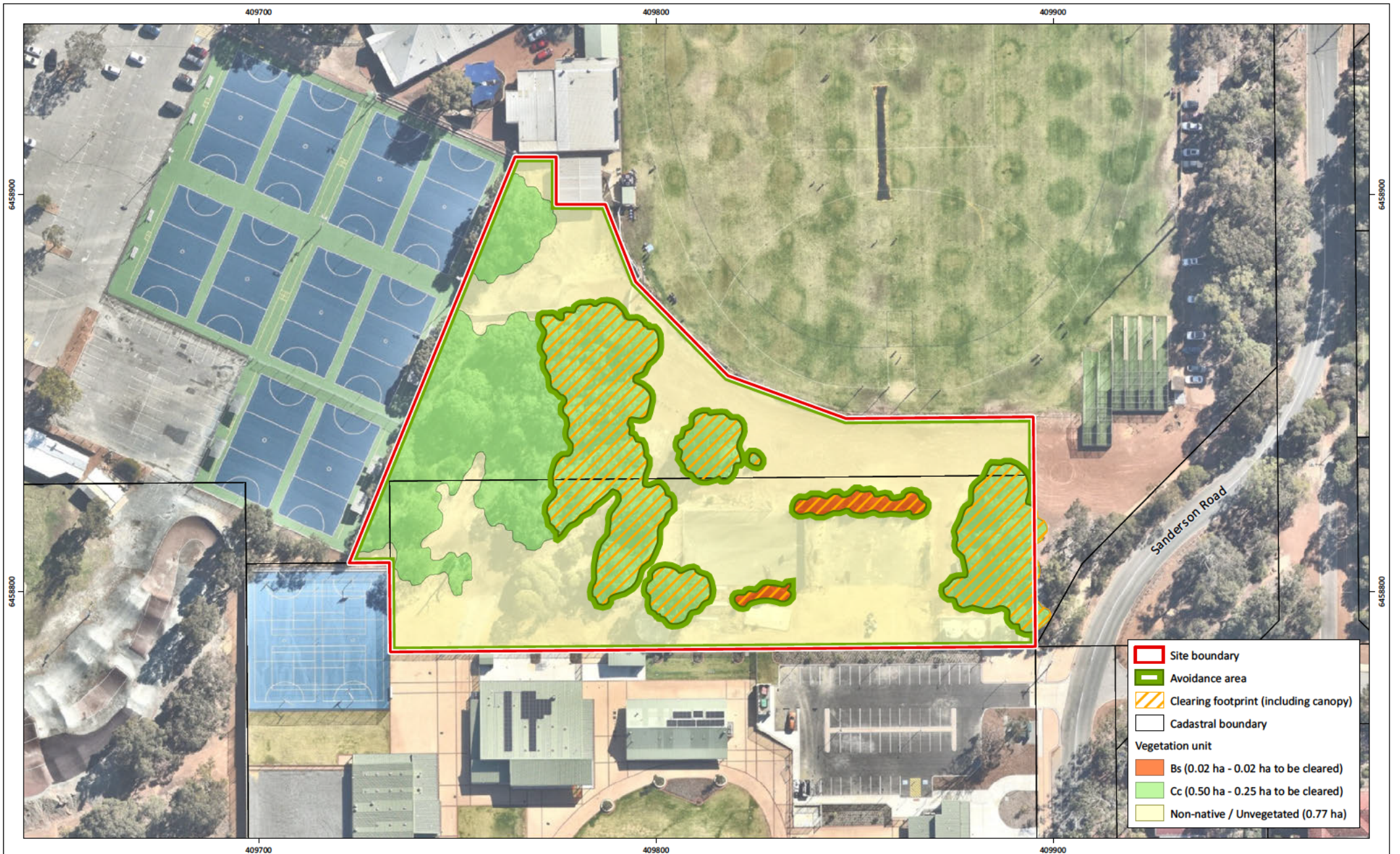
**Plan Number:**  
EP24-042(03)--F01a  
**Drawn:** GAR  
**Date:** 28/10/2024  
**Checked:** TB  
**Approved:** TB  
**Date:** 28/10/2024



0 20 40  
Metres  
Scale: 1:1,250@A4  
GDA2020 MGA Zone 50







**Figure 2: Vegetation Units**

**Project:** Clearing Permit Application  
Ray Owen Reserve Environmental Support

**Client:** City of Kalamunda

**Plan Number:**  
EP24-042(03)--F02a

**Drawn:** GAR

**Date:** 28/10/2024

**Checked:** TB

**Approved:** TB

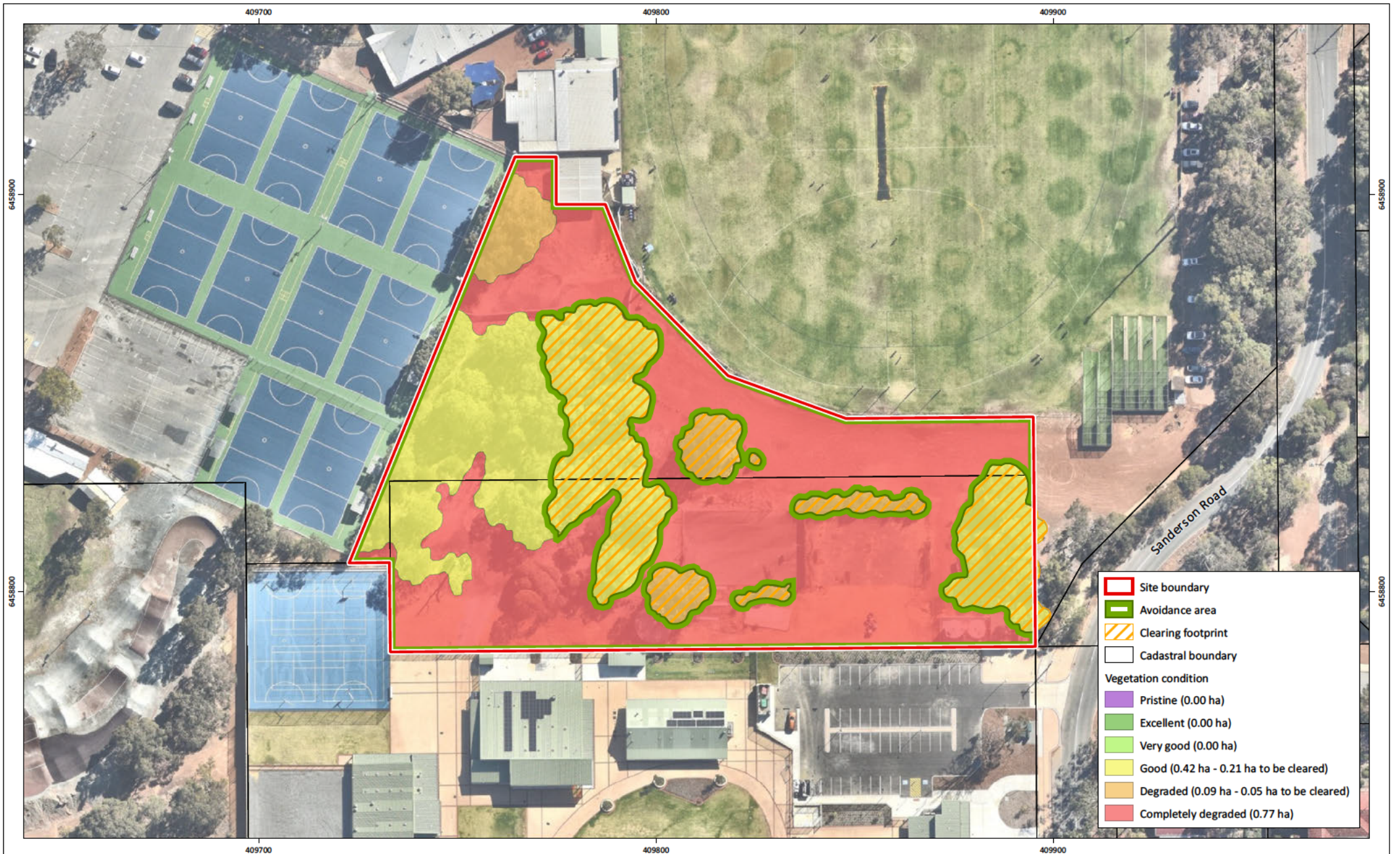
**Date:** 28/10/2024



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Metres  
Scale: 1:1,250@A4  
GDA2020 MGA Zone 50







**Figure 3: Vegetation Condition**

**Project:** Clearing Permit Application  
Ray Owen Reserve Environmental Support

**Client:** City of Kalamunda

**Plan Number:**  
EP24-042(03)--F03a

**Drawn:** GAR

**Date:** 28/10/2024

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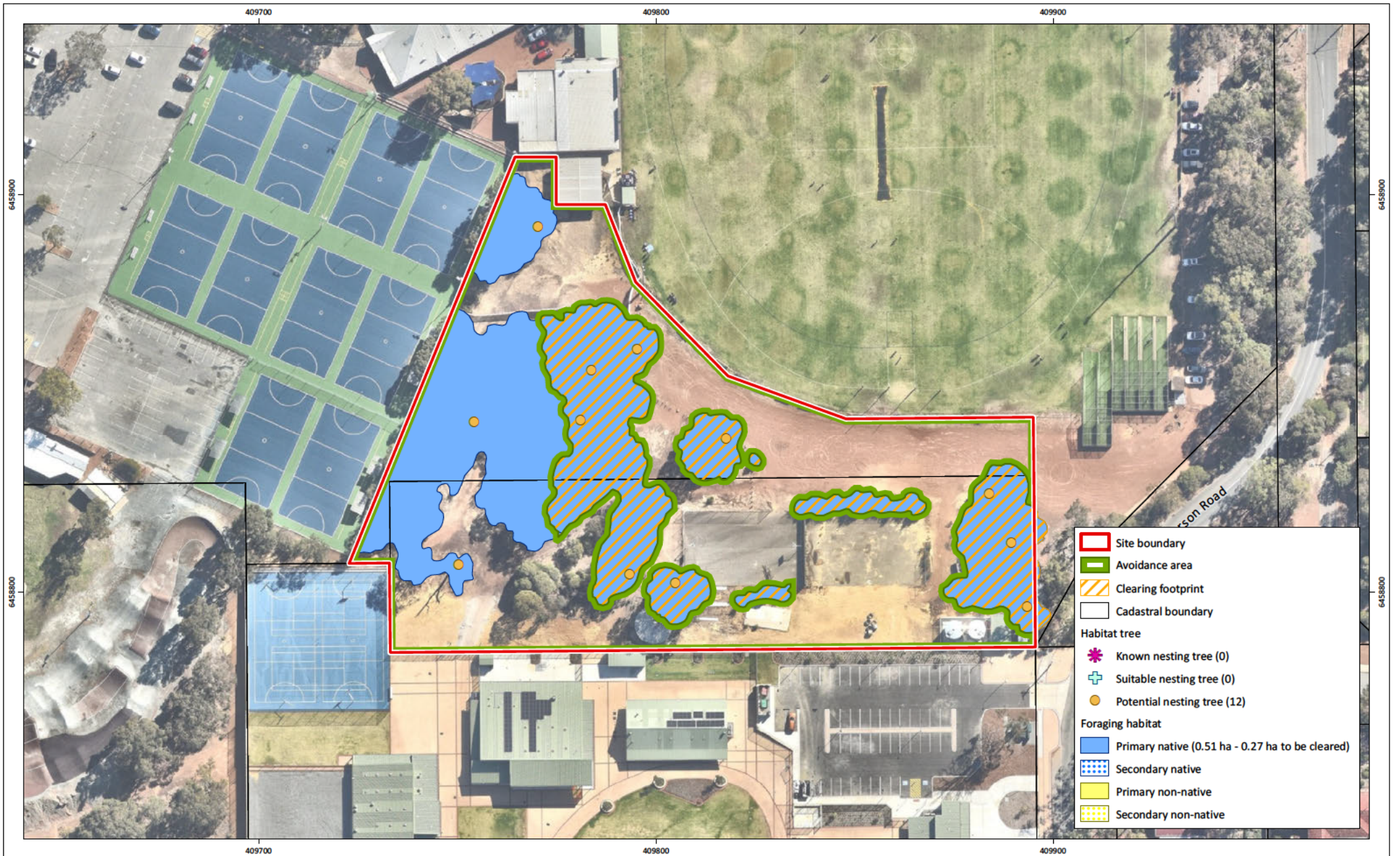
**Date:** 28/10/2024



0 20 40  
Metres  
Scale: 1:1,250@A4  
GDA2020 MGA Zone 50







**Figure 4: Black Cockatoo Habitat**

**Project:** Clearing Permit Application  
Ray Owen Reserve Environmental Support  
**Client:** City of Kalamunda

**Plan Number:**  
EP24-042(03)--F04a  
**Drawn:** GAR  
**Date:** 28/10/2024  
**Checked:** TB  
**Approved:** TB  
**Date:** 28/10/2024



0 20 40  
Metres  
Scale: 1:1,250@A4  
GDA2020 MGA Zone 50



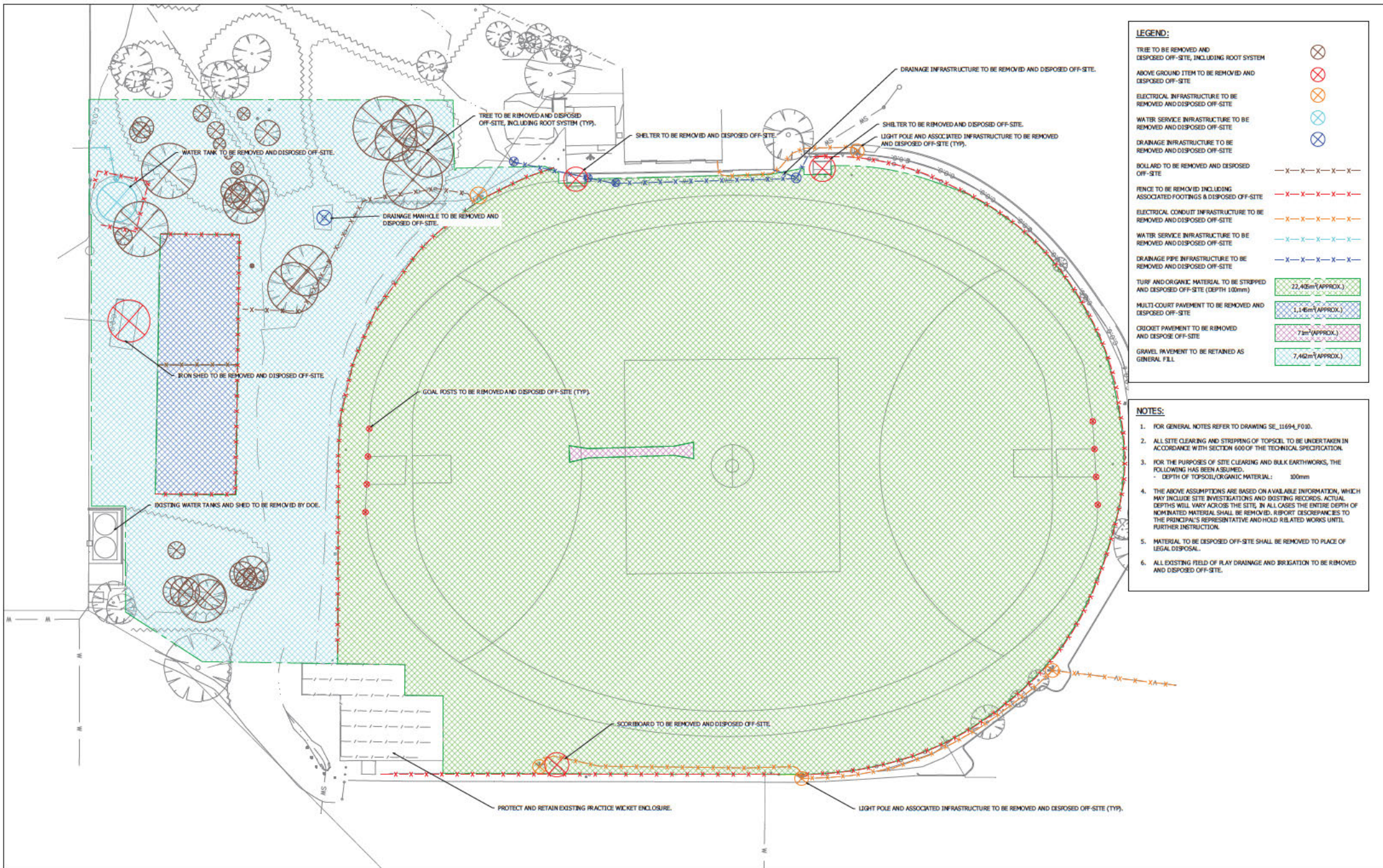


# Appendix 1

Ray Owen oval Redevelopment Site Clearing Plan (City of Kalamunda 2024)







**LEGEND:**

TREE TO BE REMOVED AND DISPOSED OFF-SITE, INCLUDING ROOT SYSTEM	⊗
ABOVE GROUND ITEM TO BE REMOVED AND DISPOSED OFF-SITE	⊗
ELECTRICAL INFRASTRUCTURE TO BE REMOVED AND DISPOSED OFF-SITE	⊗
WATER SERVICE INFRASTRUCTURE TO BE REMOVED AND DISPOSED OFF-SITE	⊗
DRAINAGE INFRASTRUCTURE TO BE REMOVED AND DISPOSED OFF-SITE	⊗
BOLLARD TO BE REMOVED AND DISPOSED OFF-SITE	-X-X-X-X-X-
FENCE TO BE REMOVED INCLUDING ASSOCIATED FOOTINGS & DISPOSED OFF-SITE	-X-X-X-X-X-
ELECTRICAL CONDUIT INFRASTRUCTURE TO BE REMOVED AND DISPOSED OFF-SITE	-X-X-X-X-X-
WATER SERVICE INFRASTRUCTURE TO BE REMOVED AND DISPOSED OFF-SITE	-X-X-X-X-X-
DRAINAGE PIPE INFRASTRUCTURE TO BE REMOVED AND DISPOSED OFF-SITE	-X-X-X-X-X-
TURF AND ORGANIC MATERIAL TO BE STRIPPED AND DISPOSED OFF-SITE (DEPTH 100mm)	22,405m <sup>2</sup> (APPROX.)
MULTI-COURT PAVEMENT TO BE REMOVED AND DISPOSED OFF-SITE	1,146m <sup>2</sup> (APPROX.)
CRICKET PAVEMENT TO BE REMOVED AND DISPOSED OFF-SITE	72m <sup>2</sup> (APPROX.)
GRAVEL PAVEMENT TO BE RETAINED AS GENERAL FILL	7,462m <sup>2</sup> (APPROX.)

- NOTES:**
- FOR GENERAL NOTES REFER TO DRAWING SE\_11694\_F100.
  - ALL SITE CLEARING AND STRIPPING OF TOPSOIL TO BE UNDERTAKEN IN ACCORDANCE WITH SECTION 600 OF THE TECHNICAL SPECIFICATION.
  - FOR THE PURPOSES OF SITE CLEARING AND BULK EARTHWORKS, THE FOLLOWING HAS BEEN ASSUMED:
    - DEPTH OF TOPSOIL/ORGANIC MATERIAL: 100mm
  - THE ABOVE ASSUMPTIONS ARE BASED ON AVAILABLE INFORMATION, WHICH MAY INCLUDE SITE INVESTIGATIONS AND EXISTING RECORDS. ACTUAL DEPTHS WILL VARY ACROSS THE SITE. IN ALL CASES THE ENTIRE DEPTH OF NOMINATED MATERIAL SHALL BE REMOVED. REPORT DISCREPANCIES TO THE PRINCIPAL'S REPRESENTATIVE AND HOLD RELATED WORKS UNTIL FURTHER INSTRUCTION.
  - MATERIAL TO BE DISPOSED OFF-SITE SHALL BE REMOVED TO PLACE OF LEGAL DISPOSAL.
  - ALL EXISTING FIELD OF PLAY DRAINAGE AND IRRIGATION TO BE REMOVED AND DISPOSED OFF-SITE.

**WARNING**  
**BEWARE OF UNDERGROUND SERVICES**  
 THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVE THEIR EXACT POSITION ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

**NOT FOR CONSTRUCTION**



P2	31/01/24	RKC	BGC	JDH	PRELIMINARY ISSUE
PI	13/12/23	RKC	BGC	JDH	PRELIMINARY ISSUE
Issue	Date	By	Chkd	Appd	Description

Job Title  
**RAY OWEN OVAL REDEVELOPMENT**  
 Discipline  
 Drawing Title  
**SITE CLEARING LAYOUT PLAN**

0	5m	10m	15m	20m	25m
SCALE 1:400 @ A1					
FIELD OF PLAY					
Drawing Status					
PRELIMINARY					
Drawing Number					
SE_11694_F100					
Issue					
P2					



# Appendix 2

EPBC Act Protected Matters Report (DCCEEW 2024)





# EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 05-Aug-2024

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



# Summary

## Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar)</a>	1
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	6
<a href="#">Listed Threatened Species:</a>	53
<a href="#">Listed Migratory Species:</a>	10

## Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

<a href="#">Commonwealth Lands:</a>	241
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	15
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	None

## Extra Information

This part of the report provides information that may also be relevant to the area you have

<a href="#">State and Territory Reserves:</a>	19
<a href="#">Regional Forest Agreements:</a>	1
<a href="#">Nationally Important Wetlands:</a>	2
<a href="#">EPBC Act Referrals:</a>	45
<a href="#">Key Ecological Features (Marine):</a>	None
<a href="#">Biologically Important Areas:</a>	None
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None

# Details

## Matters of National Environmental Significance

### Wetlands of International Importance (Ramsar Wetlands) [\[ Resource Information \]](#)

Ramsar Site Name	Proximity	Buffer Status
<a href="#">Forrestdale and thomsons lakes</a>	Within 10km of Ramsar site	In buffer area only

### Listed Threatened Ecological Communities [\[ Resource Information \]](#)

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Banksia Woodlands of the Swan Coastal Plain ecological community</a>	Endangered	Community likely to occur within area	In feature area
<a href="#">Clay Pans of the Swan Coastal Plain</a>	Critically Endangered	Community likely to occur within area	In buffer area only
<a href="#">Corymbia calophylla - Kingia australis woodlands on heavy soils of the Swan Coastal Plain</a>	Endangered	Community known to occur within area	In buffer area only
<a href="#">Empodisma peatlands of southwestern Australia</a>	Endangered	Community may occur within area	In buffer area only
<a href="#">Shrublands and Woodlands of the eastern Swan Coastal Plain</a>	Endangered	Community known to occur within area	In buffer area only
<a href="#">Tuart (Eucalyptus gomphocephala) Woodlands and Forests of the Swan Coastal Plain ecological community</a>	Critically Endangered	Community may occur within area	In buffer area only

### Listed Threatened Species [\[ Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.

Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
<b>BIRD</b>			
<a href="#">Botaurus poiciloptilus</a>	Endangered	Species or species habitat likely to occur within area	In feature area
Australasian Bittern [1001]			

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Calyptorhynchus banksii naso</a> Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Leipoa ocellata</a> Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Sternula nereis nereis</a> Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Zanda baudinii listed as Calyptorhynchus baudinii</a> Baudin's Cockatoo, Baudin's Black-Cockatoo, Long-billed Black-cockatoo [87736]	Endangered	Roosting known to occur within area	In feature area
<a href="#">Zanda latirostris listed as Calyptorhynchus latirostris</a> Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Breeding known to occur within area	In feature area

## INSECT

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Leioproctus douglasiellus</a> a short-tongued bee [66756]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
<b>MAMMAL</b>			
<a href="#">Bettongia penicillata ogilbyi</a> Woylie [66844]	Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Dasyurus geoffroii</a> Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Myrmecobius fasciatus</a> Numbat [294]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Pseudocheirus occidentalis</a> Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Setonix brachyurus</a> Quokka [229]	Vulnerable	Species or species habitat known to occur within area	In feature area
<b>OTHER</b>			
<a href="#">Westralunio carteri</a> Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
<b>PLANT</b>			
<a href="#">Acacia anomala</a> Grass Wattle, Chittering Grass Wattle [8153]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Acacia aphylla</a> Leafless Rock Wattle [13553]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Andersonia gracilis</a> Slender Andersonia [14470]	Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Anthocercis gracilis</a> Slender Tailflower [11103]	Vulnerable	Species or species habitat known to occur within area	In buffer area only



Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Austrostipa bronweniae listed as Austrostipa bronwenae</a> [92773]	Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Banksia mimica</a> Summer Honeypot [82765]	Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Caladenia huegelii</a> King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid [7309]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Calytrix breviseta subsp. breviseta</a> Swamp Starflower [23879]	Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Chamelaucium lullfitzii listed as Chamelaucium sp. Gingin (N.G.Marchant 6)</a> Gingin Wax [92777]	Endangered (listed as Chamelaucium sp. Gingin)	Species or species habitat may occur within area	In buffer area only
<a href="#">Conospermum undulatum</a> Wavy-leaved Smokebush [24435]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Darwinia apiculata</a> Scarp Darwinia [8763]	Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Diplolaena andrewsii</a> [6601]	Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Diuris drummondii</a> Tall Donkey Orchid [4365]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Diuris micrantha</a> Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Diuris purdiei</a> Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Drakaea elastica</a> Glossy-leafed Hammer Orchid, Glossy-leafed Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Drakaea micrantha</a> Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Eleocharis keigheryi</a> Keighery's Eleocharis [64893]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
<a href="#">Eremophila glabra subsp. chlorella</a> [84927]	Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Eucalyptus x balanites</a> Cadda Road Mallee, Cadda Mallee [87816]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Goodenia arthrotricha</a> [12448]	Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Grevillea christineae</a> Christine's Grevillea [64520]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Grevillea curviloba subsp. incurva</a> Narrow curved-leaf Grevillea [64909]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Grevillea flexuosa</a> Zig Zag Grevillea [2957]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Grevillea thelemanniana</a> Spider Net Grevillea [32835]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Lepidosperma rostratum</a> Beaked Lepidosperma [14152]	Endangered	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Macarthuria keigheryi</a> Keighery's Macarthuria [64930]	Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Morelotia australiensis listed as Tetraria australiensis</a> Southern Tetraria [92784]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Ptilotus pyramidatus</a> Pyramid Mulla-mulla [18216]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Synaphea sp. Fairbridge Farm (D.Papenfus 696)</a> Selena's Synaphea [82881]	Critically Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Synaphea sp. Pinjarra Plain (A.S.George 17182)</a> [86878]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Synaphea sp. Serpentine (G.R.Brand 103)</a> [86879]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Thelymitra dedmaniarum</a> Cinnamon Sun Orchid [65105]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Thelymitra stellata</a> Star Sun-orchid [7060]	Endangered	Species or species habitat known to occur within area	In feature area

### Listed Migratory Species [\[ Resource Information \]](#)

Scientific Name	Threatened Category	Presence Text	Buffer Status
<b>Migratory Marine Birds</b>			
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
<b>Migratory Terrestrial Species</b>			
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
<b>Migratory Wetlands Species</b>			

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat likely to occur within area	In feature area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area

## Other Matters Protected by the EPBC Act

### Commonwealth Lands [\[ Resource Information \]](#)

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
<b>Defence</b>		
Defence - AIRTC CANNINGTON [50233]	WA	In buffer area only
Defence - AIRTC CANNINGTON [50230]	WA	In buffer area only
Defence - AIRTC CANNINGTON [50232]	WA	In buffer area only



Commonwealth Land Name	State	Buffer Status
Defence - AIRTC CANNINGTON [50231]	WA	In buffer area only
Defence - AIRTC CANNINGTON [50229]	WA	In buffer area only
Defence - BUSHMEAD RIFLE RANGE [50143]	WA	In buffer area only
Defence - BUSHMEAD TRAINING AREA [50259]	WA	In buffer area only
Defence - BUSHMEAD TRAINING AREA [50258]	WA	In buffer area only
Defence - BUSHMEAD TRAINING AREA [50260]	WA	In buffer area only
Defence - PALMER BARRACKS - SOUTH GUILDFORD [50180]	WA	In buffer area only
Defence - PALMER BARRACKS - SOUTH GUILDFORD [50178]	WA	In buffer area only
Defence - PALMER BARRACKS - SOUTH GUILDFORD [50179]	WA	In buffer area only
Defence - PALMER BARRACKS - SOUTH GUILDFORD [50177]	WA	In buffer area only
Defence - PALMER BARRACKS - SOUTH GUILDFORD [50176]	WA	In buffer area only
<b>Unknown</b>		
Commonwealth Land - [51917]	WA	In buffer area only
Commonwealth Land - [51916]	WA	In buffer area only
Commonwealth Land - [51915]	WA	In buffer area only
Commonwealth Land - [51914]	WA	In buffer area only
Commonwealth Land - [51913]	WA	In buffer area only
Commonwealth Land - [51912]	WA	In buffer area only
Commonwealth Land - [51910]	WA	In buffer area only
Commonwealth Land - [51911]	WA	In buffer area only
Commonwealth Land - [51228]	WA	In buffer area only
Commonwealth Land - [51229]	WA	In buffer area only
Commonwealth Land - [51349]	WA	In buffer area only
Commonwealth Land - [51348]	WA	In buffer area only
Commonwealth Land - [51323]	WA	In buffer area only
Commonwealth Land - [50849]	WA	In buffer area only
Commonwealth Land - [51342]	WA	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [51243]	WA	In buffer area only
Commonwealth Land - [51355]	WA	In buffer area only
Commonwealth Land - [51322]	WA	In buffer area only
Commonwealth Land - [51356]	WA	In buffer area only
Commonwealth Land - [51321]	WA	In buffer area only
Commonwealth Land - [51180]	WA	In buffer area only
Commonwealth Land - [51320]	WA	In buffer area only
Commonwealth Land - [51354]	WA	In buffer area only
Commonwealth Land - [51327]	WA	In buffer area only
Commonwealth Land - [51357]	WA	In buffer area only
Commonwealth Land - [51245]	WA	In buffer area only
Commonwealth Land - [51352]	WA	In buffer area only
Commonwealth Land - [51353]	WA	In buffer area only
Commonwealth Land - [51350]	WA	In buffer area only
Commonwealth Land - [51918]	WA	In buffer area only
Commonwealth Land - [51325]	WA	In buffer area only
Commonwealth Land - [51324]	WA	In buffer area only
Commonwealth Land - [51326]	WA	In buffer area only
Commonwealth Land - [50844]	WA	In buffer area only
Commonwealth Land - [51525]	WA	In buffer area only
Commonwealth Land - [50843]	WA	In buffer area only
Commonwealth Land - [51328]	WA	In buffer area only
Commonwealth Land - [51526]	WA	In buffer area only
Commonwealth Land - [51337]	WA	In buffer area only
Commonwealth Land - [51336]	WA	In buffer area only
Commonwealth Land - [51335]	WA	In buffer area only
Commonwealth Land - [51334]	WA	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [51358]	WA	In buffer area only
Commonwealth Land - [51359]	WA	In buffer area only
Commonwealth Land - [51332]	WA	In buffer area only
Commonwealth Land - [51333]	WA	In buffer area only
Commonwealth Land - [51330]	WA	In buffer area only
Commonwealth Land - [51523]	WA	In buffer area only
Commonwealth Land - [51528]	WA	In buffer area only
Commonwealth Land - [51276]	WA	In buffer area only
Commonwealth Land - [51231]	WA	In buffer area only
Commonwealth Land - [51230]	WA	In buffer area only
Commonwealth Land - [51233]	WA	In buffer area only
Commonwealth Land - [51232]	WA	In buffer area only
Commonwealth Land - [51235]	WA	In buffer area only
Commonwealth Land - [51234]	WA	In buffer area only
Commonwealth Land - [51909]	WA	In buffer area only
Commonwealth Land - [51237]	WA	In buffer area only
Commonwealth Land - [51199]	WA	In buffer area only
Commonwealth Land - [51908]	WA	In buffer area only
Commonwealth Land - [51338]	WA	In buffer area only
Commonwealth Land - [51339]	WA	In buffer area only
Commonwealth Land - [51197]	WA	In buffer area only
Commonwealth Land - [51198]	WA	In buffer area only
Commonwealth Land - [51907]	WA	In buffer area only
Commonwealth Land - [50850]	WA	In buffer area only
Commonwealth Land - [51284]	WA	In buffer area only
Commonwealth Land - [51293]	WA	In buffer area only
Commonwealth Land - [51283]	WA	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [50873]	WA	In buffer area only
Commonwealth Land - [51282]	WA	In buffer area only
Commonwealth Land - [50874]	WA	In buffer area only
Commonwealth Land - [50872]	WA	In buffer area only
Commonwealth Land - [51218]	WA	In buffer area only
Commonwealth Land - [50870]	WA	In buffer area only
Commonwealth Land - [51292]	WA	In buffer area only
Commonwealth Land - [51291]	WA	In buffer area only
Commonwealth Land - [51287]	WA	In buffer area only
Commonwealth Land - [51329]	WA	In buffer area only
Commonwealth Land - [51285]	WA	In buffer area only
Commonwealth Land - [51286]	WA	In buffer area only
Commonwealth Land - [51274]	WA	In buffer area only
Commonwealth Land - [51277]	WA	In buffer area only
Commonwealth Land - [51207]	WA	In buffer area only
Commonwealth Land - [51275]	WA	In buffer area only
Commonwealth Land - [51204]	WA	In buffer area only
Commonwealth Land - [51971]	WA	In buffer area only
Commonwealth Land - [51305]	WA	In buffer area only
Commonwealth Land - [51206]	WA	In buffer area only
Commonwealth Land - [51190]	WA	In buffer area only
Commonwealth Land - [51205]	WA	In buffer area only
Commonwealth Land - [51191]	WA	In buffer area only
Commonwealth Land - [51307]	WA	In buffer area only
Commonwealth Land - [51297]	WA	In buffer area only
Commonwealth Land - [51304]	WA	In buffer area only
Commonwealth Land - [51296]	WA	In buffer area only



Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [51295]	WA	In buffer area only
Commonwealth Land - [51306]	WA	In buffer area only
Commonwealth Land - [51294]	WA	In buffer area only
Commonwealth Land - [51192]	WA	In buffer area only
Commonwealth Land - [51201]	WA	In buffer area only
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Commonwealth Land - [51193]	WA	In buffer area only
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Commonwealth Land Name	State	Buffer Status
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Commonwealth Land Name	State	Buffer Status
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Commonwealth Land - [51314]	WA	In buffer area only
Commonwealth Land - [51313]	WA	In buffer area only

Commonwealth Land Name	State	Buffer Status
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Commonwealth Land - [50866]	WA	In buffer area only
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Commonwealth Land - [51248]	WA	In buffer area only
Commonwealth Land - [50860]	WA	In buffer area only
Commonwealth Land - [51244]	WA	In buffer area only
Commonwealth Land - [51249]	WA	In buffer area only

Listed Marine Species			[ <a href="#">Resource Information</a> ]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			



Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Bubulcus ibis as Ardea ibis</a> Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
<a href="#">Rostratula australis as Rostratula benghalensis (sensu lato)</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Thinornis cucullatus as Thinornis rubricollis</a> Hooded Plover, Hooded Dotterel [87735]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

## Extra Information

State and Territory Reserves			[ Resource Information ]
Protected Area Name	Reserve Type	State	Buffer Status
Beelu	National Park	WA	In buffer area only
Canning River	Management Area	WA	In buffer area only
Dundas Road	Nature Reserve	WA	In buffer area only
Gooseberry Hill	National Park	WA	In buffer area only
Greenmount	National Park	WA	In buffer area only
Helena River	Management Area	WA	In buffer area only
John Forrest	National Park	WA	In buffer area only
Kalamunda	National Park	WA	In buffer area only
Kenwick Wetlands	Nature Reserve	WA	In buffer area only
Korung	National Park	WA	In buffer area only
Lesmurdie Falls	National Park	WA	In buffer area only

Protected Area Name	Reserve Type	State	Buffer Status
NTWA Bushland covenant (0074)	Conservation Covenant	WA	In buffer area only
Unnamed WA23076	Nature Reserve	WA	In buffer area only
Unnamed WA24657	Conservation Park	WA	In buffer area only
Unnamed WA29815	5(1)(h) Reserve	WA	In buffer area only
Unnamed WA37997	Nature Reserve	WA	In buffer area only
Unnamed WA45106	5(1)(g) Reserve	WA	In buffer area only
Unnamed WA49079	Nature Reserve	WA	In buffer area only
Unnamed WA49363	Conservation Park	WA	In buffer area only

### Regional Forest Agreements [\[ Resource Information \]](#)

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
<a href="#">South West WA RFA</a>	Western Australia	In feature area

### Nationally Important Wetlands [\[ Resource Information \]](#)

Wetland Name	State	Buffer Status
<a href="#">Brixton Street Swamps</a>	WA	In buffer area only
<a href="#">Perth Airport Woodland Swamps</a>	WA	In buffer area only

### EPBC Act Referrals [\[ Resource Information \]](#)

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
<a href="#">Fruit Orchard Expansion Project</a>	2022/09315		Completed	In buffer area only
<a href="#">Industrial Development MKSEA Precinct 1</a>	2023/09760		Completed	In buffer area only
<a href="#">Residential subdivision of Lot 126 Lawnbrook Road, Walliston</a>	2021/9105		Completed	In buffer area only
<a href="#">Roe Highway and Great Eastern Highway Bypass Grade Separation Interchange, Hazelmere WA</a>	2020/8784		Post-Approval	In buffer area only
<a href="#">Southern Link Road Stage 3 City of Canning</a>	2020/8809		Assessment	In buffer area only
<a href="#">Talbot Road Asbestos Water Supply Pipe Decommissioning Project</a>	2023/09661		Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
<b>Controlled action</b>				
<a href="#">Airport &amp; Freight Access Gateway</a>	2010/5384	Controlled Action	Post-Approval	In buffer area only
<a href="#">Bushmead Residential Development, Hazelmere, WA</a>	2015/7414	Controlled Action	Post-Approval	In buffer area only
<a href="#">Clearing for orchard expansion, Lot 400 Canning Road, Carmel, WA</a>	2016/7647	Controlled Action	Completed	In buffer area only
<a href="#">Construction of Residential Dwelling, Ozone Terrace, Kalamunda</a>	2006/3147	Controlled Action	Post-Approval	In buffer area only
<a href="#">Development of an Integrated Aged Care Facility, Kalumunda, WA</a>	2013/6990	Controlled Action	Completed	In buffer area only
<a href="#">National Lifestyle Village, Lot 97 Adelaide Street</a>	2009/5141	Controlled Action	Post-Approval	In buffer area only
<a href="#">Native vegetation clearing of Lot 21 Webster Road for Industrial Development</a>	2011/6186	Controlled Action	Post-Approval	In buffer area only
<a href="#">Natural Gas Pipeline Expansion</a>	2006/2813	Controlled Action	Post-Approval	In buffer area only
<a href="#">Nava-1 Cable System</a>	2001/510	Controlled Action	Completed	In buffer area only
<a href="#">Roe Highway and Kalamunda Road Interchange upgrade, WA</a>	2018/8316	Controlled Action	Post-Approval	In buffer area only
<a href="#">Thornlie-Cockburn Link Project, WA</a>	2018/8188	Controlled Action	Post-Approval	In buffer area only
<a href="#">Tonkin Highway Grade Separated Interchanges</a>	2019/8529	Controlled Action	Post-Approval	In buffer area only
<b>Not controlled action</b>				
<a href="#">Berkshire Road and Roe Highway Interchange, Forrestfield, East Perth, WA</a>	2014/7243	Not Controlled Action	Completed	In buffer area only
<a href="#">Burslem Drive Bridge Duplication Over Canning River, Maddington, WA</a>	2014/7115	Not Controlled Action	Completed	In buffer area only
<a href="#">Canning Mills Road Improvement Project, Martin, WA</a>	2015/7426	Not Controlled Action	Completed	In buffer area only
<a href="#">Clearing of Lot 400 Canning Road, Carmel, WA</a>	2017/7979	Not Controlled Action	Completed	In buffer area only
<a href="#">Commercial development of Lot 106 Wright Road, Forrestdale WA</a>	2003/1255	Not Controlled Action	Completed	In buffer area only



Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
<b>Not controlled action</b>				
<a href="#">Community Centre Project, Kalamunda, WA</a>	2019/8473	Not Controlled Action	Completed	In buffer area only
<a href="#">Construction of international rowing course and commercial/residential areas</a>	2003/1034	Not Controlled Action	Completed	In buffer area only
<a href="#">Eradication of the European House Borer, Perth metropolitan area, WA</a>	2009/5027	Not Controlled Action	Completed	In feature area
<a href="#">Forrestfield Airport Link, WA</a>	2015/7399	Not Controlled Action	Completed	In buffer area only
<a href="#">Hartfield Park Sporting Field Extension</a>	2013/7008	Not Controlled Action	Completed	In buffer area only
<a href="#">Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia</a>	2015/7522	Not Controlled Action	Completed	In feature area
<a href="#">INDIGO Central Submarine Telecommunications Cable</a>	2017/8127	Not Controlled Action	Completed	In feature area
<a href="#">Industrial Development (multiple lots) Edward Street, Kenwick, WA</a>	2018/8231	Not Controlled Action	Completed	In buffer area only
<a href="#">Pipeline Extension, Hazelmere and Helena Valley, WA</a>	2018/8239	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential Development - Lot 608 Dixon Road, Kalamundah, WA</a>	2014/7389	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential development of Lots 302, 308, 320 and part of Lot 9502, Hawtin Rd, Forrestfield, WA</a>	2016/7770	Not Controlled Action	Completed	In buffer area only
<a href="#">Ridge Hill Road intersection modification and offsite water main installation, Gooseberry Hill, WA</a>	2020/8842	Not Controlled Action	Completed	In buffer area only
<a href="#">Roe Highway Noise Wall, High Wycombe, WA</a>	2014/7149	Not Controlled Action	Completed	In buffer area only
<a href="#">To develop a residential development at Glyde Road, Lesmurdie, WA</a>	2013/7096	Not Controlled Action	Completed	In buffer area only
<a href="#">Tonkin Highway Extension</a>	2001/470	Not Controlled Action	Completed	In buffer area only
<a href="#">Wungong Transfer Mains Project</a>	2007/3532	Not Controlled Action	Completed	In buffer area only
<a href="#">Yule Brook Main Drain Flood Mitigation Works</a>	2019/8572	Not Controlled Action	Completed	In buffer area only
<b>Not controlled action (particular manner)</b>				

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
<b>Not controlled action (particular manner)</b>				
<a href="#">Commercial Estate and Aeronautical Infrastructure Development, Precincts 2A &amp; 2B</a>	2006/3021	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
<a href="#">INDIGO Marine Cable Route Survey (INDIGO)</a>	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
<a href="#">South West Metropolitan Railway Project</a>	2003/1175	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
<a href="#">State Football Centre</a>	2020/8824	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
<b>Referral decision</b>				
<a href="#">Commercial development of Lot 414 Grove Road, Kenwick</a>	2021/9022	Referral Decision	Referral Publication	In buffer area only

# Caveat

## 1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

## 2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

## 3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

## 4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

# Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Department of Land and Resource Management, Northern Territory](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- [-Natural history museums of Australia](#)
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- [-Australian Tropical Herbarium, Cairns](#)
- [-eBird Australia](#)
- [-Australian Government – Australian Antarctic Data Centre](#)
- [-Museum and Art Gallery of the Northern Territory](#)
- [-Australian Government National Environmental Science Program](#)
- [-Australian Institute of Marine Science](#)
- [-Reef Life Survey Australia](#)
- [-American Museum of Natural History](#)
- [-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [-Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- [-Other groups and individuals](#)

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact us](#) page.

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Department of Climate Change, Energy, the Environment and Water

GPO Box 3090

Canberra ACT 2601 Australia

+61 2 6274 1111



# Appendix 3

Flora Species List (Emerge 2024)



Family	Status	Species
<u>Apiaceae</u>		<i>Xanthosia atkinsoniana</i>
<u>Araliaceae</u>		<i>Trachymene pilosa</i>
<u>Asparagaceae</u>	*	<i>Asparagus asparagoides</i> <i>Laxmannia squarrosa</i> <i>Lomandra ?caespitosa</i> <i>Lomandra hermaphrodita</i> <i>Lomandra sericea</i> <i>Lomandra sonderi</i> <i>Thysanotus ?sparteus</i>
<u>Asteraceae</u>		<i>Asteraceae</i> sp.
	*	<i>Hypochaeris glabra</i> <i>Pterochaeta paniculata</i>
	*	<i>Ursinia anthemoides</i>
<u>Casuarinaceae</u>		<i>Allocasuarina fraseriana</i>
<u>Colchicaceae</u>		<i>Burchardia congesta</i>
<u>Cyperaceae</u>		<i>Lepidosperma ?pubisquameum</i> <i>Lepidosperma leptostachyum</i>
<u>Dilleniaceae</u>		<i>Hibbertia hypericoides</i>
<u>Droseraceae</u>		<i>Drosera erythrorhiza</i> <i>Drosera stolonifera</i>
<u>Ericaceae</u>		<i>Styphelia ?pallida</i>
<u>Fabaceae</u>	*	<i>Acacia decurrens</i> <i>Acacia extensa</i> * <i>Acacia floribunda</i> * <i>Acacia iteaphylla</i> * <i>Acacia longifolia</i> * <i>Acacia podalyriifolia</i> <i>Acacia pulchella</i> * <i>Acacia pycnantha</i> <i>Acacia barbinervis</i> <i>Bossiaea ornata</i> * <i>Cytisus proliferus</i> <i>Gompholobium marginatum</i> <i>Hardenbergia comptoniana</i> <i>Hovea trisperma</i> var. <i>grandiflora</i> * <i>Trifolium angustifolium</i>

<u>Goodeniaceae</u>		<i>Lechenaultia biloba</i>
		<i>Scaevola calliptera</i>
<u>Haemodoraceae</u>		<i>Conostylis setigera</i>
		<i>Conostylis setosa</i>
		<i>Haemodorum laxum</i>
<u>Haloragaceae</u>		<i>Gonocarpus pithyoides</i>
<u>Hemerocallidaceae</u>		<i>Agrostocrinum hirsutum</i>
		<i>Chamaescilla corymbosa</i>
		<i>Dianella revoluta</i>
<u>Iridaceae</u>		<i>Freesia</i> sp.
		<i>Gladiolus undulata</i>
	*	<i>Romulea rosea</i>
<u>Lauraceae</u>		<i>Cassytha racemosa</i>
<u>Myrtaceae</u>		<i>Babingtonia camphorosmae</i>
		<i>Corymbia calophylla</i>
	*, PI	<i>Eucalyptus ?camaldulensis</i>
	*, PI	<i>Eucalyptus ?leucopogon</i>
	*, PI	<i>Eucalyptus lehmannii</i>
		<i>Eucalyptus marginata</i>
	*, PI	<i>Eucalyptus utilis</i>
	*, PI	<i>Melaleuca armillaris</i>
<u>Orchidaceae</u>		<i>Eriochilus dilatatus</i>
		<i>Thelymitra ?macrophylla</i>
<u>Oxalidaceae</u>	*	<i>Oxalis glabra</i>
<u>Pittosporaceae</u>		<i>Billardiera ?fusiformis</i>
<u>Plantaginaceae</u>	*	<i>Plantago lanceolata</i>
<u>Poaceae</u>		<i>Avena</i> sp.
	*	<i>Briza maxima</i>
	*	<i>Cenchrus clandestinum</i>
	*	<i>Ehrharta calycina</i>
	*	<i>Eragrostis curvula</i>
		<i>Neurachne apercluroidea</i>
<u>Proteaceae</u>		<i>Banksia dallanneyi</i>
		<i>Banksia sessilis</i>
	*	<i>Grevillea robusta</i>
		<i>Grevillea wilsonii</i>

<u>Restionaceae</u>	<i>Hakea stenocarpa</i> <i>Hakea amplexicaulis</i> <i>Petrophile macrostachya</i>
<u>Rhamnaceae</u>	<i>Desmocladus fasciculatus</i> <i>Loxocarya cinerea</i>
<u>Stylidiaceae</u>	<i>Trymalium ledifolium</i> var. <i>rosmarinifolium</i> <i>Stylidium piliferum</i> <i>Stylidium repens</i> <i>Stylidium ?dichotomum</i>
<u>Xanthorrhoeaceae</u>	<i>Xanthorrhoea preissii</i>

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\*=non-native, Pl=planted

