

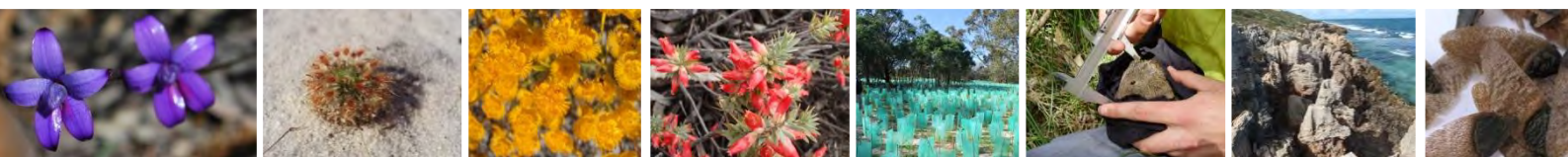


Natural Area
CONSULTING MANAGEMENT SERVICES

City of Wanneroo

Flynn Drive Orchid Survey Spring 2024

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Acknowledgement of Country

Ngala kaaditj Noongar moort keyen kaadak nidja boodja.

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Executive Summary

Natural Area Consulting Management Services (Natural Area) was commissioned by the City of Wanneroo (the City) to undertake a targeted flora survey along a section of Flynn Drive. The survey targeted three conservation significant flora species listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and *Biodiversity Conservation Act 2016* (BC Act):

- *Caladenia huegelii* (Grand Spider Orchid) (Endangered - EPBC Act; Threatened/Critically Endangered - BC Act)
- *Diuris micrantha* (Dwarf Bee Orchid) (Vulnerable - EPBC Act; Threatened/Vulnerable - BC Act)
- *Drakaea elastica* (Glossy-leaved Hammer Orchid) (Endangered - EPBC Act; Threatened/Critically Endangered - BC Act).

The results of this survey will assist in determining the presence of these orchid species prior to proposed road upgrades along Flynn Dr.

The scope of works undertaken by Natural Area included:

- Conducting a systematic grid search of three target species: *Caladenia huegelii* (Grand Spider Orchid), *Diuris micrantha* (Dwarf Bee Orchid), and *Drakaea elastica* (Glossy-leaved Hammer Orchid) using 5 m wide transects.
- Mapping the occurrence, abundance and location of target species.
- Recording tracklogs of areas searched.

The results of the targeted survey confirmed:

- No recorded presence of the three target species.
- Six genera of Orchidaceae recorded on site.
- *Caladenia* and *Diuris* spp. present on site were only identified down to genus level due to seasonal floral senescence; however, measurements of available morphological characteristics of these populations did not meet the criteria for *Caladenia huegelii* (Grand Spider Orchid) or *Diuris micrantha* (Dwarf Bee Orchid).

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1.0 Introduction

Natural Area Consulting Management Services (Natural Area) was commissioned by the City of Wanneroo (the City) to undertake a targeted flora survey along a section of Flynn Drive. The survey targeted three conservation significant species: *Caladenia huegelii* (Grand Spider Orchid), *Diuris micrantha* (Dwarf Bee Orchid), and *Drakaea elastica* (Glossy-leaved Hammer Orchid). The results of this survey will assist in determining the presence of these orchid species prior to proposed road upgrades along Flynn Dr.

1.1 Location

The survey site is located along a section of Flynn Dr and spans approximately 3 km of roadside vegetation on the north and south side of the road. The survey site is made up of 40 discreet areas of vegetation with a combined area of approximately 7.4 ha (Figure 1). As Flynn Dr largely forms the boundary between the suburbs of Neerabup to the north and Carramar to the south, the survey site occurs across both suburbs. The survey site occurs within the City of Wanneroo.

1.2 Scope

The scope of works undertaken by Natural Area included:

- Conducting a systematic grid search of three target species: *Caladenia huegelii* (Grand Spider Orchid), *Diuris micrantha* (Dwarf Bee Orchid), and *Drakaea elastica* (Glossy-leaved Hammer Orchid) using 5 m wide transects.
- Mapping the occurrence, abundance and location of target species.
- Recording tracklogs of areas searched (Appendix 1).
- Provision of a report detailing findings.

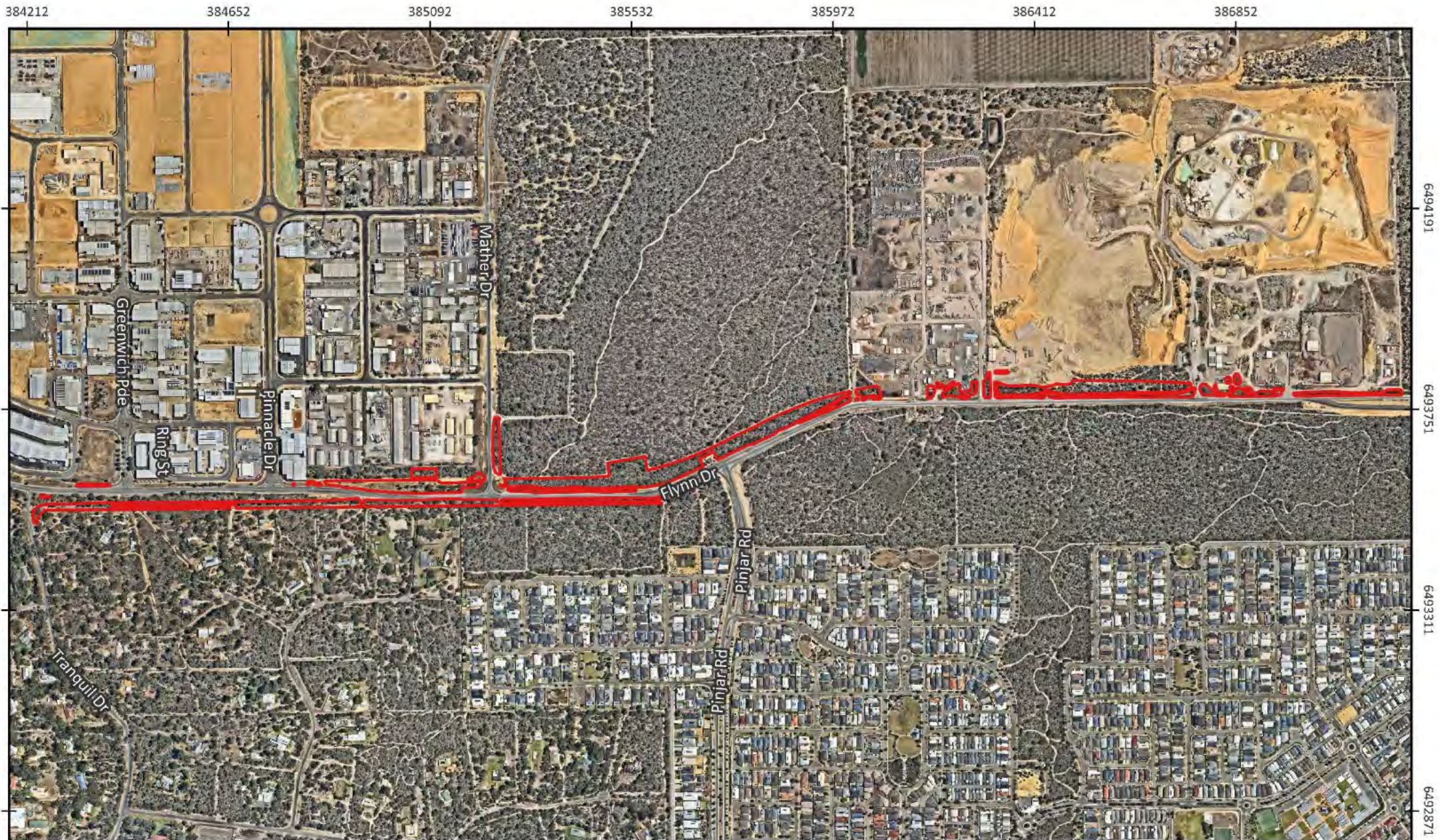
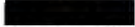


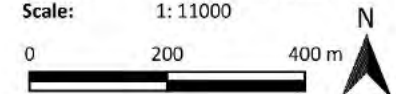
Figure 1:
Site Location

Flynn Drive, Neerabup

Legend

 Survey Boundary

Client: City of Wanneroo
Date: 21/01/2025
Created by: 
Image Source: Nearmap, 2025
Datum: GDA2020 / MGA zone 50
Scale: 1: 11000



1.3 Legislative Context

State and Federal environment-related laws impact how environmental values are governed in Western Australia. The following legislation and policies are relevant to this report.

1.3.1 Relevant Legislation

Biodiversity Conservation Act 2016 (WA)

The *Biodiversity Conservation Act 2016* (BC Act) aims to protect and conserve biodiversity as well as to promote the ecologically sustainable use of biodiversity components in the State. The BC Act provides the statute relating to conservation and legal protection of flora, fauna, and ecological communities. The BC Act follows the principles of ecologically sustainable development, detailing that decision-making processes should effectively integrate long-term and short-term economic, environmental, social, and equity considerations. Conservation codes included in the BC Act are included in Appendix 2.

Environment Protection and Biodiversity Conservation Act 1999 (Cth)

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) serves to protect and manage nationally and internationally important flora, fauna, ecological communities, and heritage places. The primary objective of the EPBC Act is to promote the conservation of biodiversity and the sustainable use of natural resources while allowing for ecologically sustainable development. The EPBC Act allows for the creation of conservation agreements between the Australian government and individuals, communities, or organisations to support the conservation of biodiversity. Conservation codes included in the EPBC Act are included in Appendix 2.

1.3.2 Relevant Planning and Policy

Australia's Biodiversity Conservation Strategy 2010-2030

Australia's Biodiversity Conservation Strategy 2010-2030 aims to protect biological diversity and maintain ecological processes and systems (Natural Resource Management Ministerial Council, 2010).

Threatened Species Action Plan 2022-2032

The Threatened Species Action Plan 2022-2032 outlines the Federal Government's approach to protect, manage and restore Australia's threatened species and important natural places (Department of Climate Change, Energy, the Environment and Water (DCCEEW), 2022).

2.0 Background Information

2.1 Previous Surveys

Two flora and vegetation surveys were previously conducted to determine the environmental values of the Flynn Dr development envelope in support of obtaining clearing permits for proposed road upgrades (Ecoscape, 2020; Ecoscape 2022). These surveys each assessed part of the current survey's site boundary.

Caladenia huegelii (Grand Spider Orchid), *Diuris micrantha* (Dwarf Bee Orchid), and *Drakaea elastica* (Glossy-leaved Hammer Orchid) were not identified on site within the two previous flora and vegetation surveys (Ecoscape, 2020; Ecoscape, 2022). Ecoscape (2022) desktop survey and post-survey analysis of the likelihood of occurrence of these species was based on habitat requirements of the species and the habitat present on site. The desktop survey and post-survey analysis determined that *Caladenia huegelii* (Grand Spider Orchid) was unlikely to occur, and *Diuris micrantha* (Dwarf Bee Orchid) and *Drakaea elastica* (Glossy-leaved Hammer Orchid) were highly unlikely to occur (Ecoscape, 2022).

2.2 Target Species

2.2.1 *Caladenia huegelii* (Grand Spider Orchid)

Caladenia huegelii (Grand Spider Orchid) is listed as Endangered under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and Threatened/Critically Endangered under the *Biodiversity Conservation Act 2016* (BC Act). This species grows up to 60 cm from a single erect, pale green, hairy leaf. One or two (rarely three) flowers are produced with a pale green-cream colour. Flowers measure 7-10 cm across with variable suffusions, lines and spots of red-maroon colouring. Sepals terminate in slender light brown to yellow clubs. The large labellum has a prominently pale greenish-cream base and a uniformly dark maroon recurved apex (Hopper & Brown, 2001). Distinctively, the labellum contains particularly long, fine, sometimes split fringes, which extend well above the column (DEC, 2009b). This species flowers from late September to early November (DEC, 2009b).

Caladenia huegelii (Grand Spider Orchid) occurs in areas of mixed woodland of dominant *Eucalyptus marginata* (Jarrah), *Banksia attenuata* (Slender Banksia), *B. ilicifolia* (Holly-leaved Banksia) and *B. menziesii* (Firewood Banksia) with scattered *Allocasuarina fraseriana* (Sheoak) and *Corymbia calophylla* (Marri). This species prefers associated areas of dense undergrowth with *Stirlingia latifolia* (Blueboy), *Hypocalymma robustum* (Swan River Myrtle), *Hibbertia hypericoides* (Yellow Buttercups), *H. subvaginata*, *Xanthorrhoea preissii* (Grass tree), *Adenanthos cuneatus* (Coastal Jugflower) and Conostylis species (DEC, 2009b).

The soil typical of supporting *Caladenia huegelii* (Grand Spider Orchid) is deep grey-white sand usually associated with the Bassendean sand-dune system. Some populations have been known to extend into the Spearwood system in some areas (DEC, 2009b).

2.2.2 *Diuris micrantha* (Dwarf Bee Orchid)

Diuris micrantha (Dwarf Bee Orchid) is listed as Vulnerable under the EPBC Act and Threatened/Vulnerable under the BC Act. This species grows to 60 cm high with a slender inflorescence emerging from a basal tuft of narrow, linear leaves. Up to seven yellow flowers are produced with reddish-brown markings. The flowers

produced are distinctively the smallest produced within the *Diuris* genus measuring up to 1.3 cm across. *Diuris micrantha* (Dwarf Bee Orchid) is closely related to Bee Orchid (*D. laxiflora*) but has smaller, lighter-cloured flowers, a proportionately shorter, broader labellum mid-lobe and earlier flowering period (DCCEEW, 2008). This species flowers from August to early October. It is found in small populations, on dark, grey to blackish, sandy clay-loam substrates in winter wet depressions or swamps. The bases of the flowering plants are often covered with shallow water (DCCEEW, 2008).

2.2.3 *Drakaea elastica* (Glossy-leaved Hammer Orchid)

Drakaea elastica (Glossy-leaved Hammer Orchid) is listed as Endangered under the EPBC Act and Threatened/Critically Endangered under the BC Act. This species has a slender flower stem growing up to 30 cm high with a distinctly glossy, bright green, prostrate, heart-shaped leaf measuring 1 to 2 cm in diameter. A single flower is produced measuring 3 to 4 cm long with a hinged labellum. The basal leaf emerges in May and has senesced by the start of the flowering period. Flowering occurs from late September to late October and sometimes but rarely early November. Individual plants may not flower every year. The best time to look for the plant is in July and August when the distinctive basal leaves are present and relatively conspicuous. This species is described as growing on bare patches of sand within otherwise dense vegetation in low-lying areas alongside winter-wet swamps, typically in banksia (*Banksia menziesii*, *B. attenuata* and *B. ilicifolia*) woodland or spearwood (*Kunzea glabrescens*) thicket vegetation. Increased rates of survival in sites with relatively little direct sun exposure indicates a requirement for shady canopy cover to be present (DEC, 2009a).

3.0 Methodology

3.1 On-ground Flora Survey

The targeted flora survey was conducted in accordance with *Technical Guidance-Flora and Vegetation Surveys for Environmental Impact Assessment* (Environmental Protection Authority (EPA), 2016), and *Draft survey guidelines for Australia's threatened orchids*, (Department of the Environment (DOE), 2013). Photographs were taken of species that were not readily identifiable to enable later identification. Information relating to conservation significant target species were summarised into field reference guides to aid with the on-ground flora survey which is provided in Appendix 3.

Natural Area environmental scientists undertook the survey on October 25, 2024, with key data recorded using QField software on a handheld tablet. Survey activities included:

- Conducting a systematic grid search of three target species: *Caladenia huegelii* (Grand Spider Orchid), *Diuris micrantha* (Dwarf Bee Orchid), and *Drakaea elastica* (Glossy-leaved Hammer Orchid). using 5 m wide transects.
- Mapping the occurrence, abundance and location of target species.
- Recording tracklogs of areas searched (Appendix 2).

3.2 Limitations

The limitations associated with the targeted flora survey undertaken along a section of Flynn Drive are outlined in Table 1 below.

Table 1: Flora survey limitations

Potential Limitation	Degree of Limitation	Comments
Availability of contextual information	None	Regional and local contextual information readily available for the site.
Competency/ experience of team	None	Survey activities were undertaken by experienced environmental scientists who have extensive experience undertaking targeted flora surveys within the Swan Coastal Plain Bioregion.
Proportion of flora recorded/collected, any identification issues	Moderate	The three target orchid species were not recorded during the field survey. Six genera of Orchidaceae were recorded within the survey site including <i>Caladenia</i> and <i>Diuris</i> of which two of the three target species belong. Many of the Orchidaceae specimens recorded on site had already begun to senesce, which made identification to a species level difficult. Measurements of plant characteristics and morphology such as height, leaf length, width, and sepal length were used as a comparison of recorded populations to the target species. Measurements of these diagnostic features on the recorded populations indicated they did not meet

Potential Limitation	Degree of Limitation	Comments
		the criteria for <i>Caladenia huegelii</i> (Grand Spider Orchid) or <i>Diuris micrantha</i> (Dwarf Bee Orchid). <i>Draft survey guidelines for Australia's threatened orchids 2013</i> , states that species that are found during survey need to be identified to species level, not just to genus to eliminate the possibility of identifying a target orchid as a non-targeted orchid.
Survey effort and extent	None	The survey was a targeted flora survey. The entire site was able to be traversed. The survey was undertaken over a period of one day on 25 October 2024.
Access restrictions	None	There were no barriers to accessing the entire site.
Survey timing	Moderate	The survey was undertaken on 25 October 2024. The three target species for this survey have slightly differing flowering times. For two of the target species, <i>Caladenia huegelii</i> (Grand Spider Orchid) and <i>Drakaea elastica</i> (Glossy-leaved Hammer Orchid), the survey date falls within the flowering period of these species, however, <i>Diuris micrantha</i> (Dwarf Bee Orchid) is indicated to have a flowering period from August to early October. This may mean that flowering may potentially have finished prior to the survey. However, it should be noted that due to habitat requirements (Section 2.3.2) this species is not likely to occur on site. For the greatest confidence in achieving the correct timing of flowering for a target species, use of a reference site where each orchid species is known to occur is favourable to determine if the species was flowering at the time of the survey and therefore increasing its detectability during survey. A reference site was not used in this survey.
Disturbances	None	No recent disturbances which may have had an impact on survey results (e.g. fire, recent clearing or floods) were identified during the survey.

4.0 Flora Survey Results

The three target conservation significant orchid species were not recorded during the field survey. All populations of orchids were recorded and represented across six genera (Figure 3). Two populations of orchid species were able to be identified to a species level *Pterostylis vittata* (Banded Greenhood) and *Thelymitra benthamiana* (Leopard Orchid). The remaining populations of orchids were identified to a genus level and include *Caladenia* sp., *Diuris* sp., *Eriochilus* sp. *Prasophyllum* sp., and *Thelymitra* sp.. Measurements of available diagnostic morphological features of the *Caladenia* and *Diuris* populations did not meet the criteria for *Caladenia huegelii* (Grand Spider Orchid) or *Diuris micrantha* (Dwarf Bee Orchid). Examples of orchid species recorded during the survey are shown in Figure 2.



Thelymitra benthamiana (Leopard Orchid)



Pterostylis vittata (Banded Greenhood)



Diuris sp.



Caladenia sp.

Figure 2: Examples of native flora species recorded



Figure 3:
Orchid Population Locations

Flynn Drive, Neerabup

Legend

- Caladenia sp.
- Diuris sp.
- Eriochilus sp.
- Prasophyllum sp.
- Pterostylis vittata
- Thelymitra benthamiana
- Thelymitra sp.

Survey Boundary

Client: City of Wanneroo
 Date: 11/02/2025
 Created by: [Redacted]
 Image Source: Nearmap, 2025
 Datum: GDA2020 / MGA zone 50
 Scale: 1: 3800

0 50 100 m



5.0 Discussion

The three target orchid species were not recorded during the field survey. Six genera of Orchidaceae were recorded within the survey site including *Caladenia* and *Diuris* of which two of the three target species belong. Many of the Orchidaceae specimens recorded on site had already begun to senesce, which made identification to a species level difficult. Measurements of plant characteristics and morphology such as height, leaf length, width, and sepal length were used as a comparison of recorded populations to the target species. Measurements of these diagnostic features on the recorded populations indicated they did not meet the criteria for *Caladenia huegelii* (Grand Spider Orchid) or *Diuris micrantha* (Dwarf Bee Orchid).

The survey occurred on October 25, within the optimum survey period for *Caladenia huegelii* (Grand Spider Orchid) and *Drakaea elastica* (Glossy-leaved Hammer Orchid). However, the survey may have been conducted outside of the flowering period for *Diuris micrantha* (Dwarf Bee Orchid) which is noted to be from August to early October. For the greatest confidence in achieving the correct timing of flowering for a target species, use of a reference site where each orchid species is known to occur is favourable to determine if the species was flowering at the time of the survey. A reference site was not used in this survey.

5.1 Likelihood of Occurrence

The general habitat of a species determines their likelihood of occurrence across different geographical areas. The habitat requirements of a species can relate to many characteristics of a natural environment including the soil, associated vegetation and topography. The three target species have differing habitats in which they are usually found, however, the survey site does not satisfy all of the characteristics typical of the habitat of these species.

5.1.1 *Caladenia huegelii* (Grand Spider Orchid)

Caladenia huegelii (Grand Spider Orchid) is known to occur in vegetation types of mixed banksia/jarrah woodlands (DOE, 2013). This vegetation description matches the vegetation type recorded in Ecoscape, 2020 of *Eucalyptus marginata*, and *Allocasuarina fraseriana* mid woodland and Ecoscape, 2022 of *Banksia* spp. and *Allocasuarina fraseriana* low open woodland. Indicating that this vegetation type is typical of the habitat of *Caladenia huegelii* (Grand Spider Orchid).

The soil complex and type of an area also influences the species that will occur there. *Caladenia huegelii* (Grand Spider Orchid) is found within the Bassendean sand dune system, but in rare occasions has been recorded on soil deposits of the Spearwood system (DEC, 2009b). The survey site occurs within the Karrakatta Sand Yellow Phase System which is typified by yellow sand over limestone (Ecoscape, 2020; 2022). Therefore, it is unlikely that the soil type present is likely to support *Caladenia huegelii*, despite *Florabase* (2024) indicating that this species grows in grey or brown sand or clay loams, of which grey and brown sandy loams were recorded within the survey site in previous detailed flora and vegetation surveys (Ecoscape 2020; 2022).

5.1.2 *Diuris micrantha* (Dwarf Bee Orchid)

Diuris micrantha (Dwarf Bee Orchid) occurs on soils of brown loamy clay, which are not typical of the Karrakatta Sand Yellow Phase System and those recorded on site (Ecoscape, 2020; 2022).

Diuris micrantha (Dwarf Bee Orchid) is known to occur in winter-wet depressions or swamps (DOE, 2013). The survey site does not intersect with any wetlands or drainage lines (Ecoscape, 2020; 2022). The survey site is primarily well drained soils of roadside vegetation. Therefore, it is unlikely for *Diuris micrantha* (Dwarf Bee Orchid) to occur within the survey boundary.

5.1.3 *Drakaea elastica* (Glossy-leaved Hammer Orchid)

Drakaea elastica (Glossy-leaved Hammer Orchid) is known to occur in woodland of *Banksia menziesii* (Firewood Banksia), *B. attenuata* (Slender Banksia) and *B. ilicifolia* (Holly-leaved Banksia) or *Kunzea glabrescens* thickets (Spearwood). This mixed Banksia habitat typical of *Drakaea elastica* (Glossy-leaved Hammer Orchid) habitat is comparable to the vegetation type recorded in Ecoscape, 2022, of *Banksia* spp. and *Allocasuarina fraseriana* low open woodland.

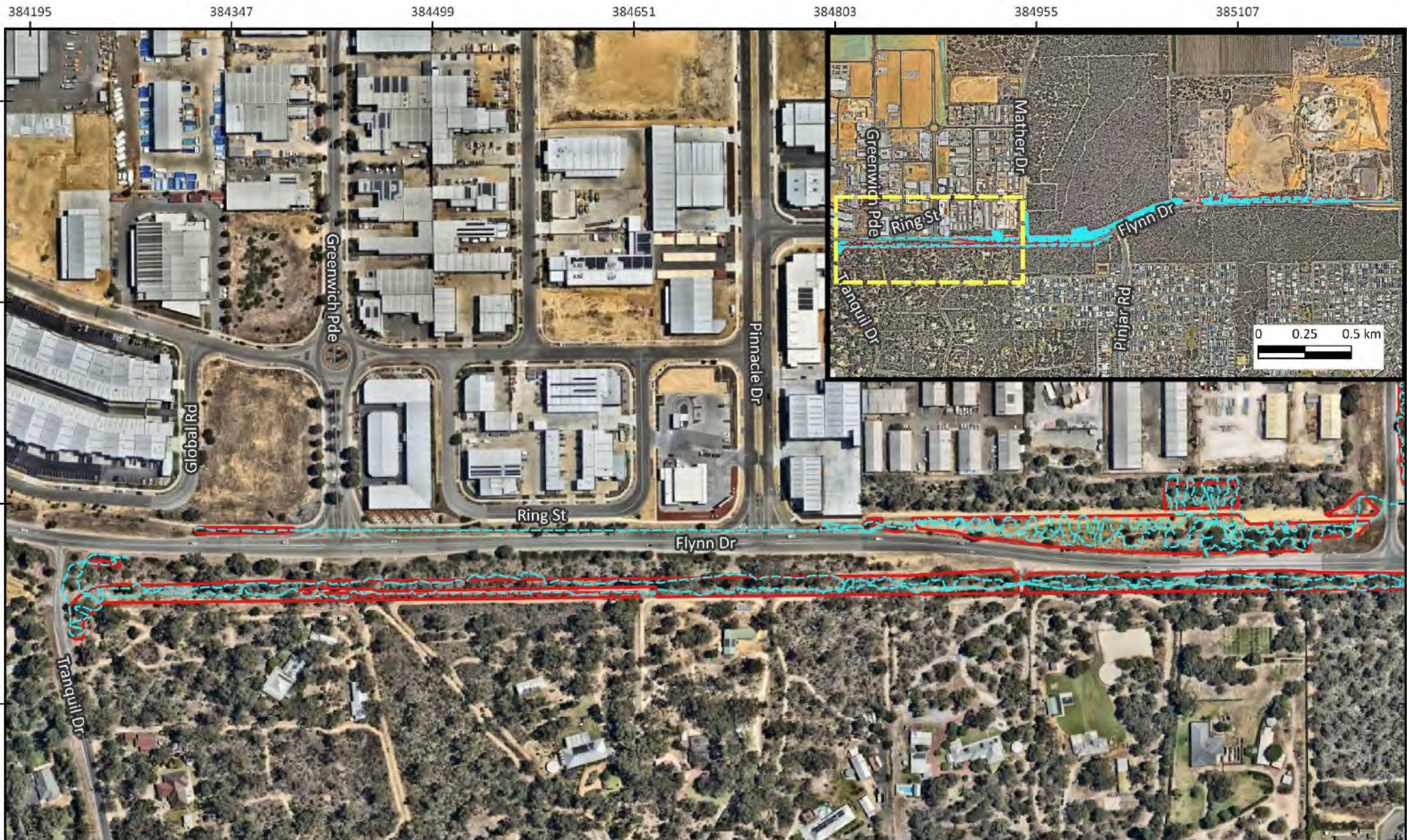
Drakaea elastica (Glossy-leaved Hammer Orchid) occurs on white or grey sands which are not typical of the Karrakatta Sand Yellow Phase System, however previous surveys have indicated grey/brown loamy sands present on within the survey site (Ecoscape, 2022).

Drakaea elastica (Glossy-leaved Hammer Orchid) occurs adjacent to winter-wet depressions, swamps and water courses (DOE, 2013). The survey site does not intersect with any wetlands or drainage lines (Ecoscape, 2020; 2022). The survey site is primarily well drained soils of roadside vegetation. Therefore, it is unlikely for *Drakaea elastica* (Glossy-leaved Hammer Orchid) to occur within the survey boundary.

6.0 References

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Appendix 1: Survey Effort



Survey Effort:
Tracklogs

Flynn Drive, Neerabup

Legend

- Tracklogs
- Survey Boundary

Client: City of Wanneroo
Date: 21/01/2025
Created by: [REDACTED]
Image Source: Nearmap, 2025
Datum: GDA2020 / MGA zone 50
Scale: 1: 3800

0 50 100 m





Survey Effort:

Tracklogs

Flynn Drive, Neerabup

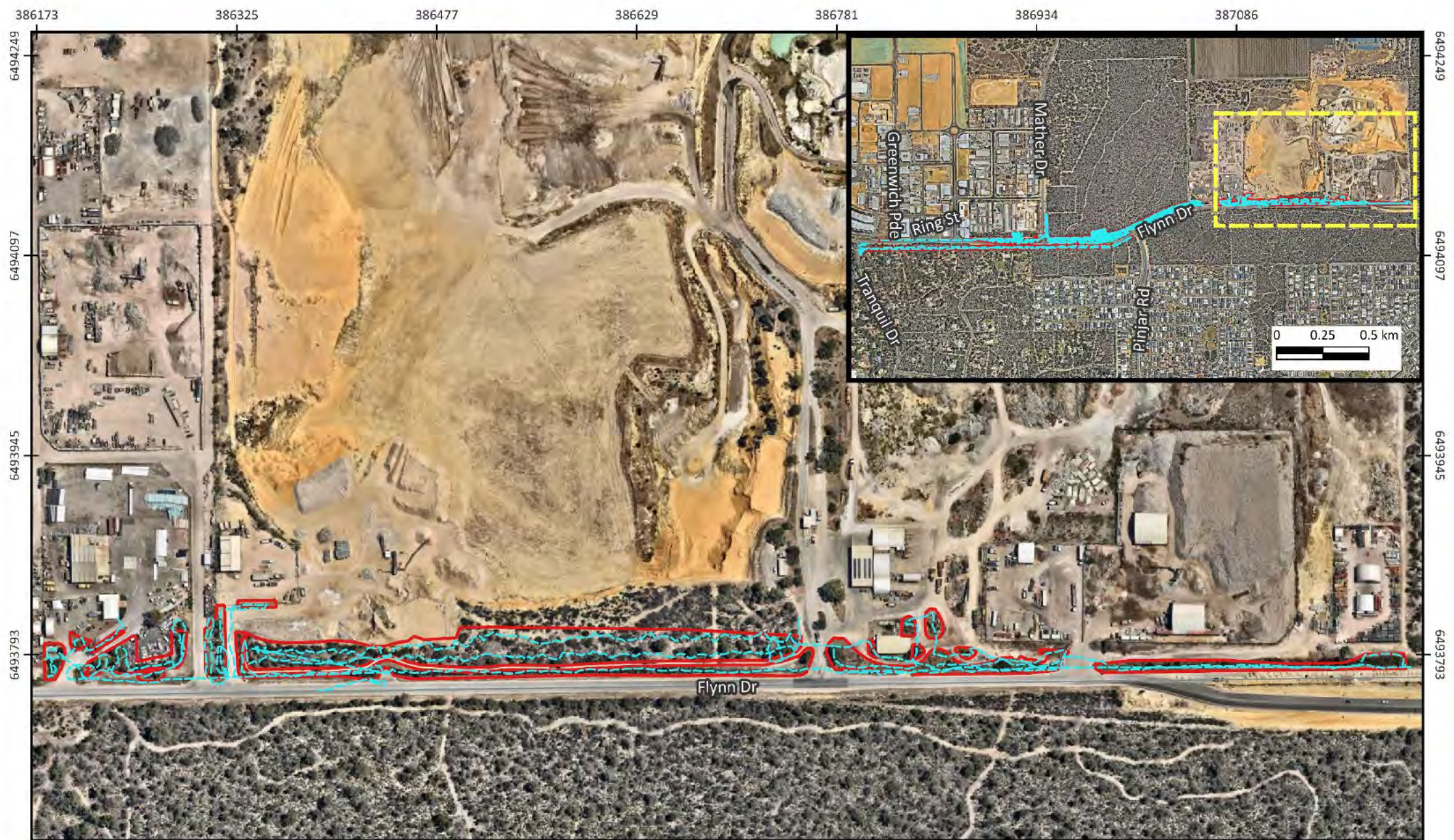
Legend

- Tracklogs
- Survey Boundary

Client: City of Wanneroo
Date: 21/01/2025
Created by: [REDACTED]
Image Source: Nearmap, 2025
Datum: GDA2020 / MGA zone 50
Scale: 1: 3800

0 50 100 m





Survey Effort:

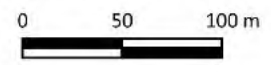
Tracklogs

Flynn Drive, Neerabup

Legend

-  Tracklogs
-  Survey Boundary

Client: City of Wanneroo
Date: 21/01/2025
Created by: 
Image Source: Nearmap, 2025
Datum: GDA2020 / MGA zone 50
Scale: 1: 3800



Appendix 2: Conservation Codes

Western Australia

Conservation Code	Name	Description
T	Threatened	Flora or fauna that is rare or likely to become extinct, ranked according to their level of threat using IUCN Red List criteria (Schedules 1-3 of the Wildlife Conservation (Specially Protected Fauna) Notice or the Wildlife Conservation (Rare Flora) Notice)
CR	Critically endangered	Species considered to be facing an extremely high risk of extinction within the wild in the immediate future
EN	Endangered	Species considered to be facing a very high risk of extinction in the wild in the near future
VU	Vulnerable	Species considered to be facing a high risk of extinction in the wild in the medium-term future
EX	Extinct Species	Species where 'there is no reasonable doubt that the last member of the species has died (Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice or the Wildlife Conservation (Rare Flora) Notice)
EW	Extinct in the Wild	Species that are known to only survive in cultivation, in captivity, or as a naturalised population well outside its past range; and it has not been recorded in its known or expected habitat at appropriate seasons anywhere in its past range, despite surveys over a timeframe appropriate to its life cycle and form
MI	Migratory Species	Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth (Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice)
CD	Conservation Dependent	Species of special conservation interest (conservation dependent fauna), being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened (Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice)
OS	Specially Protected	Fauna otherwise in need of special protection to ensure their conservation (Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice)
P	Priority Species	Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or

Conservation Code	Name	Description
		flora. Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.
P1	Priority One	Poorly known species – Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either very small or on lands not managed for conservation, such as road verges, urban areas, farmland, active mineral lease and under threat of habitat destruction or degradation.
P2	Priority Two	Poorly known species – Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, such as national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves and similar.
P3	Priority Three	Poorly known species – Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat
P4	Priority Four	Rare or near threatened and other species in need of monitoring.

Source: DBCA, 2023

Commonwealth

Category	Description
Critically Endangered	Species facing an extremely high risk of extinction in the wild in the immediate future
Endangered	Species facing a very high risk of extinction in the wild in the near future
Vulnerable	Species facing a high risk of extinction in the wild in the medium term

Source: DBCA, 2023

Appendix 3: Significant Species

Species Name	Common Name	Description	Flowering Period	Habitat Type	Cons code (WA)	Cons Code (EPBC)	Likelihood (Y/N)	Comment
 <i>Caladenia huegelii</i> Photos: I. & M. Greeve & J.L. Rob	Grand Spider Orchid	Tuberous, perennial, herb, 0.25-0.6 m high. Flowers green, cream and red. Leaf 100-180 mm long, 7-12 mm wide. Up to three flowers 70-100 mm wide. Dorsal sepal 4.5-12 cm x 2.5-4 mm. Lateral sepals 4-12 cm x 4-7 mm. Petals 3-6 cm x 3-5 mm. Labellum 3-lobed 23-30 x 13-20 mm on a claw c. 1.5-2.5 mm wide. Column 17-22 x 10-14 mm. Anther c. 5 x 4 mm. Pollinia c. 4 mm long. Stigma 3-4 mm wide (Hopper & Brown, 2001).	Sep to Oct	Grey or brown sand, clay loam.	T/CR	EN	Y	Habitat type may be suitable.

Species Name	Common Name	Description	Flowering Period	Habitat Type	Cons code (WA)	Cons Code (EPBC)	Likelihood (Y/N)	Comment
 <i>Diuris micrantha</i>	Dwarf Bee Orchid	Tuberous, perennial, herb, 0.3-0.6 m high. Flowers yellow and brown. Two to Four smooth, terete leaves 80-150 mm x 1-2 mm. Up to six flowers 7-10 mm wide (WANSOCG, 2024).	Sept to Oct.	Winter-wet swamps, in shallow water.	T/VU	VU	N	Habitat type not suitable.
 <i>Drakaea elastica</i>	Glossy-leaved Hammer Orchid	Tuberous, perennial, herb, 0.12-0.3 m high. Flowers red & yellow & green. Leaf often 20 mm wide. Pedicels 10-12 mm long. Dorsal sepal 12-15 mm long. Lateral sepals 12-14 mm long. Petals 12-14 mm long (Hopper & Brown, 2007).	Oct to Nov.	White or grey sand. Low-lying situations adjoining winter-wet swamps.	T/CR	EN	N	Habitat type not suitable.