

**Environmental and Aboriginal Heritage Background Report,  
Munda Biddi Extension, Nannup.**

**Prepared for the Shire of Nannup**

**January 2022**



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## Executive Summary

Abrus Consulting Pty Ltd (Abrus) was engaged by the Shire of Nannup (the Shire) to provide a background (desktop) flora and fauna of conservation significance and Aboriginal heritage report in relation to undertake works on the Brockman Highway, Vasse Highway intersection south of Nannup. Abrus understands that the Shire intends to complete the missing section of a pathway linking Vasse Hwy and Brockman Hwy on the southern end of town. The project will require two small bridges and an extension of an existing (concrete) pathway to safely link users to East Nannup Road. The pathway extension will be constructed out of asphalt. This is the alignment of the Munda Bididi Trail connecting Nannup to Donnelly River Village.

The aim of this document is to address these components and provide the Shire with information relevant for this proposal. Desktop assessments and recommendations will provide the Shire with background information to enable appropriate management and consideration of these components and lessen any potential environmental and heritage impacts from the roadwork improvements and extensions. The desktop results are included with this document.

Abrus understands that additional environmental reports (such as groundwater and geological assessments and waterways assessments) will be provided to the Shire via other consultancies and as such these elements are not part of the scope of works provided to the Shire from Abrus.

### **Results:**

#### **Fauna:**

The Desktop Study identified 3 species of conservation significance requiring specific conservation and management consideration, with the nearest record 109m away from the survey polygon.

#### **Flora:**

There were 0 records found within the survey polygon. There were two Western Australian Herbarium records located 880m to the west of the site, *Reedia spatheca* and *Synaphea otio stigma*.

**Aboriginal Heritage:**

The area crosses the Nannup Brook, a tributary of the Blackwood River, which is a registered sacred site (Site ID: 20434). Cultural values are within the bed and banks of the river and its tributaries, such as the Nannup Brook.

**Other Heritage:**

No other heritage of significance was found on the State Register of Heritage Places.

**Recommendations are as follows:****Fauna:**

- 1) Avoid clearing as many of the larger trees as possible, such as trees with trunk diameters >500 mm (DBH) as these can contain nesting sites for various fauna.
- 2) Plan to avoid clearing as many of the habitat features (hollow logs and stumps) as practicable. If these must be disturbed, gently move them to the side of the clearing envelope, leaving them as intact as possible.
- 3) If any populations or individuals of Threatened and Priority fauna are encountered in the area, they should be reported to the Department of Biodiversity, Conservation and Attractions (DBCA), to ensure their ongoing management.
- 6) Where trees or large shrubs that contain hollows or possum nests are observed and must be cleared, ensure they are felled in a manner that will reduce the likelihood of injury to any fauna present.
- 7) If any fauna of conservation significance are encountered in fallen trees they will need to be relocated to suitable habitat nearby prior to the removal of the trees from site. Removal needs to be done by a suitably qualified person.
- 8) Any fauna injured during clearing are to be taken to a designated veterinary clinic or a DBCA nominated wildlife carer.
- 9) Plan to avoid clearing of vegetation during the Spring months to lessen disturbance to potentially breeding animal populations.

**Flora and Vegetation:**

- 1) As many parts of the Shire contains dieback, employ dieback-back hygiene measures to prevent introduction and/or spread of dieback.
- 2) If any populations of Threatened and Priority flora are encountered in the area, they should be reported to the Department of Biodiversity, Conservation and Attractions (DBCA), to ensure their ongoing management.
- 3) That all machinery working in the area employ appropriate vehicle hygiene to prevent the introduction of weeds and prevent further weed spread.
- 4) That Shire Staff undertake a weed assessment prior to any physical disturbance of the site occurring.
- 5) That the Shire develop a Weed Management Plan.

**Aboriginal Heritage:**

- 1) That consultation about the proposed works occurs with the representative Aboriginal custodian groups and the representative body prior to any on-ground disturbance work being undertaken. This may require the services of both an archaeologist and anthropologist and potentially a survey may be required.
- 2) Obtain a quote for anthropological and archaeological survey work and a **Section 18** submission. **A Section 18** application may be required to disturb the area of proposed works.

## 1. Introduction

The Munda Bididi Trail is a nature-based, world class off-road cycle trail which runs for over 1,000km from Mundaring to Albany, passing through Nannup and comprises a mix of single bike tracks to wider tracks through reserves, local government areas and sealed and unsealed public roads.. The name Munda Bididi in the Noongar language means “path through the forest” (<https://parks.dpaw.wa.gov.au/know/munda-bididi-trail>).

Information provided by the shire of Nannup states *“The Shire of Nannup is working towards becoming a trails hub, a destination for world-class trail experiences. Through the Nannup Cycle Master Plan, 2020, key priorities have been identified and include invest in the Munda Bididi trail as a backbone establishing Nannup as the Munda Bididi halfway town and creating a vibrant trails town. The project will complete the missing section of a pathway linking Vasse Hwy and Brockman Hwy on the southern end of town. The project will require two small bridges and an extension of an existing (concrete) pathway to safely link users to East Nannup Road. The pathway extension will be constructed out of asphalt. This is the alignment of the Munda Bididi Trail connecting Nannup to Donnelly River Village. Connectivity for the Cockatoo Valley residents will improve and the safety of trail users, including pedestrian, cycle and bridle trail users. The project staged over two financial years, the first year will include the development of a detailed design and construction of approximately 100m of the pathway extension. The bridge construction and installation will occur the following financial year. This project is important to the local community as it offers a safe passage for pathway users. Currently all pedestrians, cyclists, and horse riders have to contend the narrow bridge crossing with cars, trucks and caravans. The Vasse Hwy intersection is becoming increasingly busier as vehicular tourism and logging trucks travelling to Nannup increase. Asphalt will be used for the pathway extension where the alignment does not fall into the creek line. A Steel Truss Bridge with 5kpa loadings is the preferred structure to clear the creek line. The bridge structure and pathway extension will be 2.5m in dimension to support a dual use pathway that can accommodate pedestrian, cyclists and horses. This is conducive with shared pathways for small regional towns such as Nannup.”*

A concept design has been provided to the Shire by Aecom (2021) which discusses options for the pedestrian crossing over both Nannup Brook and Carlotta Brook adjacent to the current bridges, as these bridges do not have dedicated walkway/cycle access. The final designs and scope of works are

to be determined after further geotechnical and waterways assessments have been provided to the Shire. The recommendations in this report may need to be changed or adjusted, depending on the final design and scope of works chosen by the Shire. Figure 1 shows the locality of the site.

Roadside vegetation provides habitat and linkages for many fauna species. According to the Roadside Conservation Committee Handbook of Environmental Practice for Road Construction and Maintenance Works (Lamont, 2010) the aim of minimising and managing environmental impacts related to roadworks include:

1. Minimise clearing and degradation of native vegetation;
2. Protect rare plants and plant communities, native fauna and their habitats; and
3. Maintain aesthetic values of roadsides.

It is important to keep these points in mind when planning roadworks, whether for new roads or upgrading/maintenance of existing roads. Protection of habitat could include limiting vegetation corridor breakup, ideally these should be left as wide as is practicable.

The Roadside Conservation Committee (2005) produced a report on the *Roadside Vegetation and Conservation Values: Shire of Nannup* that discusses the declining conservation values of roadside reserves in the Shire and that with proactive and innovative management these issues can be reversed. This report should be considered in the planning stages of future roadworks (creation and maintenance).

At this point in time the Shire has not yet obtained a clearing permit from the Department of Biodiversity, Conservation and Attractions (DBCA) to partially clear/disturb this area. However, this may be required for the project to progress.

The presence of flora and fauna species of conservation significance must be taken into consideration prior to any roadworks occurring and managed appropriately, even if none are recorded in the proposed works area.

Aboriginal and other heritage is also a matter for consideration in the approvals process and as this proposed works area impacts on the Nannup Brook, advice from the Department of Planning, Lands and Heritage (DPLH) has been sought and is provided in Appendix D.





385000

386000

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### Legend

-  Roads
-  Approximate survey area

6239000  
6238000  
6237000  
6236000

6239000  
6238000  
6237000  
6236000



Base map:  
Courtesy of Landgate SLIPsr



## Shire of Nannup Southern Entrance Development

Figure: 1  
Project:  
Coordinate System:  
GDA 1994 MGA Zone 50

Drawn: CNH  
Date: 2021-11-09

A4

## 2. Environmental Background

### 2.1 Climate

The area experiences a warm and temperate climate with an average annual rainfall of 832.7 mm (Bridgetown being the closest weather recording station). February is the driest month on average with the wettest month being July.

## 3. Desktop Assessments

Database information has been provided by DBCA (October 2021) in relation to threatened, specially protected and priority flora and fauna occurring for the area of interest. It must be noted that these databases are subject to continual updating and amendment, and such these considerations need to be taken into account. The database searches also do not necessarily represent a comprehensive listing of flora and fauna of conservation significance in the area. See Figure 2 for flora and fauna results.

### 3.1 Fauna of Conservation Significance

Database search results for threatened, specially protected and priority fauna and Threatened Ecological Communities occurring for the area of interest were provided by DBCA (as point location data). The search was conducted within the area of the shapefile submitted with an additional 20km buffer. See Appendix A.

3 species of conservation significance requiring specific conservation and management consideration were found within a 350m area from the project polygon (see Figure 2). These results include: Carnaby's Cockatoo (*Calyptorhynchus latirostris*), Baudin's Cockatoo (*Calyptorhynchus baudinii*) and the Western Brush Wallaby (*Notamacropus irna*).

It must be noted however that other species of conservation significance such as the Quokka (*Setonix brachyurus*), Quenda (*Isoodon fusciventer*), and Chudditch (*Dasyurus geoffroii*) are known to be in the general area and must be taken into management consideration. There may also be roost

sites and breeding sites within the area of interest for species such as the cockatoos and other species which will need to be taken into management considerations.

## 3.2 Flora of Conservation Significance

Database search results from the Threatened and Priority Flora Database (TPFL) and the WA Herbarium database (WAHerb) for the area of interest were provided by DBCA (as point location data). The search was conducted within the area of the shapefile submitted with an additional 10km buffer. See Appendices B and C. Two listed species, *Reedia spathacea* and *Synaphea otio stigma* have Western Australian Herbarium records near the proposed area of work, located 880m to the west of the site search polygon (see Figure 2).

*Reedia spathacea* is a robust, tufted sedge which has a woody trunk that forms large clumps to over 1m in height and is listed as **Critically Endangered** under the EPBC Act and is thought to be a Gondwanan relict species ([https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon\\_id=2995](https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=2995)). It is confined to small-scale wetland habitats (seasonally waterlogged slope types) and is susceptible to a range of threats due to its specialised and now uncommon habitat. It requires a consistently high water-table to survive.

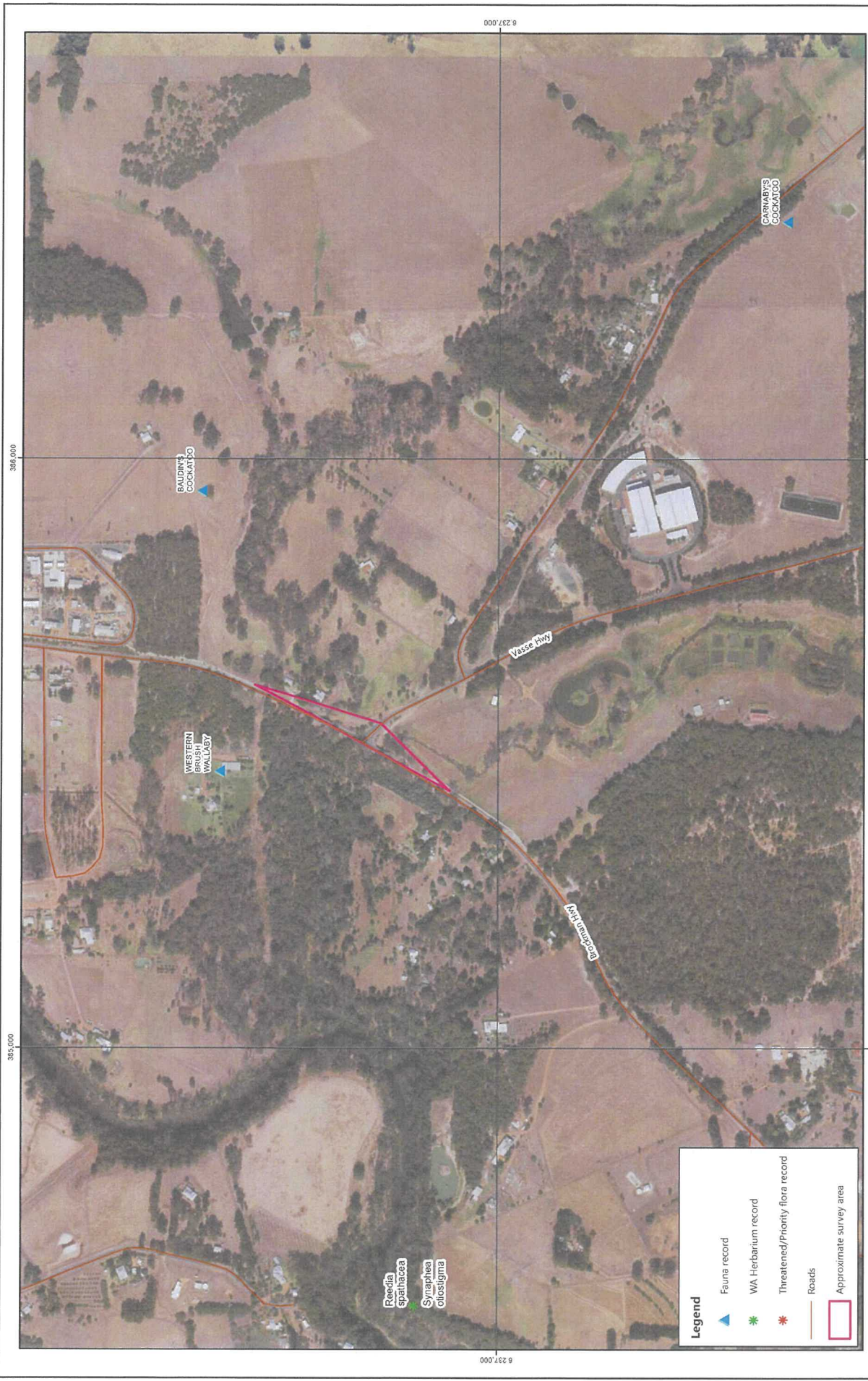
Synapheas are small evergreen shrubs with yellow flowers and are endemic to Western Australia. They are members of the Proteaceae family. *Synaphea otio stigma* is found in the Augusta Margaret River region, and the Nannup and Kojonup regions and according to Florabase is classed as Conservation Code Priority Three (P3) in areas with clayey laterite, gravelly loam and sand (<https://florabase.dpaw.wa.gov.au/browse/profile/16762>). It typically flowers between October and November.

## 3.3 Weeds

The Nannup area is home to a variety of environmental weeds, which can out compete native plants for nutrients and habitat. Weeds of National Significance (WONS) and Declared Weeds must be considered as part of the environmental values of the area and this project. Declared Plants are discussed on the Department of Primary Industries and Regional Development (DPIRD) webpage: <https://www.agric.wa.gov.au/pests-weeds-diseases/weeds/declared-plants>. DPIRD also has a Western Australian Organism List (WAOL) that can be searched for declared pests, by common and scientific name, provide legal status of the pest and whether there is any requirement to take any measures to control the pest.

Under the Shire Of Nannup Strategic Community Plan, protection of the natural environment was listed as a priority, as was supporting tourism and recreation. Effective weed management needs to be considered as part of these two priorities and the Shire is responsible for weed management in this area of proposed works. Abrus understands that the Shire does not at this stage have a Weed Management Plan or Strategy.

Although a survey for weeds in the proposed area is not part of the scope of this report, a casual observation of the site shows that there are a number of exotic species (pest plants) in the area such as *Watsonia meriana* (L.) Mill. and others (particularly along the creek line) and it is highly likely in such an area that there will be a wide range of weed species. From the DPIRD WAOL as an example, *Watsonia meriana* (L.) Mill. is not assigned to any control category for a local government area at this time. Shire staff may decide to undertake a weed assessment of the proposed works area prior to any physical disturbance of the site occurring.



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Notes:  
 1. Coordinate System: GDA94 MGA Zone 50.  
 2. Background imagery courtesy of Landgate SLIP service.



**Shire of Nannup**  
**Southern Entrance Project**  
*Flora & Fauna Locations*

|             |         |            |           |
|-------------|---------|------------|-----------|
| DRAWN       | CNH     | DATE       | 8/11/2021 |
| CHECKED     | RW      | DATE       | 8/11/2021 |
| SCALE       | 1:6,000 | FIGURE No. | 2         |
| PROJECT No. | A3      |            |           |

### 3.3 Aboriginal Heritage

The scope of work for this project involved undertaking a desktop background assessment of the heritage status of the Brockman Highway via the Department of Planning, Lands and Heritage (DPLH). This search request was submitted in October 2021 with advice from DPLH received in January 2022.

Results from the DPLH database search indicated that the creek crossing the Brockman Highway is a tributary of the Blackwood River, (Site ID: 20434) and that Aboriginal heritage values of this site relate to the bed and banks of the waterway. The Blackwood River and its tributaries are believed to have been created by the Waugal, and are its home, therefore is in its entirety, a sacred site (Goode, B. and O'Reilly, T. 2018). The Blackwood River also has other records in relation to cultural significance.

As disturbance to this area is proposed, DPLH advice that the proposed works will require approval under the *Aboriginal Heritage Act 1972 (AHA)* are required. See Appendix D. Advice from DPLH states that the South West Boojarah #2 Indigenous Land Use Agreement Group be consulted regarding their views and the impact to cultural heritage. This group is represented by the South West Aboriginal Land and Sea Council.

### 3.4 Other Heritage

No other heritage of significance was found on the State Register of Heritage Places.

## References

**Aecom.** 2021. Pedestrian Crossings Over Nannup & Carlotta Brooks. Concept Design Report. 16 March 2021.

**Goode, B. and O'Reilly, T.** 2018. Report of an aboriginal Heritage Survey for the Talison Lithium Mine Expansion M01/2, M01/3, M01/6, M01/7 & L01/1 Greenbushes, Western Australia.

**Lamont, D.** (ed) 2010. Roadside Conservation Committee. Handbook of Environmental Practice for Road Construction and Maintenance Works.

**Roadside Conservation Committee.** (April 2005). Roadside Vegetation and Conservation Values: Shire of Nannup

**Shire of Nannup.** Strategic Community Plan 2017 - 2027

## **APPENDIX A**

### **Desktop Fauna Results.**



| SPECIES   | COM_NAME   | CLASS        | WA_LISTING                                      | WA status | EPBC status |
|---|--|--------------|---|-----------|-------------|
| <i>Westralunio carteri</i>                                | Carter's freshwater mussel                       | INVERTEBRATE | Threatened - Vulnerable                         | VU        | VU          |
| <i>Calyptrorhynchus baudinii</i>                          | Baudin's cockatoo                                | BIRD         | Threatened - Endangered                         | EN        | EN          |
| <i>Calyptrorhynchus latirostris</i>                       | Carraby's cockatoo                               | BIRD         | Threatened - Endangered                         | EN        | EN          |
| <i>Calyptrorhynchus</i> sp. 'white-tailed black cockatoo' | White tailed Bblack ockatoo                      | BIRD         | Threatened - Endangered                         |           |             |
| <i>Tringa nebularia</i>                                   | Common greenshank, greenshank                    | BIRD         | Specialty Protected - migratory                 | MI        | MI          |
| <i>Falco peregrinus</i>                                   | Peregrine falcon                                 | BIRD         | Specialty Protected - other specialty protected | OS        |             |
| <i>Thimornis rubricollis</i>                              | Hooded plover, hooded dotterel                   | BIRD         | Priority  | P4        |             |
| <i>Isoodon fusciventer</i>                                | Quenda, southwestern brown bandicoot             | MAMMAL       | Priority  | P4        |             |
| <i>Hydromys chrysogaster</i>                              | Water-rat, rakali                                | MAMMAL       | Priority  | P4        |             |
| <i>Setonix brachyurus</i>                                 | Quokka   | MAMMAL       | Threatened - Vulnerable                         | VU        | VU          |
| <i>Dasyurus geoffroii</i>                                 | chuditch, western quoll                          | MAMMAL       | Threatened - Vulnerable                         | VU        | VU          |
| <i>Notamacropus irma</i>                                  | western brush wallaby                            | MAMMAL       | Priority  | P4        |             |
| <i>Falsistrellus mackenziei</i>                           | western false pipistrelle, western falsistrelle  | MAMMAL       | Priority  | P4        |             |
| <i>Phascogale tapoatafa wambenger</i>                     | south-western brush-tailed phascogale, wambenger | MAMMAL       | Specialty Protected - conservation dependent    | CD        |             |
| <i>Pseudocheirus occidentalis</i>                         | western ringtail possum, ngwayir                 | MAMMAL       | Threatened - Critically endangered              | CR        | CR          |
| <i>Bettongia penicillata ogilbyi</i>                      | woylie, brush-tailed bettong                     | MAMMAL       | Threatened - Critically endangered              | CR        | EN          |
| <i>Myrmecobius fasciatus</i>                              | numbat, walpurti                                 | MAMMAL       | Threatened - Endangered                         | EN        | EN          |
| <i>Geotria australis</i>                                  | Pouched lamprey                                  | FISH         | Priority  | P3        |             |

## **APPENDIX B**

### **Desktop Flora Results.**

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| PopId        | Taxon                  | ConsS<br>tatus | WARa<br>nk | Location   | District       | Gda94Lat   | Gda94Long  | Pop-<br>Condit | HabCon<br>diti |
|--------------|------------------------|----------------|------------|--|----------------|------------|------------|----------------|----------------|
| 86479.000000 | Acacia<br>semitrullata | 4              |            | Mowen Road just west of Nannup Road.   | BLACK-<br>WOOD | -33.969638 | 115.747351 |                |                |
| 86486.000000 | Acacia<br>semitrullata | 4              |            | 3.5 kilometres along Mowen Road from junction with Vasse Highway, 40 metres south of road.   | BLACK-<br>WOOD | -33.963805 | 115.725684 |                |                |
| 86487.000000 | Acacia<br>semitrullata | 4              |            | North side of River Road, 1.9 kilometres from the junction with the Brockman Highway.  | BLACK-<br>WOOD | -33.998250 | 115.722907 |                |                |
| 86522.000000 | Acacia tayloriana      | 4              |            | On the north side of Crouch Rd at 4625m west of Cul-de-sac Rd; 150m east of Creak.   | BLACK-<br>WOOD | -34.021865 | 115.440686 |                |                |
| 86526.000000 | Acacia tayloriana      | 4              |            | Both sides of Crouch Rd at 1960m west of Cul-de-sac Rd.  | BLACK-<br>WOOD | -34.024087 | 115.463464 |                |                |
| 86527.000000 | Acacia tayloriana      | 4              |            | On the south road verge at 3820m west of Cul-de-sac Rd on Crouch Rd.   | BLACK-<br>WOOD | -34.021864 | 115.449575 |                |                |
| 86528.000000 | Acacia tayloriana      | 4              |            | On both road edges at 5545m west of Cul-de-sac Rd on Crouch Rd.  | BLACK-<br>WOOD | -34.021864 | 115.449575 |                |                |
| 86529.000000 | Acacia tayloriana      | 4              |            | On either side of Backer Rd at 540m north-eastwards from the junction with Mowen Rd.   | BLACK-<br>WOOD | -33.913251 | 115.560128 |                |                |
| 86530.000000 | Acacia tayloriana      | 4              |            | 345m from Mowen Rd, on both sides of Jalbarragup Rd. ( northwards) Approx. 80m south-east from Brockman Hwy, between an old, replaced gravel pit and a track parallel to Backer Brook. | BLACK-<br>WOOD | -33.911029 | 115.540684 |                |                |
| 86531.000000 | Acacia tayloriana      | 4              |            |  | BLACK-<br>WOOD | -34.042973 | 115.694574 |                |                |

|              |                   |   |  |                |            |            |
|--------------|-------------------|---|--|----------------|------------|------------|
| 86532.000000 | Acacia tayloriana | 4 | From Jalbarragup Rd 2040m westwards on Crouch Rd, then approx 50m south westwards.   | BLACK-<br>WOOD | -34.023530 | 115.576519 |
| 86512.000000 | Acacia tayloriana | 4 | From Crouch Rd 585m north-westerly on plot Rd, at winter creek crossing.   | BLACK-<br>WOOD | -34.016863 | 115.539574 |
| 86513.000000 | Acacia tayloriana | 4 | Adjacent to and on the north-western corner of Butter plot No.3 (pines and Eucalyptus).  | BLACK-<br>WOOD | -34.010474 | 115.543185 |
| 86514.000000 | Acacia tayloriana | 4 | On both sides of Crouch Rd at 515m to 1240m west of the junction of Plot Rd. ucalyptus).<br>On both sides of Crouch Rd at approx. 1.43km westwards from Layman Rd. (1690m eastwards from Cul-de-sac Rd.) | BLACK-<br>WOOD | -34.020474 | 115.539019 |
| 86515.000000 | Acacia tayloriana | 4 |  | BLACK-<br>WOOD | -34.018253 | 115.507352 |
| 86516.000000 | Acacia tayloriana | 4 | On both sides of Adelaide Rd at 2700m south of Crouch Rd.  | BLACK-<br>WOOD | -34.036586 | 115.486519 |
| 86517.000000 | Acacia tayloriana | 4 | On north side of Noakes Rd at 1095m easterly from the junction with Yates Rd.  | BLACK-<br>WOOD | -34.032975 | 115.476519 |
| 86518.000000 | Acacia tayloriana | 4 | Mainly on the east side of Great South Rd at 220m south of Blackwood Rd.   | BLACK-<br>WOOD | -34.121307 | 115.688743 |
| 86519.000000 | Acacia tayloriana | 4 | Mainly approx. 150m east of Great South Rd at 2650m south of Blackwood Rd, but also close to G.S. Road.  | BLACK-<br>WOOD | -34.142696 | 115.689021 |
| 86520.000000 | Acacia tayloriana | 4 | On both sides of Great south Rd at 3140m south of Blackwood Rd.  | BLACK-<br>WOOD | -34.146585 | 115.686243 |
| 86521.000000 | Acacia tayloriana | 4 | Mainly on the east side of Great South Rd at 3750m south of Blackwood Rd.  | BLACK-<br>WOOD | -34.152141 | 115.685132 |

|               |                         |   |   |                |            |            |                               |
|---------------|-------------------------|---|---|----------------|------------|------------|-------------------------------|
| 86523.000000  | Acacia tayloriana       | 4 | On north-eastern side of Stewart Rd at approx 4.98 km north west from Great South Rd, just beyond a side drain, 2km south-east of Great west rd and Ramp Rd intersection. Rosa Forest Block. (Pop 22 merged with Pop 21 as they are the same location). | BLACK-<br>WOOD | -34.209365 | 115.594578 |                               |
| 86524.000000  | Acacia tayloriana       | 4 |   | BLACK-<br>WOOD | -33.952778 | 115.480278 |                               |
| 88425.000000  | Andersonia auriculata   | 3 | Blackwood River NP (47670). Blackwood Rd, ca. 8.6km from Brockman Hwy via Judy Rd. Nannup.  | BLACK-<br>WOOD | -34.094861 | 115.459500 |                               |
| 88464.000000  | Andersonia barta        | 2 | Millyeannup NP (47007), SW of Nannup, both sides of Great South Rd 50-250m NE of intersection with Stewart Rd.  | BLACK-<br>WOOD | -34.238247 | 115.628161 | MOD-<br>ERATE<br>VRY_GO<br>OD |
| 96871.000000  | Aponogeton hexatepalus  | 4 | c. 100m S of W-E running section of St John Brook Rd. State Forest No 6. ca 2.8km N along St John Brook Rd from Mowen Rd.   | BLACK-<br>WOOD | -33.940749 | 115.688739 |                               |
| 96872.000000  | Aponogeton hexatepalus  | 4 | Cambray State Forest (ID:F6). St.Johns Brook, N of Barrabup Pool, NW Nannup.  | BLACK-<br>WOOD | -33.940583 | 115.694850 |                               |
| 101957.000000 | Caladenia harringtoniae | T | ca 2.5km E of Vasse Hwy on Davidson Rd. E (& W?) road res.  | BLACK-<br>WOOD | -34.103250 | 115.802353 |                               |
| 101958.000000 | Caladenia harringtoniae | T | 2.5km E of Vasse Hwy on Davidson Rd. E of road.   | BLACK-<br>WOOD | -34.103250 | 115.802353 |                               |
| 101959.000000 | Caladenia harringtoniae | T | 100m S of jnc of Davidson Rd & Mt Leewin Loop.  | BLACK-<br>WOOD | -34.103250 | 115.802353 |                               |
| 101960.000000 | Caladenia harringtoniae | T | 100m S of jnc of Graphite (previously Davidson) Rd & Mt Leewin Loop. S road res of Mt Leewin Loop Rd. Barree Brook St 55. ca. 1.5km WNW of Coronation Rd and Weedy Rd intersection. In fishtail junction to unnamed track north.                        | BLACK-<br>WOOD | -34.103250 | 115.802353 | EX-<br>CELENT                 |
| 91265.000000  | Caladenia harringtoniae | T |   | DON-<br>NELLY  | -34.238889 | 115.838889 |                               |

|               |                         |   |    |  |           |                       |                 |
|---------------|-------------------------|---|----|--|-----------|-----------------------|-----------------|
| 91232.000000  | Caladenia harringtoniae | T | VU | both sides of walk trail & edges of creek, follows creekline to ca 190m downstream to ca 250m upstream from road culvert.                    | BLACKWOOD | -34.028731 115.981917 |                 |
| 91235.000000  | Caladenia harringtoniae | T | VU | Btw 70m & 280m west of Huitson rd, approx 30-40m north of track. Popn found in the western end of DRF zone.                                  | BLACKWOOD | -33.885467 116.032904 | EX-CELENT       |
| 91244.000000  | Caladenia harringtoniae | T | VU | North Donnelly SF 34 500m S of Carter Rd and Moriarty Rd intersection.   | DONNELLY  | -34.129167 116.024167 | GOOD            |
| 91245.000000  | Caladenia harringtoniae | T | VU | SF 34, 1.7km NW of Manjimup. 640m S of intersection of Sears Rd and Carter Rd, both sides of track and E of Jack Rd.                         | DONNELLY  | -34.130414 115.998668 | HEALTH VRY_GOOD |
| 91247.000000  | Caladenia harringtoniae | T | VU | Neison Forest block. Stallard rd/Gully Rd intersection approx 2.5km south of Gold Gully/ Stallard Rd intersection on north side of Gully Rd. | BLACKWOOD | -34.055972 115.951361 |                 |
| 101949.000000 | Caladenia harringtoniae | T | VU | State Forest 34, lot 4068. Carter Road. 3km N of Donnelly Mill Rd. West side of road.  | DONNELLY  | -34.079501 116.036013 |                 |
| 101950.000000 | Caladenia harringtoniae | T | VU | State Forest 34, Carter Rd. 3.5km N of Donnelly Mill Rd.   | DONNELLY  | -34.088280 116.038322 |                 |
| 101951.000000 | Caladenia harringtoniae | T | VU | SF-34, along Maisy Rd on both sides. ca.30m W from Carter Rd and Maisy Rd intersection.  | DONNELLY  | -34.088528 116.034028 | HEALTH          |
| 101952.000000 | Caladenia harringtoniae | T | VU | State Forest 34, Lot 4067. Maisy Rd. 300m W of Carter Rd and Maisy Rd intersection, 2km N of Donnelly Mill Rd.                               | DONNELLY  | -34.089096 116.031582 | MODERATE GOOD   |
| 118529.000000 | Caladenia harringtoniae | T | VU | SF-34, approx 70m S off Maisy Rd. ca. 500m WSW from Carter Rd and Maisy Rd intersection.   | DONNELLY  | -34.089335 116.029969 | HEALTH VRY_GOOD |
| 118530.000000 | Caladenia harringtoniae | T | VU | SF-34, approx 120m W off Carter Rd. ca. 350m NNE from Carter Rd and Maisy Rd intersection.   | DONNELLY  | -34.085556 116.035556 | POOR GOOD       |

|               |  |   |    |  |           |                       |                   |
|---------------|--|---|----|--|-----------|-----------------------|-------------------|
| 91249.000000  | Caladenia harringtoniae                | T | VU | SR-34, NEPIC forest block, 1 in Mine Rd, 750 m from Swamp Road, east side at culvert then west side to the intersection with Lime Road   | DONNELLY  | -34.090278 115.993333 | HEALTH DEGRADED   |
| 91250.000000  | Caladenia harringtoniae                | T | VU | North Donnelly SF 24 - 1km along Swamp Rd from Donnelly Mill Rd, then ca. 540m   | DONNELLY  | -34.098040 116.030450 | HEALTH VRY_GOOD   |
| 118589.000000 | Caladenia harringtoniae                | T | VU | SR-34, Along unsealed track, west side, off Thor Rd. Approx 750m SE of Moriatty Rd and Boronia Rd intersection   | DONNELLY  | -34.138611 116.029944 | HEALTH GOOD       |
| 84451.000000  | Carex tereticaulis                     | 3 |    | Shire of Nannup Reserve (24774). Blackwood foreshore. Nannup   | BLACKWOOD | -33.978806 115.761528 |                   |
| 93584.000000  | Conospermum caeruleum subsp. contortum | X | EX | 18 miles (29.09 km) west of Nannup.  | BLACKWOOD | -33.948808 115.451518 |                   |
| 93227.000000  | Cyathochaeta stipoides                 | 3 |    | Milyeannup State Forest. Poison Gully. Nannup. Warrnure-Butter National Park (4/06/1), 1.2km west along shunt/log road (off Cul de Sac Rd at ca. 2km N of Crouch Rd) then W 100m into bush.  | BLACKWOOD | -34.109167 115.551111 |                   |
| 92404.000000  | Daviesia elongata                      | T | VU | rington forest block, 150m E along track from the junction of White & Pelican Roads. N side of track ca. 50m E of logging turnaround crossing track. Gully area. Ca 150m W of Brockman Hwy at 1.7km NE from the junction with Stewart Rd. Blackwood Forest Block. Shire of Nannup. | BLACKWOOD | -34.002686 115.478706 | HEALTH EXCELENT   |
| 92405.000000  | Daviesia elongata                      | T | VU |  | BLACKWOOD | -33.786782 115.786006 | MODERATE VRY_GOOD |
| 92407.000000  | Daviesia elongata                      | T | VU |  | BLACKWOOD | -34.146750 115.540917 |                   |
| 95143.000000  | Gastrolobium formosum                  | 3 |    | Blackwood State Forest. On Shunt roughly 3km from MaAtee Rd Junction. Nannup.  | BLACKWOOD | -33.971528 115.547056 |                   |
| 95153.000000  | Gastrolobium modestum                  | T | VU | from the junction of Penguin and Gannet Rd, then 150m through a pine access track to the creek and species (on both sides of creek).   | BLACKWOOD | -33.747136 115.675402 |                   |

|              |   |   |  |                |                       |
|--------------|---|---|--|----------------|-----------------------|
| 85749.000000 | <i>Grevillea ripicola</i>                 | 4 | U./5 km north of the junction with Jones Rd. Also extends along the creekline for ca. 0.6 km north of the NW corner of Location 802.   | BLACK-<br>WOOD | -33.745189 115.867624 |
| 89431.000000 | <i>Leptinella drummondii</i>              | 3 | Private Land, Sussex Lot 50. On bank of Blackwood River, Darradup, 18 km SW of Nannup. Nannup Reserve 12752, Jalbarragup. 100 to 250 m north of Jalbarragup Bridge, Blackwood River, following a wet depression. | BLACK-<br>WOOD | -34.081944 115.604722 |
| 98981.000000 | <i>Pultenaea skinneri</i>                 | 4 |  | BLACK-<br>WOOD | -34.039085 115.602352 |
| 98982.000000 | <i>Pultenaea skinneri</i>                 | 4 | Road verge of Jalbarragup, between Blackwood River and Brook Rd.   | BLACK-<br>WOOD | -34.037974 115.601519 |
| 98983.000000 | <i>Pultenaea skinneri</i>                 | 4 | East side of Jalbarragup Rd, just north of the boundary with Res 12952, ca. 400 m north of Blackwood River.  | BLACK-<br>WOOD | -34.032140 115.602074 |
| 98984.000000 | <i>Pultenaea skinneri</i>                 | 4 | SE side of the junction of Jalbarragup Rd and Brook Rd.  | BLACK-<br>WOOD | -34.034918 115.600408 |
| 98985.000000 | <i>Pultenaea skinneri</i>                 | 4 | SE side of the junction of Jalbarragup Rd and Brook Rd.  | BLACK-<br>WOOD | -34.034918 115.600408 |
| 86963.000000 | <i>Pultenaea skinneri</i>                 | 4 | Darradup Forest Block. 200 m north of Blackwood River. Near Denny Rd.  | BLACK-<br>WOOD | -34.039918 115.589019 |
| 93414.000000 | <i>Synaphea otio stigma</i>               | 3 | 9.8 km SW of Nannup along Brockman Hwy. N side, within 50 m of the road. Jalbarragup State Forest - SF 33.   | BLACK-<br>WOOD | -34.041862 115.692630 |
| 93415.000000 | <i>Synaphea otio stigma</i>               | 3 | 7.9 km S of Nannup along Vasse Hwy. W side, within 50 m of the road. Jarranwood Plantation, Grid Ref. FT3802 (ca. 400 west of Noddy and Gaffer Roads in a creek System).   | BLACK-<br>WOOD | -34.056028 115.767908 |
| 93501.000000 | <i>Synaphea petiolaris</i> subsp. simplex | 3 |  | BLACK-<br>WOOD | -33.785641 115.591573 |



|  | Veg_Stru_A        | Veg_domA1 A2   | Veg_dom              | Veg_Stru_B           |
|--|-------------------|--|----------------------|----------------------|
| <b>HabNotes</b><br>smooth brown bark.<br>Foliage green.<br>Flowers cream balls<br>ca. 5-6mm. in diam<br>mid-slope or greyish<br>orange soils in very<br>open Jarrah/Marri<br>forest.<br>A shrub to 1.5 cm.<br>found on the upper<br>slope in pale greyish<br>orange sandy soils. | Unknown Veg Class | Eucalyptus<br>marginata,<br>Corymbia<br>Corymbia<br>calophylla,<br>Banksia<br>grandis. | Unknown Veg<br>Class | Unknown Veg<br>Class |
| Numerous associ-<br>ated species.  | Unknown Veg Class | Tree Mallee<br>and scrub.  | Unknown Veg<br>Class | Unknown Veg<br>Class |
| Kingia; Hakea<br>cyclo.; Xanthorr.<br>grec.; Thom.<br>grand.;<br>Kingia; Hakea<br>cyclo.; Xanthorr.<br>grec.; Thom.<br>grand.;   | Unknown Veg Class | Tree Mallee<br>and scrub.  | Unknown Veg<br>Class | Unknown Veg<br>Class |
| Other numerous<br>species.   | Unknown Veg Class | Marri  | Unknown Veg<br>Class | Unknown Veg<br>Class |

|   |   |                   |
|---|---|-------------------|
| Other numerous species.   | Unknown Veg Class Jarrah                          | Unknown Veg Class |
| Other numerous species.   | Unknown Veg Class Jarrah                          | Unknown Veg Class |
| Other numerous species.   | Unknown Veg Class Jarrah                          | Unknown Veg Class |
| Tree Mallee and forest.   | Unknown Veg Class Jarrah                          | Unknown Veg Class |
| Tree Mallee and forest.   | Unknown Veg Class Jarrah                          | Unknown Veg Class |
| Other numerous species.<br>Soil Condition :Saline;<br>Other numerous species. | Unknown Veg Class Jarrah                          | Unknown Veg Class |
| Other numerous species.   | Unknown Veg Class Jarrah                          | Unknown Veg Class |
| Other numerous species.   | Unknown Veg Class Jarrah                          | Unknown Veg Class |
| Other numerous species.   | Unknown Veg Class Jarrah                          | Unknown Veg Class |
| Common species on east side road.   | Unknown Veg Class Jarrah<br>utriculoria menziesii | Unknown Veg Class |

| Other numerous species.  | Unknown Veg Class Jarrah   | Unknown Veg Class  |
|--|--|--|
| Marri forest with a dense understorey.<br>Patersonia xanthina,<br>Daviesia incrassata impacted by die-back. Only dead trees and a few seedlings left.<br>Mataeuca preissiana, Boronia juncea, Astartea fascicularis, Hakea | Eucalyptus Marginata<br><br>Hypoclymma angustifolium<br><br>Eucalyptus marginata<br><br>Ruppia polycarpa   | Unknown Veg Class<br><br>Unknown Veg Class<br><br>low heath-land 0.5-1m, 50-80%<br>low sparse sedgeland <0.5m, 0.25-20%          |
| Phytium brownii,<br>Caladenia infundibularis, Thelmitra flexuosa<br>Phytium brownii,<br>Caladenia infundibularis, Thelymitra flexuosa<br>Phytium brownii,<br>Caladenia infundibularis, Thelmitra flexuosa                  | Villarsia albiflora<br><br>Eucalyptus marginata<br><br>Eucalyptus marginata<br><br>Eucalyptus marginata<br><br>Eucalyptus marginata, E. calophylla | Unknown Veg Class<br><br>Unknown Veg Class<br><br>Unknown Veg Class<br><br>Unknown Veg Class<br><br>open heath-land 1-2m, 20-50% |
|  | woodland 10-30m, 20-50%<br><br>woodland 10-30m, 20-50%<br><br>woodland 10-30m, 20-50%<br><br>woodland 10-30m, 20-50%                               |  |

woodland 10-30m, 20-50% Eucalyptus marginata Corymbia shrubland 1-2m, 50-80% catophylla

Hakea issocarpa, Acacia divergens, Leucopogon propinquus, Hakea issocarpa, Acacia divergens, Leucopogon propinquus

Unknown Veg Class Eucalyptus patens Unknown Veg Class Eucalyptus patens

Unknown Veg Class Unknown Veg Class

fire intensity, medium and high

Loss of Xanthorrhoea  
- impact associate  
species

An area of Balgas  
are dead

tall open forest  
>30m, 50-80%  
Eucalyptus  
patens woodland 10-  
30m, 20-50%

Marri woodland.  
Numerous weeds

Unknown Veg  
Class

Acacia  
saligna

Low open woodland  
B over low sedges.

Unknown Veg Class  
Lodoniaea  
viscosa  
subsp. an-  
gustissima

Unknown Veg  
Class

Shrubland; Low  
forest A over Heath  
C.  
back. Disturbance  
from past logging  
and firewood col-  
lection.

open forest 10-  
30m, 50-80%  
Eucalyptus  
marginata isolated  
shrubs 1-2m,  
calophylla <0.25%

Unknown Veg  
Class

Unknown Veg Class  
Eucalyptus  
marginata

neath B over open  
low sedges. Harrah,  
Marri, Peppermint,  
low ground shrubs.

Majority of Bra-  
chysema modesta  
within creek system.

Unknown Veg  
Class

Unknown Veg Class  
Eucalyptus  
marginata

Irymanium spatnu-  
latum, Bracken,  
Drosera, Xanthir-  
rhoea. Weeds.

Gastro-  
lobium  
Unknown Veg Class spinosum

Unknown Veg  
Class

Cycaas, seages, AQ-  
enanthos obovatus,  
Anigozanthos rufa,  
Bossiaea.

woodland 10-30m,  
20-50% Eucalyptus  
marginata

tall open  
shrubland  
>2m, 20-50%

Gravelly loam.

open forest 10-  
30m, 50-80%

Eucalyptus  
marginata

Unknown Veg  
Class

open forest 10-  
30m, 50-80%

Eucalyptus  
marginata

Unknown Veg  
Class

Unknown Veg Class  
Corymbia  
catophylla

Unknown Veg  
Class

## **APPENDIX C**

### **Desktop Flora – Western Australian Herbarium Results.**

| Taxon               | Cons_ Code | Plant_Desc   | Site   | Vegetation  | Notes  | Locality   | Latitude   | Longitude  |
|---------------------|------------|--|--|---|--|--|------------|------------|
| Acacia semitrullata | 4          | Slender shrub to 0.75 m tall with smooth brown bark. Foliage green. Flowers cream balls ca 5-6 mm diameter. Pods hairy on bush, mature on ground dark brown, straight-sided. |  |   |  | Mowen Road just W of Nannup Road   | -33.966667 | 115.733333 |
| Acacia semitrullata | 4          | Slender, erect, pungent shrub; 0.2-0.7 m high; flowers cream-white. May-Oct.   |  | Associated species: Eucalyptus marginata, Corymbia calophylla, Xylomelum occidentale, Banksia grandis, Podocarpus drouyniana, Adenanthos meisneri, Allocasuarina spp., Macrozamia riedlii.  | Condition of population: plants N of Mowen Road, moderate. | Yara bores, North of Crouch Road, off Sue's Road<br>3.6 km along Mowen Road from Mowen Road-Vasse Highway junction, population on road verge with most plants N of Mowen Road, | -34.024361 | 115.439000 |
| Acacia semitrullata | 4          |  | E aspect. Midslope. Moist, yellow sand over gravel.    |   |  |  | -33.965000 | 115.724167 |
| Acacia tayloriana   | 4          | Prostrate shrub regenerated after 1985 burning, flowers creamy.  | On loamy BSL on very gentle slope.                     | Jarrah/Marri forest.  |  | Jarrahwood, For. Ref. GB 3/72,   | -33.904167 | 115.570833 |
| Acacia tayloriana   | 4          | Prostrate.   | Kingia suite soil (heavy texture).                     | Mallee/Jarrah.  |  | Rosa Brook (Stream), GL 2998,  | -34.022222 | 115.438889 |
| Acacia tayloriana   | 4          | Shrub 30 cm.   | Pale yellowish brown sandy lateritic soils, mid-slope. | Associated species: Bossiaea laidiawiana, Acacia divergens, Trymalium (soap bush), Karri, Agonis parviceps and a dense lower storey of mixed shrub species. Associated species: Eucalyptus marginata subsp. marginata, E. calophylla, Xanthorrhoea preissii, Allocasuarina fraseriana, Podocarp |  | 5.4 km W of junction of Crouch and Jalbarragup Roads, 30 m S of road   | -34.022517 | 115.542883 |
| Acacia tayloriana   | 4          | Shrub 20 cm.   |  |   |  | 1.8 km on Great South Road, N from intersection with Darradup Road   | -34.165801 | 115.680990 |



|                   |   |  |   |   |                       |
|-------------------|---|--|---|---|-----------------------|
| Acacia tayloriana | 4 | Shrub 10 cm.   | low understory of mixed species. Associated species: Eucalyptus marginata, Allocasuarina fraseriana, Eucalyptus calophylla, Anarthria scabra, Podo-<br>carpus drouynianus, Haakea amplexicaulis, Agoni  | 1 km NNW of Darradup Road from Blackwood Road intersection  | -34.115187 115.626134 |
| Acacia tayloriana | 4 | Prostrate herb, width to 20 cm, yellow flowers.  | Poor Eucalyptus marginata, Corymbia calophylla, Allocasuarina fraseriana, Mesmelaena tetragona, Agonis parviceps, over Low Heath D, jarrah, Allocasuarina fraseriana, marri, Kingia, Adenanthos barbigerus, A. obovata, Isopogon spaeocephalus, I. attenuata, Hibbertia hypericoides, Dryandra bipinnatifida * Heath D and Low Sedges, Allocasuarina fraseriana, jarrah, marri, Melaleuca thymoides, Mesmelaena tetragona, Hypocalymma angustifolium, Dryandra nivea, Hibbertia aurea, Thomasia grandiflora | Millevannup Nature Reserve, corner of Darradup, Great South and Millevannup Roads,                                | -34.181944 115.672222 |
| Acacia tayloriana | 4 | Grey silty clay loam, large termite mounds common.   | Hibbertia hypericoides, Dryandra bipinnatifida * Heath D and Low Sedges, Allocasuarina fraseriana, jarrah, marri, Melaleuca thymoides, Mesmelaena tetragona, Hypocalymma angustifolium, Dryandra nivea, Hibbertia aurea, Thomasia grandiflora   | (Popn. No. 19) On Great South road, at c. 225 m S of Blackwood Road, mainly on the eastern side, Grid Ref. GR4433 | -34.122222 115.687222 |
| Acacia tayloriana | 4 | On very gentle slope on valley side, W aspect, dark greyish brown loam.                                  | Scrub A over Low Heath C, jarrah, marri, Haakea amplexicaulis, H. lossocantha, Pultenea drummondii, Pterophle diversifolia, Acacia mooreana, Patersonia xanthina, * Thomasia grandiflora, * Low Forest A over Dense Scrub and Low Heath C, Jarrah, Allocasuarina fraseriana, Banksia grandis, Xylomelum occidentale, Adenanthos barbigerus, Isopogon sphaerocephalus, Bossiaea ornata * over Low Heath D and Open   | (Popn. No. 18) On Noakes road, at c. 1095 m E of the intersection with Yates road, Grid Ref. GM 1918              | -34.034167 115.475000 |
| Acacia tayloriana | 4 | Prostrate sub-shrub. Hairy stem and leaves. Rhizomatous, to 300 mm spread, as gauged by aerial branches. | Slight depression in lateritic upland, yellowish brown fine sandy loam.   | (popn. No. 7) Both side of Jalbarragup road at 345 m N of the intersection with Mowen road, Grid Ref. GC 3556     | -33.912222 115.539167 |
| Acacia tayloriana | 4 | On nose of ridge, heavy gravelly soil type, undisturbed and roadside but -ter slope.                     | Low Forest A over Dense Scrub and Low Heath C, Jarrah, Allocasuarina fraseriana, Banksia grandis, Xylomelum occidentale, Adenanthos barbigerus, Isopogon sphaerocephalus, Bossiaea ornata * over Low Heath D and Open   | (Popn. No. 17) On Adelaide Road, at c. 2750 m S of Crouch road, Grid Ref. GM 2536                                 | -34.037778 115.485000 |
| Acacia tayloriana | 4 | Bottom of very shallow valley with small winter creek, yellowish brown silty clay loam with mottles.     | Low Sedges, jarrah, marri, Kingia, Dasypogon hookeri, Agonis parviceps, Adenanthos barbigerus, Thomasia grandiflora, Acacia nervosa, Mesmelaena tetragona *   | (Popn. No. 10) Mainly W of Plot road, c. 500 m NW of the intersection with Crouch road, Grid Ref. GK 3563         | -34.018056 115.538056 |
| Acacia tayloriana | 4 | Open tree Mallee over Low Heath D.   |   | Jalbarragup, For. Ref. GK 3571,   | -34.019444 115.540278 |

|  |   |  |  |   |  |            |            |
|--|---|--|--|---|--|------------|------------|
| Acacia tayloriana                              | 4 | Erect open perennial dwarf shrub, height to 3 cm, width to 20 cm.  | Ridge; brown to grey sandy clay over laterite with 10-20% outcropping; soil pH 6.                  | Forest with associated vegetation of Eucalyptus marginata, Corymbia calophylla and Xanthorrhoea pretsii.                                  | Plot FC40, on Crouch Road, 500 m E of junction with Cui de Sac Road, Layman Forest Block   | -34.023444 | 115.496528 |
| Amanita kalamundae                             | 3 | Part of Holotype, check not biscuit top? Mode of Life: unknown.  |  | Eucalyptus diversicolor.  | Graphite Road, near One Tree Bridge, Manjimup  | -34.216667 | 115.933333 |
| Amperea micrantha                              | 2 | Dioecious perennial herb.  | In sand.   |   | Ridge Road, Whicher Range  | -33.883333 | 115.666667 |
| Andersonia barbata                             | 2 | Erect shrub to 30 cm. Many leaves brown. Last season's fruits (old inflorescences).  | White sand.  | In woodland. Eucalyptus, Kingia.  | N of intersection of Stewart Road and Great South Road (latter disused, sign barely legible) 14.2 km from Nannup, Pemberton Road | -34.100278 | 115.700833 |
| Andersonia longifolia                          | 2 | Erect subshrub to 30 cm tall, flowers white; calyx concealing? corolla.  | Heavy texture.   | Jarraah/Marri forest on steep slope beside Sabina River, N aspect.  | Whicher, For. Ref. FS 2984.  | -34.000000 | 115.447222 |
| Andersonia sp. Echidna (A.R. Annel's ARA 5500) | 2 | Pink flowers, exserted stamens, open tube, recurved lobes, stylus orange-red, Leaves recurved. Cushion plants approximately 20 cms wide x approximately 15 cms high. | Upper slope, gravel soil, partly old gravel scrape.  | Eucalyptus marginata, E. calophylla, Podocarpus drouyniana, Agonis parviceps, Macrozamia riedlei,   | Approximately 45 km WNW of Manjimup on Lewin Road 400 m E of Old Andrew Road   | -34.143333 | 115.849167 |
| Andersonia sp. Echidna (A.R. Annel's ARA 5500) | 2 | Pink flowers, exserted stamens, open tube, recurved lobes, stylus orange-red, Leaves recurved. Cushion plants approximately 20 cms wide x approximately 15 cms high. | Lower slope, sandy gravel adjacent to drainage line. Not recently burnt approximately 3 years old. | Eucalyptus marginata, E. calophylla, Xanthorrhoea preisei, Banksia grandis, Bossiaea aquilobium, Podocarpus drouyniana, Agonis parviceps. | 45 kms WNW of Manjimup, Lewin Road 1.1 km E of Old Andrew Road, N & S side of Lewin Road   | -34.148889 | 115.853056 |
| Andersonia sp. Echidna (A.R. Annel's ARA 5500) | 2 | Sub shrub, height to 10 cm, pink flowers.  | Mid slope, gravelly sand.  | Eucalyptus marginata, Corymbia calophylla, Allocasuarina fraseriana, Banksia grandis.   | Lewin Road,  | -34.152778 | 115.853056 |

|   |   |  |   |   |            |            |  |
|---|---|--|---|---|------------|------------|--|
| Andersonia sp.<br>Echidna (A.R. An-<br>nels ARA 5500) | 2 | Pink flowers, exerted stamens,<br>open tube, recurved lobes, stylus<br>orange-red. Leaves recurved.<br>Cushion plants approximately 20<br>cms wide x approximately 15 cms<br>high. | Lower slope, sandy gravel<br>adjacent to drainage line.<br>Not recently burnt ap-<br>proximately 3 years old. | Eucalyptus marginata, E. calo-<br>phylla, Xanthorrhoea preissi,<br>Banksia grandis, Podocarpus<br>drouyniana, Agonis parviceps.                               | -34.143333 | 115.849167 | Approximately 45 km<br>WNW of Manjimup on<br>Lewin Road 400 m E of<br>Old Andrew Road  |
| Andersonia sp.<br>Echidna (A.R. An-<br>nels ARA 5500) | 2 | Dwarf cushion shrub, 15 cm high.<br>Pink flowers.  | Gentle slope. Track edge -<br>previously disturbed.<br>Brown laterite.  | Associated species: Eucalyptus<br>marginata, Corymbia calo-<br>phylla, Taxandria panviceps,<br>Bossiaea webbia and Astroloma<br>sp. Nannup (R.D. Royce 3978). | -34.134639 | 115.850278 | SE Nannup State Forest<br>57. Andrew Forest<br>Block, Granite Road ca.<br>200 m E of Old Andrew<br>Road  |
| Aponogeton hex-<br>atepalus                           | 4 | Tuberous herb. Inflorescences<br>above water, mostly finished.   | Claypan.  | Villarsia albiflora herbfield.  | -33.941777 | 115.693323 | St Johns Brook, N of<br>Barrabup Pool, NW<br>Nannup  |
| Banksia meisneri<br>subsp. ascendens                  | 4 | Erect open perennial shrub, height<br>to 45 cm, width to 1 m.  | Ridge; brown to grey<br>sandy clay over laterite<br>with 10-20% outcropping;<br>soil pH 6.                    | Forest with associated vegeta-<br>tion of Eucalyptus marginata,<br>Corymbia calophylla and<br>Xanthorrhoea preissii.  | -33.954522 | 115.704022 | Plot FC38, St John Road<br>East, 1 km N of junction<br>with Mowen Road, Bar-<br>rabup Forest Block   |
| Banksia meisneri<br>subsp. ascendens                  | 4 | Open spreading shrub 0.6 m tall.   | On low rise of grey sand.   | Jarraah, low open woodland.   | -34.150000 | 115.600000 | Milyeannup, For. Ref.<br>HB 28,<br>in sandy soil creekhead.<br>Helms State Forest.<br>Along Stoate Road off<br>Mowen Road and then<br>a ca. 200 m walk<br>downslope to an open<br>creek-head |
| Banksia mimica  | T | Low clonal shrub. Dieback af-<br>fected. Clonal growth. Older<br>flowers present.  | Open area of low shrub.<br>Grey sand soils.   | Low heath with Eucalyptus<br>marginata, Leucopogon sp.,<br>Banksia sp., Xanthorrhoea pre-<br>issii.   | -33.963991 | 115.632310 |  |
| Banksia squarrosa<br>subsp. argillacea                | T | 15-20 ft high bush, half as wide as<br>tall.   | Lowland swampy soil.  | 20 acres in patch, small<br>patch on the Cane Break<br>and area at Rocky Gully.   | -33.979722 | 115.758333 | Nannup - McCorkhill<br>Block, just behind Nan-<br>nup off Mowen Road   |
| Banksia squarrosa<br>subsp. argillacea                | T | Erect perennial compact shrub, 1.5<br>x 0.75 m. Flowers yellow, plant<br>active with flowers and floral buds.<br>80% of population flowering.                                      | On hill side with bare to<br>stoney brown clay loam<br>over ironstone.  | Open Jarrah forest. Associated<br>with Eucalyptus marginata.  | -33.866667 | 115.650000 | 0.9 km SSW of Old<br>Cambray Siding  |

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| Boronia capitata<br>subsp. gracilis | 3 | Shrub 0.4 m tall, flowers dark pink. | Grey sand, plateau.   | Jarraahwood   | -33.800000 | 115.666667 |
| Caladenia harringtoniae             | T |                                      | Located next to creek. Brown moist clay over laterite.            | ca 2 km S up Stallard Road from Gold Gully Road, Nelson Forest, Block, GM5923,<br>Abundance: c. 30 plants.                        | -33.979722 | 115.780000 |
| Caladenia harringtoniae             | T |                                      | Elevated depression - (Y-ornup). Yellow grey sand over ?laterite. | NE side of Sears Road,<br>Dieback.  | -34.130278 | 115.999722 |
| Caladenia harringtoniae             | T |                                      | Stream 1(CSIRO). Brown loam, sandy clay over laterite.            | Tin Mine road, 1 km N of Lime Road,   | -34.088889 | 115.989444 |
| Caladenia harringtoniae             | T |                                      | Stream, brown loam. Red earth / mottled clay.                     | On road disturbance, Weedy Road,  | -34.238889 | 115.836944 |
| Caladenia harringtoniae             | T |                                      | Herb, height to 27 cm, pink spider flower.                        | 30 m W of Carter Road on unnamed road, 2 km N of Donnelly Mill Road,<br>Abundance: Only three mature plants, in flower and fruit. | -34.083333 | 116.016667 |
| Caladenia harringtoniae             | T |                                      | Herb, height to 55 cm, pink spider flower.                        | 1375 m along Swamp Road from Donnelly Mill Road,<br>Abundance: Only two mature plants.  | -34.083333 | 116.016667 |
| Caladenia harringtoniae             | T |                                      | Gravelly loam adjacent to drainage line.                          | Palgarup, For.Ref. GK 6081,<br>Forest of Marri/Jarraah.   | -34.030556 | 115.977778 |

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| Caladenia uliginosa subsp. patulens         | 1 | Plants 30-40 cm tall, flowers pale green, labellum white with purplish fringe. | Gravelly loam on slope.  | Forest of marri and jarrah, over open low Banksia scrub.   | Nannup, For. Ref. GD4873,  | -33.934722 | 115.769444 |
| Calothamnus graniticus subsp. graniticus    | 4 | Compact shrub 1.5 m high, 1.5 m wide, fertile, flowers red.                    | Hill, brown gravelly sandy clay.   | Forest.  | Nannup   | -33.966304 | 115.758740 |
| Calothamnus lateralis var. crassus          | 3 | Shrub, up to 2.5 m high. Flower red.   | Low lying winter wet depression on roadside.   |  | 2.7 km E of Great North Road on N side of Brockman Highway, between Nannup and Augusta | -34.150000 | 115.516667 |
| Calothamnus quadrifidus subsp. teretifolius | 4 |  | Low plain. Moist brown loam. Sheet laterite.   | Cleared paddock. Associated species: Calytrix acutifolia and weeds.  | Sussex Location 4102   | -33.964918 | 115.536518 |
| Carex tereticaulis                          | 3 | Perennial sedge to 80 cm high x 50 cm wide.                                    | Riparian zone of Blackwood River, above normal winter high water mark. Littered, dry brown loam. | Marri woodland. Acacia saligna, Pteridium esculentum numerous weeds, carifolia, Astartea leptophylla and Acacia extensa tall closed shrubland over Cyathochaeta sp., Carex tereticaulis and Leptocarpus tenax low shrubland / rushtland. Condition: excellent. | Blackwood foreshore, Nannup  | -33.978804 | 115.761518 |
| Carex tereticaulis                          | 3 | Height: 0.8 m.   |  |  | C. 10 km W of Nannup, along powerline corridor   | -33.985247 | 115.673627 |
| Chamaelucium erythrochlorum                 | 4 | Erect shrub 1 m with several stems; flowers bright reddish-pink.               | In clay.   | In open area among woodland. (Colour photo, 35 mm).  | Whicher Road near junction with Hill Road, Whicher Range                               | -33.983333 | 115.750000 |
| Chamaelucium erythrochlorum                 | 4 |  | Growing in shade and sheltered position. Gravel soils.   |  | Whicher Road and Hill Road junction  | -33.833333 | 115.600000 |

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| Chamelaiucium erythrochlorum           | 4 | Phanerophyte shrub, upright with sprawling lanky stems, 1.6 m high x 1 m wide. Flowers creamy white, pubescent. Rust-like (fungai?) lesions on foliage. | Open gravel pit.<br>Lefroy (Mattiske and Havel 1990) landform. Red-brown loamy earth with gravelly, partially roaded surface. Area last burnt 1990. | Fairly widespread on these roads.<br>canopy species at site) with Trymalium odoratissimum subsp. trifidum, Ricinocarpus glaucus, Chorilaena quercifolia, Bossiaea aquifolium subsp. laidlawiana, Hypocalymma cordifolium, Hibbertia cu | Plants only growing where evidence of past grown forestry road near constructed water point). | -33.833333 | 115.600000 | Whicher Road onto Hill Road (off Sabina Road, off vasse Highway)                         |
| Commersonia apella                     | T | Phanerophyte shrub, upright with sprawling lanky stems, 2.5 m high x 2 m wide. Flowers creamy white, pubescent. Rust-like (fungai?) lesions on foliage. | Lefroy (Mattiske and Havel 1990) landform. Red-brown loamy earth with gravelly, partially roaded surface. Area last burnt 1990.                     | canopy species at site) with Trymalium odoratissimum subsp. trifidum, Ricinocarpus glaucus, Chorilaena quercifolia, Bossiaea aquifolium subsp. laidlawiana, Hypocalymma cordifolium, Hibbertia cu                                      | Plants only growing where evidence of past grown forestry road near constructed water point). | -34.204750 | 115.819980 | Trinity Road, Easter Forest Block  |
| Commersonia apella                     | T | Phanerophyte shrub, upright with sprawling lanky stems, 2.5 m high x 2 m wide. Flowers creamy white, pubescent. Rust-like (fungai?) lesions on foliage. | Lefroy (Mattiske and Havel 1990) landform. Red-brown loamy earth with gravelly, partially roaded surface. Area last burnt 1990.                     | canopy species at site) with Trymalium odoratissimum subsp. trifidum, Ricinocarpus glaucus, Chorilaena quercifolia, Bossiaea aquifolium subsp. laidlawiana, Hypocalymma cordifolium, Hibbertia cu                                      | Plants only growing where evidence of past grown forestry road near constructed water point). | -34.204702 | 115.819687 | Trinity Road, Easter Forest Block  |
| Conospermum caeruleum subsp. contortum | X | Prostrate or straggling; stems 2-3 ft long; flowers blue.   | On ironstone plain.   |  |   | -34.083333 | 115.600000 | Darradup, 18 miles W of Nannup,  |
| Cyathochaeta stipoides                 | 3 |   | White sand in gully. Seasonally wet.  | Low Open Woodland B over Low sedges with Dodonaea viscosa subsp. angustissima, Gastrolobium cuneatum, Hypolaena exsulca.   | Vegetative adult. Fencing and roadside markers not required.                                  | -34.109167 | 115.551111 | Poison Gully, Nannup   |
| Dampiera heteroptera                   | 3 |   |   |  |   | -34.183333 | 115.583333 | Stewart Road, 50 km W of Manjimup  |
| Dampiera heteroptera                   | 3 | Erect open perennial dwarf shrub, height to 20 cm, width to 10 cm; flowers blue.  | Ridge; brown to grey sandy clay over laterite with 10-20% outcropping; soil pH 6.   | Forest with associated vegetation of Eucalyptus marginata, Corymbia calophylla and Xanthorrhoea preissii.  | Percentage of population flowering 2%.  | -34.023444 | 115.496528 | Plot FC40, on Crouch Road, 500 m E of junction with Cui de Sac Road, Layman Forest Block |
| Dampiera heteroptera                   | 3 |   | On light greyish brown silty fine sandy clay loam, wet low area.  |  |   | -33.762500 | 115.618056 | Jarraahwood, FR 3970   |

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|----------------------|--|---|--|---|-----------------------|
| Darwinia terricola 1 | Prostrate to low spreading shrub. 15 cm high x 30 cm wide. Bracts green, reddish tips; inner red, in early flower. | Gentle slope. Shallow red brown clay over ironstone.                              | Mallee Eucalyptus marginata to 2 m over Kingia australis and Xanthorrhoea over low heath.  | Crouch Road, 2.7 km from Great North Road   | -34.020367 115.541133 |
| Darwinia terricola 1 | Low spreading almost prostrate shrub, 5 cm x 30 cm. Inflorescences red - green.                                    | Slope with grey - brown sandy clay over laterite.                                 | Mallee / Jarrah to 2 m, mid dense, over Kingia australis / Xanthorrhoea sp.  | Crouch Road, 13.9 km from Great North Road, Blackwood Plateau   | -34.020367 115.541133 |
| Darwinia terricola 1 | Prostrate shrub, 15 cm x 40 cm. Flowers green.   | Lower slope in reserve with grey loam / clay. Area burnt in October 2010.         | Woodland (Eucalyptus marginata, Corymbia calophylla) over heath (Dasyopogon hookeri, Hypocalymma angustifolium, Taxandria parviceps).  | S side of Crouch Road ca. 2 km W of Cul de Sac Road   | -34.021883 115.469819 |
| Darwinia terricola 1 | Prostrate shrub, reshoooting post fire, multi-stemmed at base. 15 cm high x 20 cm wide. Flowers green.             | Lower slope in reserve with grey loam / clay. Area burnt in October 2010.         | Woodland (Eucalyptus marginata, Corymbia calophylla) over heath (Taxandria parviceps, Dasyopogon hookeri, Hypocalymma angustifolium) shrubs and herbaceous species. Associated species: Eucalyptus marginata, Kingia australis, Xanthorrhoea preissii, Thomasia macrocalyx, Calothamnus sanguineus, Agonis parviceps | S side of Crouch Road ca. 1.5 km W of Layman Road   | -34.017679 115.506357 |
| Darwinia terricola 1 | Herb 10 cm.  | Pale yellowish brown sandy lateritic soils, mid-slope.                            |  | 5.4 W of junction of Crouch and Jalbaragup Roads, 30 m S of road  | -34.022517 115.542883 |
| Darwinia terricola 1 | Erect compact perennial dwarf shrub, height to 25 cm, width to 30 cm.  | Ridge; brown to grey sandy clay over laterite with 10-20% outcropping; soil pH 6. | Forest with associated vegetation of Eucalyptus marginata, Corymbia calophylla and Xanthorrhoea preissii.  | Plot FC40, on Crouch Road, 500 m E of junction with Cul de Sac Road, Layman Forest Block                                  | -34.023444 115.496528 |
| Darwinia terricola 1 | Perennial prostrate, dwarf shrub, 25 m high x .30 m wide. Green bracts, red.                                       | Slope to dampland. Dry, grey sand - clay, 10-20% granite outcropping.             | Jarrah forest. Eucalyptus marginata, Corymbia calophylla, Xanthorrhoea preissii.   | Forest Check Plot 50, 10 km E of Sues Road on Crouch Road (500 m E junction Cul de Sac Road), S side, Layman Forest Block | -34.023444 115.496528 |
| Darwinia terricola 1 | Prostrate shrub, 0.1 m high, 0.6 m wide. Green flowers. Only old fruiting bracts present.                          | Flat winter wet depression in state forest. Wet grey clay.                        | Low open forest of stunted Eucalyptus marginata over Kingia australis, Hypocalymma angustifolia, Pericalymma ellipticum, Dasyopogon hookeri.   | Butler Forest Block, NE side of Plot Road at ca 300-400 m NW of Crouch Road   | -34.016697 115.542534 |

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|---------------------|---|---|--|---|--|------------|------------|
| Darwinia terricola  | 1 | Prostrate shrub, 0.2 m high, 0.4 m wide. Flowers green. In early flower.                                | Ridge, in reserve. White grey dry sand, old disturbance. | Jarrah/Marri forest. Allocasuarina fraseriana, shrubland of Podocarpus drouynianus, Melaleuca thymoides, Xanthorrhoea preissii, Taxandria parviceps, Bossiaea ornata, Hypocorymba angustifolium.  | Wiltshire-Butler National Park, on old snig track ca 1.2 km W of Cul de Sac Road, ca 2 km N of Crouch Road   | -34.001599 | 115.479787 |
| Darwinia terricola  | 1 | Prostrate, 0.1 m high, 0.4 m high. Green flowers.   | Burnt 20/10/2010.  | Open forest of Jarrah and Marri over shrubland of Xanthorrhoea preissii, Hakea cyclocarpa, Adenanthosobovata, Bossiaea ornata, Andersonia longifolia.   | Crouch Road, 500 m E of Cul de Sac Road, S side of road, Wiltshire-Butler National Park  | -34.021593 | 115.496769 |
| Daviesia elongata   | T | Erect shrub 80 cm high x 60 cm wide.  | Dry. Grey sandy loam.                                    | Jarrah Marri open forest with Calothamnus sanguineus, Melaleuca thymoides. Open Woodland over Open Low Scrub B over Open Herbs. With Eucalyptus marginata subsp. marginata, Banksia grandis, Jacksonia horrida, Daviesia cordata, Dasyogon bromeliifolius, Hypolaena exsulca. | Harrington Forest Block  | -33.786972 | 115.786194 |
| Daviesia elongata   | T | Perennial, open shrub. Flowers purple and yellow. Reproductive method: seeds.                           | Gully. Sand/loam.  | With Dasyogon bromeliifolius, Hibbertia quadricolor, Tetraena setigera, Xanthorrhoea preissii.  | Poison Gully, Transect 4, Quadrat 28, Shire of Nannup  | -34.146667 | 115.540833 |
| Daviesia elongata   | T | Low spreading-reaching shrub 80 cm high, ca 0.5 m wide. Leaves blue-green - typical species appearance. | Hill top and slope. Dry, grey sandy loam.                | Low forest A over low heath C with Banksia sphaerocarpa, jarrah, marri, Casuarina, Xanthorrhoea sp., Adenanthosobovatus, Isopogon sphaerocephalus.  | Yarragadee   | -34.146767 | 115.540900 |
| Deyeuxia inaequalis | 1 | Herb 110 cm.  | Base of slope.   | Understorey dominated by Hibbertia hypericoides and Xanthorrhoea preissii. Associated species: Eucalyptus marginata, E. calophylla, Xanthorrhoea preissii, Hibbertia hypericoides, Bossiaea aquifoli  | Butler Block, 14.1 km S along Lawson Road from Mowen Road then 1.2 km W along log track, then walk a further 100+ m W<br>Chalwell Road, 700 m E of Vasse Highway, following boundary of private property across creek, 100 m up slope from creek | -34.074435 | 115.783453 |
| Deyeuxia inaequalis | 1 |   |  |   | 26km W of Manjimup. Telephone Road, Pt. 545  | -34.244444 | 115.866111 |



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| <i>Deyeuxia inaequalis</i>                       | 1 |   | Disturbed vegetation   | Botanical subdistrict: Sda(wa)                                    | 26km WNW of Manjimup, Dahlberg Road, Gordon Block Pt. 502  | -34.147500 115.933333 |
| <i>Dillwynia</i> sp. Capel (P.A. Jurjevich 1771) | 1 | Erect compact perennial shrub, height to 1 m, width to 75 cm; flowers yellow/brown.   | Forest with associated vegetation of <i>Eucalyptus marginata</i> , <i>Corymbia calophylla</i> , <i>Banksia grandis</i> over laterite with 5% outcropping; soil pH 7.   | Percentage of population flowering 70%.                           | Plot FC44, 300 m N of Regalia Road, 2 km E of junction with St John East Road, Barrabup Forest Block | -33.899953 115.707432 |
| <i>Dillwynia</i> sp. Capel (P.A. Jurjevich 1771) | 1 | Tall shrub to 1.5 m high.   | <i>Allocasuarina fraseriana</i> , <i>Banksia grandis</i> over shrubland of <i>Taxandria parviceps</i> , <i>Podocarpus drouynianus</i> , <i>Adenanthos meisneri</i> , <i>Hibbertia hypericoides</i> , <i>Melaleuca thymoides</i> , <i>Acacia extensa</i> .  |   | Quillergup   | -33.791667 115.606944 |
| <i>Dillwynia</i> sp. Capel (P.A. Jurjevich 1771) | 1 | Open, erect shrub, 1.5 m high, 1.2 m wide. Flowers orange red.  |  | Population structure: 100% flowering. Reproductive method: seeds. | Lambray Forest Block, unnamed track ca 900 m W of Bomber Road and 3.4 km NW of Tycoon Road           | -33.901157 115.707019 |
| <i>Dillwynia</i> sp. Capel (P.A. Jurjevich 1771) | 1 | Erect to 1.5 m tall, flowers yellow and brown.  | Jarrah forest with tall shrubs, tall shrub understorey. Associated species: <i>Adenanthos</i> sp., <i>Allocasuarina</i> sp., <i>Boronia</i> sp., <i>Corymbia calophylla</i> , <i>Eucalyptus marginata</i> , <i>Leptospermum</i> sp., <i>Persoonia longifolia</i> , <i>Podocarpus drouynianus</i> . |   | Rosa Brook (Stream), Grid Ref. GK 3393   | -34.018056 115.509722 |
| <i>Dillwynia</i> sp. Capel (P.A. Jurjevich 1771) | 1 | Sparse shrub to 1.3 m tall.   |  |   | S along Bomber Road for 6.8 km from Mowen Road, then E along track for 1.6 km. (NW of Nannup)        | -33.901528 115.703278 |
| <i>Dillwynia</i> sp. Capel (P.A. Jurjevich 1771) | 1 | Erect, compact, perennial shrub, 1 m high x 1 m wide. Flowers yellow brown/red. Flower buds, vegetative buds and flowers present. | <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> forest.   | Population structure: 10% flowering.                              | FC 42, Cambray Forest Block  | -33.904167 115.694000 |
| <i>Dillwynia</i> sp. Capel (P.A. Jurjevich 1771) | 1 | Erect open perennial shrub, height to 1 m, width to 70 cm; flowers yellow, brown, orange.   | Woodland with associated <i>Eucalyptus marginata</i> and <i>Allocasuarina fraseriana</i> .   | 20% of population flowering.                                      | 200 m SSW of Stewart Road on Millyeamnup Road  | -34.183333 115.533333 |

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| Dillwynia sp. Capel<br>(P.A. Jurjevitch<br>1771) | 1 | In young pine plantation.   | Quilergup. Ref. FS 38,   | -33.766667 | 115.650000 |
| Drakea mi-<br>crantha                            | T | Growing in Eucalyptus mar-<br>ginata open woodland over<br>Casuarina fraseriana. Xylome-<br>lum occidentale low woodland<br>over heath. | 24 km W of Nannup of<br>Mowen Road, 400<br>metres E of Adelaide<br>Road - Mowen Road<br>junction             | -33.916667 | 115.516667 |
| Eucalyptus relicta                               | 2 | Upper slope orange sandy<br>clay loam with some later-<br>itic gravel.  | To the W of the Green-<br>bushes minesite, N of<br>Cowan Dam near a<br>pipeline. Greenbushes<br>State Forest | -33.864120 | 116.037090 |
| Eucalyptus relicta                               | 2 | Upper slope. Dry, brown<br>loam-sand over gravel.   | ca 3 km E along Crouch<br>Road from the junction<br>with Sues Road. Layman<br>State Forest Block             | -34.024361 | 115.439000 |
| Eucalyptus relicta                               | 2 | Upper slope orange sandy<br>clay loam with some later-<br>itic gravel.  | To the W of the Green-<br>bushes minesite, N of<br>Cowan Dam near a<br>pipeline. Greenbushes<br>State Forest | -33.864120 | 116.037090 |
| Franklandia tri-<br>aristata                     | 4 | On grey sand.   | Jarrahwood, For. Ref.<br>FR 41.  | -33.750000 | 115.650000 |
| Franklandia tri-<br>aristata                     | 4 | Opposite pine plantation<br>on No. 8 road.  | Claymore Siding near<br>Nannup   | -33.979722 | 115.758333 |
| Franklandia tri-<br>aristata                     | 4 | Opposite pine plantation<br>on No. 8 road.  | Quilergup,<br>Quilergup Survey Oct/<br>Nov. 1971.  | -33.791667 | 115.606944 |

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| Franklandia tri-<br>aristata | 4 |   |  |   | 5 - 6 miles E of Jarrah-<br>wood   | -33.816667 115.758333 |
| Franklandia tri-<br>aristata | 4 | Shrub to c. 80-90 cm tall.  | Pine plantation.   | Abundance: fairly com-<br>mon. Plants S of road,<br>specimen had been<br>broken off by ? insects.   | 18.1 km S of Capel and<br>30 km SW of<br>Donnybrook  | -33.882778 115.549444 |
| Franklandia tri-<br>aristata | 4 | Shrub to c. 80-90 cm tall.  | Jarrah and Marri open wood-<br>land over Banksia spp. - Xylome-<br>lum sp. 3-5 m shrubland over<br>0.8-1.8 m mixed open scrub. |   | 18.1 km S of Capel and<br>30 km W of<br>Donnybrook   | -33.882778 115.549444 |
| Gastrolobium<br>formosum     | 3 | Prostrate shrub.  | On cleared ground.   | At edge of pine plot.   | Millyeamup   | -34.150000 115.600000 |
| Gastrolobium<br>formosum     | 3 |   | Valley - low plain. Season-<br>ally wet. Moist brown<br>loam.  | Eucalyptus megacarpa, Euc.<br>patens forest over Hakea varia,<br>Hakea oldfieldii, Agonis linearif-<br>olia, Hypocalymma cordifo-<br>lium, Lepidosperma effusum<br>dense Heath B.<br>over a midstorey dominated by<br>Agonis parviceps and a dense<br>lower storey. Associated spe-<br>cies: Eucalyptus megacarpa, E.<br>patens, E. marginata subsp.<br>marginata, Agonis parviceps,<br>Lepidosperma squamatum, | Along western fire<br>boundary of Millyeam-<br>rup Wildfire March 03,<br>in seasonal wet<br>creekline alignment                          | -34.178000 115.626389 |
| Gastrolobium<br>formosum     | 3 | Regrowth to 25 cm.  |  |   | 5.7 km E of the inter-<br>section of Great South<br>Road along Coate Road  | -34.236385 115.703158 |
| Gastrolobium<br>modestum     | T | Prostrate spreading shrub 10-30<br>cm high width variable. Large<br>rounded leaves on a spreading<br>prostrate ground covering shrub. | Flat, stream gully/banks<br>area. Dry reddish brown<br>clayey sand over iron-<br>stone.  | Low Woodland A over Dense<br>Heath B. Jarrah, Marri, Agonis<br>juniperina, Hakea lissocarpa,<br>Pericalymma ellipticum, reedy<br>species.   | In a ironstone creek sys-<br>tem at base of Jarrah-<br>wood plantation, ca 550<br>m from the junction of<br>Penguin and Gannet<br>Roads, | -33.746858 115.675125 |
| Gastrolobium<br>modestum     | T | Prostrate to clumped shrub to<br>50cm tall. Large round leaves, dull<br>green.  | Flat area near creekline.<br>Gravelly sandy clay loam<br>over ironstone.   | Forest. Associated species:<br>Corymbia calophylla, Euca-<br>lyptus marginata, Xanthor-<br>rhoea preissii.  | Quillerup Forest Block in<br>ironstone creek at base<br>of Jarrahwood pine<br>plantation. Off Jarrah-<br>wood Road                       | -33.751139 115.678972 |

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| Gastrolobium<br>whitherense | 2 | Erect shrub to 2 m.   | On red loam near large<br>creek.                                 | Jarrah/Blackbutt forest.   | Cambay, GA 4327,  | -33.901389 | 115.677778 |
| Gonocarpus pusil-<br>lus    | 4 | Annual herb.  | Grey sand/clay. Wetland -<br>winter-wet swamps. Wa-<br>ter Corp. | Hypocalymma ericifolium, Pul-<br>tenaea reticulata, Taxandria<br>parviceps (ms), Dasypogon<br>bromeliifolius, Leucopogon dis-<br>tans subsp. contractus (ms),<br>Lyginia imberbis. | Yarragadee  | -34.138984 | 115.551445 |
| Grevillea bron-<br>wenae    | 3 |   |  |  | Road to Nannup  | -33.979722 | 115.758333 |
| Grevillea bron-<br>wenae    | 3 |   |  |  | Near Jarrahwod  | -33.791389 | 115.659722 |
| Grevillea bron-<br>wenae    | 3 |   |  |  | Near Jarrahwod,   | -33.791389 | 115.659722 |
| Grevillea bron-<br>wenae    | 3 | Frutex ca 1 m alt., ramis erectis,<br>virgatis; perianthum rufum. | In arenosis lateritis.   |  | Darling Escarpment,<br>Jarrahwod orientatum<br>versus [E of Jarrah-<br>wood]. | -33.800000 | 115.666667 |
| Grevillea bron-<br>wenae    | 3 | Frutex ca 1 m alt., ramis erectis,<br>virgatis; perianthum rufum. | In arenosis lateritis.   |  | Darling Escarpment,<br>Jarrahwod orientatum<br>versus [E of Jarrah-<br>wood]. | -33.800000 | 115.666667 |
| Grevillea bron-<br>wenae    | 3 |   |  |  | Near Jarrahwod,   | -33.800000 | 115.666667 |

|                                       |   |   |  |   |                        |
|---------------------------------------|---|---|--|---|------------------------|
| Grevillea bronwenae                   | 3 | Straggly shrub to 1.2 m high.   | In Jarrah forest with Banksia, Xanthorrhoea, etc.  | Whicher Road, Whicher Range, 35 km SE of Busseton.  | -33.9716667 115.550000 |
| Grevillea papillosa                   | 3 | Shrub to 1 m.   | In wet heath.  | Ca 57 km NW of Pemberton, on Stewart Road, 24 km NW of Nannup- Pemberton road                   | -34.200000 115.583333  |
| Grevillea ripicola                    | 4 | Woody shrub over 3 m high. Dense, spreading. Dark green foliage. Red flowers. | Jarrah/Marri forest over shrubland along creek.  | Along watercourse Mul-lalyup State Forest block, 4 km SW of Kirup, 1 km W off Ravenscliffe Road | -33.750000 115.866667  |
| Hemigenia microphylla                 | 3 | Shrub, 1 m high. Flowers mauve.   | Eucalyptus/Banksia forest. Associated species: Eucalyptus patens, Banksia seminuda, B. grandis, Taxandria parviceps, Xanthorrhoea preissi, Caladenia harringtoniae. over a midstorey dominated by Agonis parviceps and a dense lower storey. Associated species: Eucalyptus megacarpa, E. marginata, Agonis parviceps, Lepidosperma squamatum, | Carter forest block, Maisey Road, 50 m W of Carter Road   | -34.088639 116.033694  |
| Hemigenia sp. Nil-lup (R.D. Royce 98) | 2 | Shrub 10 cm.  |  | 5.7 km E of the intersection of Great South Road along Coate Road                               | -34.236385 115.703158  |
| Hybanthus volubilis                   | 2 |   |  | Rosa Brook, Margaret River District   | -34.000000 115.466667  |
| Isopogon for-mosus subsp. dasylepis   | 3 |   | Jarrah forest.   | Road to Nannup  | -33.979722 115.758333  |
| Isopogon for-mosus subsp. dasylepis   | 3 | Erect compact perennial shrub, height to 45 cm, width to 40 cm; flowers pink. | Forest with associated vegetation of Eucalyptus marginata, Banksia grandis, E. megacarpa and Taxandria parviceps.  | Plot FC 45, Cul De Sac Road, 1.5 km N of junction with Crouch Road, Butler Forest Block         | -34.006894 115.486012  |

|  |   |   |  |   |            |            |
|--|---|---|--|---|------------|------------|
| Lambertia rari-<br>flora subsp. rari-<br>flora | 4 |   |  | Jarraahwood - Grid Ref.<br>FX3169   | -33.800000 | 115.666667 |
| Lambertia rari-<br>flora subsp. rari-<br>flora | 4 |   |  | Jarraahwood - Grid Ref.<br>FX3169.  | -33.800000 | 115.666667 |
| Lambertia rari-<br>flora subsp. rari-<br>flora | 4 |   | On creekside. Strong<br>brown SCL [sandy clay<br>loam] to 66 cm, over<br>heavy clay. | Jarraahwood FW 3151.  | -33.800000 | 115.666667 |
| Leptinella drum-<br>mondii                     | 3 |   |  | on bank of Blackwood,<br>Darradup, 18 ml W of<br>Nannup   | -33.980000 | 115.458056 |
| Leptinella drum-<br>mondii                     | 3 | Prostrate perennial. Flower heads<br>erect, small.  |  | On bank of Blackwood<br>River, Darradup, 18<br>miles W of Nannup  | -33.980000 | 115.458056 |
| Leucopogon<br>kirupensis                       | 2 | Spreading shrub to 1.2 m high x<br>1.5 m wide. Plants single<br>stemmed. Flowers pink in bud. | Upland, Dry, brown sandy<br>loam over laterite.                                      | Mullalyup Conservation<br>Park, SW of Kirup, 700<br>m N along unnamed<br>track which intersects<br>with Ravenscliffe Road,<br>200 m W of Jones Road | -33.746111 | 115.869167 |
| Leucopogon<br>kirupensis                       | 2 | Spreading shrub to 1.2 m high x<br>1.5 m wide. Plants single<br>stemmed. Flowers pink in bud. | Dense heath. Gastrolobium<br>spinosum, Darwinia citriodora,<br>Dodonaea ceratocarpa. | Mullalyup Conservation<br>Park, SW of Kirup, 700<br>m N along unnamed<br>track which intersects<br>with Ravenscliffe Road,<br>200 m W of Jones Road | -33.746111 | 115.869167 |
| Leucopogon<br>kirupensis                       | 2 | Finely branched spreading shrub<br>to 0.5 m tall.   | Open scrub.  | Mullalyup Block, For.<br>Ref. FQ 5425,  | -33.747222 | 115.872222 |

|   |   |   |  |  |  |  |                       |
|---|---|---|--|--|--|--|-----------------------|
| Leucopogon kirupensis                                     | 2 | Spreading shrub to 1.2 m high x 1.5 m wide. Plants fruiting. Old dead flowers still adhering. Fruit set low - ? frost damage. | Upland. Dry, brown sandy loam over granite.  | Dense heath. <i>Gastrolobium spinosum</i> , <i>Darwinia citriodora</i> , <i>Dodonaea ceratocarpa</i> .   | From same population as flowering collection MH 3919                     | Mullalup Conservation Park, SW of Kirup, 700 m N along unnamed track which intersects with Ravenscliffe Road 200 m W of Jones Road | -33.746111 115.869167 |
| Leucopogon kirupensis                                     | 2 | Erect plants to 1.0 m high x 1.0 m wide. Plants in full flower.   | Upper slopes. Dry, rocky brown sandy loam over granite.<br>Pale Yellow Grey Soil Texture: Sand<br>Comments: None<br>pH: 6.00<br>Slightly Rocky 2-10%<br>Exposed Iron Enriched<br>Laterite<br>Fire History: 1994-95<br>Season: Unknown<br>T | Heath (mostly 0.5-1 m) with emergent marri. Characteristic species: <i>Darwinia citriodora</i> , <i>Grevillea bipinnatifida</i> , <i>Gastrolobium spinosum</i> and <i>Verticordia plumosa</i> .  |  | Mullalup Nature Reserve, SW of Kirup, 700 m N along track which intersects with Ravenscliffe Road, 200 m W of Jones Road           | -33.744722 115.870833 |
| <i>Netrostylis</i> sp. Nannup (P. A. Jurevich 1133)       | 1 | Perennial. Caespitose sedge 20 cm high. Multistemmed underground. Plant active, healthy.                                      |  | Woodland.  | Abundance: locally frequent.   | Site 88, 25 km WNW of Nannup   | -33.892973 115.520405 |
| <i>Ornduffia</i> submersa                                 | 4 | Tuberous aquatic. Flowers white, floating on surface.   | Claypan, from old oxbow lake. Grey clay.   | <i>Villarsia albiflora</i> herbfield.  |  | St Johns Brook, N of Barrabup Pool, NW Nannup  | -33.941777 115.693323 |
| <i>Pericalymma</i> megaphyllum                            | 1 | Perennial, erect, compact to open shrub 70 cm high x 70 cm wide. Flowers pink- white. Fruit hidden. Seeds held.               | Hill, ridge. N aspect. Bare, littered, gravelly. White sand over laterite.   | Open Woodland. <i>Eucalyptus marginata</i> , <i>Allocasuarina fraseriana</i> , <i>Agonia parviceps</i> , <i>Corymbia calophylla</i> , <i>Corymbia calophylla</i> over isolated ( <i>Allocasuarina fraseriana</i> , <i>Persoonia longifolia</i> , <i>Banksia grandis</i> , <i>Nuytsia floribunda</i> ) over heath ( <i>Hibbertia hypericoides</i> , <i>Bossiaea ornata</i> , <i>Halkea amplexicaulis</i> ). | 30% of population flowering. Weeds few. Dead plants: 15% of population.  | Site SR12, 1.6 km W of Stewart Road  | -34.151587 115.509855 |
| <i>Platytheca</i> sp. Sabina (G. J. & B. J. Keighery 295) | 2 | Open shrub 0.3 m high x 0.4 m wide. Violet flowers.   | Flat top of slope. Grey sand. Collection site: state forest.   |  | Population structure: adult. 100% flowering. Reproductive method: seeds. | St Johns Forest Block, ca 3.4 km S along Boardinghouse Road from Baker Road  | -33.905870 115.612982 |
| <i>Platytheca</i> sp. Sabina (G. J. & B. J. Keighery 295) | 2 | Erect open shrub to 70 cm high x 50 cm wide. Petals blue-purple.  | Lower slopes of valley. Dry white sand.  | Low woodland. With <i>Banksia attenuata</i> , <i>Allocasuarina fraseriana</i> , <i>Melaleuca thymoides</i> , <i>Phlebocarya ciliata</i> .  |  | Boarding House Road, 4.3 km N of Mowen Road, W of Nannup   | -33.902778 115.617500 |
| <i>Pultenaea</i> pinifolia                                | 3 | Slender shrub to 2 m tall.  | On grey sand sloping swamp.  | Blackbutt, Paperbark, <i>Beaufortia</i> .  |  | McCorkhill Block, For Ref. GE 3522,  | -33.945833 115.534722 |

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|------------------------------|--|---|--|-----------------------|
| <i>Pultenaea pinifolia</i> 3 | Sandy soil.  | Sc with LA.   | Boarding House Road,<br>St Johns Block,              | -33.883333 115.616667 |
| <i>Pultenaea pinifolia</i> 3 | Bushy shrub to 1 m tall.                                 | On YBSCL.   | Layman Brook (Dar-<br>radup),                        | -34.066667 115.500000 |
| <i>Pultenaea pinifolia</i> 3 | moist sandy soil roadside                                |   | Rosa Brook, Margaret<br>River district               | -34.031389 115.439722 |
| <i>Pultenaea skinneri</i> 4  | Bushy shrub to 2 m.                                      | On old river course vlgBFS. course.                                       | Jalbarragup, Grid Ref.<br>GL 3913,                   | -34.033333 115.600000 |
| <i>Pultenaea skinneri</i> 4  | On gravel.   |   | Jalbarragup Homestead,<br>Nannup                     | -33.983333 115.750000 |
| <i>Pultenaea skinneri</i> 4  | Erect shrub to 1.8 m tall, yellow<br>and orange flowers. | Growing in and around a<br>minor drainage line, grey<br>brown sandy loam. | C. 9 km E of Nannup<br>along powerline cor-<br>ridor | -33.985540 115.673979 |
| <i>Pultenaea skinneri</i> 4  | Bushy shrub, 2 m high.                                   | Old river terrace.  | Jalbarragup<br>[Homestead, near Nan-<br>nup]         | -33.983333 115.750000 |
| <i>Pultenaea skinneri</i> 4  |  |   | McCorkhill [forest<br>block, 23 km W of Nan-<br>nup] | -33.950000 115.516667 |



|                        |   |  |  |  |   |  |                       |
|------------------------|---|--|--|--|---|--|-----------------------|
| Pultenaea skinneri     | 4 | Flowers yellow-brown.  | Plain. Open site. Bare, littered, gravelly. White clayey sand. | Corymbia calophylla, Eucalyptus marginata, Agonis parviceps.   | 90% of population flowering. Weeds few.   | Road verge outside of farm gate, Jalbarragup Settlement  | -34.025474 115.600408 |
| Pultenaea skinneri     | 4 | Perennial shrub; flowers brown/yellow.   | Semi wetland; grey sand.                                       | Associated vegetation of Melaleuca preissii, Banksia grandis, Gastrolobium bilobium, Adenanthos meisneri and Taxandria parviceps. Hakea over Banksia, Xylome- lum occidentale over cypads, sedges, Adenanthos obovatus, Anigozanthos rufa, Bossiaea mixed 60 cm-1.2 m shrubland and scrub. | Percentage of population flowering 100%. Population starts a Denning- ston Road intersession, approximately 70 m up Short Road. | 1 km from Shirt Road on No. 5 Road, Cambray Forest Block   | -33.902222 115.698889 |
| Pultenaea skinneri     | 4 | Shrub to c. 1.2-1.3 m tall.  | Sandy clay soil.   |  |   | Nannup Shire, 15.4 km WSW of Nannup, and 55 km WNW of Marjimum (200 m N of Blackwood River),             | -34.041111 115.587500 |
| Reedia spathacea       | 1 | Tall reed 1.3 m. Leaves linear ser- rated entirely inflorescence 89 inches with sheath over fruit.               |  |  |   | Blackwood River  | -34.000000 115.750000 |
| Senecio leucoglos- sus | 4 | Erect herb 70 cm high x 30 cm wide. Ray florets white 1,2 or 3 per head.   | Lower slopes of valley. Bare, dry. Brown gravelly loam.        | Tall Forest over Thicket (Muir, 77). Eucalyptus diversicolor, Corymbia calophylla, Hovea el- iptica, Trymalium floribunda.   |   | Corner Tom and Shoe Roads, ca 5 km SW of Wheatley,   | -34.117137 115.939575 |
| Stylidium ferricola    | 1 | Perennial herb, petals paired ver- tically pale pink in colour with darker red markings on edge of upper petals. | Upper slope with clay soils and some lateritic rock.           | Eucalyptus marginata mallee open low forest, over Kingia australis open heath, over mixed shrubs and sedges.   |   | On the N side of Stew- art Road at ca. 1.1 km E of junction with Raynor Road, Milyeannup Na- tional Park | -34.209800 115.594800 |
| Stylidium ireneae      | 4 |  | In sandy disturbed area.                                       | With Polypompholyx, Anarth- ria, Centrolepis, and Drosera.   |   | Along the Stewart Highway from Pember- ton to Nannup   | -34.212222 115.892500 |
| Stylidium nitidum      | 1 |  |  | Open Woodland. With Banksia attenuata, B. ilicifolia, Euca- lyptus marginata subsp. mar- ginata.   | Quad. 35 is 170 m along T1.   | Sth Yaragadee, Transect 1, Quadrat 35, Scott Coastal Plain, Shire of Nannup                              | -34.120278 115.551944 |

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|----------------------------|--|--|---|---|-----------------------|
| <i>Stylidium nitidum</i> 1 | Perennial herb, 10 cm high. Plant active.  | Lower slope with grey sand. Littered, partially sand. Soil Colour: Grey Soil Texture: Sandy Loam Comments: None pH: 5.00 No Rock Outcrop Fire History: 1995-96 Season: Unknown Type: Unknown | Jarrah, <i>Allocasuarina fraseriana</i> low open forest.  | On the W edge of Poison Gully, c. 150 m S of Blackwood Road crossing of gully   | -34.121400 115.554542 |
| <i>Stylidium nitidum</i> 1 |  |  | Low open woodland.  | Cell 6, Site 171, Milyeannup Nature Reserve (E of Site 166), bearing N,   | -34.109086 115.576798 |
| <i>Stylidium nitidum</i> 1 | Erect herb, 20 cm high x 2 cm wide.  | Dry grey loamy sand. Greater than 10 years since area burnt.   | Open forest. Associated species: Jarrah, marri, <i>Allocasuarina fraseriana</i> and <i>Taxandria parviceps</i> .  | Guthrie Road, Kearney forest block, Carlotta  | -34.073230 115.720698 |
| <i>Stylidium nitidum</i> 1 | Erect herb, 20 cm high x 2 cm wide.  | Dry grey loamy sand.   | Jarrah and marri open forest. Associated species: <i>Allocasuarina fraseriana</i> .   | Just W of Guthrie Road, Kent forest block, Carlotta   | -34.074882 115.716544 |
| <i>Stylidium nitidum</i> 1 | Flowering October-November. 10-15 cm high; corolla lobes paired vertically, cream, sometimes suffused apricot-pink at margins and with yellow or very pale pink throat markings; throat bare; labellum yellowish with a red papillose margin and yellow la | Grows in grey sand.  | Mostly under <i>Casuarina</i> and <i>Baeckea</i> species amongst <i>Casuarina</i> needle litter in low open woodland.   | ning ca 5.65 km N of Stewart Road (at 34.07 12.87 S 115 33 28.48 E) heading E ca 1 km (to 34 07 19 89 S 115 34 05 95 E) then heading N along sandy tr | -34.115475 115.568243 |
| <i>Stylidium nitidum</i> 1 |  | Upslope on gentle hill-slope; white-grey sand.   | <i>Eucalyptus</i> woodland with <i>Agonis</i> and <i>Stylidium</i> spp.   | 50 m N along sidetrack off Quartz Road, track is c. 300 m from Coronation Road, W of Manjimup   | -34.259444 115.835000 |
| <i>Synaphea hians</i> 3    | Erect compact perennial shrub, height to 27 cm, width to 30 cm; flowers yellow.  | Ridge; bare to littered, gravelly, stony, grey sand over laterite; soil pH 6.5-7.  | Forest with associated vegetation of <i>Eucalyptus marginata</i> , <i>Bankisia grandis</i> , <i>Corymbia calophylla</i> , and <i>Podocarpus drouynianus</i> . | Plot FC42, Regalia Road, 550 m E of Junction with St John East Road, Cambray Forest Block   | -33.904053 115.694002 |
| <i>Synaphea hians</i> 3    | Prostrate shrub 0.1 m high x 0.3 m wide. Flowers yellow.   | Gentle slope. Grey-brown sand-loam. Burnt Spring 2007.   | Medium trees. Jarrah, Marri open forest. <i>Melaleuca thymoides</i> , <i>Taxandria parviceps</i> , <i>Haakea amplexicaulis</i> .                              | 800 m W along Mowen Road from St John Road, Nannup  | -33.947833 115.646389 |

|                    |   |   |   |  |  |            |            |
|--------------------|---|---|---|--|--|------------|------------|
| Synaphea otostigma | 3 | Decumbent dwarf shrub, 20 x 50-60 cm. Inflorescence > leaves. Peduncles and rachis red. | Gently sloping. Red/brown laterite and clayey sand over laterite.           | Eucalyptus marginata/<br>Corymbia calophylla with Banksia grandis over low shrubby understorey with Hibbertia sp.  | 5.1 km N of Davidson Road on Vasse Highway, S of Nannup                  | -34.050000 | 115.766389 |
| Synaphea otostigma | 3 | Decumbent dwarf shrub, 20 x 50-60 cm. Inflorescence > leaves. Peduncles and rachis red. | Gently sloping. Red/brown laterite and clayey sand over laterite.           | Eucalyptus marginata/<br>Corymbia calophylla with Banksia grandis over low shrubby understorey with Hibbertia sp.  | 5.1 km N of Davidson Road on Vasse Highway, S of Nannup                  | -34.050000 | 115.766389 |
| Synaphea otostigma | 3 | Caespitose dwarf shrub, 45 cm tall.   | Undulating. White-grey sand over laterite.                                  | Eucalyptus marginata/<br>Corymbia calophylla woodland over Hibbertia sp., Sphaerolobium medium, S. drummondii, Xanthorrhoea preissii, sedges.  | 31.2 km E of Sue's Road on Brockman Highway                              | -34.047500 | 115.651667 |
| Synaphea otostigma | 3 | Dwarf shrub 30 x 70 cm.   | E facing mid-slope. Light brown loamy sand over laterite.                   | Edge of Jarrah woodland with Allocasuarina, Dasyopogon hookeri, Lechenaultia, Hypocalyymma, sedges.  | 2.7 km E of Great South Road on Brockman Highway, SW of Nannup           | -34.022139 | 115.714296 |
| Synaphea otostigma | 3 | Shrub, flowers yellow.  | Clayey laterite.  | Jarrah forest.<br>lyptus calophylla over tall shrubs with Hakea sp. and Dasyopogon hookeri dominant with mixed species understorey. Associated species: Eucalytus marginata subsp. marginata, E. calophylla, Dasyopogon phylla, Banksia attenuata and Banksia grandis. Dominant understorey species include: Xanthorrhoea preissii, Miarozamia riedlei, Agonis parviceps, Xylomelum occidentale. Associate | 11 miles S of Nannup   | -34.139167 | 115.758333 |
| Synaphea otostigma | 3 | Shrub 10 cm high.   | Edge of creek.  |  | 2.7 km E of Great South Road on Brockman Highway, c. 50-100 m from road, | -34.025780 | 115.712371 |
| Synaphea otostigma | 3 | Shrub.  |   |  | 700 m past St John Road on Mowen Road, 30 m to S of road,                | -33.951020 | 115.650930 |
| Synaphea otostigma | 3 | Sprawling shrub 50 cm high x 60 cm wide. Flowers yellow.                                | Whicher Range, mid-slopes of valley. Bare, dry. Yellow-brown gravelly loam. | Jarrah-Marri Forest (Muir 77).<br>Eucalyptus marginata,<br>Corymbia calophylla, Xanthorrhoea preissii, Adenanthos meisneri.  | Vasse Highway 45 km from Busseton,                                       | -33.850000 | 115.716667 |

|                    |   |  |   |   |   |  |            |            |
|--------------------|---|--|---|---|---|--|------------|------------|
| Synaphea otostigma | 3 | Sprawling shrub 30 cm high x 30 cm wide. Flowers yellow.   | Whicher Range, mid-slopes of valley. Bare, dry. Yellow-brown gravelly loam. | Jarrah-Marri Forest (Muir 77). Eucalyptus marginata. Corymbia calophylla, Xanthorrhoea preissii, Adenanthe meisneri.                          | Growing with MH 995.  | Vasse Highway 45 km from Bussefton,                    | -33.850000 | 115.716667 |
| Synaphea otostigma | 3 | Showy herb to 30cm. Flowers yellow, flowering branches. Long leafless pubescent.                       | Hill, grey sand.  | Jarrah forest.  |   | 15 km W of Nannup, South West Province, Warren Region, | -33.850000 | 115.700000 |
| Synaphea otostigma | 3 | Decumbent shrub 30 cm high, 40 cm wide, fertile, flowers yellow, bark smooth, tap roots.               | Hill, grey sand.  | Forest.   |   | 4.5 km N of Nannup                                     | -33.920193 | 115.751517 |
| Synaphea otostigma | 3 | Decumbent to erect small shrub, rachis red, flowers bright yellow, no scent.                           | In gravel.  | In Jarrah - Mairri forest.  |   | 7.9 km S of Nannup on Pemberton road,                  | -34.050000 | 115.766667 |
| Synaphea otostigma | 3 |  |   |   |   | Nannup, For. Ref. GG 4667,                             | -33.973611 | 115.731944 |
| Synaphea otostigma | 3 | Tufted shrub, flowers bright yellow.   | On sandy loam.  | Under Jarrah forest.  |   | 15.5 km SW of Nannup,                                  | -34.050000 | 115.616667 |
| Synaphea otostigma | 3 | Erect open perennial shrub, height to 37 cm, width to 30 cm; flowers yellow; immature fruits present.. | Undulating plain; grey clayey sand; diseased area; burnt 1994-1995          | Open forest with associated Allocasuarina fraserian, Xanthorrhoea preissii, Xylomelum occidentale, Eucalyptus marginata, Corymbia calophylla. | Population flowering: 80% Floristic richness: 51-100 species. | 8.3 km N of Nannup on Vasse Highway,                   | -33.909637 | 115.749016 |
| Synaphea otostigma | 3 | Erect open perennial shrub, height to 45 cm, width to 50 cm; flowers yellow; immature fruits present.  | Hill slope; bare gravelly brown clayey sand (cleared road verge).           | Forest with associated Corymbia calophylla, Bossiaea ornata, Patersonia occidentale.  | Population flowering: 75% Floristic richness: 51-100 species. | 22.4 km N of Stewart Road turnoff on Vasse Highway,    | -34.092417 | 115.779297 |

|                    |   |  |  |   |  |   |                       |
|--------------------|---|--|--|---|--|---|-----------------------|
| Synaphea otostigma | 3 | Erect open perennial shrub, height to 30 cm, width to 40 cm; flowers yellow - brown tipped.                          | Hill ridge; bare to littered brown to yellow to grey sand to clayey sand over laterite (road verge). | Open forest with associated Eucalyptus marginata, Agonis parviceps, Banksia grandis, Bossiaea linophylla, Hypocalymma angustifolia.   | Population flowering: 70%. Floristic richness: 51-100 species. | 26.9 km N of Stewart Road turnoff on Vasse Highway,               | -34.054916 115.767352 |
| Synaphea otostigma | 3 | Erect open perennial shrub, height to 50 cm, width to 50 cm; flowers yellow.   | Hill; gravelly brown clay.   | Forest with associated Corymbia calophylla, Eucalyptus marginata, Mirbelia dilatata, Podocarpus drouynianus.  | Population flowering: 80%. Floristic richness: 51-100 species. | 28.2 km N of Stewart Road turnoff on Vasse Highway,               | -34.043250 115.767630 |
| Synaphea otostigma | 3 | Erect compact perennial shrub, height to 40 cm, width to 40 cm; flowers yellow.                                      | Hill ridge; brown sandy clay.  | Open forest with associated Eucalyptus marginata, Corymbia calophylla, Xanthorrhoea preissii, Hakea protensa, Hypocalymma angustifolia, Amperea ericoides, Hibbertia hypericoides, Mirbelia dilatata. | Population flowering: 80%. Floristic richness: 51-100 species. | 11.2 km N of Nannup on Vasse Highway,                             | -33.891304 115.733183 |
| Synaphea otostigma | 3 | Erect compact perennial shrub, height to 40 cm, width to 35 cm; flowers yellow; deep tap root.                       | Hill ridge; brown sandy clay.  | Open forest with associated Eucalyptus marginata, Corymbia calophylla, Xanthorrhoea preissii, Hakea protensa, Hypocalymma angustifolia, Amperea ericoides, Hibbertia hypericoides, Mirbelia dilatata. | Population flowering: 70%. Floristic richness: 51-100 species. | 11.2 km N of Nannup on Vasse Highway,                             | -33.891304 115.733183 |
| Synaphea otostigma | 3 | Erect open perennial shrub, height to 45 cm, width to 40 cm; flowers yellow.   | Hill; bare to littered brown sand and clay.  | Forest with associated Eucalyptus marginata, Corymbia calophylla.   | Population flowering: 70%. Floristic richness: 21-50 species.  | 23.2 km SW of Pemberton-Nannup turnoff on Brockman Highway,       | -34.093253 115.551520 |
| Synaphea otostigma | 3 | Erect compact perennial shrub, height to 37 cm, width to 40 cm; flowers yellow; immature red colored fruits present. | Hill; gravelly brown sand to clay; disturbance present.  | Pine plantation.  | Population flowering: 100%. Floristic richness: 0-20 species.  | 2.7 km SW of turnoff Pemberton - Nannup Road on Brockman Highway, | -34.012416 115.736518 |
| Synaphea otostigma | 3 | Erect open perennial shrub, height to 60 cm, width to 50 cm; flowers yellow; immature fruits present.                | Hill running to water course; bare to littered brown sand to clay over laterite.                     | Open forest with associated Astroloma pallida, Xylomelum occidentale, Corymbia calophylla, Eucalyptus marginata, Mirbelia dilatata, Anigozanthos flavidus.  | Population flowering: 80%. Floristic richness: 51-100 species. | 29 km N of Stewart Road turnoff on Vasse Highway,                 | -34.036583 115.770407 |
| Synaphea otostigma | 3 | Perennial, erect, compact shrub 40 cm high x 40 cm wide. Flowers yellow. Deep tap root.                              | Plain, N-S aspect. Open site. Bare, littered. Grey clayey sand.                                      | Forest. Corymbia calophylla, Eucalyptus marginata, Allocasuarina fraseriana, Persoonia longifolia, Agonis parviceps.  | 70% of population flowering. Weeds few.                        | 0.3 km W of turnoff Vasse Highway and South Continup Road         | -33.919359 115.753183 |

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| Synaphea otostigma                | 3 | Erect, open perennial shrub, height to 40 cm, width to 40 cm; flowers yellow; immature fruits present.  | Hill; bare to littered gravely brown clayey sand over laterite with 10 % outcropping; disturbance from road verge.        | Open forest with associated Eucalyptus marginata, Corymbia calophylla, Xanthorrhoea preissii, Agonis parviceps, Bossiaea linophylla. Open forest with associated Eucalyptus marginata, Corymbia calophylla, Xanthorrhoea preissii, Hakea protensa, Hypocalymma angustifolia, Amperea ericoides, Hibbertia hypericoides, Mirbelia dilatata. | Population flowering: 17.8 km N of Stewart Road turn off on Vasse Highway. 20% Floristic richness: 51-100 species. | -34.130751 115.764298 |
| Synaphea otostigma                | 3 | Erect compact perennial dwarf shrub, height to 30 cm, width to 40 cm; flowers yellow.   | Hill ridge; brown sandy clay.   | 51-100 Floristic richness: 10% species.  | 11.2 km N of Nannup on Vasse Highway.  | -33.891304 115.733183 |
| Synaphea otostigma                | 3 | Sprawling sub-shrub 40 cm high x 60 cm wide.  | Upper slope. Dry, grey gravelly-sandy loam.   | Jarraah - Marri forest. Bossiaea ornata, Hibbertia hypericoides, Hypocalymma angustifolium.  | Balbarrup Block just S of Mowen Road on old rail formation   | -33.963444 115.711333 |
| Synaphea otostigma                | 3 | Decumbent small shrub, rachis red, flowers bright yellow.   | In gravelly loam.   | Jarraah - Marri forest.  | 9.8 km SW of Nannup  | -34.033333 115.666667 |
| Synaphea otostigma                | 3 | Prostrate shrub to 0.3 m high. Flowers bright golden yellow. Stems radiating from taproot to make dense mass of foliage, inflorescence erect, greatly exceeding leaves. | Side of ridge, gentle slope. Disturbed spots eg. track verge. Grey sandy forest soil with abundant yellow bauxite gravel. | Moderately tall Eucalyptus marginata, E. calophylla forest. Open forest over shrubland with associated Acacia puichella, Pericalymma ellipticum, Nuytsia floribunda, Allocasuarina fraseriana, Xanthorrhoea preissii.  | 4.2 km SW of Nannup on road to Augusta.  | -34.000000 115.750000 |
| Synaphea petolaris subsp. simplex | 3 | Erect compact perennial dwarf shrub, height to 25 cm, width to 20 cm; flowers yellow; insect galls present; immature fruit present.                                     | Wetland plain; brown clay.  | Population flowering: 10% Floristic richness: 51-100 species.  | 31.4 km N of Nannup on Vasse Highway.  | -33.788527 115.590126 |
| Synaphea petolaris subsp. simplex | 3 | Perennial, decumbent, compact dwarf shrub 30 cm high x 27 cm wide. Flowers yellow, at ground level. Fruit absent.   | Valley - wetland. Bare, littered, gravelly. Brown sandy clay over laterite. Controlled fire 1996-97.                      | Open Forest. Agonis parviceps, Eucalyptus marginata, Corymbia calophylla, Xanthorrhoea preissii.   | 70% of population flowering. Weeds few. McCorkhill Block, 5 km SSE of Mowen Road                                   | -33.954918 115.575406 |
| Synaphea petolaris subsp. simplex | 3 | Red silt loam on valley bottom.   |   |  | Jarraahwood, FT 3802.  | -33.787500 115.587500 |

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| Thysanotus sp.<br>Badgingarra (E.A.<br>Griffin 2511) | 2 | Spindly perennial shrub, 20 cm high x 5 cm wide, flowers purple. | Mid slope; brown/yellow gravelly sandy soil; burnt 5 months.                 | Forest associated with vegetation of <i>Eucalyptus marginata</i> .  | Nannup  | -33.983333 115.750000 |
| Thysanotus unicus                                    | 3 | Stamens: 3.  | On gravelly upper slope.   | Jarrah, <i>Banksia grandis</i> forest. <i>Eucalyptus marginata</i> subsp. <i>marginata</i> and <i>Corymbia calophylla</i> mid open forest over <i>Acacia extensa</i> , <i>Podocarpus drouynianus</i> and <i>Xylomelum occidentale</i> mid sparse shrubland. | Mullalyup. For. Ref. 5141                       | -33.780556 115.822222 |
| Thysanotus unicus                                    | 3 | Herb to 0.2 m, purple flowers.                                   | Low undulating hills with grey brown sandy loam substrate. Laterite pebbles. |   | C. 13 km WSW of Nannup along powerline corridor | -34.011716 115.650507 |
| Verticordia lehmannii                                | 4 | Small erect woody plant 15 in, flowers pink.                     | Sedge swamp.   |   | 6 miles S of Brockman Highway                   | -34.078889 115.609167 |

## **APPENDIX D**

### **Aboriginal Heritage Assessment Advice Letter.**

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